

DFS MEASUREMENT REPORT

FCC PART 15 Subpart E

FCC ID: TE7AX11000

APPLICANT: TP-Link Technologies Co., Ltd.

Application Type: Certification

Product: AX11000 MU-MIMO Tri-Band Gaming Router

Model No.: Archer AX11000

Brand Name: tp-link

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

Test Date: November 25 ~ December 04, 2018

Reviewed By



(Paddy Chen)

Approved By



(Chenz Ker)



The test results relate only to the samples tested.

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

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

Revision History

Report No.	Version	Description	Issue Date	Note
1811TW0112-U5	Rev. 01	Initial report	12-05-2018	Valid

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§2.1033 General Information

Applicant:	TP-Link Technologies Co., Ltd.
Applicant Address:	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China
Manufacturer:	TP-Link Technologies Co., Ltd.
Manufacturer Address:	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China
Test Site:	MRT Technology (Taiwan) Co., Ltd
Test Site Address:	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
FCC Registration No.:	291082
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

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

- MRT facility is a FCC registered (Reg. No. 153292 and 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
- MRT facility is an IC registered (MRT Reg. No. 21723-1) test laboratory with the site description on file at Industry Canada.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (TAF) under the American Association for Laboratory Accreditation Program (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC, Industry Taiwan, EU and TELEC Rules.

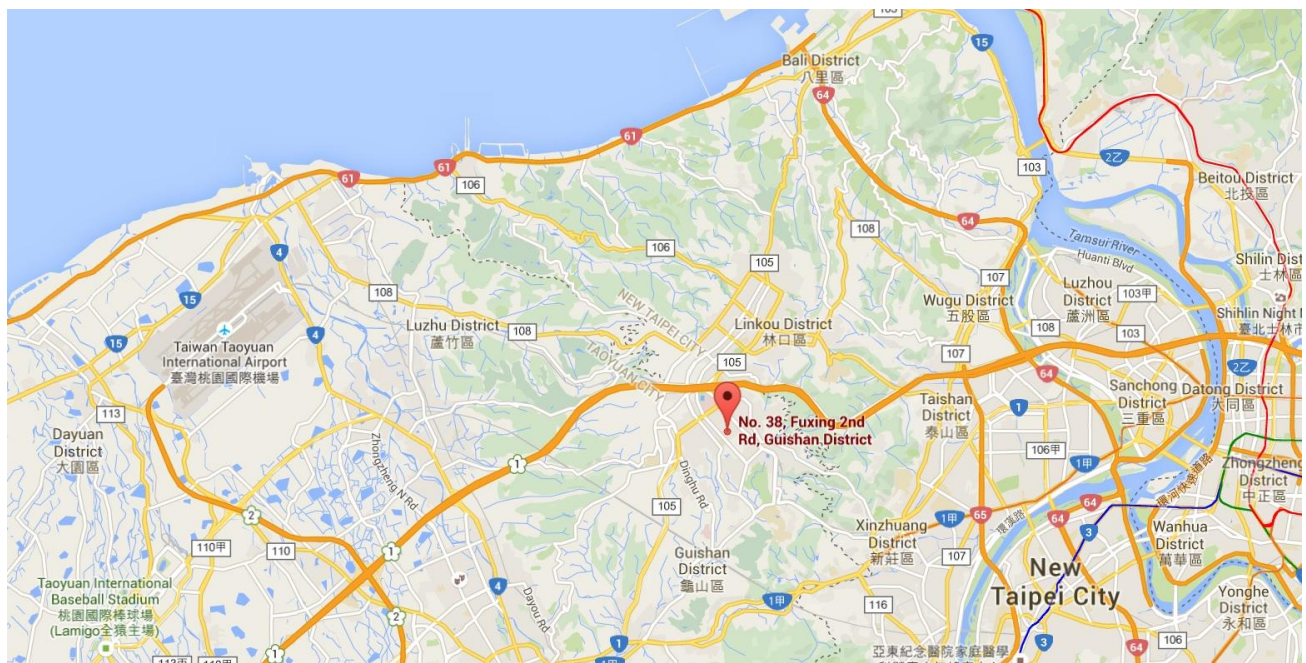
1. INTRODUCTION

1.1. Scope

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

1.2. MRT Test Location

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



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	AX11000 MU-MIMO Tri-Band Gaming Router
Model No.:	Archer AX11000
Brand Name:	tp-link
Wi-Fi Specification:	802.11a/b/g/n/ac/ax
Frequency Range	<u>2.4GHz:</u> For 802.11b/g/n-HT20/ac-VHT20/ax-HE20: 2412 ~ 2462 MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 2422 ~ 2452 MHz <u>5GHz:</u> For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5180~5320MHz, 5500~5700MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5310MHz, 5510~5670MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5775MHz For 802.11ac-VHT160/ax-HE160: 5250MHz, 5570MHz
Type of Modulation	802.11b: DSSS, 802.11a/g/n/ac: OFDM, 802.11ax:OFDMA
Power-on cycle	Requires 43.6 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

2.2. Description of Available Antennas

Antenna Type	Frequency	TX Paths	Max Antenna Gain (dBi)	BF Directional Gain (dBi)	CDD Directional Gain (dBi)	
	Band (MHz)				For Power	For PSD
Wi-Fi External Antenna						
Dipole Antenna	2400 ~ 2500	4	1.8	7.82	1.8	7.82
	5150 ~ 5850	4	1.8	7.82	1.8	7.82
Bluetooth External Antenna						
Dipole Antenna	2400 ~ 2500	1	1.8	--	--	--

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 4$, $N_{SS} = 1$.

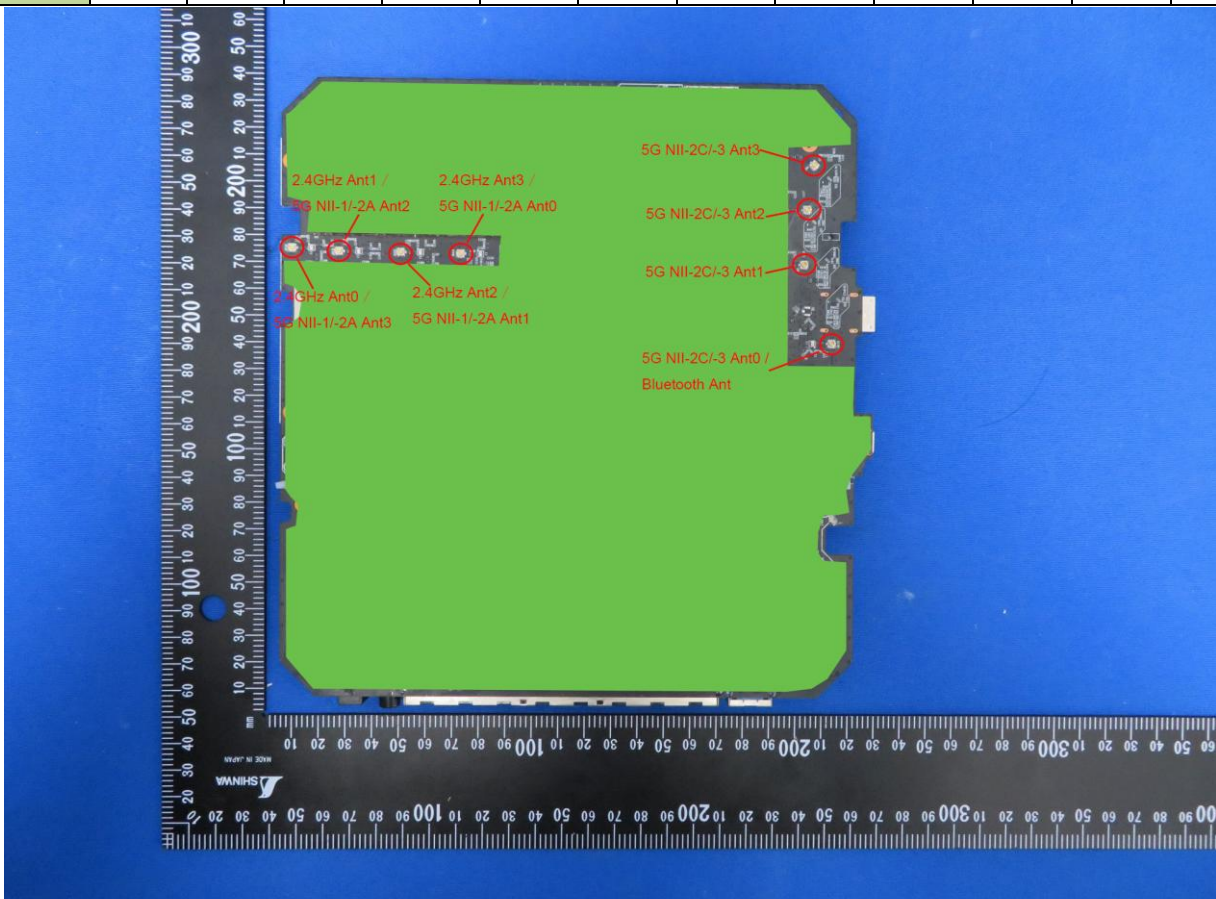
If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB = 6.02;
- For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB for $N_{ANT} \leq 4$;

The EUT also supports Beam Forming mode, and the Beam Forming support 802.11ac/ax, not include 802.11a/b/g/n. BF Directional gain = $G_{ANT} + 10 \log (N_{ANT})$.

2.3. Description of Antenna RF Port

Antenna RF Port												
Software Control Port	2.4GHz RF Port				5GHz RF Port (NII-1 & NII-2A)				Bluetooth & 5GHz RF Port (NII-2C & NII-3)			
	Ant 0	Ant 1	Ant 2	Ant 3	Ant 0	Ant 1	Ant 2	Ant 3	Ant 0 / BT	Ant 1	Ant 2	Ant 3



2.4. Operating Frequency and Channel List

802.11 a/n-HT20/ac-VHT20/ax-HE20

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

802.11n-HT40/ac-VHT40/ax-HE40

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

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	122	5610 MHz

802.11ac-VHT160/ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250 MHz	114	5570 MHz	--	--

2.5. Test Channel for this Report

Test Mode	Test Channel	Test Frequency
802.11 ax-HE20	100	5500 MHz
802.11 ax-HE40	102	5510 MHz
802.11 ax-HE80	106	5530 MHz
802.11ax-HE160	50	5250 MHz
802.11ax-HE160	114	5570 MHz

2.6. Test Mode

Test Mode	Mode 1: Communication with Access Point (Client Mode)
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3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

3.1. Applicability

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

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

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

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

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

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

3.2. DFS Devices Requirements

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

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

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

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

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

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

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

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

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

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

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

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

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

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

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

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

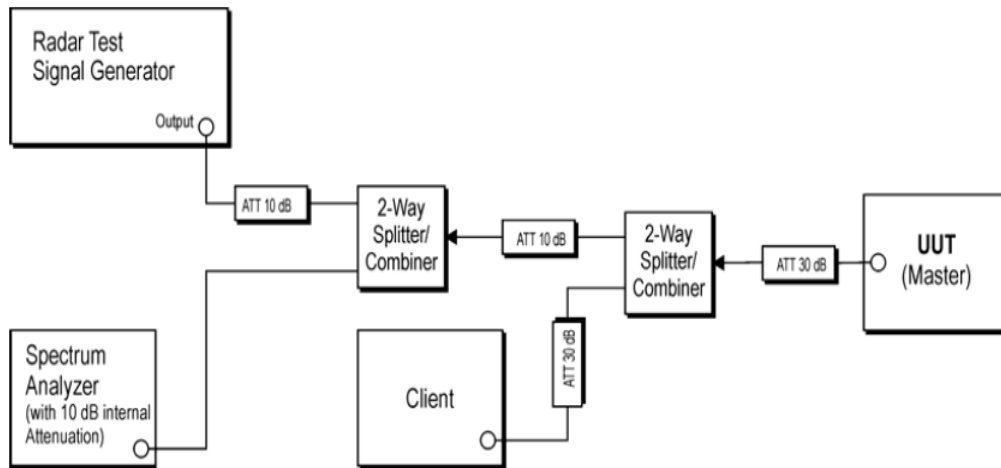


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

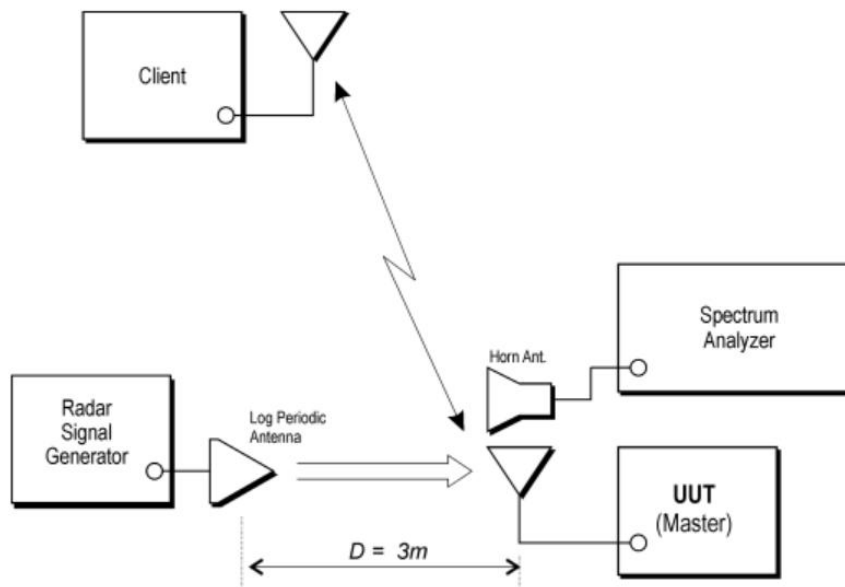


Figure 3-2: Radiated Test Setup where UUT is a Master and Radar Test Waveforms are injected into the UUT

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MRTTWA00012	1 year	2019/07/10
ESG Vector Signal Generator	Agilent	N5182B	MRTSUE06026	1 year	2019/04/05
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTSUE06457	1 year	2019/7/19
Combiner	WOKEN	0120A04208001S	MRTTWE00008	1 year	2019/06/11
Temperature/Humidity Meter	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2019/05/10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTTWA00003	1 year	2019/04/05

Client Information

Instrument	Manufacturer	Type No.
Access Point	TP-Link Technologies Co., Ltd.	Archer AX6000

Note: The Access Point was configured as client device by the manufacturer.

Software	Version	Manufacturer	Function
Pulse Building(N7607B)	V3.0.0	Keysight	Radar Signal Generation Software
DFS Tool	V6.7	Keysight	DFS Test Software

5. TEST RESULT

5.1. Summary

Company Name: TP-Link Technologies Co., Ltd.

FCC ID: TE7AX11000

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

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

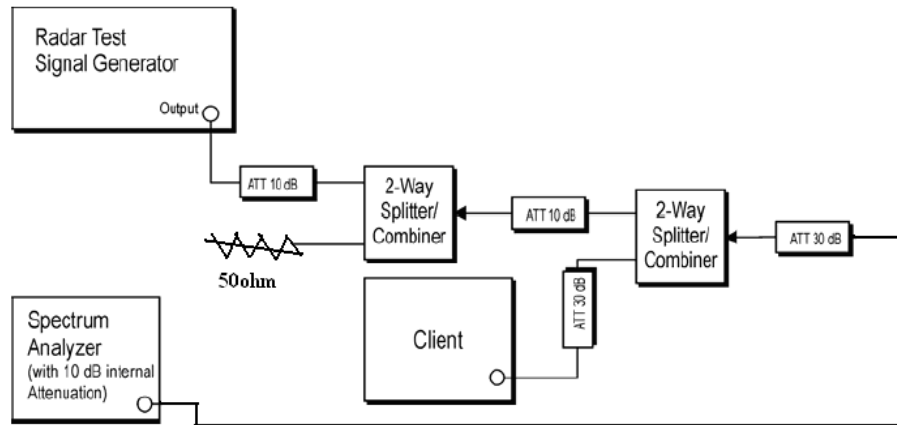


Figure 3-2: Conducted Test Setup

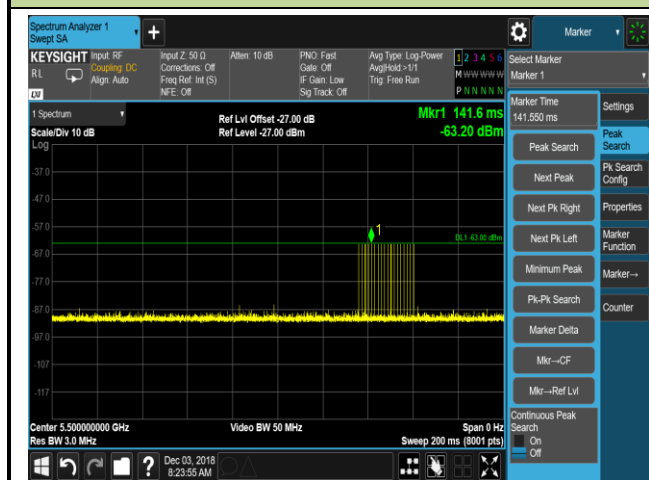
5.2.2. Calibration Procedure

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

5.2.3. Cablibration Result

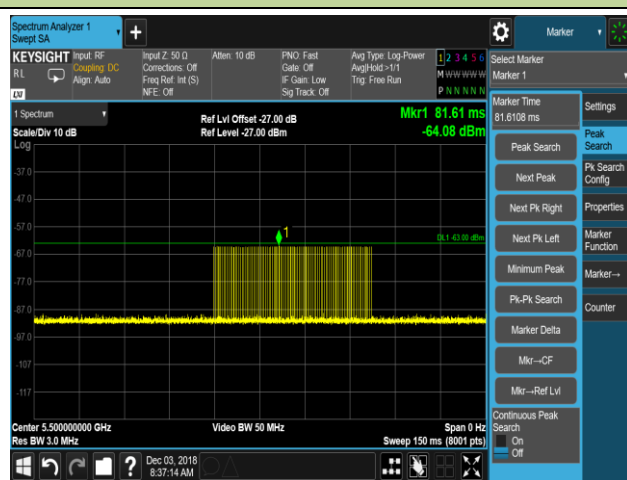
Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/12/03
Test Item	Radar Waveform Calibration		

Radar #0



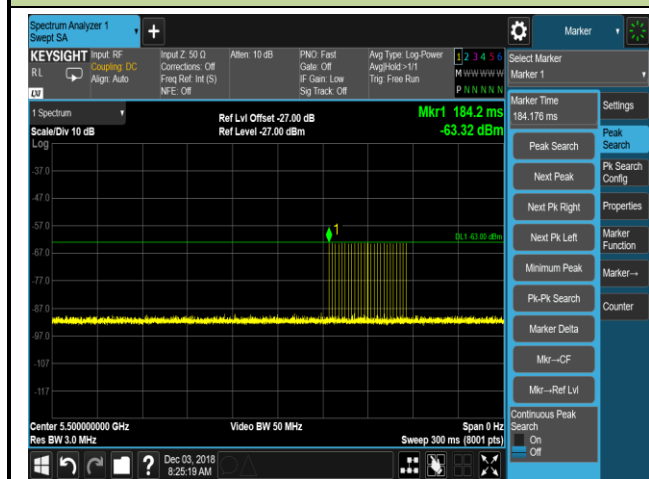
Radar #1 (Test A)

PRI = 558us and the number of pulses = 95

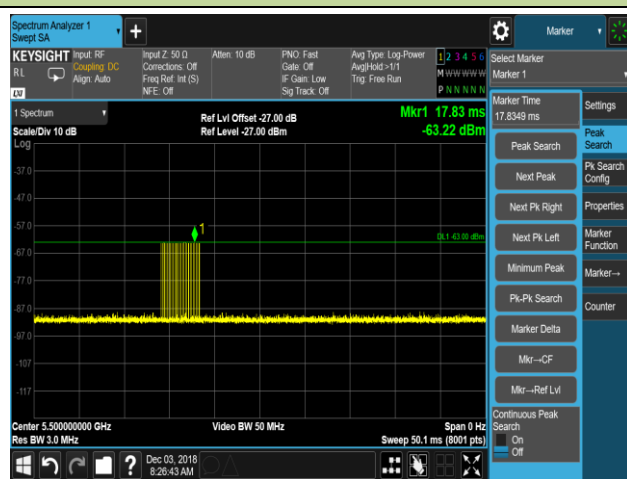


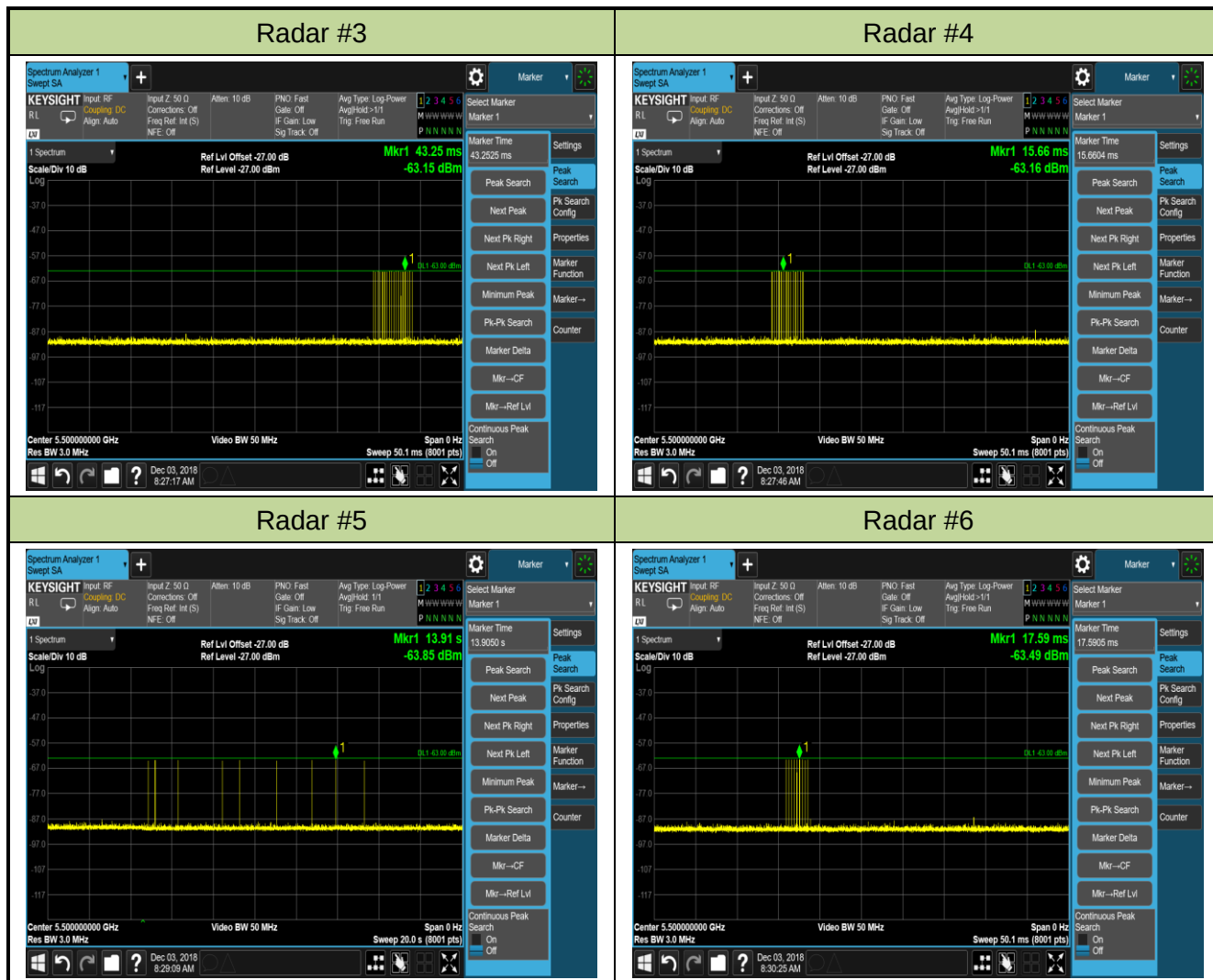
Radar #1 (Test B)

PRI = 2.191ms and the number of pulses = 25



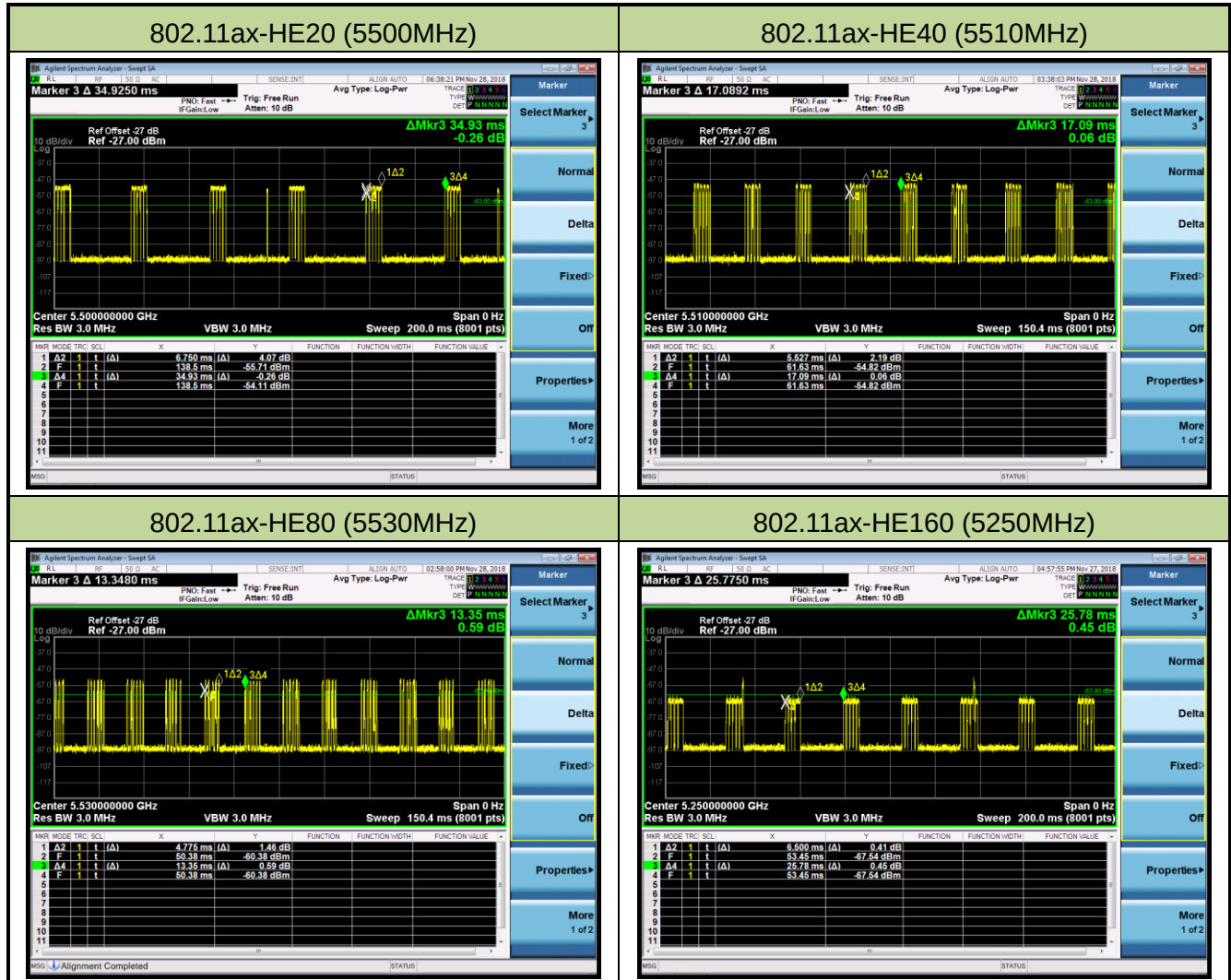
Radar #2

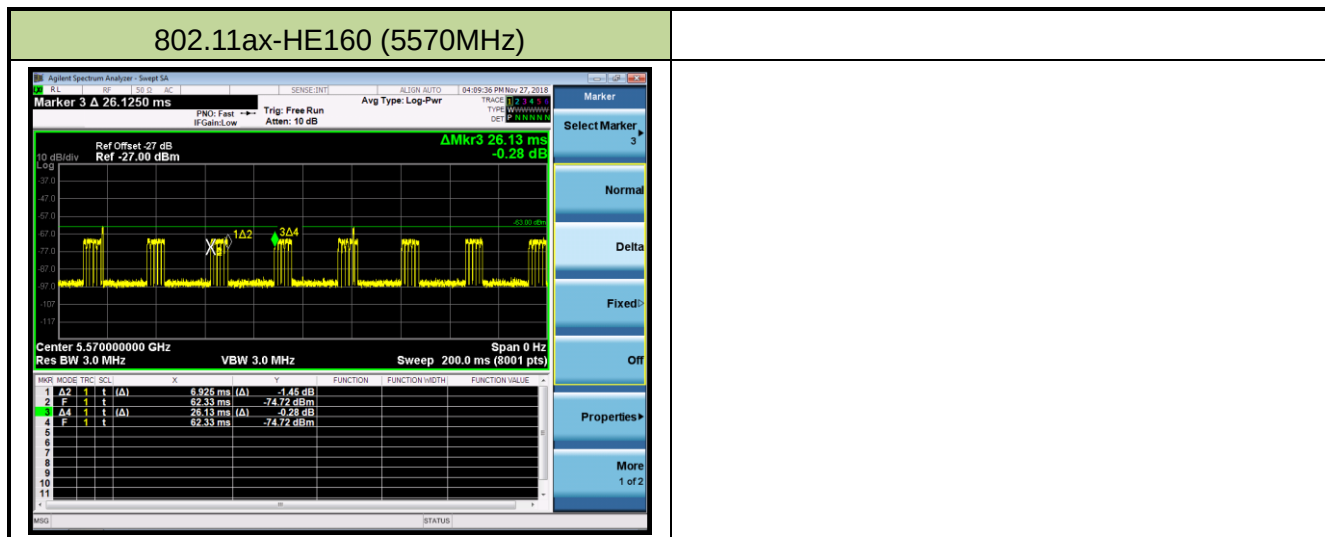




5.2.4. Channel Loading Test Result

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/28
Test Item	Channel Loading		





Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11ax-HE20	5500 MHz	19.32%	≥ 17%	Pass
802.11ax-HE40	5510 MHz	32.34%	≥ 17%	Pass
802.11ax-HE80	5530 MHz	35.77%	≥ 17%	Pass
802.11ax-HE160	5250 MHz	25.21%	≥ 17%	Pass
802.11ax-HE160	5570 MHz	26.50%	≥ 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. UNII Detection Bandwidth Measurement

5.3.1. Test Limit

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

5.3.2. Test Procedure

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

5.3.3. Test Result

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Detection Bandwidth (802.11ax-HE20 mode - 5500MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
5490.4 FL	1	1	1	1	1	1	1	1	1	1	100%
5491	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509.6 FH	1	1	1	1	1	1	1	1	1	1	100%
5510	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 5500MHz. The 99% channel bandwidth is 19.01MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509.6MHz – 5490.4MHz = 19.20MHz

Note 3: NII Detection Bandwidth Min. Limit (MHz): 19.01MHz x 100% = 19.01MHz.

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Detection Bandwidth (802.11ax-HE40 mode – 5510MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
5491 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	1	1	1	1	1	1	100%
5529 FH	1	1	1	1	1	1	1	1	1	1	100%
5530	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 5510MHz. The 99% channel bandwidth is 37.52MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529MHz - 5491MHz = 38MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 37.52MHz x 100% = 37.52MHz.

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Detection Bandwidth (802.11ax-HE80 mode – 5530MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
5491 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5566	1	1	1	1	1	1	1	1	1	1	100%
5567	1	1	1	1	1	1	1	1	1	1	100%
5568	1	1	1	1	1	1	1	1	1	1	100%
5569 FH	1	1	1	1	1	1	1	1	1	1	100%
5570	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 5530MHz. The 99% channel bandwidth is 77.19MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5569MHz - 5491MHz = 78MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 77.19MHz x 100% = 77.19MHz.

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Detection Bandwidth (802.11ax-HE160 mode - 5250MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250 FL	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 5250MHz. The 99% channel bandwidth fall within DFS band is 77.90MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5329MHz - 5250MHz = 79MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 77.90MHz x 100% = 77.90MHz.

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Detection Bandwidth (802.11ax-HE160 mode – 5570MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
5491 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5570	1	1	1	1	1	1	1	1	1	1	100%
5575	1	1	1	1	1	1	1	1	1	1	100%
5580	1	1	1	1	1	1	1	1	1	1	100%
5585	1	1	1	1	1	1	1	1	1	1	100%
5590	1	1	1	1	1	1	1	1	1	1	100%
5595	1	1	1	1	1	1	1	1	1	1	100%
5600	1	1	1	1	1	1	1	1	1	1	100%
5600	1	1	1	1	1	1	1	1	1	1	100%
5610	1	1	1	1	1	1	1	1	1	1	100%
5615	1	1	1	1	1	1	1	1	1	1	100%

5620	1	1	1	1	1	1	1	1	1	1	100%
5625	1	1	1	1	1	1	1	1	1	1	100%
5630	1	1	1	1	1	1	1	1	1	1	100%
5635	1	1	1	1	1	1	1	1	1	1	100%
5640	1	1	1	1	1	1	1	1	1	1	100%
5645	1	1	1	1	1	1	1	1	1	1	100%
5646	1	1	1	1	1	1	1	1	1	1	100%
5647	1	1	1	1	1	1	1	1	1	1	100%
5648	1	1	1	1	1	1	1	1	1	1	100%
5649 FH	1	1	1	1	1	1	1	1	1	1	100%
5650	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 5570MHz. The 99% channel bandwidth is 155.74MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5649MHz - 5491MHz = 158MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 155.74MHz x 100% = 155.74MHz.

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

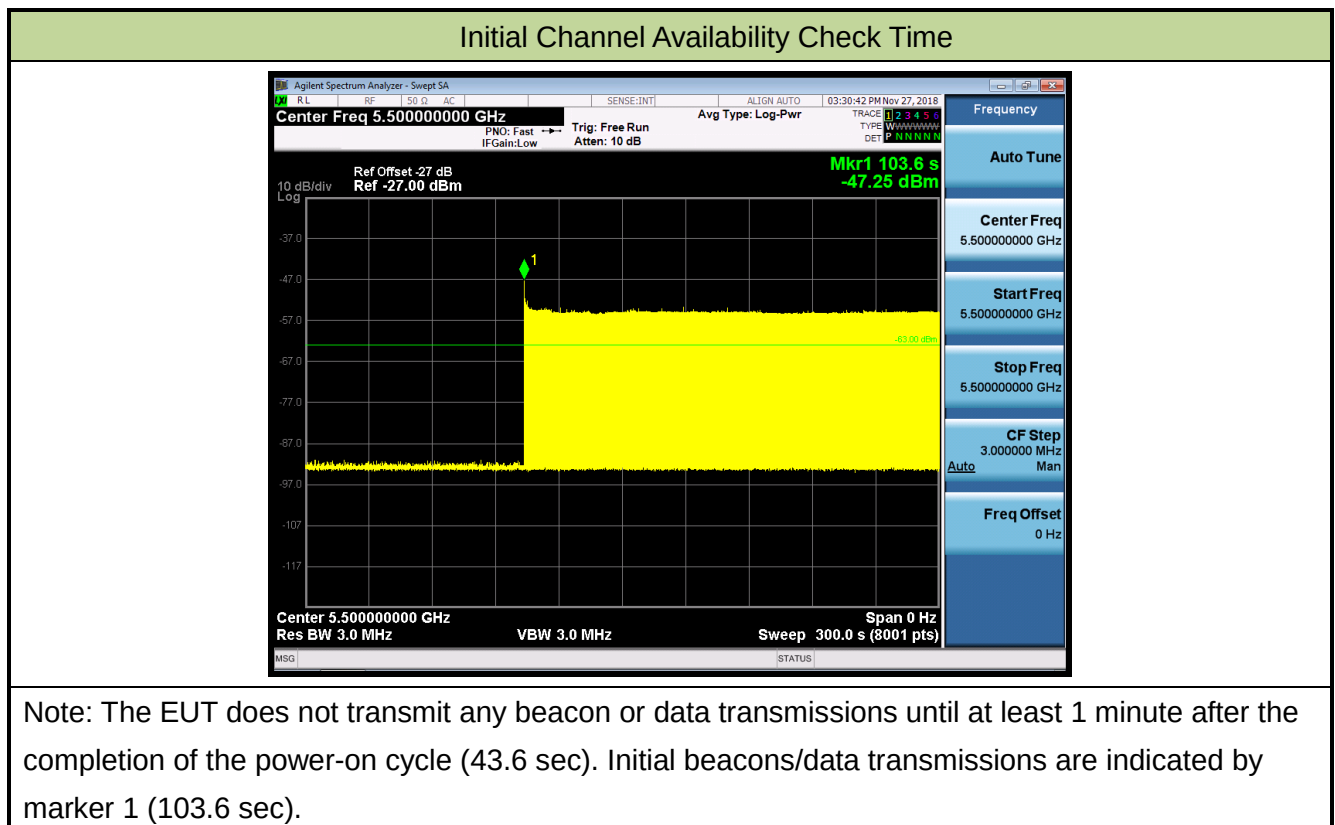
The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

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	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Initial Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		



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.

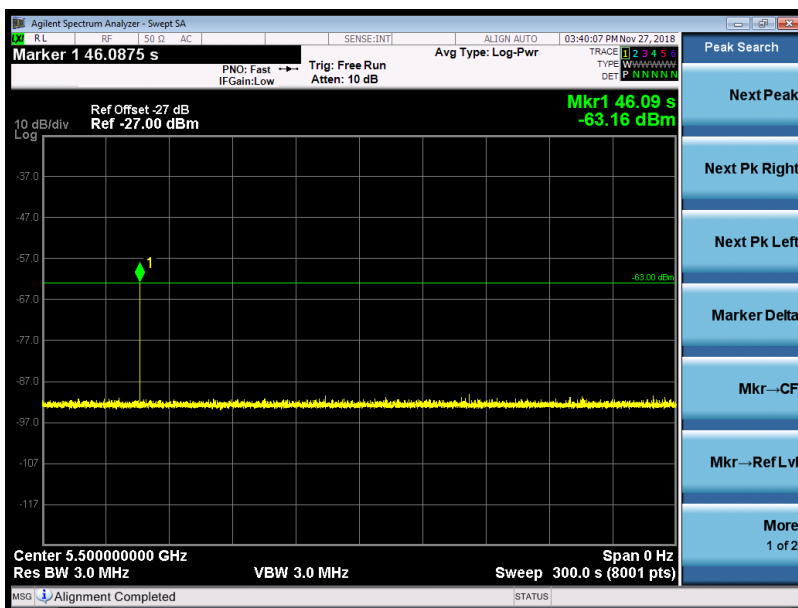
5.5.2. Test Procedure

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	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Beginning of the Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		

Beginning of the Channel Availability Check Time



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

5.6.1. Test Limit

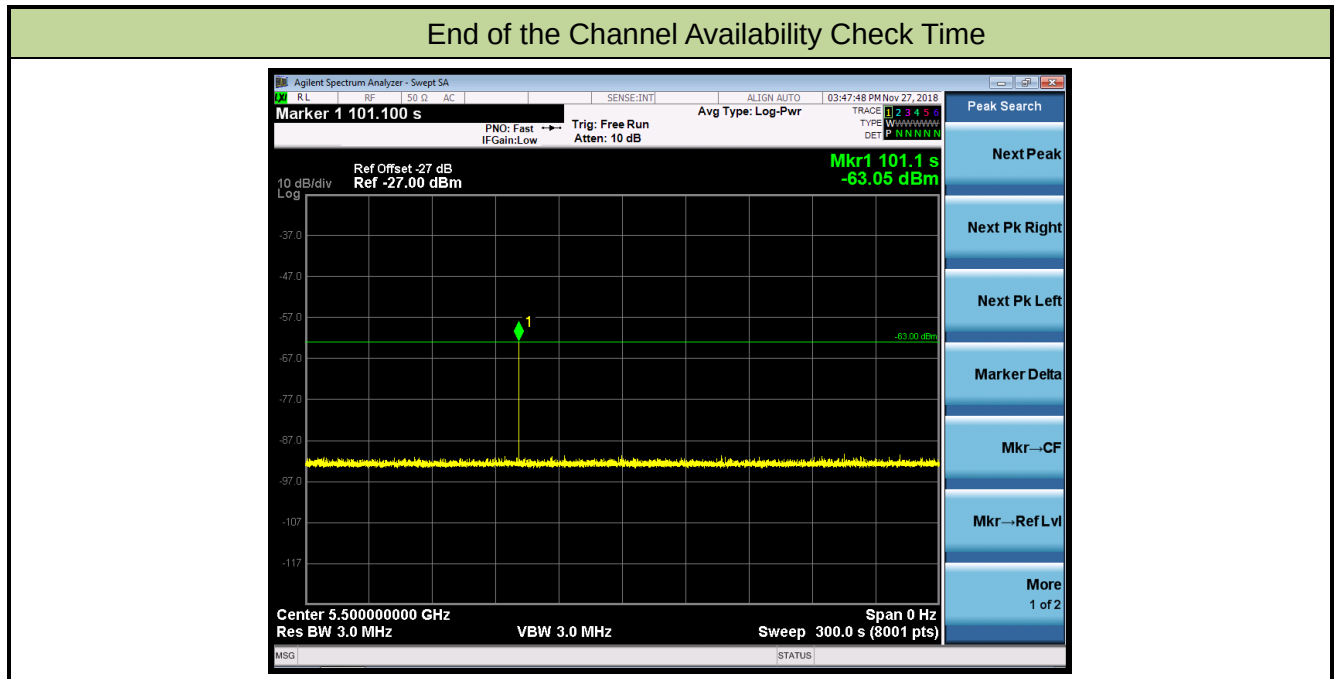
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

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	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	End of the Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		



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.

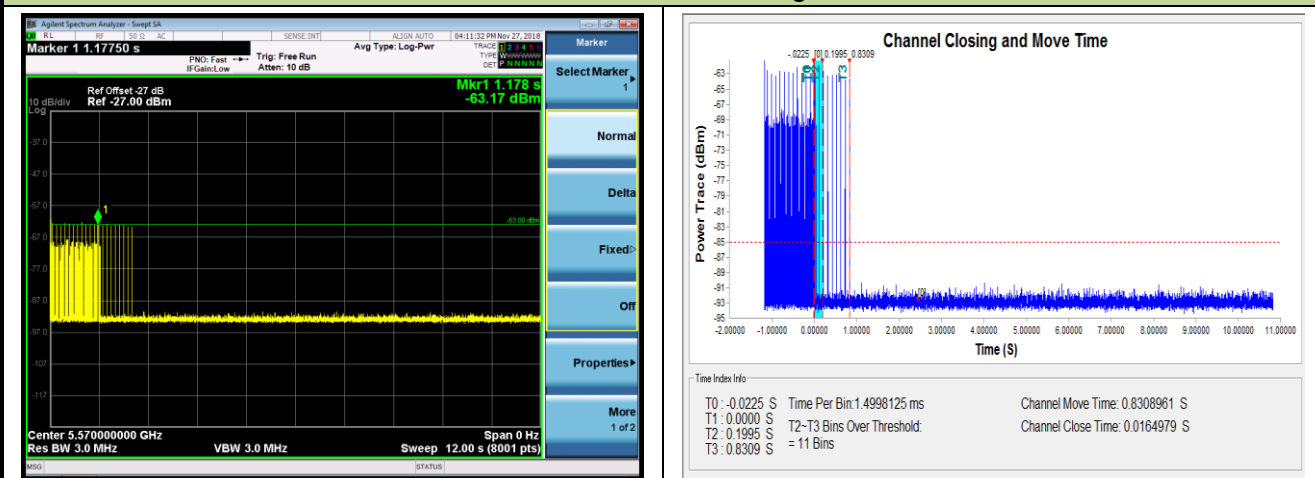
5.7.2. Test Procedure Used

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	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/27
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE160 mode - 5570MHz)		

Channel Move Time and Channel Closing Transmission Time



Non-Occupancy Period



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.831s	<10s
Channel Closing Transmission Time (ms) (Note)	16.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
Note: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.		

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

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

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

The percentage of successful detection is calculated by:

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

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	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/28
Test Item	Radar Statistical Performance Check (802.11ax-HE20 – 5500MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5490.4	1	878	61	1
2	5490.4	1	678	78	1
3	5490.4	1	918	58	1
4	5490.4	1	758	70	1
5	5490.4	1	698	76	1
6	5490.4	1	718	74	1
7	5490.4	1	798	67	1
8	5490.4	1	538	99	1
9	5490.4	1	818	65	1
10	5490.4	1	778	68	1
11	5500.0	1	518	102	1
12	5500.0	1	738	72	1
13	5500.0	1	898	59	1
14	5500.0	1	638	83	1
15	5500.0	1	3066	18	1
16	5500.0	1	1546	35	1
17	5500.0	1	2325	23	1
18	5500.0	1	1793	30	1
19	5500.0	1	2049	26	1
20	5500.0	1	1022	52	1
21	5509.6	1	1409	38	1
22	5509.6	1	1216	44	1
23	5509.6	1	2452	22	1
24	5509.6	1	1599	34	1
25	5509.6	1	1638	33	1
26	5509.6	1	2349	23	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5509.6	1	601	88	1
28	5509.6	1	2862	19	1
29	5509.6	1	636	83	1
30	5509.6	1	2927	19	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5490.4	1.8	171	27	1
2	5490.4	2.2	153	28	1
3	5490.4	3.4	217	26	1
4	5490.4	4.8	222	26	1
5	5490.4	1.7	177	24	1
6	5490.4	4.5	161	29	1
7	5490.4	4.6	157	23	1
8	5490.4	1.4	199	25	1
9	5490.4	4.3	161	25	1
10	5490.4	4.6	193	23	1
11	5500.0	3.4	203	23	1
12	5500.0	2.0	163	25	1
13	5500.0	1.9	153	23	1
14	5500.0	1.1	204	28	1
15	5500.0	3.7	163	24	1
16	5500.0	4.4	163	25	1
17	5500.0	4.7	160	23	1
18	5500.0	1.4	155	25	1
19	5500.0	1.6	210	29	1
20	5500.0	1.7	166	26	1
21	5509.6	3.7	179	27	1
22	5509.6	2.7	178	27	1
23	5509.6	1.0	193	25	1
24	5509.6	2.0	228	28	1
25	5509.6	2.9	202	25	1
26	5509.6	2.0	163	23	1
27	5509.6	4.9	160	29	1
28	5509.6	1.3	171	26	1
29	5509.6	2.8	220	23	1
30	5509.6	1.5	215	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	5490.4	8.2	280	17	1
2	5490.4	9.5	378	17	1
3	5490.4	9.3	467	17	1
4	5490.4	9.6	299	18	1
5	5490.4	9.2	359	16	1
6	5490.4	8.2	277	17	1
7	5490.4	7.6	405	17	1
8	5490.4	9.9	420	18	1
9	5490.4	6.7	486	17	1
10	5490.4	8.0	327	18	1
11	5500.0	6.1	489	17	1
12	5500.0	7.5	497	16	1
13	5500.0	8.4	464	18	1
14	5500.0	9.3	393	18	1
15	5500.0	6.7	407	18	1
16	5500.0	8.3	284	16	1
17	5500.0	6.6	498	18	1
18	5500.0	7.8	269	18	1
19	5500.0	7.9	344	17	1
20	5500.0	7.2	479	18	1
21	5509.6	8.7	303	17	1
22	5509.6	9.7	477	18	1
23	5509.6	8.3	406	18	1
24	5509.6	7.1	487	17	1
25	5509.6	6.2	412	16	1
26	5509.6	8.3	407	16	1
27	5509.6	6.3	286	16	1
28	5509.6	9.2	418	16	1
29	5509.6	7.9	319	17	1
30	5509.6	6.9	378	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	5490.4	12.8	464	13	1
2	5490.4	14.4	494	16	1
3	5490.4	14.6	463	14	1
4	5490.4	14.1	363	15	1
5	5490.4	14.5	360	16	1
6	5490.4	16.2	251	15	1
7	5490.4	18.3	424	14	1
8	5490.4	11.2	431	13	1
9	5490.4	12.3	365	15	1
10	5490.4	18.3	380	13	1
11	5500.0	11.0	428	13	1
12	5500.0	14.3	260	14	0
13	5500.0	11.0	464	14	1
14	5500.0	16.0	325	15	1
15	5500.0	12.0	314	16	1
16	5500.0	13.4	352	16	1
17	5500.0	13.8	379	13	1
18	5500.0	11.6	259	13	1
19	5500.0	18.6	398	12	1
20	5500.0	13.9	338	14	1
21	5509.6	17.8	386	12	1
22	5509.6	16.8	485	14	1
23	5509.6	13.3	358	12	1
24	5509.6	15.6	361	16	1
25	5509.6	17.0	452	16	1
26	5509.6	17.9	445	12	1
27	5509.6	19.3	319	15	1
28	5509.6	11.1	286	16	1
29	5509.6	13.9	267	12	1
30	5509.6	15.8	326	15	1
Detection Percentage (%)					96.67%

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

waveforms is as follows: $\frac{P_d1 + P_d2 + P_d3 + P_d4}{4} = (100\% + 100\% + 100\% + 96.67\%) / 4 = 99.17\% (>80\%)$

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	5497.6	1	16	5500.0	1
2	5492.8	1	17	5500.0	1
3	5494.0	1	18	5500.0	1
4	5498.0	1	19	5500.0	1
5	5497.2	1	20	5500.0	1
6	5495.2	1	21	5506.4	1
7	5496.0	1	22	5504.0	1
8	5492.4	1	23	5502.4	1
9	5494.4	1	24	5502.0	1
10	5493.6	1	25	5504.8	1
11	5500.0	1	26	5507.6	1
12	5500.0	1	27	5505.6	1
13	5500.0	1	28	5507.2	1
14	5500.0	1	29	5502.8	1
15	5500.0	1	30	5506.0	1
Detection Percentage (%)					100%

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	129097	2	18	70	1106	1432	0	129097	0	923076
2	1669899	1	18	90	1054	0	0	1801534	923077	1846153
3	525821	2	18	90	1996	1003	0	2328409	1846154	2769230
4	1158473	1	18	90	1094	0	0	3489881	2769231	3692307
5	235654	2	18	70	1089	1788	0	3726629	3692308	4615384
6	1551574	3	18	85	1878	1049	1243	5281080	4615385	5538461
7	609069	2	18	80	1822	1037	0	5894319	5538462	6461538
8	1130240	1	18	60	1046	0	0	7027418	6461539	7384615
9	695230	1	18	65	1081	0	0	7723694	7384616	8307692
10	1209495	1	18	75	1872	0	0	8934270	8307693	9230769
11	604108	1	18	65	1516	0	0	9540250	9230770	10153846
12	790814	2	18	50	1852	1129	0	10332580	10153847	11076923
13	994952	3	18	80	1008	1626	1173	11330513	11076924	12000000
Total number of pulses in waveform = 22 *****										



Type 5 Radar Waveform_2

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	542036	1	6	75	1445	0	0	542036	0	666666
2	704155	2	6	70	1436	1315	0	1247636	666667	1333333
3	117994	3	6	95	1924	1087	1736	1368381	1333334	2000000
4	1205449	1	6	55	1071	0	0	2578577	2000001	2666667
5	702649	3	6	55	1303	1683	1488	3282297	2666668	3333334
6	544137	3	6	55	1856	1816	1787	3830908	3333335	4000001
7	264681	3	6	55	1367	1542	1142	4101048	4000002	4666668
8	1084516	1	6	75	1256	0	0	5189615	4666669	5333335
9	587112	1	6	100	1507	0	0	5777983	5333336	6000002
10	229764	3	6	95	1094	1551	1725	6009254	6000003	6666669
11	1141102	2	6	50	1433	1927	0	7154726	6666670	7333336
12	448265	2	6	55	1398	1846	0	7606351	7333337	8000003
13	892704	3	6	55	1853	1380	1993	8502299	8000004	8666670
14	770440	1	6	100	1619	0	0	9277965	8666671	9333337
15	696851	2	6	95	1705	1396	0	9976435	9333338	10000004
16	677076	2	6	50	1705	1873	0	10656613	10000005	10666671
17	506589	2	6	55	1460	1759	0	11166780	10666672	11333338
18	827090	1	6	80	1549	0	0	11997089	11333339	12000005

Total number of pulses in waveform = 36

Type 5 Radar Waveform_3

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	586454	2	9	85	1113	1365	0	586454	0	599999
2	545965	1	9	50	1232	0	0	1134897	600000	1199999
3	643271	2	9	55	1165	1258	0	1779400	1200000	1799999
4	209971	3	9	90	1360	1345	1065	1991794	1800000	2399999
5	417477	3	9	100	1461	1015	1453	2413041	2400000	2999999
6	704830	1	9	100	1762	0	0	3121800	3000000	3599999
7	762525	1	9	100	1458	0	0	3886087	3600000	4199999
8	856427	2	9	65	1187	1381	0	4743972	4200000	4799999
9	79881	2	9	75	1746	1750	0	4826421	4800000	5399999
10	1058835	1	9	90	1812	0	0	5888752	5400000	5999999
11	346084	2	9	95	1813	1100	0	6236648	6000000	6599999
12	616254	3	9	70	1886	1459	1489	6855815	6600000	7199999
13	377490	1	9	50	1408	0	0	7238119	7200000	7799999
14	1018216	3	9	55	1470	1181	1622	8257743	7800000	8399999
15	413305	2	9	100	1124	1321	0	8675321	8400000	8999999
16	522125	3	9	70	1522	1078	1713	9199891	9000000	9599999
17	828285	2	9	60	1189	1128	0	10032489	9600000	10199999
18	433463	3	9	80	1837	1960	1778	10468269	10200000	10799999
19	692660	3	9	100	1090	1999	1328	11166504	10800000	11399999
20	415731	2	9	95	1565	1340	0	11586652	11400000	11999999

Total number of pulses in waveform = 42

Type 5 Radar Waveform_4

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	713604	1	19	90	1453	0	0	713604	0	749999
2	765717	1	19	85	1704	0	0	1480774	750000	1499999
3	577745	3	19	60	1566	1627	1779	2060223	1500000	2249999
4	920675	1	19	85	1673	0	0	2985870	2250000	2999999
5	275465	3	19	75	1007	1757	1777	3263008	3000000	3749999
6	1051091	2	19	95	1139	1113	0	4318640	3750000	4499999
7	339751	1	19	55	1766	0	0	4660643	4500000	5249999
8	913088	2	19	85	1358	1808	0	5575497	5250000	5999999
9	693760	2	19	95	1305	1128	0	6272423	6000000	6749999
10	1198030	3	19	95	1793	1649	1231	7472886	6750000	7499999
11	613383	2	19	100	1821	1982	0	8090942	7500000	8249999
12	605067	1	19	55	1690	0	0	8699812	8250000	8999999
13	483686	1	19	90	1150	0	0	9185188	9000000	9749999
14	612653	2	19	80	1998	1670	0	9798991	9750000	10499999
15	1441558	1	19	55	1285	0	0	11244217	10500000	11249999
16	139518	2	19	75	1510	1268	0	11385020	11250000	11999999

Total number of pulses in waveform = 28

**Type 5 Radar Waveform_5**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	710976	3	17	80	1405	1272	1412	710976	0	749999
2	654909	3	17	65	1180	1460	1871	1369974	750000	1499999
3	811716	2	17	75	1431	1546	0	2186201	1500000	2249999
4	232095	2	17	65	1412	1333	0	2421273	2250000	2999999
5	1119496	3	17	75	1078	1144	1246	3543514	3000000	3749999
6	821969	3	17	95	1463	1289	1981	4368951	3750000	4499999
7	710788	1	17	85	1099	0	0	5084472	4500000	5249999
8	625982	2	17	60	1146	1782	0	5711553	5250000	5999999
9	721929	1	17	60	1348	0	0	6436410	6000000	6749999
10	474601	2	17	100	1534	1361	0	6912359	6750000	7499999
11	1047684	3	17	80	1792	1871	1717	7962938	7500000	8249999
12	297962	2	17	65	1780	1015	0	8266280	8250000	8999999
13	1284457	1	17	100	1451	0	0	9553532	9000000	9749999
14	665782	1	17	55	1666	0	0	10220765	9750000	10499999
15	762627	3	17	55	1600	1388	1404	10985058	10500000	11249999
16	329322	3	17	85	1212	1803	1719	11318772	11250000	11999999

Total number of pulses in waveform = 35

Type 5 Radar Waveform_6Num 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	617097	1	12	90	1885	0	0	617097	0	999999
2	560099	1	12	80	1447	0	0	1179081	1000000	1999999
3	1322484	1	12	100	1274	0	0	2503012	2000000	2999999
4	633787	2	12	95	1805	1938	0	3138073	3000000	3999999
5	1112035	3	12	70	1128	1733	1829	4253851	4000000	4999999
6	1516697	2	12	90	1204	1680	0	5775238	5000000	5999999
7	767096	1	12	90	1753	0	0	6545218	6000000	6999999
8	980442	2	12	100	1129	1301	0	7527413	7000000	7999999
9	1160572	2	12	95	1874	1888	0	8690415	8000000	8999999
10	457436	1	12	100	1582	0	0	9151613	9000000	9999999
11	1118312	1	12	65	1208	0	0	10271507	10000000	10999999
12	1211585	3	12	65	1728	1079	1853	11484300	11000000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_7Num 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	876875	1	14	85	1146	0	0	876875	0	1499999
2	1230783	2	14	55	1401	1675	0	2108804	1500000	2999999
3	1220468	1	14	55	1083	0	0	3332348	3000000	4499999
4	2569104	3	14	50	1190	1300	1863	5902535	4500000	5999999
5	1320310	1	14	90	1894	0	0	7227198	6000000	7499999
6	1044582	3	14	55	1180	1260	1952	8273674	7500000	8999999
7	1562232	2	14	100	1899	1632	0	9840298	9000000	10499999
8	1249478	2	14	50	1877	1839	0	11093307	10500000	11999999

Total number of pulses in waveform = 15



Type 5 Radar Waveform_8

Num of Bursts = 18

Burst Interval (us)= 666667

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	627872	3	5	100	1525	1855	1529	627872	0	666666
2	212667	1	5	85	1953	0	0	845448	666667	1333333
3	581384	2	5	60	1746	1212	0	1428785	1333334	2000000
4	716658	3	5	95	1312	1925	1149	2148401	2000001	2666667
5	1131711	3	5	100	1520	1175	1582	3284498	2666668	3333334
6	698694	1	5	55	1860	0	0	3987469	3333335	4000001
7	244605	3	5	85	1686	1591	1347	4233934	4000002	4666668
8	462170	2	5	65	1277	1598	0	4700728	4666669	5333335
9	1171796	3	5	55	1702	1093	1631	5875399	5333336	6000002
10	711396	1	5	80	1960	0	0	6591221	6000003	6666669
11	343146	2	5	55	1648	1336	0	6936327	6666670	7333336
12	815428	3	5	55	1369	1720	1993	7754739	7333337	8000003
13	499494	1	5	55	1902	0	0	8259315	8000004	8666670
14	452281	2	5	100	1010	1202	0	8713498	8666671	9333337
15	766558	2	5	90	1411	1972	0	9482268	9333338	10000004
16	705056	2	5	70	1261	1583	0	10190707	10000005	10666671
17	865901	2	5	70	1514	1380	0	11059452	10666672	11333338
18	932196	2	5	95	1116	1306	0	11994542	11333339	12000005

Total number of pulses in waveform = 38

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	349195	2	10	100	1006	1970	0	349195	0	1090908
2	950765	3	10	85	1458	1672	1920	1302936	1090909	2181817
3	1021114	1	10	60	1773	0	0	2329100	2181818	3272726
4	1634303	2	10	50	1607	1453	0	3965176	3272727	4363635
5	403620	2	10	90	1002	1110	0	4371856	4363636	5454544
6	1843657	3	10	65	1350	1035	1205	6217625	5454545	6545453
7	738045	1	10	50	1980	0	0	6959260	6545454	7636362
8	1247169	2	10	60	1245	1431	0	8208409	7636363	8727271
9	1403810	3	10	50	1912	1718	1684	9614895	8727272	9818180
10	598528	3	10	100	1263	1666	1389	10218737	9818181	10909089
11	1354942	1	10	80	1512	0	0	11577997	10909090	11999998

Total number of pulses in waveform = 23

Type 5 Radar Waveform_10

Num of Bursts = 15

Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	683101	2	8	95	1029	1720	0	683101	0	799999
2	424808	1	8	95	1781	0	0	1110658	800000	1599999
3	1114010	3	8	95	1471	1358	1864	2226449	1600000	2399999
4	264574	3	8	100	1672	1723	1688	2495716	2400000	3199999
5	1222958	3	8	75	1698	1118	1141	3723757	3200000	3999999
6	302147	1	8	85	1002	0	0	4029861	4000000	4799999
7	1180840	1	8	80	1146	0	0	5211703	4800000	5599999
8	589368	2	8	80	1768	1567	0	5802217	5600000	6399999
9	616273	2	8	100	1820	1673	0	6421825	6400000	7199999
10	1355542	2	8	90	1406	1155	0	7780860	7200000	7999999
11	727941	1	8	50	1149	0	0	8511362	8000000	8799999
12	298848	1	8	60	1945	0	0	8811359	8800000	9599999
13	962247	1	8	60	1109	0	0	9775551	9600000	10399999
14	1102443	1	8	60	1262	0	0	10879103	10400000	11199999
15	441839	1	8	85	1697	0	0	11322204	11200000	11999999

Total number of pulses in waveform = 25

**Type 5 Radar Waveform_11**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	193344	2	12	80	1868	1211	0	193344	0	799999
2	888047	2	12	100	1652	1494	0	1084470	800000	1599999
3	987477	3	12	60	1446	1155	1127	2075093	1600000	2399999
4	816399	3	12	65	1511	1749	1033	2895220	2400000	3199999
5	411377	1	12	85	1999	0	0	3310890	3200000	3999999
6	1302113	2	12	75	1801	1483	0	4615002	4000000	4799999
7	525351	2	12	85	1625	1533	0	5143637	4800000	5599999
8	860990	3	12	80	1041	1962	1483	6007785	5600000	6399999
9	555736	2	12	70	1153	1392	0	6568007	6400000	7199999
10	772346	2	12	70	1202	1803	0	7342898	7200000	7999999
11	1099490	1	12	65	1076	0	0	8445393	8000000	8799999
12	359330	2	12	100	1007	1009	0	8805799	8800000	9599999
13	945269	2	12	50	1517	1610	0	9753084	9600000	10399999
14	867365	3	12	65	1086	1392	1752	10623576	10400000	11199999
15	586247	2	12	85	1700	1647	0	11214053	11200000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_12Num 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	706234	2	18	80	1688	1937	0	706234	0	749999
2	223257	2	18	95	1002	1144	0	933116	750000	1499999
3	1285526	3	18	80	1958	1143	1031	2220788	1500000	2249999
4	599665	2	18	70	1576	1561	0	2824585	2250000	2999999
5	692209	2	18	65	1046	1012	0	3519931	3000000	3749999
6	463000	1	18	85	1348	0	0	3984989	3750000	4499999
7	715630	1	18	75	1241	0	0	4701967	4500000	5249999
8	936354	1	18	90	1818	0	0	5639562	5250000	5999999
9	389049	3	18	90	1934	1048	1932	6030429	6000000	6749999
10	923382	1	18	70	1808	0	0	6958725	6750000	7499999
11	816333	1	18	95	1499	0	0	7776866	7500000	8249999
12	774923	2	18	80	1667	1611	0	8553288	8250000	8999999
13	616119	3	18	95	1074	1472	1441	9172685	9000000	9749999
14	964767	1	18	85	1639	0	0	10141439	9750000	10499999
15	964460	2	18	90	1777	1815	0	11107538	10500000	11249999
16	198931	2	18	100	1039	1189	0	11310061	11250000	11999999

Total number of pulses in waveform = 29

Type 5 Radar Waveform_13Num 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	110494	2	6	90	1661	1256	0	110494	0	799999
2	1183427	3	6	80	1499	1659	1565	1296838	800000	1599999
3	844371	1	6	75	1542	0	0	2145932	1600000	2399999
4	793887	3	6	100	1116	1082	1211	2941361	2400000	3199999
5	882281	3	6	50	1508	1018	1884	3827051	3200000	3999999
6	505068	2	6	90	1526	1079	0	4336529	4000000	4799999
7	583875	3	6	50	1088	1166	1215	4923009	4800000	5599999
8	1129664	1	6	70	1486	0	0	6056142	5600000	6399999
9	952507	1	6	80	1512	0	0	7010135	6400000	7199999
10	216808	2	6	55	1635	1365	0	7228455	7200000	7999999
11	796898	2	6	85	1764	1818	0	8028353	8000000	8799999
12	910608	3	6	55	1797	1128	1759	8942543	8800000	9599999
13	1427759	2	6	95	1922	1164	0	10374986	9600000	10399999
14	57425	3	6	85	1999	1252	1125	10435497	10400000	11199999
15	1273436	2	6	95	1958	1447	0	11713309	11200000	11999999

Total number of pulses in waveform = 33



Type 5 Radar Waveform_14

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	360143	2	19	80	1854	1704	0	360143	0	599999
2	458962	2	19	55	1767	1100	0	822663	600000	1199999
3	944185	1	19	90	1115	0	0	1769715	1200000	1799999
4	214768	2	19	60	1005	1347	0	1985598	1800000	2399999
5	481903	2	19	70	1376	1970	0	2469853	2400000	2999999
6	1024218	2	19	70	1261	1835	0	3497417	3000000	3599999
7	277695	3	19	100	1713	1091	1105	3778208	3600000	4199999
8	466444	3	19	95	1379	1660	1758	4248561	4200000	4799999
9	885901	3	19	55	1911	1867	1042	5139259	4800000	5399999
10	815066	1	19	100	1414	0	0	5959145	5400000	5999999
11	445150	3	19	60	1167	1571	1259	6405709	6000000	6599999
12	518801	2	19	95	1282	1277	0	6928507	6600000	7199999
13	580113	3	19	100	1397	1085	1046	7511179	7200000	7799999
14	693626	3	19	70	1912	1351	1130	8208333	7800000	8399999
15	768576	3	19	65	1908	1854	1716	8971302	8400000	8999999
16	165749	3	19	80	1114	1461	1019	9142529	9000000	9599999
17	967375	3	19	85	1426	1215	1753	10113498	9600000	10199999
18	495641	1	19	85	1303	0	0	10613533	10200000	10799999
19	396650	1	19	75	1207	0	0	11011486	10800000	11399999
20	630626	2	19	90	1697	1606	0	11643319	11400000	11999999
Total number of pulses in waveform = 45 *****										

Type 5 Radar Waveform_15

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	130565	2	10	50	1146	1821	0	130565	0	923076
2	1648593	2	10	90	1466	1604	0	1782125	923077	1846153
3	880796	2	10	55	1194	1414	0	2665991	1846154	2769230
4	915824	2	10	55	1346	1917	0	3584423	2769231	3692307
5	609594	3	10	90	1649	1203	1823	4197280	3692308	4615384
6	566492	1	10	70	1784	0	0	4768447	4615385	5538461
7	1395896	1	10	70	1822	0	0	6166127	5538462	6461538
8	505004	1	10	50	1647	0	0	6672953	6461539	7384615
9	1104227	1	10	80	1598	0	0	7778827	7384616	8307692
10	623104	1	10	75	1923	0	0	8403529	8307693	9230769
11	1087943	2	10	85	1859	1143	0	9493395	9230770	10153846
12	824146	1	10	90	1638	0	0	10320543	10153847	11076923
13	1639107	2	10	80	1475	1534	0	11961288	11076924	12000000
Total number of pulses in waveform = 21 *****										

Type 5 Radar Waveform_16

Num of Bursts = 10 Burst Interval (us)= 1200000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	748185	2	8	80	1091	1092	0	748185	0	1199999
2	808515	2	8	65	1360	1139	0	1558883	1200000	2399999
3	1306188	3	8	60	1267	1437	1728	2867570	2400000	3599999
4	740389	3	8	90	1303	1511	1774	3612391	3600000	4799999
5	1902707	1	8	75	1720	0	0	5519686	4800000	5999999
6	1404161	2	8	80	1812	1707	0	6925567	6000000	7199999
7	853974	1	8	70	1723	0	0	7783060	7200000	8399999
8	940952	3	8	80	1391	1514	1028	8725735	8400000	9599999
9	897806	3	8	90	1152	1048	1279	9627474	9600000	10799999
10	1842279	3	8	90	1151	1183	1037	11473232	10800000	11999999
Total number of pulses in waveform = 23 *****										



Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	218594	1	14	100	1773	0	0	218594	0	857142
2	1175950	2	14	55	1615	1171	0	1396317	857143	1714285
3	1154363	1	14	100	1999	0	0	2553466	1714286	2571428
4	561397	1	14	60	1223	0	0	3116862	2571429	3428571
5	921897	1	14	80	1520	0	0	4039982	3428572	4285714
6	815977	1	14	60	1777	0	0	4857479	4285715	5142857
7	688637	2	14	75	1510	1709	0	5547893	5142858	6000000
8	1215658	3	14	60	1561	1161	1171	6766770	6000001	6857143
9	808092	3	14	95	1431	1460	1117	7578755	6857144	7714286
10	346252	3	14	50	1004	1005	1493	7929015	7714287	8571429
11	866204	1	14	95	1716	0	0	8798721	8571430	9428572
12	1081153	2	14	80	1678	1115	0	9881590	9428573	10285715
13	942393	3	14	70	1318	1973	1499	10826776	10285716	11142858
14	412277	2	14	85	1566	1925	0	11243843	11142859	12000001

Total number of pulses in waveform = 26

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	15997	3	9	100	1702	1010	1188	15997	0	666666
2	819072	2	9	60	1366	1012	0	838969	666667	1333333
3	560384	2	9	50	1577	1452	0	1401731	1333334	2000000
4	967684	1	9	65	1466	0	0	2372444	2000001	2666667
5	837171	3	9	60	1850	1466	1622	3211081	2666668	3333334
6	134604	1	9	85	1166	0	0	3350623	3333335	4000001
7	702937	2	9	55	1171	1198	0	4054726	4000002	4666668
8	992033	1	9	75	1969	0	0	5049128	4666669	5333335
9	818910	2	9	65	1105	1228	0	5870007	5333336	6000002
10	394781	2	9	60	1073	1406	0	6267121	6000003	6666669
11	782319	2	9	50	1375	1821	0	7051919	6666670	7333336
12	489494	2	9	65	1230	1144	0	7544609	7333337	8000003
13	986629	3	9	65	1063	1003	1038	8533612	8000004	8666670
14	181254	2	9	100	1163	1566	0	8717970	8666671	9333337
15	1077508	2	9	80	1009	1172	0	9798207	9333338	10000004
16	289357	3	9	60	1302	1818	1063	10089745	10000005	10666671
17	621448	3	9	70	1928	1235	1501	10715376	10666672	11333338
18	1238311	2	9	65	1743	1574	0	11958351	11333339	12000005

Total number of pulses in waveform = 38

Type 5 Radar Waveform_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	334074	2	5	90	1627	1840	0	334074	0	749999
2	929065	1	5	85	1027	0	0	1266606	750000	1499999
3	898901	1	5	70	1857	0	0	2166534	1500000	2249999
4	582918	2	5	65	1652	1098	0	2751309	2250000	2999999
5	415468	2	5	80	1437	1224	0	3169527	3000000	3749999
6	777532	1	5	60	1349	0	0	3949720	3750000	4499999
7	938594	1	5	60	1753	0	0	4889663	4500000	5249999
8	1066448	2	5	85	1845	1325	0	5957864	5250000	5999999
9	445005	3	5	90	1659	1405	1521	6406039	6000000	6749999
10	996449	1	5	50	1110	0	0	7407073	6750000	7499999
11	765880	3	5	50	1082	1414	1406	8174063	7500000	8249999
12	578163	3	5	100	1386	1013	1389	8756128	8250000	8999999
13	740818	3	5	60	1485	1744	1680	9500734	9000000	9749999
14	658345	2	5	75	1094	1485	0	10163988	9750000	10499999
15	837781	1	5	95	1580	0	0	11004348	10500000	11249999
16	575086	3	5	100	1042	1698	1057	11581014	11250000	11999999

Total number of pulses in waveform = 31

**Type 5 Radar Waveform_20**

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	1197203	2	17	55	1055	1272	0	1197203	0	1199999
2	303086	1	17	100	1021	0	0	1502616	1200000	2399999
3	1296781	3	17	50	1986	1088	1291	2800418	2400000	3599999
4	1897986	3	17	75	1113	1154	1314	4702769	3600000	4799999
5	407534	1	17	100	1099	0	0	5113884	4800000	5999999
6	1096554	2	17	80	1203	1500	0	6211537	6000000	7199999
7	1899930	2	17	90	1671	1263	0	8114170	7200000	8399999
8	636980	3	17	100	1694	1025	1361	8754084	8400000	9599999
9	1838670	3	17	55	1326	1903	1216	10596834	9600000	10799999
10	388735	1	17	60	1510	0	0	10990014	10800000	11999999

Total number of pulses in waveform = 21

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	1253917	2	8	80	1669	1691	0	1253917	0	1499999
2	1736092	3	8	90	1794	1467	1436	2993369	1500000	2999999
3	143129	2	8	95	1640	1974	0	3141195	3000000	4499999
4	2294029	2	8	55	1651	1681	0	5438838	4500000	5999999
5	561861	2	8	50	1679	1388	0	6004031	6000000	7499999
6	1539201	1	8	85	1639	0	0	7546299	7500000	8999999
7	1769304	2	8	95	1008	1828	0	9317242	9000000	10499999
8	1455565	2	8	85	1430	1429	0	10775643	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_22

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	801852	1	14	75	1215	0	0	801852	0	923076
2	901872	3	14	100	1240	1234	1810	1704939	923077	1846153
3	631893	1	14	95	1763	0	0	2341116	1846154	2769230
4	518398	2	14	70	1023	1470	0	2861277	2769231	3692307
5	1129848	3	14	95	1434	1055	1269	3993618	3692308	4615384
6	798990	1	14	75	1528	0	0	4796366	4615385	5538461
7	1555288	2	14	50	1675	1883	0	6353182	5538462	6461538
8	617957	3	14	80	1828	1391	1832	6974697	6461539	7384615
9	1001108	3	14	85	1969	1403	1809	7980856	7384616	8307692
10	1089541	2	14	65	1833	1696	0	9075578	8307693	9230769
11	315504	1	14	50	1893	0	0	9394611	9230770	10153846
12	1382192	3	14	90	1156	1606	1520	10778696	10153847	11076923
13	940709	2	14	50	1591	1768	0	11723687	11076924	12000000

Total number of pulses in waveform = 27

**Type 5 Radar Waveform_23**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	136548	1	18	65	1973	0	0	136548	0	1090908
2	2040468	2	18	60	1118	1219	0	2178989	1090909	2181817
3	785762	3	18	60	1338	1938	1089	2967088	2181818	3272726
4	1320543	3	18	55	1955	1464	1189	4291996	3272727	4363635
5	1001963	3	18	70	1202	1914	1331	5298567	4363636	5454544
6	428134	2	18	85	1847	1178	0	5731148	5454545	6545453
7	1412052	1	18	85	1776	0	0	7146225	6545454	7636362
8	1461346	2	18	70	1563	1633	0	8609347	7636363	8727271
9	771109	2	18	65	1522	1805	0	9383652	8727272	9818180
10	1457518	3	18	60	1435	1891	1247	10844497	9818181	10909089
11	671504	3	18	65	1641	1253	1026	11520574	10909090	11999998

Total number of pulses in waveform = 25

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	741698	3	19	85	1868	1965	1222	741698	0	1499999
2	1477637	2	19	85	1275	1653	0	2224390	1500000	2999999
3	878519	2	19	75	1117	1188	0	3105837	3000000	4499999
4	1579495	1	19	65	1690	0	0	4687637	4500000	5999999
5	2574348	3	19	55	1424	1031	1313	7263675	6000000	7499999
6	344920	1	19	95	1207	0	0	7612363	7500000	8999999
7	2763323	1	19	65	1406	0	0	10376893	9000000	10499999
8	281106	3	19	100	1047	1245	1105	10659405	10500000	11999999

Total number of pulses in waveform = 16

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	897524	1	12	65	1011	0	0	897524	0	999999
2	505941	1	12	90	1967	0	0	1404476	1000000	1999999
3	1062384	2	12	50	1006	1768	0	2468827	2000000	2999999
4	698404	3	12	85	1212	1122	1862	3170005	3000000	3999999
5	1818608	3	12	70	1042	1726	1579	4992809	4000000	4999999
6	448050	3	12	100	1796	1886	1900	5445206	5000000	5999999
7	1024268	3	12	85	1434	1270	1162	6475056	6000000	6999999
8	1385699	3	12	80	1197	1466	1689	7864621	7000000	7999999
9	159416	3	12	85	1878	1604	1549	8028389	8000000	8999999
10	1683318	2	12	60	1408	1623	0	9716738	9000000	9999999
11	1193559	2	12	100	1563	1920	0	10913328	10000000	10999999
12	98134	2	12	85	1072	1202	0	11014945	11000000	11999999

Total number of pulses in waveform = 28



Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	378879	1	5	85	1507	0	0	378879	0	923076
2	1351775	1	5	60	1138	0	0	1732161	923077	1846153
3	797155	1	5	50	1689	0	0	2530454	1846154	2769230
4	994687	2	5	90	1049	1164	0	3526830	2769231	3692307
5	982217	3	5	100	1824	1560	1856	4511260	3692308	4615384
6	539100	3	5	90	1589	1822	1709	5055600	4615385	5538461
7	975663	1	5	95	1187	0	0	6036383	5538462	6461538
8	1128381	2	5	95	1048	1582	0	7165951	6461539	7384615
9	692013	1	5	85	1364	0	0	7860594	7384616	8307692
10	814128	1	5	95	1488	0	0	8676086	8307693	9230769
11	1416286	3	5	95	1792	1017	1463	10093860	9230770	10153846
12	385532	2	5	75	1993	1327	0	10483664	10153847	11076923
13	869158	1	5	70	1774	0	0	11356142	11076924	12000000

Total number of pulses in waveform = 22

Type 5 Radar Waveform_27

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	1314128	1	10	95	1989	0	0	1314128	0	1333332
2	322964	1	10	90	1316	0	0	1639081	1333333	2666665
3	1258000	3	10	50	1480	1813	1430	2898397	2666666	3999998
4	1904416	3	10	90	1709	1512	1485	4807536	3999999	5333331
5	685368	2	10	70	1652	1085	0	5497610	5333332	6666664
6	2007600	3	10	60	1331	1805	1073	7507947	6666665	7999997
7	663231	2	10	70	1360	1303	0	8175387	7999998	9333330
8	1672021	3	10	95	1702	1265	1163	9850071	9333331	10666663
9	1131922	3	10	100	1716	1104	1064	10986123	10666664	11999996

Total number of pulses in waveform = 21

Type 5 Radar Waveform_28

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	312732	1	6	85	1097	0	0	312732	0	599999
2	331608	2	6	60	1494	1132	0	645437	600000	1199999
3	715555	2	6	65	1853	1374	0	1363618	1200000	1799999
4	568237	2	6	70	1773	1148	0	1935082	1800000	2399999
5	687099	1	6	80	1986	0	0	2625102	2400000	2999999
6	674758	3	6	60	1474	1383	1810	3301846	3000000	3599999
7	867586	1	6	50	1211	0	0	4174099	3600000	4199999
8	171027	1	6	90	1179	0	0	4346337	4200000	4799999
9	607320	1	6	75	1760	0	0	4954836	4800000	5399999
10	592409	2	6	90	1054	1503	0	5549005	5400000	5999999
11	944975	3	6	75	1193	1096	1811	6496537	6000000	6599999
12	154306	3	6	55	1687	1372	1031	6654943	6600000	7199999
13	1007591	1	6	65	1915	0	0	7666624	7200000	7799999
14	472404	1	6	60	1341	0	0	8140943	7800000	8399999
15	716695	3	6	70	1174	1113	1380	8858979	8400000	8999999
16	435500	3	6	85	1206	1811	1221	9298146	9000000	9599999
17	356670	2	6	55	1863	1774	0	9658054	9600000	10199999
18	978012	3	6	90	1672	1690	1895	10639703	10200000	10799999
19	390028	2	6	65	1777	1469	0	11035188	10800000	11399999
20	584058	3	6	70	1480	1783	1056	11622492	11400000	11999999

Total number of pulses in waveform = 40

**Type 5 Radar Waveform_29**

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	753337	1	17	85	1138	0	0	753337	0	1499999
2	1682517	1	17	55	1671	0	0	2436992	1500000	2999999
3	562626	3	17	50	1977	1279	1228	3001289	3000000	4499999
4	1946377	1	17	100	1462	0	0	4952150	4500000	5999999
5	2197932	1	17	60	1637	0	0	7151544	6000000	7499999
6	1530066	1	17	75	1719	0	0	8683247	7500000	8999999
7	372484	3	17	50	1512	1947	1282	9057450	9000000	10499999
8	2835012	2	17	95	1395	1024	0	11897203	10500000	11999999

Total number of pulses in waveform = 13

Type 5 Radar Waveform_30

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	288222	3	9	70	1297	1737	1844	288222	0	666666
2	808775	2	9	95	1373	1415	0	1101875	666667	1333333
3	558510	3	9	85	1074	1090	1668	1663173	1333334	2000000
4	434766	1	9	75	1808	0	0	2101771	2000001	2666667
5	881884	1	9	100	1064	0	0	2985463	2666668	3333334
6	505981	1	9	50	1165	0	0	3492508	3333335	4000001
7	595425	2	9	70	1219	1692	0	4089098	4000002	4666668
8	576871	1	9	55	1886	0	0	4668880	4666669	5333335
9	1107369	2	9	90	1159	1870	0	5778135	5333336	6000002
10	289189	1	9	50	1016	0	0	6070353	6000003	6666669
11	1192188	2	9	60	1171	1198	0	7263557	6666670	7333336
12	438775	3	9	90	1578	1275	1150	7704701	7333337	8000003
13	878129	2	9	65	1031	1442	0	8586833	8000004	8666670
14	114706	1	9	85	1619	0	0	8704012	8666671	9333337
15	796056	3	9	70	1899	1961	1278	9501687	9333338	10000004
16	883590	1	9	100	1853	0	0	10390415	10000005	10666671
17	605415	1	9	75	1593	0	0	10997683	10666672	11333338
18	616255	2	9	50	1118	1679	0	11615531	11333339	12000005

Total number of pulses in waveform = 32

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	5490.4	1	16	5500.0	1
2	5490.4	1	17	5500.0	1
3	5490.4	1	18	5500.0	1
4	5490.4	1	19	5500.0	1
5	5490.4	1	20	5500.0	0
6	5490.4	1	21	5509.6	1
7	5490.4	1	22	5509.6	1
8	5490.4	1	23	5509.6	1
9	5490.4	1	24	5509.6	1
10	5490.4	1	25	5509.6	1
11	5500.0	1	26	5509.6	1
12	5500.0	1	27	5509.6	1
13	5500.0	1	28	5509.6	1
14	5500.0	1	29	5509.6	1
15	5500.0	1	30	5509.6	1
Detection Percentage (%)					96.67%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5513	18	1	5487	3
15	5469	45	3	5462	9
35	5472	105	5	5507	15
42	5462	126	10	5494	30
45	5504	135	12	5511	36
58	5479	174	15	5463	45
70	5494	210	30	5491	90
76	5502	228	37	5500	111
88	5483	264	45	5473	135
--	--	--	48	5510	144
--	--	--	60	5478	180
--	--	--	68	5467	204
--	--	--	74	5512	222
--	--	--	93	5479	279

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5503	6	6	5487	18
6	5493	18	15	5519	45
20	5467	60	17	5482	51
21	5487	63	20	5471	60
30	5517	90	35	5490	105
40	5468	120	37	5462	111
47	5488	141	43	5481	129
57	5515	171	50	5498	150
71	5490	213	65	5500	195
76	5478	228	75	5477	225
81	5520	243	79	5507	237
87	5463	261	90	5505	270
--	--	--	97	5521	291

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5474	12	2	5461	6
26	5492	78	15	5487	45
34	5512	102	20	5485	60
46	5475	138	22	5469	66
48	5478	144	31	5491	93
57	5493	171	32	5510	96
79	5486	237	40	5463	120
80	5481	240	47	5477	141
83	5477	249	55	5511	165
85	5473	255	61	5502	183
95	5501	285	68	5521	204
98	5510	294	79	5500	237

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5503	12	0	5506	0
22	5474	66	13	5497	39
35	5471	105	15	5461	45
38	5510	114	16	5475	48
57	5489	171	17	5462	51
82	5467	246	32	5487	96
94	5498	282	34	5473	102
--	--	--	38	5466	114
--	--	--	50	5480	150
--	--	--	64	5516	192
--	--	--	79	5478	237
--	--	--	83	5489	249
--	--	--	88	5482	264
--	--	--	89	5477	267

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5501	6	0	5469	0
6	5495	18	3	5491	9
7	5512	21	9	5474	27
8	5492	24	13	5507	39
9	5466	27	16	5487	48
15	5473	45	25	5481	75
30	5504	90	30	5495	90
47	5477	141	38	5499	114
50	5467	150	39	5510	117
66	5499	198	42	5497	126
80	5478	240	55	5493	165
88	5496	264	61	5471	183
90	5481	270	70	5480	210
97	5469	291	86	5478	258

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
1	5494	3	10	5494	30
5	5474	15	11	5483	33
8	5487	24	13	5479	39
12	5501	36	14	5477	42
23	5517	69	19	5509	57
26	5512	78	21	5482	63
34	5490	102	26	5497	78
39	5511	117	30	5476	90
40	5484	120	41	5528	123
51	5522	153	47	5523	141
53	5499	159	81	5487	243
57	5483	171	85	5507	255
65	5486	195	91	5529	273
87	5475	261	94	5474	282
90	5510	270	--	--	--
92	5482	276	--	--	--
93	5518	279	--	--	--
95	5491	285	--	--	--
97	5527	291	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5499	24	10	5478	30
14	5508	42	17	5494	51
37	5470	111	19	5479	57
77	5516	231	25	5499	75
91	5497	273	38	5507	114
95	5495	285	42	5493	126
--	--	--	53	5520	159
--	--	--	65	5527	195
--	--	--	80	5530	240
--	--	--	89	5506	267
--	--	--	96	5505	288
--	--	--	99	5474	297

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5493	9	6	5519	18
7	5475	21	7	5486	21
32	5494	96	17	5506	51
41	5471	123	36	5500	108
49	5478	147	44	5470	132
53	5474	159	46	5502	138
59	5524	177	57	5507	171
72	5527	216	65	5523	195
81	5489	243	78	5489	234
83	5496	249	84	5498	252
89	5473	267	89	5490	267
--	--	--	91	5477	273
--	--	--	95	5492	285

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5501	42	16	5499	48
18	5530	54	17	5489	51
19	5522	57	19	5485	57
23	5503	69	22	5500	66
43	5506	129	27	5498	81
59	5484	177	44	5512	132
61	5513	183	48	5526	144
65	5475	195	53	5520	159
74	5519	222	57	5480	171
85	5489	255	65	5490	195
88	5515	264	78	5511	234
94	5511	282	79	5479	237
--	--	--	87	5491	261
--	--	--	92	5481	276
--	--	--	97	5503	291

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5509	9	1	5470	3
20	5496	60	7	5483	21
24	5491	72	8	5484	24
28	5475	84	22	5518	66
31	5521	93	32	5478	96
32	5485	96	36	5479	108
33	5470	99	52	5511	156
34	5478	102	64	5507	192
40	5479	120	65	5493	195
49	5490	147	72	5520	216
65	5514	195	87	5473	261
66	5528	198	98	5521	294
68	5524	204	99	5480	297
69	5515	207	--	--	--
92	5498	276	--	--	--
93	5511	279	--	--	--
94	5519	282	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5517	12	3	5520	9
11	5499	33	4	5528	12
14	5505	42	17	5487	51
16	5501	48	26	5507	78
30	5484	90	29	5512	87
44	5507	132	44	5494	132
64	5498	192	45	5505	135
--	--	--	46	5531	138
--	--	--	55	5485	165
--	--	--	60	5488	180
--	--	--	61	5492	183
--	--	--	71	5481	213
--	--	--	72	5532	216
--	--	--	76	5533	228
--	--	--	78	5514	234
--	--	--	86	5530	258
--	--	--	90	5529	270
--	--	--	91	5511	273
--	--	--	95	5503	285
--	--	--	97	5527	291

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5497	6	5	5527	15
11	5503	33	11	5483	33
16	5480	48	12	5530	36
19	5523	57	21	5512	63
26	5502	78	25	5538	75
27	5514	81	31	5510	93
45	5498	135	41	5497	123
49	5524	147	44	5493	132
55	5483	165	64	5502	192
63	5509	189	70	5526	210
69	5528	207	79	5496	237
75	5490	225	92	5479	276
93	5517	279	--	--	--
94	5511	282	--	--	--
95	5512	285	--	--	--
98	5500	294	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5509	21	1	5494	3
21	5530	63	2	5516	6
33	5534	99	11	5524	33
34	5515	102	18	5533	54
38	5488	114	32	5515	96
54	5536	162	35	5482	105
58	5538	174	53	5531	159
62	5504	186	59	5481	177
67	5502	201	60	5538	180
79	5500	237	69	5493	207
--	--	--	74	5492	222
--	--	--	82	5534	246
--	--	--	97	5520	291

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5483	21	10	5486	30
17	5536	51	13	5539	39
20	5486	60	15	5501	45
37	5518	111	27	5496	81
48	5492	144	30	5530	90
50	5539	150	48	5519	144
51	5522	153	49	5505	147
56	5514	168	59	5493	177
60	5521	180	76	5490	228
64	5529	192	83	5534	249
72	5537	216	86	5503	258
73	5504	219	87	5527	261
75	5505	225	88	5512	264
76	5538	228	98	5533	294
81	5511	243	--	--	--
94	5532	282	--	--	--
95	5519	285	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5498	9	0	5532	0
4	5519	12	9	5486	27
9	5531	27	15	5530	45
10	5521	30	16	5502	48
28	5494	84	17	5524	51
34	5493	102	18	5519	54
36	5511	108	31	5516	93
53	5490	159	37	5514	111
54	5533	162	39	5501	117
55	5496	165	47	5513	141
56	5482	168	56	5479	168
64	5524	192	--	--	--

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/28
Test Item	Radar Statistical Performance Check (802.11ax-HE40 mode – 5510MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	1	918	58	1
2	5491	1	658	81	1
3	5491	1	858	62	1
4	5491	1	698	76	1
5	5500	1	538	99	1
6	5500	1	578	92	1
7	5500	1	798	67	1
8	5500	1	558	95	1
9	5509	1	818	65	1
10	5509	1	518	102	1
11	5509	1	838	63	1
12	5509	1	3066	18	1
13	5510	1	898	59	1
14	5510	1	638	83	1
15	5510	1	618	86	1
16	5510	1	2329	23	1
17	5510	1	647	82	1
18	5510	1	829	64	1
19	5511	1	2236	24	1
20	5511	1	2635	21	1
21	5511	1	2671	20	1
22	5511	1	1677	32	1
23	5520	1	2185	25	1
24	5520	1	1782	30	1
25	5520	1	734	72	1
26	5520	1	2896	19	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5529	1	589	90	1
28	5529	1	2430	22	1
29	5529	1	1040	51	1
30	5529	1	2161	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	5491	1.2	168	23	1
2	5491	1.1	164	23	1
3	5491	4.5	225	27	0
4	5491	4.9	196	28	0
5	5500	1.6	229	27	1
6	5500	4.8	202	29	1
7	5500	2.5	200	28	1
8	5500	4.1	224	23	1
9	5509	2.4	171	27	1
10	5509	1.0	169	25	1
11	5509	4.4	214	23	1
12	5509	3.8	186	23	1
13	5510	3.2	225	28	1
14	5510	3.7	178	25	1
15	5510	1.0	163	29	1
16	5510	4.4	163	25	1
17	5510	3.1	154	29	1
18	5510	2.7	171	29	1
19	5511	2.2	230	23	1
20	5511	1.0	196	24	1
21	5511	4.7	191	25	1
22	5511	3.0	166	24	1
23	5520	2.8	159	28	1
24	5520	1.4	176	26	1
25	5520	1.2	206	27	1
26	5520	2.0	150	25	1
27	5529	3.4	150	29	1
28	5529	2.3	165	29	1
29	5529	1.5	150	25	1
30	5529	4.5	186	27	1
Detection Percentage (%)					93.33%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	9.5	361	16	1
2	5491	9.9	365	16	1
3	5491	6.6	264	16	1
4	5491	9.8	493	17	1
5	5500	7.1	312	17	1
6	5500	9.6	264	16	1
7	5500	6.6	345	16	1
8	5500	7.0	317	16	1
9	5509	6.3	278	18	1
10	5509	6.5	402	16	1
11	5509	9.9	389	17	1
12	5509	7.5	437	16	1
13	5510	6.8	340	18	1
14	5510	8.5	307	18	1
15	5510	6.9	357	18	1
16	5510	6.8	273	17	1
17	5510	7.9	387	16	1
18	5510	8.5	396	18	1
19	5511	6.6	283	18	1
20	5511	7.2	267	17	1
21	5511	6.1	344	18	1
22	5511	6.7	380	17	1
23	5520	8.6	409	16	1
24	5520	7.8	301	16	1
25	5520	7.4	255	18	1
26	5520	9.2	485	17	1
27	5529	6.7	404	16	1
28	5529	7.9	370	18	1
29	5529	10.0	444	17	1
30	5529	8.0	414	17	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	13.3	270	12	1
2	5491	18.2	375	15	1
3	5491	13.6	436	14	0
4	5491	18.4	335	13	1
5	5500	14.5	413	14	1
6	5500	11.5	367	13	1
7	5500	13.9	412	14	1
8	5500	12.6	484	12	1
9	5509	12.3	365	15	1
10	5509	16.3	368	12	1
11	5509	16.8	324	14	1
12	5509	18.3	392	14	1
13	5510	14.8	258	14	0
14	5510	20.0	303	16	1
15	5510	16.9	327	12	1
16	5510	11.8	261	14	1
17	5510	16.4	452	14	1
18	5510	11.1	333	16	1
19	5511	15.2	383	12	1
20	5511	13.6	422	15	1
21	5511	19.6	432	14	1
22	5511	17.5	446	15	1
23	5520	18.1	343	12	1
24	5520	17.0	414	12	1
25	5520	19.7	349	12	1
26	5520	13.3	441	14	1
27	5529	13.7	367	14	1
28	5529	18.3	341	14	1
29	5529	14.3	391	13	1
30	5529	15.1	455	12	1
Detection Percentage (%)					93.33%

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

waveforms is as follows: $\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (100\% + 93.33\% + 100\% + 93.33\%) / 4 = 96.67\% (>80\%)$



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5496.6	1	16	5510.0	1
2	5495.0	1	17	5510.0	1
3	5493.4	1	18	5510.0	1
4	5493.0	1	19	5510.0	1
5	5494.2	1	20	5510.0	1
6	5494.6	1	21	5527.0	1
7	5497.8	1	22	5523.4	1
8	5495.8	1	23	5522.2	1
9	5498.6	1	24	5526.6	1
10	5498.2	1	25	5525.8	1
11	5510.0	1	26	5521.4	1
12	5510.0	1	27	5521.8	1
13	5510.0	1	28	5525.0	1
14	5510.0	1	29	5524.2	1
15	5510.0	1	30	5525.4	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	495037	1	14	90	1975	0	0	495037	0	666666
2	438792	2	14	80	1575	1258	0	935804	666667	1333333
3	722257	3	14	70	1229	1879	1174	1660894	1333334	2000000
4	620361	1	14	85	1434	0	0	2285537	2000001	2666667
5	526888	3	14	90	1715	1629	1051	2813859	2666668	3333334
6	840205	2	14	60	1872	1122	0	3658459	3333335	4000001
7	799752	3	14	75	1458	1871	1600	4461205	4000002	4666668
8	834820	3	14	50	1726	1977	1116	5300954	4666669	5333335
9	382475	3	14	80	1293	1132	1880	5688248	5333336	6000002
10	874102	3	14	85	1445	1677	1312	6566655	6000003	6666669
11	591733	2	14	70	1307	1029	0	7162822	6666670	7333336
12	341239	1	14	50	1600	0	0	7506397	7333337	8000003
13	923005	2	14	55	1232	1294	0	8431002	8000004	8666670
14	331210	3	14	85	1255	1012	1510	8764738	8666671	9333337
15	1019710	2	14	90	1120	1738	0	9788225	9333338	10000004
16	513248	2	14	85	1704	1379	0	10304331	10000005	10666671
17	386413	2	14	75	1127	1469	0	10693827	10666672	11333338
18	754524	3	14	65	1892	1906	1363	11450937	11333339	12000005

Total number of pulses in waveform = 41



Type 5 Radar Waveform_2

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	262326	2	10	80	1297	1063	0	262326	0	999999
2	1388183	3	10	95	1663	1691	1084	1652869	1000000	1999999
3	877955	1	10	60	1810	0	0	2535262	2000000	2999999
4	553741	1	10	75	1016	0	0	3090813	3000000	3999999
5	1229000	1	10	70	1332	0	0	4320829	4000000	4999999
6	782016	2	10	70	1590	1442	0	5104177	5000000	5999999
7	924495	1	10	75	1972	0	0	6031704	6000000	6999999
8	1775075	1	10	90	1577	0	0	7808751	7000000	7999999
9	1144837	1	10	55	1638	0	0	8955165	8000000	8999999
10	149417	2	10	85	1109	1319	0	9106220	9000000	9999999
11	1528117	2	10	55	1915	1085	0	10636765	10000000	10999999
12	476038	1	10	85	1311	0	0	11115803	11000000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	880709	2	6	50	1429	1083	0	880709	0	923076
2	674985	2	6	100	1439	1926	0	1558206	923077	1846153
3	309922	3	6	70	1599	1346	1602	1871493	1846154	2769230
4	901632	1	6	80	1957	0	0	2777672	2769231	3692307
5	1007290	2	6	100	1349	1763	0	3786919	3692308	4615384
6	1231301	1	6	60	1602	0	0	5021332	4615385	5538461
7	1334730	2	6	90	1879	1389	0	6357664	5538462	6461538
8	193793	3	6	60	1663	1478	1673	6554725	6461539	7384615
9	1702098	3	6	95	1137	1165	1094	8261637	7384616	8307692
10	275071	2	6	65	1536	1217	0	8540104	8307693	9230769
11	872104	2	6	70	1881	1271	0	9414961	9230770	10153846
12	900300	1	6	55	1108	0	0	10318413	10153847	11076923
13	1151050	1	6	95	1248	0	0	11470571	11076924	12000000

Total number of pulses in waveform = 25

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	274345	3	5	90	1636	1789	1239	274345	0	799999
2	1073775	1	5	55	1465	0	0	1352784	800000	1599999
3	612311	3	5	60	1996	1397	1098	1966560	1600000	2399999
4	485081	2	5	60	1234	1470	0	2456132	2400000	3199999
5	757185	1	5	65	1414	0	0	3216021	3200000	3999999
6	1409685	2	5	55	1842	1451	0	4627120	4000000	4799999
7	961633	3	5	80	1977	1733	1757	5592046	4800000	5599999
8	277144	3	5	75	1663	1931	1954	5874657	5600000	6399999
9	710954	3	5	60	1080	1215	1305	6591159	6400000	7199999
10	1258098	3	5	55	1474	1099	1517	7852857	7200000	7999999
11	218227	3	5	75	1068	1024	1929	8075174	8000000	8799999
12	927057	2	5	90	1691	1630	0	9006252	8800000	9599999
13	977953	3	5	85	1366	1276	1683	9987526	9600000	10399999
14	873185	3	5	75	1446	1742	1478	10865036	10400000	11199999
15	447440	3	5	85	1227	1276	1801	11317142	11200000	11999999

Total number of pulses in waveform = 38



Type 5 Radar Waveform_5

Num of Bursts = 20 Burst Interval (us)= 600000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	362818	3	8	70	1828	1630	1778	362818	0	599999	
2	258207	2	8	75	1901	1444	0	626261	600000	1199999	
3	778200	1	8	95	1407	0	0	1407806	1200000	1799999	
4	619508	3	8	60	1729	1528	1405	2028721	1800000	2399999	
5	788257	1	8	60	1523	0	0	2821640	2400000	2999999	
6	382634	2	8	50	1224	1752	0	3205797	3000000	3599999	
7	749021	2	8	75	1102	1789	0	3957794	3600000	4199999	
8	679698	2	8	65	1447	1644	0	4640383	4200000	4799999	
9	237608	3	8	90	1827	1577	1102	4881082	4800000	5399999	
10	711259	2	8	95	1202	1278	0	5596847	5400000	5999999	
11	678322	1	8	65	1867	0	0	6277649	6000000	6599999	
12	632513	1	8	100	1626	0	0	6912029	6600000	7199999	
13	608334	2	8	95	1806	1671	0	7521989	7200000	7799999	
14	455757	1	8	60	1517	0	0	7981223	7800000	8399999	
15	920665	1	8	65	1527	0	0	8903405	8400000	8999999	
16	270391	2	8	80	1345	1069	0	9175323	9000000	9599999	
17	834296	1	8	100	1423	0	0	10012033	9600000	10199999	
18	759054	3	8	80	1979	1568	1916	10772510	10200000	10799999	
19	613662	1	8	80	1156	0	0	11391635	10800000	11399999	
20	379919	1	8	75	1985	0	0	11772710	11400000	11999999	
Total number of pulses in waveform = 35 *****											

Type 5 Radar Waveform_6

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	258848	3	9	80	1785	1304	1362	258848	0	923076	
2	1485746	2	9	75	1212	1710	0	1749045	923077	1846153	
3	604231	3	9	90	1224	1518	1819	2356198	1846154	2769230	
4	525450	3	9	50	1630	1730	1458	2886209	2769231	3692307	
5	1409235	3	9	70	1318	1311	1591	4300262	3692308	4615384	
6	1206154	2	9	65	1484	1676	0	5510636	4615385	5538461	
7	765536	3	9	60	1945	1059	1892	6279332	5538462	6461538	
8	525128	1	9	55	1608	0	0	6809356	6461539	7384615	
9	1223131	3	9	75	1608	1758	1486	8034095	7384616	8307692	
10	434529	1	9	90	1081	0	0	8473476	8307693	9230769	
11	1406743	2	9	70	1844	1993	0	9881300	9230770	10153846	
12	1022446	1	9	55	1425	0	0	10907583	10153847	11076923	
13	1041175	3	9	90	1300	1320	1696	11950183	11076924	12000000	
Total number of pulses in waveform = 30 *****											

Type 5 Radar Waveform_7

Num of Bursts = 17 Burst Interval (us)= 705882											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	171534	1	17	50	1435	0	0	171534	0	705881	
2	1093183	2	17	70	1978	1360	0	1266152	705882	1411763	
3	482681	2	17	50	1189	1156	0	1752171	1411764	2117645	
4	430022	1	17	80	1175	0	0	2184538	2117646	2823527	
5	1097556	2	17	90	1316	1532	0	3283269	2823528	3529409	
6	640475	1	17	100	1547	0	0	3926592	3529410	4235291	
7	802574	1	17	55	1977	0	0	4730713	4235292	4941173	
8	256223	2	17	65	1750	1145	0	4988913	4941174	5647055	
9	856741	1	17	55	1661	0	0	5848549	5647056	6352937	
10	1134918	3	17	75	1041	1082	1633	6985128	6352938	7058819	
11	389657	2	17	60	1067	1209	0	7378541	7058820	7764701	
12	729362	2	17	90	1936	1046	0	8110179	7764702	8470583	
13	759925	1	17	80	1313	0	0	8873086	8470584	9176465	
14	441957	3	17	50	1082	1253	1745	9316356	9176466	9882347	
15	1121183	1	17	100	1154	0	0	10441619	9882348	10588229	
16	597387	2	17	60	1930	1457	0	11040160	10588230	11294111	
17	557502	3	17	50	1315	1319	1376	11601049	11294112	11999993	
Total number of pulses in waveform = 30 *****											



Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	213332	3	12	100	1961	1746	1512	213332	0	749999
2	913724	2	12	95	1588	1023	0	1132275	750000	1499999
3	639492	3	12	65	1165	1216	1031	1774378	1500000	2249999
4	610211	3	12	95	1309	1460	1331	2388001	2250000	2999999
5	721684	3	12	55	1756	1856	1254	3113785	3000000	3749999
6	1142594	2	12	55	1592	1291	0	4261245	3750000	4499999
7	593427	3	12	50	1239	1844	1917	4857555	4500000	5249999
8	623753	1	12	85	1044	0	0	5486308	5250000	5999999
9	1040919	1	12	65	1669	0	0	6528271	6000000	6749999
10	447674	2	12	55	1102	1891	0	6977614	6750000	7499999
11	582834	2	12	95	1901	1208	0	7563441	7500000	8249999
12	1215531	1	12	80	1590	0	0	8782081	8250000	8999999
13	514463	3	12	65	1851	1734	1197	9298134	9000000	9749999
14	889431	1	12	85	1294	0	0	10192347	9750000	10499999
15	619049	3	12	90	1693	1151	1860	10812690	10500000	11249999
16	868479	3	12	60	1191	1282	1396	11685873	11250000	11999999

Total number of pulses in waveform = 36

Type 5 Radar Waveform_9

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	632754	2	19	55	1808	1060	0	632754	0	923076
2	334480	2	19	90	1534	1223	0	970102	923077	1846153
3	1097541	1	19	55	1066	0	0	2070400	1846154	2769230
4	895610	1	19	75	1044	0	0	2967076	2769231	3692307
5	924150	1	19	75	1205	0	0	3892270	3692308	4615384
6	1561197	1	19	70	1450	0	0	5454672	4615385	5538461
7	876623	1	19	85	1927	0	0	6332745	5538462	6461538
8	696225	3	19	60	1999	1372	1036	7030897	6461539	7384615
9	526323	1	19	100	1292	0	0	7561627	7384616	8307692
10	1578458	1	19	55	1031	0	0	9141377	8307693	9230769
11	476552	1	19	60	1789	0	0	9618960	9230770	10153846
12	1150897	2	19	75	1455	1810	0	10771646	10153847	11076923
13	983729	3	19	80	1323	1199	1901	11758640	11076924	12000000

Total number of pulses in waveform = 20

Type 5 Radar Waveform_10

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	813241	2	18	60	1992	1817	0	813241	0	1199999
2	803153	1	18	70	1399	0	0	1620203	1200000	2399999
3	1470442	1	18	50	1162	0	0	3092044	2400000	3599999
4	667723	2	18	55	1495	1319	0	3760929	3600000	4799999
5	2195137	3	18	60	1879	1166	1976	5958880	4800000	5999999
6	1111620	2	18	90	1882	1059	0	7075521	6000000	7199999
7	248984	2	18	65	1508	1064	0	7327446	7200000	8399999
8	1123872	2	18	50	1730	1555	0	8453890	8400000	9599999
9	2238391	3	18	90	1199	1502	1012	10695566	9600000	10799999
10	119796	3	18	70	1241	1777	1052	10819075	10800000	11999999

Total number of pulses in waveform = 21



Type 5 Radar Waveform_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	598538	1	14	55	1284	0	0	598538	0	1199999
2	1234181	3	14	90	1404	1459	1683	1834003	1200000	2399999
3	1030072	2	14	80	1414	1335	0	2868621	2400000	3599999
4	802901	1	14	65	1019	0	0	3674271	3600000	4799999
5	2125151	3	14	55	1962	1859	1885	5800441	4800000	5999999
6	1031563	1	14	100	1913	0	0	6837710	6000000	7199999
7	386469	3	14	90	1516	1117	1091	7226092	7200000	8399999
8	2361403	1	14	70	1650	0	0	9591219	8400000	9599999
9	37537	1	14	60	1350	0	0	9630406	9600000	10799999
10	1784091	3	14	95	1036	1825	1355	11415847	10800000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_12

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	181711	1	17	70	1652	0	0	181711	0	1199999
2	1929766	2	17	75	1244	1309	0	2113129	1200000	2399999
3	1322239	1	17	55	1176	0	0	3437921	2400000	3599999
4	445093	3	17	70	1100	1890	1887	3884190	3600000	4799999
5	1622538	3	17	50	1168	1389	1589	5511605	4800000	5999999
6	721001	1	17	80	1282	0	0	6236752	6000000	7199999
7	1409831	1	17	80	1420	0	0	7647865	7200000	8399999
8	1569693	1	17	60	1917	0	0	9218978	8400000	9599999
9	413951	1	17	95	1537	0	0	9634846	9600000	10799999
10	1641761	1	17	100	1560	0	0	11278144	10800000	11999999

Total number of pulses in waveform = 15

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	370987	2	10	50	1670	1836	0	370987	0	631578
2	650500	1	10	50	1498	0	0	1024693	631579	1263157
3	301947	3	10	60	1412	1839	1455	1328438	1263158	1894736
4	1007369	1	10	90	1427	0	0	2340513	1894737	2526315
5	619189	3	10	100	1792	1832	1826	2961129	2526316	3157894
6	733534	3	10	75	1159	1699	1882	3700113	3157895	3789473
7	99913	2	10	85	1228	1206	0	3804766	3789474	4421052
8	808442	1	10	95	1031	0	0	4615642	4421053	5052631
9	758696	1	10	85	1975	0	0	5375369	5052632	5684210
10	912805	3	10	55	1954	1829	1763	6290149	5684211	6315789
11	29801	1	10	65	1021	0	0	6325496	6315790	6947368
12	913852	1	10	50	1296	0	0	7240369	6947369	7578947
13	747468	2	10	95	1573	1699	0	7989133	7578948	8210526
14	395829	3	10	95	1286	1380	1519	8388234	8210527	8842105
15	1072374	1	10	50	1445	0	0	9464793	8842106	9473684
16	613703	3	10	90	1233	1577	1568	10079941	9473685	10105263
17	592237	2	10	85	1797	1561	0	10676556	10105264	10736842
18	532613	1	10	95	1401	0	0	11212527	10736843	11368421
19	182889	1	10	75	1812	0	0	11396817	11368422	12000000

Total number of pulses in waveform = 35



Type 5 Radar Waveform_14

Num of Bursts = 17 Burst Interval (us)= 705882										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	493670	2	8	85	1076	1541	0	493670	0	705881
2	741354	3	8	90	1602	1493	1624	1237641	705882	1411763
3	734448	3	8	90	1669	1076	1335	1976808	1411764	2117645
4	332454	2	8	90	1714	1529	0	2313342	2117646	2823527
5	1034402	3	8	90	1487	1325	1920	3350987	2823528	3529409
6	545102	2	8	60	1518	1145	0	3900821	3529410	4235291
7	942035	1	8	85	1679	0	0	4845519	4235292	4941173
8	751470	2	8	85	1273	1165	0	5598668	4941174	5647055
9	739809	3	8	70	1361	1160	1543	6340915	5647056	6352937
10	646595	1	8	50	1945	0	0	6991574	6352938	7058819
11	643384	2	8	70	1493	1875	0	7636903	7058820	7764701
12	792920	2	8	90	1131	1791	0	8433191	7764702	8470583
13	677584	2	8	85	1717	1814	0	9113697	8470584	9176465
14	455532	2	8	50	1275	1766	0	9572760	9176466	9882347
15	427925	3	8	55	1121	1656	1979	10003726	9882348	10588229
16	642113	1	8	100	1985	0	0	10650595	10588230	11294111
17	1325559	2	8	85	1215	1807	0	11978139	11294112	11999993
Total number of pulses in waveform = 36 *****										

Type 5 Radar Waveform_15

Num of Bursts = 14 Burst Interval (us)= 857143										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	354410	3	18	100	1356	1161	1398	354410	0	857142
2	678920	1	18	55	1385	0	0	1037245	857143	1714285
3	778940	3	18	50	1382	1866	1682	1817570	1714286	2571428
4	843986	1	18	80	1012	0	0	2666486	2571429	3428571
5	1283012	2	18	95	1507	1982	0	3950510	3428572	4285714
6	846785	1	18	75	1164	0	0	4800784	4285715	5142857
7	973486	3	18	60	1471	1584	1636	5775434	5142858	6000000
8	642622	1	18	95	1543	0	0	6422747	6000001	6857143
9	711928	3	18	65	1349	1878	1724	7136218	6857144	7714286
10	641983	3	18	100	1023	1884	1934	7783152	7714287	8571429
11	885080	1	18	75	1639	0	0	8673073	8571430	9428572
12	1058549	2	18	70	1198	1175	0	9733261	9428573	10285715
13	901579	2	18	90	1007	1264	0	10637213	10285716	11142858
14	997449	3	18	70	1722	1597	1864	11636933	11142859	12000001
Total number of pulses in waveform = 29 *****										

Type 5 Radar Waveform_16

Num of Bursts = 13 Burst Interval (us)= 923077										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	395233	2	12	100	1834	1753	0	395233	0	923076
2	699853	1	12	55	1249	0	0	1098673	923077	1846153
3	752527	3	12	60	1087	1727	1107	1852449	1846154	2769230
4	1728774	2	12	50	1604	1792	0	3585144	2769231	3692307
5	205234	1	12	50	1630	0	0	3793774	3692308	4615384
6	1162599	2	12	65	1326	1512	0	4958003	4615385	5538461
7	882670	3	12	90	1165	1232	1879	5843511	5538462	6461538
8	922038	3	12	70	1346	1512	1386	6769825	6461539	7384615
9	1004627	3	12	90	1948	1999	1108	7778696	7384616	8307692
10	1444213	1	12	65	1642	0	0	9227964	8307693	9230769
11	117710	1	12	75	1625	0	0	9347316	9230770	10153846
12	1338556	1	12	70	1665	0	0	10687497	10153847	11076923
13	940450	2	12	95	1655	1584	0	11629612	11076924	12000000
Total number of pulses in waveform = 25 *****										



Type 5 Radar Waveform_17

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	582559	1	19	80	1343	0	0	582559	0	923076
2	1021954	3	19	90	1150	1312	1523	1605856	923077	1846153
3	448188	3	19	75	1686	1199	1205	2058029	1846154	2769230
4	770853	3	19	95	1301	1798	1137	2832972	2769231	3692307
5	1654199	1	19	65	1580	0	0	4491407	3692308	4615384
6	913330	2	19	90	1136	1716	0	5406317	4615385	5538461
7	136041	1	19	80	1584	0	0	5545210	5538462	6461538
8	1523994	2	19	70	1730	1786	0	7070788	6461539	7384615
9	1182212	1	19	95	1151	0	0	8256516	7384616	8307692
10	286271	3	19	80	1448	1255	1190	8543938	8307693	9230769
11	756975	2	19	100	1076	1967	0	9304806	9230770	10153846
12	1377460	1	19	75	1637	0	0	10685309	10153847	11076923
13	1262339	1	19	60	1170	0	0	11949285	11076924	12000000

Total number of pulses in waveform = 24

Type 5 Radar Waveform_18

Num of Bursts = 20

Burst Interval (us)= 600000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	218055	1	9	75	1731	0	0	218055	0	599999
2	496313	2	9	60	1004	1701	0	716099	600000	1199999
3	867147	1	9	100	1247	0	0	1585951	1200000	1799999
4	782264	1	9	90	1784	0	0	2369462	1800000	2399999
5	109876	2	9	95	1639	1259	0	2481121	2400000	2999999
6	712447	2	9	90	1527	1541	0	3196466	3000000	3599999
7	577376	1	9	80	1707	0	0	3776910	3600000	4199999
8	667944	1	9	50	1726	0	0	4446561	4200000	4799999
9	867097	2	9	75	1173	1148	0	5315384	4800000	5399999
10	583175	2	9	70	1383	1652	0	5900880	5400000	5999999
11	563872	2	9	95	1621	1783	0	6467787	6000000	6599999
12	594972	1	9	60	1515	0	0	7066163	6600000	7199999
13	163530	2	9	100	1545	1070	0	7231208	7200000	7799999
14	839647	3	9	80	1411	1114	1367	8073470	7800000	8399999
15	449609	3	9	60	1722	1051	1764	8526971	8400000	8999999
16	753296	1	9	55	1840	0	0	9284804	9000000	9599999
17	424712	1	9	100	1668	0	0	9711356	9600000	10199999
18	622736	1	9	60	1416	0	0	10335760	10200000	10799999
19	732562	1	9	70	1908	0	0	11069738	10800000	11399999
20	827091	2	9	100	1416	1384	0	11898737	11400000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_19

Num of Bursts = 13

Burst Interval (us)= 923077

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	349069	1	6	50	1376	0	0	349069	0	923076
2	944639	2	6	75	1877	1889	0	1295084	923077	1846153
3	1073243	2	6	65	1571	1049	0	2372093	1846154	2769230
4	525159	1	6	80	1564	0	0	2899872	2769231	3692307
5	1343717	2	6	75	1114	1573	0	4245153	3692308	4615384
6	443809	3	6	100	1724	1353	1311	4691649	4615385	5538461
7	1187221	1	6	65	1274	0	0	5883258	5538462	6461538
8	633361	3	6	85	1288	1843	1038	6517893	6461539	7384615
9	1709855	2	6	75	1512	1788	0	8231917	7384616	8307692
10	718551	2	6	100	1361	1780	0	8953768	8307693	9230769
11	899064	3	6	80	1505	1130	1681	9855973	9230770	10153846
12	1192506	3	6	65	1734	1102	1601	11052795	10153847	11076923
13	345979	1	6	80	1637	0	0	11403211	11076924	12000000

Total number of pulses in waveform = 26



Type 5 Radar Waveform_20

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	348485	2	5	95	1649	1996	0	348485	0	799999
2	1080156	2	5	70	1384	1063	0	1432286	800000	1599999
3	734078	3	5	50	1216	1709	1809	2168811	1600000	2399999
4	700141	2	5	85	1338	1196	0	2873686	2400000	3199999
5	830958	1	5	85	1307	0	0	3707178	3200000	3999999
6	444445	1	5	80	1615	0	0	4152930	4000000	4799999
7	1260200	2	5	65	1063	1413	0	5414745	4800000	5599999
8	225583	1	5	50	1994	0	0	5642804	5600000	6399999
9	1062069	2	5	80	1246	1254	0	6706867	6400000	7199999
10	1283820	3	5	80	1115	1049	1167	7993187	7200000	7999999
11	63998	1	5	65	1379	0	0	8060516	8000000	8799999
12	1352133	2	5	55	1706	1188	0	9414028	8800000	9599999
13	579997	3	5	90	1225	1372	1370	9996919	9600000	10399999
14	623433	2	5	60	1114	1939	0	10624319	10400000	11199999
15	1083605	3	5	95	1281	1811	1428	11710977	11200000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_21

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	737655	2	5	95	1527	1118	0	737655	0	857142
2	770135	3	5	85	1034	1767	1285	1510435	857143	1714285
3	996354	2	5	70	1015	1447	0	2510875	1714286	2571428
4	309441	1	5	80	1599	0	0	2822778	2571429	3428571
5	952662	3	5	50	1380	1937	1778	3777039	3428572	4285714
6	1092962	3	5	55	1844	1225	1934	4875096	4285715	5142857
7	892727	2	5	50	1360	1870	0	5772826	5142858	6000000
8	235377	1	5	100	1185	0	0	6011433	6000001	6857143
9	1011434	1	5	80	1927	0	0	7024052	6857144	7714286
10	1238778	2	5	70	1133	1558	0	8264757	7714287	8571429
11	1011641	2	5	80	1068	1771	0	9279089	8571430	9428572
12	172289	3	5	60	1263	1160	1610	9454217	9428573	10285715
13	1670277	3	5	80	1410	1645	1941	11128527	10285716	11142858
14	376508	1	5	95	1045	0	0	11510031	11142859	12000001

Total number of pulses in waveform = 29

Type 5 Radar Waveform_22

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	541313	1	14	95	1518	0	0	541313	0	1333332
2	1595524	1	14	50	1936	0	0	2138355	1333333	2666665
3	1233023	2	14	90	1866	1499	0	3373314	2666666	3999998
4	1438610	1	14	50	1765	0	0	4815289	3999999	5333331
5	1452719	2	14	95	1205	1847	0	6269773	5333332	6666664
6	804648	1	14	60	1817	0	0	7077473	6666665	7999997
7	1732990	3	14	90	1706	1046	1558	8812280	7999998	9333330
8	1014935	1	14	95	1330	0	0	9831525	9333331	10666663
9	1238081	2	14	75	1604	1034	0	11070936	10666664	11999996

Total number of pulses in waveform = 14



Type 5 Radar Waveform_23

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	180847	2	17	60	1761	1067	0	180847	0	705881
2	525278	1	17	55	1111	0	0	708953	705882	1411763
3	1215621	3	17	65	1408	1625	1150	1925685	1411764	2117645
4	257156	2	17	60	1478	1873	0	2187024	2117646	2823527
5	1158125	2	17	70	1621	1278	0	3348500	2823528	3529409
6	372175	3	17	100	1474	1636	1303	3723574	3529410	4235291
7	615309	1	17	50	1564	0	0	4343296	4235292	4941173
8	769512	3	17	60	1940	1211	1403	5114372	4941174	5647055
9	859077	1	17	75	1896	0	0	5978003	5647056	6352937
10	477550	2	17	90	1585	1912	0	6457449	6352938	7058819
11	942759	1	17	95	1675	0	0	7403705	7058820	7764701
12	425443	1	17	55	1863	0	0	7830823	7764702	8470583
13	751794	1	17	75	1023	0	0	8584480	8470584	9176465
14	934861	3	17	85	1972	1562	1451	9520364	9176466	9882347
15	726994	1	17	60	1787	0	0	10252343	9882348	10588229
16	553031	2	17	65	1861	1710	0	10807161	10588230	11294111
17	777074	3	17	70	1133	1889	1661	11587806	11294112	11999993
Total number of pulses in waveform = 32 *****										

Type 5 Radar Waveform_24

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	588370	1	6	100	1098	0	0	588370	0	749999
2	199012	1	6	95	1359	0	0	788480	750000	1499999
3	1003622	2	6	80	1770	1749	0	1793461	1500000	2249999
4	1010410	2	6	55	1115	1151	0	2807390	2250000	2999999
5	820338	1	6	75	1822	0	0	3629994	3000000	3749999
6	517810	1	6	65	1727	0	0	4149626	3750000	4499999
7	828358	3	6	60	1895	1541	1394	4979711	4500000	5249999
8	952184	3	6	60	1099	1218	1051	5936725	5250000	5999999
9	669482	2	6	100	1284	1449	0	6609575	6000000	6749999
10	655881	3	6	95	1203	1120	1392	7268189	6750000	7499999
11	875793	3	6	80	1648	1610	1014	8147697	7500000	8249999
12	610816	1	6	55	1558	0	0	8762785	8250000	8999999
13	476626	1	6	95	1208	0	0	9240969	9000000	9749999
14	1222077	2	6	80	1427	1273	0	10464254	9750000	10499999
15	64935	2	6	90	1644	1414	0	10531889	10500000	11249999
16	1075452	1	6	75	1083	0	0	11610399	11250000	11999999
Total number of pulses in waveform = 29 *****										

Type 5 Radar Waveform_25

Num of Bursts = 16 Burst Interval (us)= 750000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	602243	3	8	80	1881	1255	1609	602243	0	749999
2	608712	2	8	75	1264	1021	0	1215700	750000	1499999
3	701377	2	8	75	1053	1243	0	1919362	1500000	2249999
4	774524	3	8	70	1600	1116	1779	2696182	2250000	2999999
5	703834	2	8	90	1831	1196	0	3404511	3000000	3749999
6	761007	2	8	85	1683	1728	0	4168545	3750000	4499999
7	475321	3	8	95	1166	1508	1393	4647277	4500000	5249999
8	877681	3	8	55	1980	1928	1119	5529025	5250000	5999999
9	1109961	1	8	95	1642	0	0	6644013	6000000	6749999
10	831673	2	8	80	1688	1181	0	7477328	6750000	7499999
11	335486	3	8	80	1534	1307	1980	7815683	7500000	8249999
12	921345	2	8	70	1673	1538	0	8741849	8250000	8999999
13	771497	2	8	80	1150	1963	0	9516557	9000000	9749999
14	352271	3	8	100	1676	1184	1510	9871941	9750000	10499999
15	949677	3	8	95	1487	1092	1321	10825988	10500000	11249999
16	699605	3	8	85	1537	1667	1229	11529493	11250000	11999999
Total number of pulses in waveform = 39 *****										



Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	18519	2	19	55	1380	1020	0	18519	0	999999
2	1384355	3	19	50	1896	1595	1812	1405274	1000000	1999999
3	610449	1	19	90	1757	0	0	2021026	2000000	2999999
4	1221727	1	19	70	1863	0	0	3244510	3000000	3999999
5	1598614	3	19	80	1038	1906	1844	4844987	4000000	4999999
6	579860	1	19	65	1460	0	0	5429635	5000000	5999999
7	1283635	1	19	100	1191	0	0	6714730	6000000	6999999
8	976288	2	19	50	1355	1030	0	7692209	7000000	7999999
9	412142	1	19	95	1566	0	0	8106736	8000000	8999999
10	1488233	1	19	60	1785	0	0	9596535	9000000	9999999
11	461487	3	19	85	1005	1423	1481	10059807	10000000	10999999
12	1901533	3	19	65	1273	1795	1908	11965249	11000000	11999999

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	349596	2	18	70	1841	1767	0	349596	0	749999
2	1042934	2	18	55	1647	1387	0	1396138	750000	1499999
3	267025	1	18	95	1700	0	0	1666197	1500000	2249999
4	662914	3	18	100	1191	1164	1362	2330811	2250000	2999999
5	1131800	3	18	55	1563	1386	1745	3466328	3000000	3749999
6	558672	3	18	75	1565	1218	1048	4029694	3750000	4499999
7	1001033	2	18	90	1703	1494	0	5034558	4500000	5249999
8	423000	1	18	90	1933	0	0	5460755	5250000	5999999
9	955073	1	18	90	1185	0	0	6417761	6000000	6749999
10	644584	1	18	80	1221	0	0	7063530	6750000	7499999
11	452571	2	18	75	1679	1343	0	7517322	7500000	8249999
12	1044101	1	18	95	1701	0	0	8564445	8250000	8999999
13	505305	1	18	65	1010	0	0	9071451	9000000	9749999
14	1077759	2	18	85	1728	1518	0	10150220	9750000	10499999
15	410416	2	18	55	1941	1919	0	10563882	10500000	11249999
16	746765	3	18	80	1966	1906	1815	11314507	11250000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_28

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	448029	3	10	70	1500	1620	1223	448029	0	631578
2	710817	3	10	85	1902	1121	1167	1163189	631579	1263157
3	257405	2	10	55	1064	1996	0	1424784	1263158	1894736
4	618300	3	10	90	1957	1735	1671	2046144	1894737	2526315
5	1016365	3	10	70	1125	1201	1919	3067872	2526316	3157894
6	191842	3	10	65	1262	1098	1117	3263959	3157895	3789473
7	1059834	2	10	100	1466	1179	0	4327270	3789474	4421052
8	679492	3	10	50	1629	1948	1162	5009407	4421053	5052631
9	74956	2	10	80	1663	1550	0	5089102	5052632	5684210
10	1052989	3	10	90	1331	1988	1293	6145304	5684211	6315789
11	289553	3	10	90	1339	1137	1877	6439469	6315790	6947368
12	1113904	3	10	75	1546	1320	1734	7557726	6947369	7578947
13	19444	3	10	60	1792	1592	1956	7581770	7578948	8210526
14	636024	1	10	70	1888	0	0	8223134	8210527	8842105
15	1195183	3	10	65	1829	1653	1003	9420205	8842106	9473684
16	437778	3	10	55	1866	1710	1645	9862468	9473685	10105263
17	582358	3	10	90	1587	1488	1042	10450047	10105264	10736842
18	431677	3	10	65	1882	1714	1849	10885841	10736843	11368421
19	639822	2	10	95	1177	1213	0	11531108	11368422	12000000

Total number of pulses in waveform = 51



Type 5 Radar Waveform_29

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	673644	2	12	100	1757	1669	0	366537	0	599999
2	353039	3	12	70	1000	1839	1285	1043607	600000	1199999
3	439846	3	12	70	1614	1468	1044	1400770	1200000	1799999
4	607695	1	12	65	1826	0	0	1844742	1800000	2399999
5	985958	3	12	50	1656	1255	1696	2454163	2400000	2999999
6	443503	2	12	60	1401	1347	0	3444728	3000000	3599999
7	659567	1	12	75	1337	0	0	3890979	3600000	4199999
8	477466	2	12	55	1696	1400	0	4551883	4200000	4799999
9	885378	1	12	90	1025	0	0	5032445	4800000	5399999
10	546522	1	12	65	1726	0	0	5918848	5400000	5999999
11	408182	2	12	70	1076	1131	0	6467096	6000000	6599999
12	567760	1	12	75	1914	0	0	6877485	6600000	7199999
13	678253	2	12	70	1392	1229	0	7447159	7200000	7799999
14	753572	2	12	55	1287	1010	0	8128033	7800000	8399999
15	183699	3	12	50	1820	1155	1758	8883902	8400000	8999999
16	852927	3	12	90	1834	1679	1557	9072334	9000000	9599999
17	895168	2	12	85	1584	1772	0	9930331	9600000	10199999
18	497428	2	12	100	1446	1225	0	10768855	10200000	10799999
19	137549	1	12	50	1139	0	0	11268954	10800000	11399999
20	137549	1	12	65	1595	0	0	11407642	11400000	11999999
Total number of pulses in waveform = 38 *****										

Type 5 Radar Waveform_30

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	249893	3	9	55	1061	1817	1558	249893	0	999999
2	1637210	2	9	90	1493	1415	0	1891539	1000000	1999999
3	545323	2	9	60	1064	1278	0	2439770	2000000	2999999
4	648544	3	9	75	1826	1320	1214	3090656	3000000	3999999
5	1281048	3	9	90	1298	1332	1950	4376064	4000000	4999999
6	1334309	3	9	75	1296	1417	1777	5714953	5000000	5999999
7	341287	1	9	80	1847	0	0	6060730	6000000	6999999
8	1587274	2	9	60	1544	1357	0	7649851	7000000	7999999
9	921600	3	9	80	1827	1634	1329	8574352	8000000	8999999
10	1109845	3	9	70	1615	1674	1051	9688987	9000000	9999999
11	1116883	1	9	95	1347	0	0	10810210	10000000	10999999
12	245052	3	9	55	1978	1917	1085	11056609	11000000	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	5491	1	16	5510	1
2	5491	1	17	5510	1
3	5491	1	18	5510	1
4	5491	1	19	5511	1
5	5500	1	20	5511	1
6	5500	1	21	5511	1
7	5500	1	22	5511	1
8	5500	1	23	5520	1
9	5509	1	24	5520	1
10	5509	1	25	5520	1
11	5509	1	26	5520	1
12	5509	1	27	5529	1
13	5510	1	28	5529	1
14	5510	1	29	5529	1
15	5510	1	30	5529	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	5468	27	4	5514	12
16	5477	48	12	5503	36
21	5520	63	20	5488	60
22	5467	66	26	5490	78
29	5503	87	38	5474	114
32	5484	96	39	5472	117
34	5486	102	51	5515	153
57	5488	171	58	5508	174
70	5470	210	66	5497	198
72	5505	216	68	5521	204
81	5489	243	69	5520	207
84	5497	252	86	5519	258
88	5518	264	89	5470	267
97	5481	291	90	5477	270
--	--	--	97	5481	291
--	--	--	98	5480	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5498	51	4	5466	12
20	5487	60	18	5517	54
24	5496	72	23	5462	69
25	5474	75	24	5474	72
28	5473	84	29	5495	87
48	5470	144	31	5479	93
58	5508	174	34	5507	102
65	5516	195	58	5485	174
69	5485	207	61	5463	183
72	5475	216	65	5513	195
73	5500	219	71	5475	213
75	5501	225	83	5471	249
81	5483	243	85	5511	255
90	5523	270	86	5521	258
--	--	--	89	5490	267

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5490	6	3	5479	9
20	5516	60	13	5520	39
22	5499	66	33	5529	99
24	5478	72	43	5515	129
27	5472	81	51	5470	153
37	5525	111	70	5508	210
47	5493	141	87	5480	261
53	5489	159	97	5473	291
76	5484	228	98	5528	294
78	5530	234	--	--	--
80	5481	240	--	--	--
88	5503	264	--	--	--
98	5524	294	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5509	3	8	5497	24
2	5487	6	14	5488	42
22	5526	66	23	5513	69
25	5490	75	25	5505	75
30	5529	90	32	5515	96
34	5504	102	36	5483	108
37	5471	111	39	5478	117
38	5524	114	42	5498	126
40	5479	120	74	5510	222
41	5510	123	75	5482	225
80	5525	240	88	5517	264
82	5511	246	92	5492	276
92	5522	276	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5510	9	6	5526	18
20	5526	60	9	5531	27
25	5528	75	11	5518	33
27	5508	81	20	5523	60
42	5509	126	29	5487	87
55	5517	165	30	5501	90
74	5488	222	36	5522	108
75	5483	225	39	5492	117
81	5533	243	42	5479	126
--	--	--	64	5490	192
--	--	--	70	5514	210
--	--	--	73	5481	219
--	--	--	74	5532	222
--	--	--	75	5483	225
--	--	--	78	5484	234
--	--	--	82	5496	246
--	--	--	89	5527	267
--	--	--	91	5517	273
--	--	--	98	5513	294

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5483	3	0	5538	0
3	5490	9	7	5518	21
4	5514	12	8	5486	24
12	5489	36	24	5534	72
17	5501	51	25	5511	75
20	5488	60	48	5526	144
21	5529	63	76	5515	228
24	5521	72	80	5497	240
30	5522	90	85	5482	255
34	5508	102	87	5505	261
36	5504	108	97	5539	291
41	5491	123	98	5512	294
46	5519	138	--	--	--
48	5493	144	--	--	--
51	5524	153	--	--	--
54	5496	162	--	--	--
57	5531	171	--	--	--
80	5525	240	--	--	--
87	5513	261	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5511	0	12	5501	36
6	5532	18	21	5488	63
10	5480	30	23	5522	69
19	5529	57	26	5505	78
27	5523	81	34	5508	102
30	5495	90	39	5538	117
34	5526	102	47	5485	141
43	5498	129	75	5489	225
44	5503	132	79	5487	237
49	5534	147	83	5482	249
50	5510	150	--	--	--
59	5509	177	--	--	--
64	5521	192	--	--	--
74	5533	222	--	--	--
94	5520	282	--	--	--
96	5497	288	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5499	45	1	5522	3
19	5491	57	9	5493	27
35	5515	105	11	5492	33
43	5536	129	12	5489	36
48	5513	144	17	5498	51
55	5500	165	19	5527	57
65	5538	195	42	5494	126
76	5488	228	47	5501	141
85	5518	255	48	5485	144
88	5497	264	54	5529	162
98	5520	294	60	5496	180
--	--	--	81	5533	243
--	--	--	84	5514	252
--	--	--	90	5504	270

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5524	0	6	5508	18
4	5509	12	16	5529	48
11	5533	33	27	5536	81
18	5517	54	28	5500	84
19	5535	57	34	5534	102
39	5488	117	45	5484	135
45	5505	135	57	5527	171
55	5512	165	71	5487	213
58	5528	174	72	5497	216
61	5527	183	76	5516	228
64	5495	192	81	5488	243
78	5492	234	87	5496	261
84	5539	252	91	5513	273
90	5491	270	93	5526	279
95	5487	285	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5537	0	3	5494	9
6	5499	18	4	5503	12
11	5482	33	5	5492	15
12	5492	36	15	5508	45
34	5525	102	17	5529	51
48	5498	144	21	5536	63
49	5502	147	27	5513	81
62	5505	186	35	5502	105
66	5506	198	43	5489	129
71	5539	213	48	5501	144
87	5519	261	54	5484	162
94	5529	282	57	5517	171
--	--	--	73	5530	219
--	--	--	82	5527	246
--	--	--	94	5509	282
--	--	--	97	5519	291
--	--	--	99	5496	297

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5534	39	0	5528	0
15	5513	45	5	5513	15
18	5515	54	15	5503	45
48	5495	144	16	5486	48
55	5517	165	21	5535	63
60	5491	180	28	5533	84
64	5520	192	29	5488	87
74	5532	222	32	5521	96
81	5503	243	46	5525	138
93	5511	279	51	5518	153
99	5531	297	57	5532	171
--	--	--	58	5526	174
--	--	--	61	5511	183
--	--	--	63	5499	189
--	--	--	71	5493	213
--	--	--	91	5515	273
--	--	--	92	5517	276
--	--	--	97	5497	291

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5529	33	14	5539	42
12	5547	36	17	5530	51
19	5531	57	18	5499	54
27	5518	81	25	5518	75
28	5519	84	29	5547	87
42	5521	126	36	5526	108
54	5522	162	46	5504	138
60	5549	180	64	5509	192
68	5497	204	74	5540	222
75	5530	225	--	--	--
78	5544	234	--	--	--
85	5540	255	--	--	--
87	5499	261	--	--	--
91	5535	273	--	--	--
93	5537	279	--	--	--
94	5496	282	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5500	9	0	5498	0
12	5494	36	7	5534	21
26	5532	78	12	5550	36
27	5519	81	16	5524	48
50	5513	150	17	5497	51
55	5509	165	32	5539	96
59	5529	177	35	5516	105
65	5495	195	62	5529	186
68	5527	204	64	5542	192
87	5528	261	66	5546	198
89	5491	267	76	5548	228
91	5517	273	80	5547	240
94	5504	282	86	5503	258
--	--	--	91	5535	273

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5552	3	1	5552	3
10	5511	30	5	5531	15
18	5503	54	9	5541	27
38	5551	114	11	5528	33
59	5524	177	24	5556	72
61	5541	183	33	5509	99
63	5544	189	54	5539	162
65	5507	195	63	5518	189
72	5515	216	72	5515	216
73	5553	219	85	5499	255
76	5545	228	95	5503	285
81	5508	243	96	5523	288

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5509	12	3	5512	9
19	5520	57	8	5547	24
34	5503	102	14	5533	42
40	5518	120	23	5534	69
43	5545	129	33	5515	99
44	5535	132	37	5509	111
58	5546	174	46	5540	138
67	5544	201	58	5542	174
97	5504	291	64	5503	192
98	5540	294	66	5549	198
--	--	--	67	5513	201
--	--	--	71	5511	213
--	--	--	79	5550	237
--	--	--	90	5505	270
--	--	--	95	5516	285
--	--	--	97	5521	291

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/29
Test Item	Radar Statistical Performance Check (802.11ax-HE80 mode – 5530MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	1	538	99	1
2	5491	1	698	76	1
3	5500	1	798	67	1
4	5500	1	758	70	1
5	5509	1	638	83	1
6	5509	1	578	92	1
7	5510	1	558	95	1
8	5510	1	678	78	1
9	5511	1	618	86	1
10	5511	1	738	72	1
11	5520	1	878	61	1
12	5520	1	3066	18	1
13	5529	1	898	59	1
14	5529	1	938	57	0
15	5530	1	718	74	0
16	5530	1	2708	20	1
17	5531	1	2833	19	1
18	5531	1	1997	27	1
19	5540	1	2459	22	1
20	5540	1	2793	19	1
21	5549	1	1917	28	1
22	5549	1	1516	35	1
23	5550	1	2916	19	1
24	5550	1	1743	31	0
25	5551	1	1092	49	1
26	5551	1	3033	18	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5560	1	2155	25	1
28	5560	1	2380	23	1
29	5569	1	2993	18	1
30	5569	1	528	100	1
Detection Percentage (%)					90%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	3.2	171	27	1
2	5491	4.3	170	23	0
3	5500	4.3	220	24	0
4	5500	3.0	179	28	1
5	5509	1.4	175	24	1
6	5509	1.9	212	29	1
7	5510	4.8	219	29	1
8	5510	2.2	196	25	1
9	5511	3.5	178	23	0
10	5511	2.7	168	23	1
11	5520	3.2	180	29	1
12	5520	4.4	189	28	1
13	5529	1.0	169	29	0
14	5529	4.9	176	26	1
15	5530	3.8	156	24	0
16	5530	2.8	211	26	1
17	5531	4.6	175	25	1
18	5531	2.8	214	29	1
19	5540	3.5	225	25	1
20	5540	2.7	158	24	1
21	5549	1.9	166	28	0
22	5549	1.2	209	27	0
23	5550	1.8	211	29	1
24	5550	2.4	174	25	1
25	5551	3.3	150	26	1
26	5551	4.8	167	27	1
27	5560	3.0	200	28	1
28	5560	1.1	150	29	1
29	5569	4.2	188	26	1
30	5569	4.6	189	23	1
Detection Percentage (%)					76.67%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	8.5	408	17	0
2	5491	7.0	357	16	0
3	5500	8.1	355	18	1
4	5500	7.2	440	17	1
5	5509	7.2	393	17	1
6	5509	6.6	456	17	1
7	5510	8.5	340	16	1
8	5510	9.3	499	17	0
9	5511	9.3	324	17	0
10	5511	7.8	409	17	0
11	5520	9.7	264	16	1
12	5520	8.3	442	17	1
13	5529	9.9	346	16	1
14	5529	7.6	437	16	1
15	5530	7.2	494	18	0
16	5530	7.5	299	17	1
17	5531	9.0	496	16	1
18	5531	6.9	381	17	1
19	5540	6.7	299	17	1
20	5540	8.6	296	18	1
21	5549	7.3	475	16	1
22	5549	9.9	430	18	1
23	5550	6.4	306	18	1
24	5550	9.0	300	18	1
25	5551	7.7	350	16	1
26	5551	7.6	327	18	1
27	5560	8.7	331	18	1
28	5560	6.0	484	17	1
29	5569	8.4	401	17	1
30	5569	9.9	343	16	0
Detection Percentage (%)					76.67%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	11.2	448	13	1
2	5491	14.8	413	15	0
3	5500	11.8	441	13	1
4	5500	12.1	453	13	1
5	5509	17.6	496	15	1
6	5509	13.5	281	16	1
7	5510	19.5	458	12	1
8	5510	11.2	441	13	1
9	5511	14.4	343	13	1
10	5511	14.8	361	14	1
11	5520	18.9	370	14	1
12	5520	19.5	382	13	1
13	5529	19.9	259	14	0
14	5529	17.4	302	12	1
15	5530	16.1	479	13	0
16	5530	16.1	422	13	1
17	5531	16.1	385	12	1
18	5531	17.4	270	14	1
19	5540	16.5	461	12	1
20	5540	16.7	395	12	1
21	5549	12.0	490	13	1
22	5549	16.1	388	16	1
23	5550	11.9	421	14	1
24	5550	11.8	383	12	1
25	5551	13.7	256	16	1
26	5551	16.4	454	15	1
27	5560	12.7	465	13	1
28	5560	12.6	320	14	1
29	5569	18.3	425	12	0
30	5569	19.1	314	12	1
Detection Percentage (%)					86.67%

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

waveforms is as follows: $\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (90\% + 76.67\% + 76.67\% + 86.67\%) / 4 = 82.50\% (>80\%)$



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5496.6	1	16	5530.0	1
2	5494.6	1	17	5530.0	1
3	5495.0	1	18	5530.0	1
4	5498.6	1	19	5530.0	1
5	5495.8	1	20	5530.0	1
6	5494.2	1	21	5565.4	1
7	5493.0	1	22	5562.2	1
8	5493.4	1	23	5567.0	1
9	5497.8	1	24	5564.2	1
10	5498.2	1	25	5566.6	1
11	5530.0	1	26	5561.8	1
12	5530.0	1	27	5563.4	1
13	5530.0	1	28	5565.0	1
14	5530.0	1	29	5561.4	1
15	5530.0	1	30	5565.8	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Num of Bursts = 20 Burst Interval (us) = 600000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	284077	3	14	55	1042	1834	1869	284077	0	599999
2	325657	3	14	60	1971	1491	1385	614479	600000	1199999
3	931205	1	14	80	1016	0	0	1550531	1200000	1799999
4	511413	2	14	50	1223	1228	0	2062960	1800000	2399999
5	358309	3	14	85	1538	1416	1349	2423720	2400000	2999999
6	1159361	3	14	75	1344	1360	1994	3587384	3000000	3599999
7	453887	2	14	95	1901	1702	0	4045969	3600000	4199999
8	450115	3	14	95	1080	1951	1512	4499687	4200000	4799999
9	416209	3	14	65	1961	1330	1878	4920439	4800000	5399999
10	740446	2	14	60	1927	1088	0	5666054	5400000	5999999
11	901841	2	14	50	1994	1048	0	6570910	6000000	6599999
12	225038	1	14	90	1108	0	0	6798990	6600000	7199999
13	834946	1	14	90	1551	0	0	7635044	7200000	7799999
14	246921	3	14	60	1516	1927	1983	7883516	7800000	8399999
15	661228	1	14	75	1604	0	0	8550170	8400000	8999999
16	892698	3	14	60	1866	1575	1702	9444472	9000000	9599999
17	372574	3	14	85	1916	1315	1372	9822189	9600000	10199999
18	642872	1	14	80	1062	0	0	10469664	10200000	10799999
19	475011	1	14	85	1357	0	0	10945737	10800000	11399999
20	558964	2	14	100	1365	1997	0	11506058	11400000	11999999
Total number of pulses in waveform = 43 *****										

**Type 5 Radar Waveform_2**Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	152645	3	9	95	1199	1241	1764	152645	0	799999
2	728784	1	9	55	1683	0	0	885633	800000	1599999
3	1368268	1	9	50	1114	0	0	2255584	1600000	2399999
4	155733	3	9	85	1599	1934	1953	2412431	2400000	3199999
5	948643	3	9	100	1673	1537	1234	3366560	3200000	3999999
6	1320629	1	9	95	1164	0	0	4691633	4000000	4799999
7	226348	2	9	50	1843	1420	0	4919145	4800000	5599999
8	1256119	2	9	70	1305	1859	0	6178527	5600000	6399999
9	288720	3	9	90	1907	1563	1464	6470411	6400000	7199999
10	1114343	2	9	100	1002	1384	0	7589688	7200000	7999999
11	1025483	1	9	70	1162	0	0	8617557	8000000	8799999
12	845041	2	9	90	1927	1160	0	9463760	8800000	9599999
13	786693	1	9	55	1570	0	0	10253540	9600000	10399999
14	876022	2	9	80	1503	1041	0	11131132	10400000	11199999
15	394107	1	9	85	1447	0	0	11527783	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_3Num 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	810335	1	10	60	1052	0	0	810335	0	923076
2	146959	3	10	85	1143	1899	1198	958346	923077	1846153
3	916508	3	10	60	1324	1566	1875	1879094	1846154	2769230
4	1284754	3	10	50	1229	1551	1383	3168613	2769231	3692307
5	740630	3	10	95	1677	1252	1957	3913406	3692308	4615384
6	1569356	1	10	60	1561	0	0	5487648	4615385	5538461
7	677917	3	10	100	1119	1821	1322	6167126	5538462	6461538
8	881425	3	10	50	1871	1596	1969	7052813	6461539	7384615
9	1201615	3	10	90	1722	1640	1361	8259864	7384616	8307692
10	451354	2	10	85	1813	1582	0	8715941	8307693	9230769
11	785331	1	10	60	1958	0	0	9504667	9230770	10153846
12	870248	1	10	80	1823	0	0	10376873	10153847	11076923
13	881187	2	10	70	1228	1834	0	11259883	11076924	12000000

Total number of pulses in waveform = 29

Type 5 Radar Waveform_4Num 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	111379	2	19	95	1552	1827	0	111379	0	799999
2	809128	2	19	60	1899	1450	0	923886	800000	1599999
3	1183672	1	19	65	1019	0	0	2110907	1600000	2399999
4	489271	3	19	90	1827	1981	1436	2601197	2400000	3199999
5	930096	2	19	80	1701	1640	0	3536537	3200000	3999999
6	768901	3	19	55	1774	1839	1449	4308779	4000000	4799999
7	829118	3	19	100	1413	1156	1351	5142959	4800000	5599999
8	876217	2	19	80	1357	1845	0	6023096	5600000	6399999
9	521275	3	19	100	1920	1512	1348	6547573	6400000	7199999
10	916023	1	19	90	1979	0	0	7468376	7200000	7999999
11	1050003	2	19	100	1648	1826	0	8520358	8000000	8799999
12	296297	1	19	55	1313	0	0	8820129	8800000	9599999
13	1531886	2	19	80	1242	1855	0	10353328	9600000	10399999
14	556344	3	19	100	1721	1646	1267	10912769	10400000	11199999
15	843191	2	19	70	1423	1405	0	11760594	11200000	11999999

Total number of pulses in waveform = 32

**Type 5 Radar Waveform_5**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	185729	3	12	55	1058	1427	1412	185729	0	1499999
2	2749417	1	12	95	1492	0	0	2939043	1500000	2999999
3	1135021	1	12	60	1494	0	0	4075556	3000000	4499999
4	1787668	2	12	70	1448	1750	0	5864718	4500000	5999999
5	411481	2	12	85	1058	1434	0	6279397	6000000	7499999
6	2076955	3	12	95	1500	1161	1726	8358844	7500000	8999999
7	1529083	3	12	60	1947	1567	1833	9892314	9000000	10499999
8	920803	3	12	50	1627	1056	1590	10818464	10500000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	352305	2	8	100	1285	1494	0	352305	0	666666
2	929977	1	8	85	1703	0	0	1285061	666667	1333333
3	56186	1	8	50	1073	0	0	1342950	1333334	2000000
4	897466	2	8	70	1844	1851	0	2241489	2000001	2666667
5	784365	3	8	100	1899	1836	1844	3029549	2666668	3333334
6	636303	3	8	90	1946	1409	1541	3671431	3333335	4000001
7	497137	3	8	85	1729	1066	1358	4173464	4000002	4666668
8	686431	1	8	100	1775	0	0	4864048	4666669	5333335
9	604956	2	8	80	1383	1735	0	5470779	5333336	6000002
10	768965	3	8	60	1273	1635	1676	6242862	6000003	6666669
11	818744	1	8	60	1077	0	0	7066190	6666670	7333336
12	316332	1	8	100	1224	0	0	7383599	7333337	8000003
13	880690	1	8	50	1629	0	0	8265713	8000004	8666670
14	1021285	1	8	65	1227	0	0	9288627	8666671	9333337
15	527090	1	8	70	1476	0	0	9816944	9333338	10000004
16	295789	1	8	95	1486	0	0	10114209	10000005	10666671
17	614065	2	8	85	1079	1429	0	10729760	10666672	11333338
18	672593	2	8	100	1843	1344	0	11404861	11333339	12000005

Total number of pulses in waveform = 31

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1320134	2	5	85	1588	1400	0	1320134	0	1499999
2	391879	2	5	90	1822	1818	0	1715001	1500000	2999999
3	1388931	2	5	60	1645	1073	0	3107572	3000000	4499999
4	1954706	3	5	50	1977	1906	1976	5064996	4500000	5999999
5	2140042	3	5	75	1098	1087	1349	7210897	6000000	7499999
6	437480	3	5	75	1926	1825	1288	7651911	7500000	8999999
7	1615448	3	5	80	1775	1186	1534	9272398	9000000	10499999
8	1284959	3	5	85	1116	1455	1166	10561852	10500000	11999999

Total number of pulses in waveform = 21



Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	458896	3	6	65	1990	1338	1501	458896	0	799999
2	708640	1	6	100	1387	0	0	1172365	800000	1599999
3	1114912	3	6	65	1451	1083	1627	2288664	1600000	2399999
4	733884	3	6	85	1259	1578	1950	3026709	2400000	3199999
5	841990	2	6	95	1027	1913	0	3873486	3200000	3999999
6	621250	3	6	55	1150	1093	1527	4497676	4000000	4799999
7	1068486	2	6	70	1402	1570	0	5569932	4800000	5599999
8	541520	1	6	75	1289	0	0	6114424	5600000	6399999
9	345396	3	6	100	1703	1881	1458	6461109	6400000	7199999
10	1205181	1	6	50	1867	0	0	7671332	7200000	7999999
11	675461	3	6	50	1374	1987	1531	8348660	8000000	8799999
12	966843	1	6	95	1208	0	0	9320395	8800000	9599999
13	1028585	1	6	90	1207	0	0	10350188	9600000	10399999
14	548349	1	6	60	1543	0	0	10899744	10400000	11199999
15	513401	3	6	55	1672	1454	1921	11414688	11200000	11999999

Total number of pulses in waveform = 31

Type 5 Radar Waveform_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	597951	3	17	75	1049	1397	1368	597951	0	999999
2	795257	3	17	60	1181	1015	1025	1397022	1000000	1999999
3	1380688	1	17	80	1614	0	0	2780931	2000000	2999999
4	577652	2	17	60	1712	1456	0	3360197	3000000	3999999
5	674818	1	17	70	1189	0	0	4038183	4000000	4999999
6	1211153	3	17	95	1530	1473	1958	5250525	5000000	5999999
7	1411122	1	17	95	1880	0	0	6666608	6000000	6999999
8	1068967	3	17	80	1131	1094	1569	7737455	7000000	7999999
9	1074029	2	17	55	1966	1145	0	8815278	8000000	8999999
10	668479	2	17	90	1943	1130	0	9486868	9000000	9999999
11	1187156	2	17	60	1784	1900	0	10677097	10000000	10999999
12	1201818	2	17	50	1351	1577	0	11882599	11000000	11999999

Total number of pulses in waveform = 25

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	628201	1	18	50	1012	0	0	628201	0	1090908
2	1017383	3	18	55	1298	1880	1294	1646596	1090909	2181817
3	771459	2	18	50	1995	1483	0	2422527	2181818	3272726
4	1459943	1	18	90	1590	0	0	3885948	3272727	4363635
5	539596	1	18	60	1583	0	0	4427134	4363636	5454544
6	1200772	3	18	100	1493	1080	1144	5629489	5454545	6545453
7	1369631	2	18	65	1553	1122	0	7002837	6545454	7636362
8	1609430	3	18	95	1922	1433	1607	8614942	7636363	8727271
9	928023	3	18	85	1498	1138	1000	9547927	8727272	9818180
10	770595	2	18	85	1442	1489	0	10322158	9818181	10909089
11	720120	2	18	80	1490	1037	0	11045209	10909090	11999998

Total number of pulses in waveform = 23

**Type 5 Radar Waveform_11**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	558777	1	6	95	1676	0	0	558777	0	1199999
2	949531	3	6	75	1093	1586	1152	1509984	1200000	2399999
3	1446615	3	6	70	1599	1259	1367	2960430	2400000	3599999
4	1700016	3	6	70	1150	1453	1308	4664671	3600000	4799999
5	915030	2	6	75	1008	1993	0	5583612	4800000	5999999
6	742106	1	6	95	1636	0	0	6328719	6000000	7199999
7	1533616	1	6	95	1925	0	0	7863971	7200000	8399999
8	1538450	3	6	50	1912	1699	1292	9404346	8400000	9599999
9	1047456	2	6	95	1272	1515	0	10456705	9600000	10799999
10	606985	1	6	70	1111	0	0	11066477	10800000	11999999

Total number of pulses in waveform = 20

ype 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	54341	3	10	70	1036	1229	1300	54341	0	666666
2	688191	3	10	80	1784	1304	1942	746097	666667	1333333
3	1005941	1	10	75	1253	0	0	1757068	1333334	2000000
4	655091	3	10	70	1936	1664	1759	2413412	2000001	2666667
5	861941	2	10	90	1974	1490	0	3280612	2666668	3333334
6	260682	1	10	95	1140	0	0	3544758	3333335	4000001
7	851986	3	10	55	1119	1553	1800	4397884	4000002	4666668
8	497279	1	10	60	1102	0	0	4892635	4666669	5333335
9	701857	3	10	70	1582	1907	1260	5602594	5333336	6000002
10	940637	3	10	95	1237	1429	1792	6547980	6000003	6666669
11	224118	2	10	80	1523	1074	0	6776556	6666670	7333336
12	986564	2	10	75	1517	1314	0	7765717	7333337	8000003
13	603483	2	10	55	1870	1447	0	8372031	8000004	8666670
14	826230	2	10	100	1759	1051	0	9201578	8666671	9333337
15	136948	3	10	95	1134	1710	1351	9341336	9333338	10000004
16	1027208	1	10	75	1058	0	0	10372739	10000005	10666671
17	813271	3	10	60	1875	1878	1428	11187068	10666672	11333338
18	633510	2	10	90	1807	1939	0	11825759	11333339	12000005

Total number of pulses in waveform = 40

Type 5 Radar Waveform_13

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	563449	1	18	95	1150	0	0	563449	0	799999
2	442687	2	18	70	1796	1660	0	1007286	800000	1599999
3	926972	1	18	50	1031	0	0	1937714	1600000	2399999
4	762256	3	18	90	1221	1924	1406	2701001	2400000	3199999
5	811054	2	18	65	1145	1800	0	3516606	3200000	3999999
6	633954	3	18	50	1611	1637	1566	4153505	4000000	4799999
7	1355490	3	18	60	1066	1929	1021	5513809	4800000	5599999
8	155369	1	18	75	1098	0	0	5673194	5600000	6399999
9	1019200	1	18	65	1006	0	0	6693492	6400000	7199999
10	683937	3	18	100	1774	1961	1658	7378435	7200000	7999999
11	953366	1	18	70	1446	0	0	8337194	8000000	8799999
12	536228	1	18	95	1194	0	0	8874868	8800000	9599999
13	1343359	3	18	50	1702	1825	1551	10219421	9600000	10399999
14	315239	3	18	60	1533	1383	1783	10539738	10400000	11199999
15	687605	3	18	75	1377	1461	1031	11232042	11200000	11999999

Total number of pulses in waveform = 31

**Type 5 Radar Waveform_14**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	679912	3	19	55	1428	1930	1260	808232	0	857142
2	983686	1	19	90	1422	0	0	1492762	857143	1714285
3	705733	3	19	65	1460	1224	1952	2477870	1714286	2571428
4	911699	1	19	100	1880	0	0	3188239	2571429	3428571
5	219291	3	19	95	1038	1871	1626	4101818	3428572	4285714
6	1241102	2	19	50	1816	1895	0	4325644	4285715	5142857
7	1254634	2	19	60	1922	1555	0	5570457	5142858	6000000
8	641243	2	19	100	1532	1290	0	6828568	6000001	6857143
9	429783	1	19	95	1865	0	0	7472633	6857144	7714286
10	1072769	3	19	100	1752	1288	1072	7904281	7714287	8571429
11	471620	1	19	50	1726	0	0	8981162	8571430	9428572
12	1196389	1	19	60	1422	0	0	9454508	9428573	10285715
13	809265	2	19	85	1601	1569	0	10652319	10285716	11142858
14		2	19	55	1055	1293	0	11464754	11142859	12000001

Total number of pulses in waveform = 27

Type 5 Radar Waveform_15Num 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	824700	3	9	75	1955	1765	1759	824700	0	1199999
2	926807	2	9	50	1019	1478	0	1756986	1200000	2399999
3	1652026	2	9	95	1650	1364	0	3411509	2400000	3599999
4	706904	3	9	85	1791	1856	1009	4121427	3600000	4799999
5	924442	3	9	70	1363	1529	1632	5050525	4800000	5999999
6	1604693	3	9	85	1657	1936	1599	6659742	6000000	7199999
7	773879	2	9	100	1814	1821	0	7438813	7200000	8399999
8	1162533	1	9	75	1058	0	0	8604981	8400000	9599999
9	1547765	3	9	90	1448	1690	1087	10153804	9600000	10799999
10	1343752	3	9	85	1707	1372	1470	11501781	10800000	11999999

Total number of pulses in waveform = 25

Type 5 Radar Waveform_16Num 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	996465	2	17	90	1698	1910	0	996465	0	1199999
2	1330911	1	17	55	1528	0	0	2330984	1200000	2399999
3	1208752	1	17	100	1179	0	0	3541264	2400000	3599999
4	120990	2	17	75	1208	1439	0	3663433	3600000	4799999
5	2254162	3	17	85	1656	1835	1530	5920242	4800000	5999999
6	198525	3	17	100	1489	1473	1764	6123788	6000000	7199999
7	2037482	2	17	75	1691	1966	0	8165996	7200000	8399999
8	452871	3	17	85	1559	1158	1711	8622524	8400000	9599999
9	2076284	3	17	80	1816	1229	1534	10703236	9600000	10799999
10	935295	1	17	70	1400	0	0	11643110	10800000	11999999

Total number of pulses in waveform = 21

**Type 5 Radar Waveform_17**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1329558	3	8	55	1258	1129	1847	1329558	0	1499999
2	610501	2	8	65	1440	1208	0	1944293	1500000	2999999
3	1742828	3	8	75	1603	1810	1595	3689769	3000000	4499999
4	894925	3	8	65	1341	1199	1921	4589702	4500000	5999999
5	2778691	1	8	65	1389	0	0	7372854	6000000	7499999
6	434320	3	8	80	1703	1845	1554	7808563	7500000	8999999
7	2599565	2	8	55	1542	1113	0	10413230	9000000	10499999
8	1089290	3	8	90	1088	1550	1783	11505175	10500000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_18

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	687927	1	12	60	1551	0	0	687927	0	799999
2	780389	1	12	100	1638	0	0	1469867	800000	1599999
3	515761	1	12	70	1292	0	0	1987266	1600000	2399999
4	684766	2	12	65	1896	1298	0	2673324	2400000	3199999
5	874190	2	12	70	1091	1634	0	3550708	3200000	3999999
6	1087034	2	12	80	1345	1506	0	4640467	4000000	4799999
7	548087	3	12	85	1017	1257	1116	5191405	4800000	5599999
8	1153177	2	12	90	1105	1999	0	6347972	5600000	6399999
9	582389	3	12	70	1419	1680	1400	6933465	6400000	7199999
10	558551	3	12	55	1289	1792	1709	7496515	7200000	7999999
11	1064479	1	12	60	1030	0	0	8565784	8000000	8799999
12	765362	2	12	75	1337	1019	0	9332176	8800000	9599999
13	527268	1	12	95	1842	0	0	9861800	9600000	10399999
14	757441	1	12	95	1619	0	0	10621083	10400000	11199999
15	899440	3	12	55	1302	1203	1879	11522142	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	247268	2	14	70	1092	1036	0	247268	0	923076
2	1323847	1	14	90	1749	0	0	1573243	923077	1846153
3	795793	1	14	85	1325	0	0	2370785	1846154	2769230
4	575039	1	14	90	1973	0	0	2947149	2769231	3692307
5	1511507	2	14	60	1992	1250	0	4460629	3692308	4615384
6	273118	3	14	95	1170	1023	1955	4736989	4615385	5538461
7	1251730	2	14	100	1425	1270	0	5992867	5538462	6461538
8	1365854	3	14	75	1234	1880	1435	7361416	6461539	7384615
9	206145	2	14	85	1310	1647	0	7572110	7384616	8307692
10	1035522	1	14	65	1609	0	0	8610589	8307693	9230769
11	1448406	3	14	85	1064	1053	1541	10060604	9230770	10153846
12	426977	3	14	50	1346	1138	1055	10491239	10153847	11076923
13	1066875	2	14	70	1002	1045	0	11561653	11076924	12000000

Total number of pulses in waveform = 26



Type 5 Radar Waveform_20

Num of Bursts = 20 Burst Interval (us)= 600000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	337283	3	5	65	1187	1386	1880	337283	0	599999	
2	604146	3	5	80	1503	1971	1845	945882	600000	1199999	
3	294390	3	5	70	1881	1012	1751	1245591	1200000	1799999	
4	691233	3	5	60	1777	1126	1813	1941468	1800000	2399999	
5	769210	2	5	80	1188	1902	0	2715394	2400000	2999999	
6	708706	3	5	100	1800	1209	1558	3427190	3000000	3599999	
7	237662	3	5	70	1516	1913	1696	3669419	3600000	4199999	
8	850842	2	5	80	1146	1837	0	4525386	4200000	4799999	
9	790406	2	5	60	1457	1379	0	5318775	4800000	5399999	
10	286986	2	5	95	1251	1503	0	5608597	5400000	5999999	
11	553861	2	5	100	1424	1986	0	6165212	6000000	6599999	
12	946704	2	5	95	1459	1398	0	7115326	6600000	7199999	
13	580473	1	5	80	1687	0	0	7698656	7200000	7799999	
14	316856	2	5	60	1308	1300	0	8017199	7800000	8399999	
15	957008	1	5	55	1036	0	0	8976815	8400000	8999999	
16	514421	3	5	75	1168	1354	1113	9492272	9000000	9599999	
17	181110	3	5	60	1596	1299	1405	9677017	9600000	10199999	
18	1045641	3	5	65	1149	1464	1501	10726958	10200000	10799999	
19	158838	3	5	90	1532	1553	1834	10889910	10800000	11399999	
20	971266	1	5	55	1135	0	0	11866095	11400000	11999999	
Total number of pulses in waveform = 47											

Type 5 Radar Waveform_21

Num of Bursts = 10 Burst Interval (us)= 1200000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1192408	3	9	55	1074	1998	1223	1192408	0	1199999
2	269486	1	9	80	1750	0	0	1466189	1200000	2399999
3	1712248	1	9	80	1804	0	0	3180187	2400000	3599999
4	1343898	2	9	85	1991	1604	0	4525889	3600000	4799999
5	320230	3	9	60	1397	1978	1757	4849714	4800000	5999999
6	1275336	3	9	55	1737	1746	1645	6130182	6000000	7199999
7	1555760	2	9	70	1325	1539	0	7691070	7200000	8399999
8	828358	3	9	100	1900	1872	1113	8522292	8400000	9599999
9	2124138	2	9	60	1950	1263	0	10651315	9600000	10799999
10	1167412	1	9	65	1616	0	0	11821940	10800000	11999999
Total number of pulses in waveform = 21										

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	74828	3	17	55	1080	1022	1897	74828	0	666666	
2	892946	1	17	90	1811	0	0	971773	666667	1333333	
3	710346	2	17	70	1588	1280	0	1683930	1333334	2000000	
4	377385	3	17	100	1264	1140	1659	2064183	2000001	2666667	
5	1225627	2	17	100	1761	1234	0	3293873	2666668	3333334	
6	82601	2	17	100	1430	1188	0	3379469	3333335	4000001	
7	1247608	2	17	100	1948	1745	0	4629695	4000002	4666668	
8	293593	3	17	95	1259	1993	1529	4926981	4666669	5333335	
9	502866	1	17	55	1409	0	0	5434628	5333336	6000002	
10	1005262	1	17	100	1994	0	0	6441299	6000003	6666669	
11	425821	2	17	100	1144	1650	0	6869114	6666670	7333336	
12	763648	3	17	65	1163	1206	1167	7635566	7333337	8000003	
13	827107	3	17	95	1545	1595	1721	8466199	8000004	8666670	
14	808325	1	17	65	1828	0	0	9279385	8666671	9333337	
15	406375	3	17	70	1246	1138	1891	9687588	9333338	10000004	
16	368126	2	17	85	1568	1217	0	10059989	10000005	10666671	
17	979187	3	17	85	1352	1463	1930	11041961	10666672	11333338	
18	348483	1	17	70	1280	0	0	11395189	11333339	12000005	
Total number of pulses in waveform = 38 *****											

**Type 5 Radar Waveform_23**Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	400070	1	5	60	1312	0	0	400070	0	799999
2	1117329	1	5	55	1704	0	0	1518711	800000	1599999
3	325322	1	5	75	1957	0	0	1845737	1600000	2399999
4	1102347	3	5	50	1513	1951	1303	2950041	2400000	3199999
5	475937	3	5	95	1588	1893	1302	3430745	3200000	3999999
6	635514	1	5	65	1639	0	0	4071042	4000000	4799999
7	965176	1	5	90	1816	0	0	5037857	4800000	5599999
8	906457	2	5	65	1700	1900	0	5946130	5600000	6399999
9	661236	3	5	70	1406	1738	1422	6610966	6400000	7199999
10	1113794	1	5	50	1924	0	0	7729326	7200000	7999999
11	639313	1	5	75	1483	0	0	8370563	8000000	8799999
12	763627	1	5	85	1559	0	0	9135673	8800000	9599999
13	1188998	3	5	95	1575	1178	1633	10326230	9600000	10399999
14	646260	3	5	60	1421	1325	1455	10976876	10400000	11199999
15	546217	2	5	75	1576	1860	0	11527294	11200000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_24Num 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	196208	1	12	65	1319	0	0	196208	0	1333332
2	1377137	3	12	75	1958	1966	1095	1574664	1333333	2666665
3	1530893	3	12	75	1590	1087	1481	3110576	2666666	3999998
4	1771654	2	12	65	1318	1642	0	4886388	3999999	5333331
5	755509	1	12	70	1460	0	0	5644857	5333332	6666664
6	1712286	1	12	55	1938	0	0	7358603	6666665	7999997
7	1359971	2	12	60	1397	1377	0	8720512	7999998	9333330
8	1198329	1	12	70	1984	0	0	9921615	9333331	10666663
9	1173989	1	12	70	1959	0	0	11097588	10666664	11999996

Total number of pulses in waveform = 15

Type 5 Radar Waveform_25Num of Bursts = 10
Burst Interval (us)= 1200000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	306689	2	6	95	1845	1827	0	306689	0	1199999
2	1339699	2	6	55	1729	1293	0	1650060	1200000	2399999
3	1671413	3	6	100	1933	1985	1270	3324495	2400000	3599999
4	1437265	1	6	75	1187	0	0	4766948	3600000	4799999
5	45850	1	6	85	1236	0	0	4813985	4800000	5999999
6	2113905	1	6	85	1044	0	0	6929126	6000000	7199999
7	1239448	1	6	85	1158	0	0	8169618	7200000	8399999
8	439198	1	6	65	1468	0	0	8609974	8400000	9599999
9	1556526	2	6	60	1081	1227	0	10167968	9600000	10799999
10	1367141	2	6	90	1851	1695	0	11537417	10800000	11999999

Total number of pulses in waveform = 16



Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	978641	1	18	85	1868	0	0	978641	0	999999
2	171102	1	18	90	1497	0	0	1151611	1000000	1999999
3	1602333	3	18	80	1480	1094	1743	2755441	2000000	2999999
4	922285	2	18	85	1315	1738	0	3682043	3000000	3999999
5	355146	2	18	65	1717	1388	0	4040242	4000000	4999999
6	1267022	3	18	95	1424	1061	1503	5310369	5000000	5999999
7	1661510	3	18	85	1981	1236	1015	6975867	6000000	6999999
8	910298	2	18	65	1027	1321	0	7890397	7000000	7999999
9	932510	2	18	85	1753	1224	0	8825255	8000000	8999999
10	396441	1	18	75	1886	0	0	9224673	9000000	9999999
11	1001437	2	18	95	1698	1041	0	10227996	10000000	10999999
12	1332007	3	18	100	1885	1741	1723	11562742	11000000	11999999

Total number of pulses in waveform = 25

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	592378	2	14	65	1797	1587	0	592378	0	631578
2	385443	1	14	80	1891	0	0	981205	631579	1263157
3	392483	2	14	65	1932	1938	0	1375579	1263158	1894736
4	806913	3	14	80	1712	1098	1066	2189362	1894737	2526315
5	445505	1	14	50	1268	0	0	2638743	2526316	3157894
6	832635	2	14	100	1910	1688	0	3472646	3157895	3789473
7	470401	1	14	65	1507	0	0	3946645	3789474	4421052
8	994689	2	14	85	1678	1034	0	4942841	4421053	5052631
9	319375	1	14	55	1914	0	0	5264928	5052632	5684210
10	536956	1	14	55	1332	0	0	5803798	5684211	6315789
11	942901	2	14	85	1314	1269	0	6748031	6315790	6947368
12	416620	1	14	65	1935	0	0	7167234	6947369	7578947
13	584616	3	14	90	1670	1904	1245	7753785	7578948	8210526
14	598147	2	14	95	1300	1053	0	8356751	8210527	8842105
15	536585	1	14	80	1320	0	0	8895689	8842106	9473684
16	674301	1	14	60	1073	0	0	9571310	9473685	10105263
17	620148	3	14	50	1000	1387	1929	10192531	10105264	10736842
18	575022	1	14	65	1009	0	0	10771869	10736843	11368421
19	971306	2	14	85	1406	1458	0	11744184	11368422	12000000

Total number of pulses in waveform = 32

Type 5 Radar Waveform_28

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	321468	2	10	85	1112	1883	0	321468	0	631578
2	564215	2	10	95	1024	1176	0	888678	631579	1263157
3	691216	3	10	90	1733	1707	1731	1582094	1263158	1894736
4	629315	2	10	60	1406	1076	0	2216580	1894737	2526315
5	887960	1	10	50	1604	0	0	3107022	2526316	3157894
6	599708	1	10	65	1154	0	0	3708334	3157895	3789473
7	105782	2	10	50	1236	1578	0	3815270	3789474	4421052
8	1201501	2	10	55	1930	1114	0	5019585	4421053	5052631
9	135413	1	10	75	1728	0	0	5158042	5052632	5684210
10	728144	3	10	50	1249	1871	1599	5887914	5684211	6315789
11	806144	2	10	55	1700	1537	0	6698777	6315790	6947368
12	646298	1	10	85	1733	0	0	7348312	6947369	7578947
13	663653	1	10	85	1115	0	0	8013698	7578948	8210526
14	694686	2	10	55	1706	1163	0	8709499	8210527	8842105
15	733759	2	10	75	1213	1770	0	9446127	8842106	9473684
16	443153	3	10	65	1359	1824	1706	9892263	9473685	10105263
17	593857	2	10	50	1043	1865	0	10491009	10105264	10736842
18	366030	3	10	70	1515	1483	1536	10859947	10736843	11368421
19	635237	3	10	65	1448	1415	1604	11499718	11368422	12000000

Total number of pulses in waveform = 38



Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	151784	1	19	95	1377	0	0	151784	0	631578
2	481732	3	19	85	1058	1175	1737	634893	631579	1263157
3	1106435	1	19	85	1760	0	0	1745298	1263158	1894736
4	555452	3	19	75	1298	1526	1229	2302510	1894737	2526315
5	614638	3	19	95	1939	1376	1425	2921201	2526316	3157894
6	813148	2	19	85	1783	1413	0	3739089	3157895	3789473
7	244345	2	19	55	1755	1867	0	3986630	3789474	4421052
8	591300	1	19	55	1138	0	0	4581553	4421053	5052631
9	794882	2	19	75	1979	1719	0	5377573	5052632	5684210
10	354389	2	19	75	1619	1725	0	5735660	5684211	6315789
11	1103820	3	19	60	1571	1128	1471	6842824	6315790	6947368
12	482746	1	19	70	1700	0	0	7329740	6947369	7578947
13	255977	3	19	50	1393	1073	1148	7587417	7578948	8210526
14	1143926	3	19	75	1250	1457	1446	8734957	8210527	8842105
15	417995	1	19	65	1036	0	0	9157105	8842106	9473684
16	368733	3	19	95	1137	1535	1747	9526874	9473685	10105263
17	1165076	2	19	95	1666	1636	0	10696369	10105264	10736842
18	498591	1	19	75	1625	0	0	11198262	10736843	11368421
19	706506	1	19	70	1976	0	0	11906393	11368422	12000000

Total number of pulses in waveform = 38

Type 5 Radar Waveform_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	250553	2	8	90	1696	1693	0	250553	0	923076
2	722338	1	8	50	1235	0	0	976280	923077	1846153
3	1057135	1	8	85	1643	0	0	2034650	1846154	2769230
4	1508966	2	8	70	1995	1150	0	3545259	2769231	3692307
5	555644	2	8	65	1830	1276	0	4104048	3692308	4615384
6	549404	1	8	85	1926	0	0	4656558	4615385	5538461
7	1296477	3	8	75	1283	1450	1636	5954961	5538462	6461538
8	1092689	2	8	50	1660	1769	0	7052019	6461539	7384615
9	657202	2	8	85	1975	1990	0	7712650	7384616	8307692
10	1038648	3	8	50	1878	1468	1238	8755263	8307693	9230769
11	556661	2	8	70	1137	1697	0	9316508	9230770	10153846
12	1221953	2	8	100	1279	1658	0	10541295	10153847	11076923
13	1331306	3	8	60	1894	1961	1446	11875538	11076924	12000000

Total number of pulses in waveform = 26

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	5491	1	16	5530	1
2	5491	1	17	5531	1
3	5500	1	18	5531	1
4	5500	1	19	5540	1
5	5509	1	20	5540	1
6	5509	1	21	5549	1
7	5510	1	22	5549	1
8	5510	1	23	5550	1
9	5511	1	24	5550	1
10	5511	1	25	5551	1
11	5520	1	26	5551	1
12	5520	1	27	5560	1
13	5529	1	28	5560	1
14	5529	1	29	5569	1
15	5530	1	30	5569	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	5474	9	1	5496	3
4	5496	12	14	5517	42
18	5472	54	17	5481	51
23	5480	69	24	5467	72
26	5513	78	28	5513	84
27	5464	81	30	5497	90
37	5519	111	61	5491	183
46	5469	138	70	5484	210
70	5482	210	80	5507	240
75	5486	225	98	5520	294
77	5497	231	--	--	--
80	5501	240	--	--	--
82	5512	246	--	--	--
85	5466	255	--	--	--
92	5473	276	--	--	--
93	5471	279	--	--	--
96	5500	288	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5504	0	1	5511	3
9	5528	27	4	5485	12
13	5476	39	12	5503	36
15	5472	45	23	5476	69
22	5523	66	30	5508	90
26	5527	78	39	5489	117
37	5526	111	45	5501	135
39	5485	117	53	5524	159
45	5529	135	55	5475	165
49	5495	147	56	5518	168
57	5490	171	73	5494	219
74	5471	222	74	5512	222
77	5517	231	76	5477	228
87	5478	261	78	5495	234
93	5494	279	79	5530	237
94	5493	282	86	5498	258
--	--	--	94	5525	282
--	--	--	97	5517	291

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5518	0	1	5529	3
4	5500	12	13	5539	39
12	5510	36	16	5521	48
14	5529	42	25	5530	75
16	5535	48	30	5486	90
28	5480	84	34	5507	102
39	5517	117	37	5508	111
54	5492	162	44	5504	132
55	5507	165	45	5510	135
56	5522	168	60	5522	180
58	5537	174	80	5485	240
72	5534	216	83	5520	249
77	5481	231	91	5533	273
86	5515	258	93	5494	279
87	5495	261	--	--	--
90	5506	270	--	--	--
91	5538	273	--	--	--
97	5524	291	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5501	15	2	5512	6
14	5520	42	5	5498	15
17	5504	51	6	5487	18
22	5488	66	8	5518	24
29	5512	87	22	5511	66
36	5503	108	23	5538	69
49	5492	147	31	5484	93
53	5513	159	37	5521	111
57	5480	171	54	5517	162
65	5539	195	63	5508	189
67	5483	201	68	5539	204
77	5518	231	71	5488	213
78	5506	234	89	5505	267
86	5499	258	--	--	--
91	5495	273	--	--	--
98	5526	294	--	--	--
99	5508	297	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5516	24	8	5525	24
19	5531	57	24	5531	72
23	5514	69	26	5510	78
33	5532	99	30	5523	90
41	5487	123	48	5495	144
52	5504	156	51	5524	153
54	5497	162	71	5502	213
57	5506	171	75	5488	225
62	5485	186	90	5509	270
75	5493	225	95	5481	285
86	5529	258	--	--	--
87	5490	261	--	--	--
94	5496	282	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5514	21	1	5533	3
23	5519	69	18	5529	54
35	5548	105	26	5499	78
37	5529	111	31	5549	93
50	5503	150	32	5495	96
59	5507	177	39	5534	117
62	5501	186	45	5524	135
63	5508	189	56	5542	168
75	5509	225	64	5490	192
79	5517	237	81	5537	243
80	5543	240	86	5540	258
89	5492	267	95	5503	285
--	--	--	99	5500	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5534	3	29	5501	87
9	5510	27	30	5543	90
12	5556	36	32	5554	96
14	5538	42	40	5553	120
26	5500	78	49	5500	147
50	5541	150	58	5506	174
54	5506	162	61	5558	183
57	5523	171	64	5534	192
59	5513	177	68	5526	204
63	5539	189	94	5549	282
67	5518	201	97	5555	291
76	5530	228	--	--	--
91	5553	273	--	--	--
92	5512	276	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5532	0	2	5517	6
1	5523	3	9	5539	27
6	5542	18	10	5507	30
40	5544	120	43	5552	129
46	5554	138	63	5534	189
48	5548	144	85	5501	255
53	5553	159	90	5545	270
61	5500	183	97	5559	291
64	5558	192	--	--	--
66	5527	198	--	--	--
73	5540	219	--	--	--
74	5556	222	--	--	--
77	5506	231	--	--	--
92	5550	276	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5512	3	4	5501	12
13	5510	39	8	5546	24
31	5518	93	9	5550	27
47	5508	141	10	5555	30
48	5557	144	24	5536	72
50	5531	150	25	5507	75
52	5521	156	29	5561	87
63	5536	189	34	5558	102
67	5554	201	36	5554	108
69	5511	207	56	5520	168
77	5503	231	67	5504	201
79	5549	237	81	5505	243
87	5527	261	82	5544	246
90	5535	270	94	5560	282
97	5507	291	97	5506	291
99	5544	297	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5553	9	9	5513	27
6	5528	18	11	5569	33
14	5511	42	14	5538	42
33	5557	99	17	5547	51
36	5512	108	19	5558	57
42	5523	126	20	5529	60
50	5564	150	38	5530	114
51	5532	153	48	5535	144
53	5554	159	68	5561	204
57	5550	171	69	5542	207
71	5560	213	72	5568	216
72	5536	216	86	5545	258
76	5533	228	89	5565	267
91	5559	273	99	5518	297
92	5567	276	--	--	--
95	5519	285	--	--	--
97	5570	291	--	--	--
99	5552	297	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5528	6	3	5531	9
8	5576	24	10	5542	30
11	5567	33	14	5532	42
18	5525	54	17	5534	51
26	5578	78	37	5519	111
28	5558	84	57	5520	171
38	5565	114	77	5528	231
39	5570	117	80	5578	240
49	5535	147	93	5573	279
72	5552	216	98	5572	294
73	5545	219	--	--	--
85	5577	255	--	--	--
91	5564	273	--	--	--
92	5560	276	--	--	--
99	5563	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5532	0	4	5576	12
36	5561	108	12	5527	36
40	5570	120	18	5536	54
48	5526	144	22	5541	66
55	5535	165	26	5529	78
60	5556	180	37	5535	111
73	5549	219	43	5537	129
74	5536	222	48	5579	144
84	5576	252	88	5575	264
85	5577	255	97	5542	291
87	5533	261	--	--	--
88	5567	264	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5555	57	1	5522	3
29	5561	87	4	5567	12
45	5556	135	17	5562	51
53	5551	159	28	5574	84
68	5553	204	29	5571	87
70	5545	210	35	5555	105
78	5541	234	36	5552	108
82	5565	246	39	5521	117
89	5564	267	42	5546	126
95	5535	285	43	5547	129
--	--	--	46	5539	138
--	--	--	51	5578	153
--	--	--	54	5556	162
--	--	--	57	5550	171
--	--	--	73	5533	219
--	--	--	86	5566	258
--	--	--	91	5523	273
--	--	--	98	5542	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5538	0	5	5561	15
1	5562	3	12	5578	36
13	5557	39	13	5584	39
18	5581	54	15	5570	45
22	5532	66	19	5557	57
31	5539	93	20	5550	60
41	5578	123	31	5586	93
66	5554	198	32	5560	96
82	5576	246	33	5573	99
93	5588	279	34	5551	102
94	5587	282	38	5582	114
--	--	--	56	5589	168
--	--	--	74	5577	222

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
24	5540	72	1	5549	3
25	5587	75	3	5572	9
32	5589	96	15	5573	45
40	5574	120	26	5589	78
44	5552	132	27	5546	81
50	5543	150	28	5548	84
52	5556	156	30	5574	90
53	5546	159	48	5571	144
63	5559	189	49	5595	147
72	5557	216	67	5599	201
75	5569	225	76	5541	228
89	5575	267	79	5550	237
--	--	--	80	5594	240
--	--	--	83	5567	249
--	--	--	93	5585	279

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/29
Test Item	Radar Statistical Performance Check (802.11ax-HE160 mode - 5250MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5250	1	818	65	0
2	5250	1	578	92	1
3	5251	1	618	86	1
4	5251	1	758	70	1
5	5260	1	3066	18	1
6	5260	1	778	68	1
7	5269	1	558	95	1
8	5269	1	738	72	1
9	5270	1	798	67	0
10	5270	1	518	102	0
11	5271	1	858	62	1
12	5271	1	918	58	1
13	5280	1	718	74	1
14	5280	1	938	57	1
15	5289	1	538	99	1
16	5289	1	807	66	1
17	5290	1	2392	23	1
18	5290	1	2683	20	1
19	5291	1	661	80	1
20	5291	1	1103	48	1
21	5300	1	1848	29	1
22	5300	1	2351	23	1
23	5309	1	2422	22	1
24	5310	1	1407	38	1
25	5310	1	2773	20	1
26	5311	1	1851	29	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5320	1	1165	46	1
28	5320	1	2445	22	0
29	5329	1	1541	35	0
30	5329	1	1725	31	1
Detection Percentage (%)					83.33%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5250	3.6	161	28	1
2	5250	4.2	218	29	0
3	5251	1.0	177	28	1
4	5251	3.3	167	26	0
5	5260	1.7	208	25	0
6	5260	1.5	150	26	1
7	5269	3.1	225	24	1
8	5269	2.9	158	28	1
9	5270	3.7	212	25	1
10	5270	4.8	228	25	1
11	5271	4.4	178	28	1
12	5271	2.6	212	23	1
13	5280	4.3	220	24	1
14	5280	3.3	216	24	1
15	5289	4.7	223	26	0
16	5289	1.1	182	25	1
17	5290	3.2	174	28	1
18	5290	4.1	182	28	1
19	5291	2.2	181	29	1
20	5291	4.1	214	24	1
21	5300	3.8	187	23	1
22	5300	3.6	172	25	0
23	5309	2.2	180	27	1
24	5310	4.3	173	27	1
25	5310	2.9	209	29	1
26	5311	3.3	211	27	1
27	5320	3.5	154	27	1
28	5320	1.2	164	24	0
29	5329	5.0	155	29	1
30	5329	3.8	164	28	1
Detection Percentage (%)					80%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5250	7.1	267	16	1
2	5250	9.5	276	16	1
3	5251	6.9	386	17	0
4	5251	7.4	460	18	1
5	5260	7.0	457	18	1
6	5260	6.3	289	16	1
7	5269	9.9	496	18	1
8	5269	8.3	456	18	1
9	5270	7.5	307	16	1
10	5270	8.9	490	16	1
11	5271	8.6	299	17	1
12	5271	8.0	371	16	1
13	5280	8.5	375	16	1
14	5280	9.9	468	17	0
15	5289	6.1	407	16	1
16	5289	6.9	457	16	1
17	5290	9.3	340	16	1
18	5290	7.1	253	17	1
19	5291	6.1	445	18	1
20	5291	8.6	336	16	1
21	5300	7.4	483	17	1
22	5300	8.6	482	17	0
23	5309	6.5	404	17	1
24	5310	9.0	414	16	1
25	5310	8.0	409	16	1
26	5311	7.8	429	16	0
27	5320	8.5	429	17	1
28	5320	9.1	355	16	0
29	5329	8.1	419	17	0
30	5329	6.3	272	18	1
Detection Percentage (%)					80%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5250	16.1	348	15	1
2	5250	16.9	398	12	0
3	5251	16.2	415	16	0
4	5251	17.4	344	13	1
5	5260	19.4	346	13	1
6	5260	13.9	431	16	1
7	5269	16.2	408	16	1
8	5269	15.1	400	16	1
9	5270	19.8	264	14	1
10	5270	12.4	430	13	1
11	5271	19.9	289	15	1
12	5271	11.5	258	15	1
13	5280	19.2	484	15	1
14	5280	13.3	374	14	1
15	5289	13.7	330	15	1
16	5289	18.5	448	16	1
17	5290	15.6	409	15	0
18	5290	12.9	489	16	1
19	5291	12.3	357	13	1
20	5291	11.1	473	14	1
21	5300	18.4	371	15	1
22	5300	12.2	454	12	1
23	5309	11.5	290	13	1
24	5310	11.2	381	13	1
25	5310	12.7	372	12	1
26	5311	15.8	290	13	1
27	5320	17.0	274	16	1
28	5320	17.5	318	13	1
29	5329	19.8	282	16	1
30	5329	14.6	328	13	0
Detection Percentage (%)					86.67%

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

waveforms is as follows: $\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (83.33\% + 80\% + 80\% + 86.67\%) / 4 = 82.50\% (>80\%)$



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	5253.6	1	16	5290.0	1
2	5254.0	1	17	5290.0	1
3	5253.2	1	18	5290.0	1
4	5257.2	1	19	5290.0	1
5	5252.4	1	20	5290.0	1
6	5252.0	1	21	5326.6	1
7	5255.6	1	22	5321.4	1
8	5256.8	1	23	5321.8	1
9	5257.6	1	24	5322.2	1
10	5254.8	1	25	5325.0	1
11	5290.0	1	26	5323.4	1
12	5290.0	1	27	5325.4	1
13	5290.0	1	28	5325.8	1
14	5290.0	1	29	5327.0	1
15	5290.0	1	30	5324.2	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

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	225726	3	9	85	1420	1846	1714	225726	0	631578
2	932785	2	9	65	1114	1126	0	1163491	631579	1263157
3	347060	3	9	50	1614	1902	1071	1512791	1263158	1894736
4	479050	1	9	50	1477	0	0	1996428	1894737	2526315
5	624520	2	9	50	1564	1921	0	2622425	2526316	3157894
6	978309	2	9	80	1695	1862	0	3604219	3157895	3789473
7	474979	2	9	95	1975	1879	0	4082755	3789474	4421052
8	807802	3	9	65	1632	1059	1838	4894411	4421053	5052631
9	371889	3	9	75	1710	1400	1405	5270829	5052632	5684210
10	520755	1	9	70	1185	0	0	5796099	5684211	6315789
11	815329	1	9	100	1970	0	0	6612613	6315790	6947368
12	915669	2	9	80	1308	1780	0	7530252	6947369	7578947
13	602894	1	9	90	1250	0	0	8136234	7578948	8210526
14	215791	1	9	85	1883	0	0	8353275	8210527	8842105
15	868939	2	9	65	1268	1059	0	9224097	8842106	9473684
16	407861	2	9	80	1679	1064	0	9634285	9473685	10105263
17	540830	2	9	70	1377	1770	0	10177858	10105264	10736842
18	1141158	3	9	75	1531	1883	1428	11322163	10736843	11368421
19	304350	1	9	80	1889	0	0	11631355	11368422	12000000
Total number of pulses in waveform = 37 *****										



Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	288404	3	10	60	1552	1050	1928	288404	0	799999
2	877248	1	10	95	1946	0	0	1170182	800000	1599999
3	910287	2	10	65	1681	1701	0	2082415	1600000	2399999
4	544897	1	10	80	1604	0	0	2630694	2400000	3199999
5	602570	2	10	80	1111	1118	0	3234868	3200000	3999999
6	1087983	2	10	65	1461	1095	0	4325080	4000000	4799999
7	951208	1	10	95	1206	0	0	5278844	4800000	5599999
8	940646	1	10	90	1825	0	0	6220696	5600000	6399999
9	539118	2	10	75	1133	1914	0	6761639	6400000	7199999
10	1192008	2	10	50	1258	1705	0	7956694	7200000	7999999
11	423493	2	10	75	1031	1353	0	8383150	8000000	8799999
12	872716	1	10	90	1157	0	0	9258250	8800000	9599999
13	1106676	2	10	95	1783	1239	0	10366083	9600000	10399999
14	160439	3	10	70	1762	1554	1143	10529544	10400000	11199999
15	1382093	3	10	95	1655	1481	1598	11916096	11200000	11999999

Total number of pulses in waveform = 28

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	583470	3	8	70	1190	1245	1697	583470	0	631578
2	200817	1	8	95	1519	0	0	788419	631579	1263157
3	812679	1	8	95	1868	0	0	1602617	1263158	1894736
4	334172	2	8	65	1543	1727	0	1938657	1894737	2526315
5	599908	1	8	65	1847	0	0	2541835	2526316	3157894
6	631619	2	8	70	1548	1111	0	3175301	3157895	3789473
7	846490	3	8	100	1324	1071	1654	4024450	3789474	4421052
8	714261	3	8	100	1331	1520	1719	4742760	4421053	5052631
9	541495	3	8	55	1179	1543	1008	5288825	5052632	5684210
10	639196	3	8	95	1382	1872	1524	5931751	5684211	6315789
11	891226	3	8	75	1665	1732	1381	6827755	6315790	6947368
12	333950	2	8	50	1766	1388	0	7166483	6947369	7578947
13	738366	3	8	55	1803	1749	1728	7908003	7578948	8210526
14	841664	2	8	70	1964	1911	0	8754947	8210527	8842105
15	582101	2	8	70	1617	1173	0	9340923	8842106	9473684
16	694268	2	8	85	1941	1899	0	10037981	9473685	10105263
17	439616	1	8	60	1649	0	0	10481437	10105264	10736842
18	868256	3	8	60	1450	1856	1637	11351342	10736843	11368421
19	139702	3	8	75	1191	1402	1750	11495987	11368422	12000000

Total number of pulses in waveform = 43

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	163204	3	18	50	1524	1867	1463	163204	0	705881
2	1071749	3	18	95	1434	1466	1987	1239807	705882	1411763
3	679267	3	18	75	1795	1525	1957	1923961	1411764	2117645
4	224378	2	18	80	1911	1136	0	2153616	2117646	2823527
5	679799	1	18	70	1778	0	0	2836462	2823528	3529409
6	1112729	3	18	60	1117	1472	1495	3950969	3529410	4235291
7	879108	2	18	70	1208	1661	0	4834161	4235292	4941173
8	451436	3	18	65	1473	1114	1622	5288466	4941174	5647055
9	833812	2	18	55	1146	1438	0	6126487	5647056	6352937
10	289338	1	18	100	1647	0	0	6418409	6352938	7058819
11	1323209	2	18	65	1472	1828	0	7743265	7058820	7764701
12	94079	1	18	75	1724	0	0	7840644	7764702	8470583
13	1158080	3	18	80	1608	1631	1752	9000448	8470584	9176465
14	486721	3	18	55	1556	1104	1186	9492160	9176466	9882347
15	676548	1	18	75	1520	0	0	10172554	9882348	10588229
16	808769	3	18	100	1091	1324	1796	10982843	10588230	11294111
17	695509	2	18	80	1402	1576	0	11682563	11294112	11999993

Total number of pulses in waveform = 38



Type 5 Radar Waveform_5

Num of Bursts = 17 Burst Interval (us)= 705882											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	507425	2	6	80	1215	1600	0	507425	0	705881	
2	377194	2	6	55	1090	1927	0	887434	705882	1411763	
3	1193840	1	6	100	1959	0	0	2084291	1411764	2117645	
4	696248	2	6	75	1200	1241	0	2782498	2117646	2823527	
5	114194	2	6	60	1398	1062	0	2899133	2823528	3529409	
6	1136889	2	6	65	1549	1045	0	4038482	3529410	4235291	
7	348168	2	6	50	1543	1452	0	4389244	4235292	4941173	
8	1090082	1	6	50	1130	0	0	5482321	4941174	5647055	
9	446563	3	6	55	1915	1639	1069	5930014	5647056	6352937	
10	962479	1	6	85	1885	0	0	6897116	6352938	7058819	
11	525933	3	6	95	1129	1018	1605	7424934	7058820	7764701	
12	677011	2	6	60	1264	1889	0	8105697	7764702	8470583	
13	521444	2	6	75	1768	1488	0	8630294	8470584	9176465	
14	960158	3	6	95	1032	1013	1569	9593708	9176466	9882347	
15	893843	3	6	85	1116	1266	1863	10491165	9882348	10588229	
16	138537	2	6	100	1045	1808	0	10633947	10588230	11294111	
17	1062356	2	6	65	1021	1070	0	11699156	11294112	11999993	
Total number of pulses in waveform = 35 *****											

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	566511	3	5	70	1385	1617	1779	566511	0	631578	
2	189736	1	5	50	1215	0	0	761028	631579	1263157	
3	692577	1	5	50	1566	0	0	1464820	1263158	1894736	
4	661515	3	5	65	1418	1332	1370	2117901	1894737	2526315	
5	902639	3	5	90	1865	1189	1522	3024660	2526316	3157894	
6	346192	2	5	70	1829	1032	0	3375428	3157895	3789473	
7	489300	2	5	95	1713	1139	0	3867589	3789474	4421052	
8	634623	3	5	60	1102	1646	1969	4505064	4421053	5052631	
9	1114850	2	5	80	1965	1162	0	5624621	5052632	5684210	
10	374427	1	5	65	1630	0	0	6002175	5684211	6315789	
11	695351	3	5	80	1594	1983	1645	6899156	6315790	6947368	
12	478979	2	5	95	1999	1137	0	7183357	6947369	7578947	
13	707812	3	5	90	1493	1354	1512	7894305	7578948	8210526	
14	542295	1	5	55	1893	0	0	8440959	8210527	8842105	
15	529232	3	5	95	1037	1355	1350	8972084	8842106	9473684	
16	1010923	1	5	95	1549	0	0	9886749	9473685	10105263	
17	420334	1	5	80	1568	0	0	10408632	10105264	10736842	
18	789359	2	5	50	1659	1640	0	11199559	10736843	11368421	
19	712730	1	5	60	1845	0	0	11915588	11368422	12000000	
Total number of pulses in waveform = 38 *****											

Type 5 Radar Waveform_7

Num of Bursts = 18 Burst Interval (us)= 666667											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	16134	1	14	60	1142	0	0	16134	0	666666	
2	810738	1	14	90	1749	0	0	828014	666667	1333333	
3	507353	3	14	55	1265	1043	1738	1337116	1333334	2000000	
4	1161482	3	14	90	1731	1058	1765	2502644	2000001	2666667	
5	304173	3	14	80	1485	1532	1698	2811371	2666668	3333334	
6	724244	3	14	90	1060	1693	1367	3540330	3333335	4000001	
7	580868	2	14	85	1923	1439	0	4125318	4000002	4666668	
8	551579	2	14	95	1372	1189	0	4680259	4666669	5333335	
9	706841	2	14	50	1699	1918	0	5389661	5333336	6000002	
10	1227699	2	14	65	1633	1771	0	6620977	6000003	6666669	
11	150713	2	14	65	1505	1654	0	6775094	6666670	7333336	
12	706131	1	14	70	1749	0	0	7484384	7333337	8000003	
13	1145848	3	14	55	1409	1469	1701	8631981	8000004	8666670	
14	438211	3	14	50	1417	1404	1573	9074771	8666671	9333337	
15	465479	1	14	100	1335	0	0	9544644	9333338	10000004	
16	792052	2	14	65	1994	1175	0	10338031	10000005	10666671	
17	969599	3	14	80	1538	1477	1175	11310799	10666672	11333338	
18	656729	2	14	100	1992	1552	0	11971718	11333339	12000005	
Total number of pulses in waveform = 39 *****											

**Type 5 Radar Waveform_8**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	406235	3	17	80	1330	1159	1826	406235	0	1333332
2	1721527	2	17	55	1094	1352	0	2132077	1333333	2666665
3	1822393	2	17	85	1685	1218	0	3956916	2666666	3999998
4	959963	3	17	75	1052	1731	1455	4919782	3999999	5333331
5	807532	3	17	95	1446	1915	1882	5731552	5333332	6666664
6	1644942	3	17	50	1962	1811	1174	7381737	6666665	7999997
7	1772494	2	17	95	1127	1706	0	9159178	7999998	9333330
8	917315	2	17	55	1075	1065	0	10079326	9333331	10666663
9	938753	1	17	80	1303	0	0	11020219	10666664	11999996

Total number of pulses in waveform = 21

Type 5 Radar Waveform_9

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	237657	3	19	55	1183	1587	1209	237657	0	857142
2	781138	3	19	80	1214	1070	1342	1022774	857143	1714285
3	808031	1	19	70	1502	0	0	1834431	1714286	2571428
4	1337953	3	19	50	1649	1174	1559	3173886	2571429	3428571
5	1046745	3	19	95	1268	1019	1472	4225013	3428572	4285714
6	153846	1	19	90	1025	0	0	4382618	4285715	5142857
7	1084794	3	19	100	1301	1480	1164	5468437	5142858	6000000
8	841679	1	19	85	1988	0	0	6314061	6000001	6857143
9	1295398	2	19	65	1547	1616	0	7611447	6857144	7714286
10	941260	2	19	55	1098	1835	0	8555870	7714287	8571429
11	841368	3	19	60	1597	1595	1311	9400171	8571430	9428572
12	44997	3	19	60	1775	1031	1908	9449671	9428573	10285715
13	875292	2	19	75	1516	1740	0	10329677	10285716	11142858
14	1539235	2	19	90	1352	1913	0	11872168	11142859	12000001

Total number of pulses in waveform = 32

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	153002	2	12	65	1931	1465	0	153002	0	999999
2	1636485	3	12	55	1491	1188	1649	1792883	1000000	1999999
3	480659	1	12	100	1088	0	0	2277870	2000000	2999999
4	911675	1	12	80	1743	0	0	3190633	3000000	3999999
5	1653643	1	12	60	1613	0	0	4846019	4000000	4999999
6	437712	3	12	70	1492	1273	1001	5285344	5000000	5999999
7	1675622	3	12	75	1317	1633	1484	6964732	6000000	6999999
8	565611	1	12	90	1309	0	0	7534777	7000000	7999999
9	1241764	2	12	65	1915	1644	0	8777850	8000000	8999999
10	1028148	3	12	85	1483	1596	1336	9809557	9000000	9999999
11	690418	2	12	70	1382	1854	0	10504390	10000000	10999999
12	524554	1	12	55	1476	0	0	11032180	11000000	11999999

Total number of pulses in waveform = 23



Type 5 Radar Waveform_11

Num of Bursts = 20 Burst Interval (us)= 600000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	329782	1	10	95	1471	0	0	329782	0	599999
2	489645	1	10	75	1356	0	0	820898	600000	1199999
3	380583	2	10	85	1928	1265	0	1202837	1200000	1799999
4	1001397	3	10	70	1679	1756	1169	2207427	1800000	2399999
5	531803	3	10	55	1325	1148	1067	2743834	2400000	2999999
6	666555	3	10	95	1052	1022	1580	3413929	3000000	3599999
7	496269	2	10	75	1457	1686	0	3913852	3600000	4199999
8	723073	2	10	60	1948	1310	0	4640068	4200000	4799999
9	568792	2	10	100	1009	1121	0	5212118	4800000	5399999
10	434650	1	10	65	1802	0	0	5648898	5400000	5999999
11	720474	1	10	60	1746	0	0	6371174	6000000	6599999
12	561532	1	10	95	1597	0	0	6934452	6600000	7199999
13	671478	3	10	55	1571	1264	1970	7607527	7200000	7799999
14	354356	2	10	100	1110	1664	0	7966688	7800000	8399999
15	480284	2	10	65	1237	1235	0	8449746	8400000	8999999
16	867987	2	10	100	1780	1242	0	9320205	9000000	9599999
17	525563	2	10	70	1282	1570	0	9848790	9600000	10199999
18	380951	1	10	50	1997	0	0	10232593	10200000	10799999
19	925151	2	10	100	1258	1670	0	11159741	10800000	11399999
20	394657	2	10	80	1715	1688	0	11557326	11400000	11999999
Total number of pulses in waveform = 38 *****										

Type 5 Radar Waveform_12

Num of Bursts = 9 Burst Interval (us)= 1333333										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	436517	2	5	55	1999	1094	0	436517	0	1333332
2	1579741	2	5	50	1242	1761	0	2019351	1333333	2666665
3	926372	1	5	65	1943	0	0	2948726	2666666	3999998
4	1693861	3	5	70	1132	1640	1294	4644530	3999999	5333331
5	1911778	2	5	65	1967	1126	0	6560374	5333332	6666664
6	1115177	1	5	60	1603	0	0	7678644	6666665	7999997
7	902886	3	5	80	1673	1469	1078	8583133	7999998	9333330
8	1282266	1	5	75	1028	0	0	9869619	9333331	10666663
9	1810145	3	5	55	1834	1779	1518	11680792	10666664	11999996
Total number of pulses in waveform = 18 *****										

Type 5 Radar Waveform_13

Num of Bursts = 9 Burst Interval (us)= 1333333										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	816136	3	9	70	1087	1359	1256	816136	0	1333332
2	837936	3	9	50	1550	1458	1053	1657774	1333333	2666665
3	2212294	3	9	70	1657	1504	1636	3874129	2666666	3999998
4	1367571	1	9	50	1119	0	0	5246497	3999999	5333331
5	715522	3	9	65	1025	1259	1534	5963138	5333332	6666664
6	1760818	1	9	70	1140	0	0	7727774	6666665	7999997
7	1072823	2	9	85	1496	1166	0	8801737	7999998	9333330
8	681165	2	9	75	1314	1500	0	9485564	9333331	10666663
9	1631128	3	9	75	1128	1734	1259	11119506	10666664	11999996
Total number of pulses in waveform = 21 *****										



Type 5 Radar Waveform_14

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	520388	1	19	50	1207	0	0	520388	0	857142
2	934627	3	19	80	1560	1066	1816	1456222	857143	1714285
3	777142	3	19	90	1738	1052	1111	2237806	1714286	2571428
4	689355	1	19	65	1073	0	0	2931062	2571429	3428571
5	590944	3	19	60	1114	1604	1159	3523079	3428572	4285714
6	1146043	2	19	75	1646	1603	0	4672999	4285715	5142857
7	680154	1	19	50	1810	0	0	5356402	5142858	6000000
8	1009831	2	19	70	1255	1285	0	6368043	6000001	6857143
9	903450	2	19	75	1906	1279	0	7274033	6857144	7714286
10	660372	2	19	100	1090	1019	0	7937590	7714287	8571429
11	1347762	2	19	95	1355	1672	0	9287461	8571430	9428572
12	566254	3	19	65	1733	1759	1800	9856742	9428573	10285715
13	990264	2	19	65	1927	1416	0	10852298	10285716	11142858
14	795570	3	19	65	1156	1523	1335	11651211	11142859	12000001

Total number of pulses in waveform = 30

Type 5 Radar Waveform_15

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	234295	2	12	65	1386	1923	0	234295	0	631578
2	434828	1	12	50	1886	0	0	672432	631579	1263157
3	950277	2	12	90	1685	1702	0	1624595	1263158	1894736
4	566788	2	12	90	1664	1227	0	2194770	1894737	2526315
5	637733	2	12	90	1256	1482	0	2835394	2526316	3157894
6	472686	2	12	75	1456	1536	0	3310818	3157895	3789473
7	630298	3	12	80	1743	1822	1832	3944108	3789474	4421052
8	617401	1	12	60	1167	0	0	4566906	4421053	5052631
9	892734	1	12	100	1229	0	0	5460807	5052632	5684210
10	470904	1	12	55	1964	0	0	5932940	5684211	6315789
11	1001452	2	12	80	1389	1305	0	6936356	6315790	6947368
12	578226	2	12	95	1155	1815	0	7517276	6947369	7578947
13	384469	2	12	50	1129	1231	0	7904715	7578948	8210526
14	585215	2	12	50	1569	1396	0	8492290	8210527	8842105
15	622631	3	12	85	1444	1328	1853	9117886	8842106	9473684
16	885515	1	12	80	1245	0	0	10008026	9473685	10105263
17	156589	2	12	85	1137	1873	0	10165860	10105264	10736842
18	878117	3	12	80	1549	1626	1751	11046987	10736843	11368421
19	925466	2	12	60	1519	1227	0	11977379	11368422	12000000

Total number of pulses in waveform = 36

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	372865	2	18	85	1608	1339	0	372865	0	1199999
2	1898527	2	18	75	1886	1305	0	2274339	1200000	2399999
3	380247	3	18	95	1223	1086	1044	2657777	2400000	3599999
4	1061509	2	18	90	1075	1976	0	3722639	3600000	4799999
5	2080850	3	18	95	1487	1504	1594	5806540	4800000	5999999
6	980606	3	18	50	1543	1880	1655	6791731	6000000	7199999
7	1331259	2	18	85	1050	1609	0	8128068	7200000	8399999
8	286799	1	18	90	1281	0	0	8417526	8400000	9599999
9	1551976	2	18	55	1752	1894	0	9970783	9600000	10799999
10	1432016	3	18	85	1255	1133	1216	11406445	10800000	11999999

Total number of pulses in waveform = 23



Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	154659	2	8	70	1666	1779	0	154659	0	999999
2	1324802	2	8	85	1116	1694	0	1482906	1000000	1999999
3	1287357	3	8	100	1002	1547	1259	2773073	2000000	2999999
4	426666	1	8	95	1563	0	0	3203547	3000000	3999999
5	999608	2	8	80	1391	1932	0	4204718	4000000	4999999
6	1496357	2	8	100	1822	1849	0	5704398	5000000	5999999
7	407829	2	8	65	1636	1205	0	6115898	6000000	6999999
8	1424769	1	8	85	1692	0	0	7543508	7000000	7999999
9	561950	2	8	70	1106	1719	0	8107150	8000000	8999999
10	1498413	3	8	65	1250	1071	1073	9608388	9000000	9999999
11	1211949	2	8	55	1971	1334	0	10823731	10000000	10999999
12	570962	1	8	85	1703	0	0	11397998	11000000	11999999

Total number of pulses in waveform = 23

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	430880	3	14	90	1443	1654	1405	430880	0	631578
2	796091	1	14	80	1423	0	0	1231473	631579	1263157
3	525780	3	14	65	1037	1830	1750	1758676	1263158	1894736
4	204166	1	14	60	1818	0	0	1967459	1894737	2526315
5	1104950	1	14	50	1976	0	0	3074227	2526316	3157894
6	473116	3	14	70	1111	1684	1652	3549319	3157895	3789473
7	830255	1	14	50	1763	0	0	4384021	3789474	4421052
8	622613	1	14	80	1940	0	0	5008397	4421053	5052631
9	585474	2	14	80	1585	1928	0	5595811	5052632	5684210
10	231213	2	14	55	1091	1586	0	5830537	5684211	6315789
11	718512	2	14	85	1496	1100	0	6551726	6315790	6947368
12	419390	2	14	75	1336	1542	0	6973712	6947369	7578947
13	658210	3	14	65	1684	1183	1941	7634800	7578948	8210526
14	1008704	3	14	70	1225	1050	1424	8648312	8210527	8842105
15	545767	3	14	75	1930	1760	1642	9197778	8842106	9473684
16	598058	1	14	75	1774	0	0	9801168	9473685	10105263
17	807078	2	14	55	1860	1630	0	10610020	10105264	10736842
18	314604	2	14	85	1611	1232	0	10928114	10736843	11368421
19	548728	2	14	85	1061	1390	0	11479685	11368422	12000000

Total number of pulses in waveform = 38

Type 5 Radar Waveform_19

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	687967	3	6	65	1516	1146	1613	687967	0	1199999
2	1111273	1	6	100	1207	0	0	1803515	1200000	2399999
3	854575	2	6	80	1527	1154	0	2659297	2400000	3599999
4	1694688	2	6	85	1720	1191	0	4356666	3600000	4799999
5	727767	3	6	100	1263	1584	1763	5087344	4800000	5999999
6	1168074	2	6	95	1619	1360	0	6260028	6000000	7199999
7	2107143	2	6	75	1624	1371	0	8370150	7200000	8399999
8	425436	1	6	100	1001	0	0	8798581	8400000	9599999
9	1693003	3	6	70	1230	1500	1053	10492585	9600000	10799999
10	511654	1	6	80	1195	0	0	11008022	10800000	11999999

Total number of pulses in waveform = 20



Type 5 Radar Waveform_20

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	550188	1	17	55	1785	0	0	550188	0	631578
2	407084	1	17	70	1075	0	0	959057	631579	1263157
3	344556	2	17	80	1262	1685	0	1304688	1263158	1894736
4	955769	1	17	90	1585	0	0	2263394	1894737	2526315
5	809772	2	17	60	1467	1529	0	3074751	2526316	3157894
6	501918	1	17	95	1001	0	0	3579665	3157895	3789473
7	444708	2	17	90	1180	1719	0	4025374	3789474	4421052
8	462759	1	17	65	1703	0	0	4491032	4421053	5052631
9	1038237	1	17	100	1176	0	0	5530972	5052632	5684210
10	586586	2	17	80	1484	1545	0	6118734	5684211	6315789
11	445738	3	17	75	1544	1660	1339	6567501	6315790	6947368
12	889878	2	17	85	1688	1792	0	7461922	6947369	7578947
13	125026	2	17	100	1149	1628	0	7590428	7578948	8210526
14	642796	3	17	70	1693	1119	1554	8236001	8210527	8842105
15	1104208	2	17	65	1101	1601	0	9344575	8842106	9473684
16	717621	3	17	60	1492	1894	1399	10064898	9473685	10105263
17	129519	2	17	85	1081	1479	0	10199202	10105264	10736842
18	1045337	2	17	60	1084	1427	0	11247099	10736843	11368421
19	553750	3	17	85	1298	1266	1225	11803360	11368422	12000000

Total number of pulses in waveform = 36

Type 5 Radar Waveform_21

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	62980	2	6	70	1433	1673	0	62980	0	857142
2	1113277	2	6	95	1122	1818	0	1179363	857143	1714285
3	818668	1	6	55	1617	0	0	2000971	1714286	2571428
4	1104283	1	6	50	1549	0	0	3106871	2571429	3428571
5	455457	1	6	65	1375	0	0	3563877	3428572	4285714
6	1565793	1	6	90	1668	0	0	5131045	4285715	5142857
7	168420	1	6	95	1521	0	0	5301133	5142858	6000000
8	1118811	1	6	55	1586	0	0	6421465	6000001	6857143
9	818611	3	6	60	1888	1267	1034	7241662	6857144	7714286
10	1127644	3	6	100	1523	1002	1222	8373495	7714287	8571429
11	203008	3	6	75	1806	1262	1678	8580250	8571430	9428572
12	1487005	2	6	70	1392	1673	0	10072001	9428573	10285715
13	526982	2	6	90	1851	1528	0	10602048	10285716	11142858
14	945872	2	6	85	1244	1232	0	11551299	11142859	12000001

Total number of pulses in waveform = 25

Type 5 Radar Waveform_22

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	980785	3	19	100	1622	1876	1284	980785	0	999999
2	288603	3	19	90	1115	1261	1835	1274170	1000000	1999999
3	1693475	3	19	75	1173	1433	1845	2971856	2000000	2999999
4	362083	3	19	85	1393	1092	1723	3338390	3000000	3999999
5	689075	3	19	100	1622	1609	1635	4031673	4000000	4999999
6	1672916	1	19	50	1246	0	0	5709455	5000000	5999999
7	792294	3	19	55	1386	1124	1408	6502995	6000000	6999999
8	1317152	1	19	75	1914	0	0	7824065	7000000	7999999
9	271073	3	19	100	1432	1082	1997	8097052	8000000	8999999
10	1251485	3	19	100	1767	1750	1296	9353048	9000000	9999999
11	1202854	2	19	55	1112	1614	0	10560715	10000000	10999999
12	1125881	1	19	90	1837	0	0	11689322	11000000	11999999

Total number of pulses in waveform = 29



Type 5 Radar Waveform_23

Num of Bursts = 20 Burst Interval (us)= 600000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	374481	2	18	100	1381	1158	0	374481	0	599999
2	338544	3	18	55	1082	1563	1259	715564	600000	1199999
3	684072	1	18	85	1237	0	0	1403540	1200000	1799999
4	981122	2	18	70	1131	1327	0	2385899	1800000	2399999
5	413831	3	18	75	1252	1727	1871	2802188	2400000	2999999
6	484109	3	18	95	1761	1716	1178	3291147	3000000	3599999
7	701961	2	18	50	1245	1584	0	3997763	3600000	4199999
8	646219	2	18	75	1124	1482	0	4646811	4200000	4799999
9	576189	3	18	95	1375	1952	1048	5225606	4800000	5399999
10	686764	2	18	55	1763	1624	0	5896745	5400000	5999999
11	187843	1	18	100	1252	0	0	6087975	6000000	6599999
12	1012963	1	18	60	1485	0	0	7102190	6600000	7199999
13	628092	3	18	80	1649	1366	1407	7731767	7200000	7799999
14	77708	1	18	80	1353	0	0	7813897	7800000	8399999
15	659219	3	18	60	1643	1452	1698	8474469	8400000	8999999
16	964162	3	18	65	1443	1173	1732	9443424	9000000	9599999
17	636749	3	18	85	1944	1074	1629	10084521	9600000	10199999
18	486767	2	18	100	1086	1037	0	10575935	10200000	10799999
19	296614	3	18	100	1096	1445	1467	10877672	10800000	11399999
20	727857	1	18	85	1155	0	0	11609537	11400000	11999999
Total number of pulses in waveform = 44 *****										

Type 5 Radar Waveform_24

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	117324	3	17	60	1900	1288	1864	117324	0	1199999
2	1285415	3	17	100	1928	1720	1590	1407791	1200000	2399999
3	2030172	1	17	90	1155	0	0	3443201	2400000	3599999
4	209611	2	17	55	1657	1008	0	3653967	3600000	4799999
5	2069956	2	17	65	1155	1702	0	5726588	4800000	5999999
6	633350	3	17	70	1893	1405	1291	6362795	6000000	7199999
7	1338343	2	17	65	1430	1712	0	7705727	7200000	8399999
8	951652	1	17	75	1341	0	0	8660521	8400000	9599999
9	1511283	1	17	95	1005	0	0	10173145	9600000	10799999
10	1581209	3	17	95	1399	1681	1888	11755359	10800000	11999999
Total number of pulses in waveform = 21 *****										

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	321665	1	10	65	1626	0	0	321665	0	999999
2	962553	2	10	55	1657	1468	0	1285844	1000000	1999999
3	1244257	1	10	75	1648	0	0	2533226	2000000	2999999
4	1257468	2	10	85	1722	1129	0	3792342	3000000	3999999
5	1157790	3	10	90	1136	1338	1688	4952983	4000000	4999999
6	1033264	2	10	70	1329	1258	0	5990409	5000000	5999999
7	469239	1	10	65	1375	0	0	6462235	6000000	6999999
8	1195411	3	10	90	1231	1642	1635	7659021	7000000	7999999
9	357363	2	10	95	1757	1300	0	8020892	8000000	8999999
10	1801848	1	10	90	1081	0	0	9825797	9000000	9999999
11	990521	1	10	80	1294	0	0	10817399	10000000	10999999
12	449015	2	10	90	1777	1729	0	11267708	11000000	11999999
Total number of pulses in waveform = 21 *****										



Type 5 Radar Waveform_26

Num of Bursts = 20 Burst Interval (us)= 6000000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	214849	2	14	85	1669	1593	0	214849	0	599999
2	606962	2	14	65	1250	1698	0	825073	6000000	1199999
3	819962	3	14	60	1068	1345	1003	1647983	1200000	1799999
4	320767	3	14	75	1896	1490	1248	1972166	1800000	2399999
5	850190	2	14	65	1918	1516	0	2826990	2400000	2999999
6	442911	3	14	75	1377	1393	1189	3273335	3000000	3599999
7	581229	1	14	75	1543	0	0	3858523	3600000	4199999
8	753726	1	14	55	1000	0	0	4613792	4200000	4799999
9	424906	2	14	95	1748	1333	0	5039698	4800000	5399999
10	642905	1	14	75	1740	0	0	5685684	5400000	5999999
11	522032	3	14	60	1303	1825	1017	6209456	6000000	6599999
12	759976	1	14	55	1057	0	0	6973577	6800000	7199999
13	418531	3	14	95	1207	1191	1430	7393165	7200000	7799999
14	853962	1	14	70	1277	0	0	8250955	7800000	8399999
15	241646	3	14	50	1771	1567	1854	8493878	8400000	8999999
16	934260	1	14	100	1092	0	0	9433330	9000000	9599999
17	229685	2	14	75	1211	1489	0	9664107	9600000	10199999
18	1081898	1	14	95	1898	0	0	10748705	10200000	10799999
19	557991	1	14	60	1497	0	0	11308594	10800000	11399999
20	517623	1	14	75	1863	0	0	11827714	11400000	11999999
Total number of pulses in waveform = 37 *****										

Type 5 Radar Waveform_27

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	272460	2	9	70	1440	1275	0	272460	0	1333332
2	2142463	3	9	85	1788	1688	1479	2417638	1333333	2666665
3	1295521	1	9	100	1341	0	0	3718114	2666666	3999998
4	1106809	2	9	95	1953	1207	0	4826264	3999999	5333331
5	1008138	1	9	95	1099	0	0	5837562	5333332	6666664
6	1366799	1	9	75	1886	0	0	7205460	6666665	7999997
7	793469	3	9	60	1843	1502	1853	8000815	7999998	9333330
8	1624192	2	9	95	1414	1343	0	9630205	9333331	10666663
9	2088512	2	9	95	1111	1931	0	11721474	10666664	11999996
Total number of pulses in waveform = 17 *****										

Type 5 Radar Waveform_28

Num of Bursts = 13 Burst Interval (us)= 923077										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	524504	1	8	55	1873	0	0	524504	0	923076
2	1042497	2	8	65	1380	1835	0	1568874	923077	1846153
3	374687	3	8	60	1799	1761	1748	1946776	1846154	2769230
4	1717110	1	8	100	1786	0	0	3669194	2769231	3692307
5	312922	2	8	100	1928	1098	0	3983902	3692308	4615384
6	1504344	2	8	75	1360	1573	0	5491272	4615385	5538461
7	716969	1	8	50	1855	0	0	6211174	5538462	6461538
8	820193	3	8	50	1255	1356	1759	7033222	6461539	7384615
9	848540	1	8	95	1931	0	0	7886132	7384616	8307692
10	1196220	1	8	55	1549	0	0	9084283	8307693	9230769
11	852711	3	8	90	1503	1855	1725	9938543	9230770	10153846
12	384691	2	8	55	1758	1947	0	10328317	10153847	11076923
13	1215582	1	8	65	1442	0	0	11547604	11076924	12000000
Total number of pulses in waveform = 23 *****										



Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	212523	3	5	80	1853	1382	1476	212523	0	631578
2	464424	3	5	90	1536	1193	1019	681658	631579	1263157
3	613961	2	5	100	1548	1805	0	1299367	1263158	1894736
4	678956	3	5	95	1202	1944	1207	1981676	1894737	2526315
5	1092669	2	5	50	1299	1280	0	3078698	2526316	3157894
6	516705	2	5	90	1310	1856	0	3597982	3157895	3789473
7	520261	1	5	65	1433	0	0	4121409	3789474	4421052
8	784149	3	5	70	1215	1146	1382	4906991	4421053	5052631
9	372791	3	5	55	1865	1760	1414	5283465	5052632	5684210
10	685822	3	5	65	1491	1930	1571	5974326	5684211	6315789
11	856775	1	5	55	1126	0	0	6836093	6315790	6947368
12	626734	2	5	80	1660	1427	0	7463953	6947369	7578947
13	626825	1	5	55	1351	0	0	8093865	7578948	8210526
14	623398	1	5	55	1399	0	0	8718614	8210527	8842105
15	697931	1	5	60	1888	0	0	9417944	8842106	9473684
16	188026	3	5	100	1660	1811	1446	9607858	9473685	10105263
17	824810	1	5	60	1165	0	0	10437585	10105264	10736842
18	480888	2	5	100	1672	1611	0	10919638	10736843	11368421
19	940310	3	5	70	1840	1070	1399	11863231	11368422	12000000

Total number of pulses in waveform = 40

Type 5 Radar Waveform_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	849735	3	12	55	1606	1517	1325	849735	0	1199999
2	669750	3	12	90	1872	1110	1687	1523933	1200000	2399999
3	1422622	1	12	70	1329	0	0	2951224	2400000	3599999
4	807109	1	12	65	1768	0	0	3759662	3600000	4799999
5	1432428	1	12	60	1950	0	0	5193858	4800000	5999999
6	1514943	3	12	80	1635	1481	1472	6710751	6000000	7199999
7	1520563	3	12	85	1100	1914	1747	8235902	7200000	8399999
8	492049	1	12	100	1453	0	0	8732712	8400000	9599999
9	1750864	3	12	50	1663	1922	1380	10485029	9600000	10799999
10	1197540	1	12	60	1254	0	0	11687534	10800000	11999999

Total number of pulses in waveform = 20

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	5250	1	16	5289	1
2	5250	1	17	5290	1
3	5251	1	18	5290	1
4	5251	1	19	5291	1
5	5260	1	20	5291	1
6	5260	1	21	5300	0
7	5269	1	22	5300	1
8	5269	1	23	5309	1
9	5270	1	24	5310	1
10	5270	1	25	5310	1
11	5271	1	26	5311	1
12	5271	1	27	5320	1
13	5280	1	28	5320	1
14	5280	1	29	5329	1
15	5289	1	30	5329	1
Detection Percentage (%)					96.67%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
45	5273	135	56	5271	168
48	5253	144	75	5278	225
58	5251	174	87	5270	261
71	5270	213	91	5265	273
89	5279	267	--	--	--
97	5256	291	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5272	15	29	5269	87
6	5252	18	30	5267	90
17	5281	51	31	5253	93
18	5257	54	68	5275	204
26	5268	78	69	5263	207
36	5277	108	77	5276	231
41	5273	123	87	5255	261
63	5270	189	--	--	--
67	5251	201	--	--	--
69	5275	207	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
25	5278	75	8	5272	24
28	5277	84	10	5278	30
41	5264	123	11	5253	33
44	5274	132	14	5284	42
52	5279	156	16	5274	48
56	5255	168	21	5261	63
73	5286	219	37	5266	111
88	5276	264	52	5279	156
--	--	--	63	5251	189
--	--	--	79	5282	237

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5290	3	1	5254	3
5	5265	15	13	5288	39
6	5253	18	19	5285	57
13	5278	39	21	5297	63
28	5266	84	30	5273	90
29	5295	87	36	5257	108
37	5293	111	39	5264	117
53	5281	159	41	5290	123
57	5252	171	45	5276	135
65	5299	195	54	5274	162
67	5289	201	73	5266	219
68	5259	204	78	5293	234
87	5294	261	84	5295	252
90	5298	270	91	5292	273
94	5280	282	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5273	3	0	5282	0
2	5255	6	17	5292	51
5	5272	15	22	5289	66
6	5253	18	27	5261	81
27	5277	81	44	5255	132
29	5276	87	74	5296	222
47	5284	141	82	5273	246
48	5274	144	95	5293	285
51	5296	153	--	--	--
52	5299	156	--	--	--
68	5278	204	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5298	12	9	5253	27
13	5282	39	10	5285	30
14	5253	42	37	5281	111
19	5260	57	43	5276	129
31	5283	93	77	5275	231
33	5279	99	89	5282	267
72	5292	216	95	5273	285
83	5278	249	--	--	--
87	5263	261	--	--	--
92	5290	276	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5291	45	2	5274	6
27	5294	81	19	5308	57
33	5302	99	33	5264	99
36	5261	108	41	5271	123
44	5283	132	50	5281	150
45	5305	135	53	5302	159
53	5308	159	60	5294	180
55	5285	165	67	5277	201
68	5278	204	76	5282	228
72	5270	216	77	5303	231
74	5298	222	79	5285	237
79	5307	237	93	5258	279
86	5281	258	--	--	--
93	5282	279	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5288	3	1	5265	3
3	5317	9	5	5310	15
15	5302	45	9	5279	27
18	5268	54	30	5276	90
26	5269	78	32	5304	96
39	5315	117	34	5307	102
55	5267	165	37	5262	111
56	5313	168	41	5309	123
67	5309	201	48	5274	144
82	5287	246	58	5271	174
89	5265	267	59	5280	177
94	5262	282	79	5319	237
--	--	--	84	5303	252
--	--	--	86	5282	258
--	--	--	92	5259	276
--	--	--	98	5290	294

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
22	5297	66	27	5316	81
24	5283	72	34	5313	102
37	5318	111	35	5299	105
49	5304	147	43	5288	129
53	5312	159	50	5311	150
58	5264	174	54	5267	162
60	5269	180	57	5284	171
79	5316	237	59	5315	177
81	5288	243	63	5283	189
88	5305	264	64	5301	192
89	5314	267	66	5264	198
90	5319	270	92	5281	276
95	5289	285	98	5289	294
97	5298	291	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5312	9	0	5293	0
13	5271	39	5	5299	15
18	5290	54	7	5292	21
24	5270	72	18	5318	54
32	5263	96	26	5297	78
39	5298	117	29	5262	87
44	5304	132	34	5283	102
48	5292	144	40	5300	120
49	5284	147	50	5311	150
50	5272	150	52	5286	156
52	5268	156	53	5275	159
56	5293	168	55	5288	165
60	5297	180	60	5277	180
65	5315	195	63	5305	189
71	5321	213	73	5276	219
--	--	--	74	5321	222
--	--	--	84	5296	252
--	--	--	89	5266	267
--	--	--	92	5274	276
--	--	--	95	5285	285
--	--	--	96	5294	288

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5319	0	10	5322	30
2	5278	6	11	5311	33
16	5274	48	13	5312	39
22	5322	66	14	5278	42
23	5324	69	16	5293	48
27	5310	81	20	5287	60
29	5293	87	22	5309	66
34	5281	102	26	5299	78
42	5306	126	27	5301	81
59	5275	177	63	5280	189
60	5290	180	64	5326	192
61	5307	183	78	5303	234
80	5326	240	84	5314	252
97	5301	291	89	5319	267
99	5316	297	93	5305	279

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5312	15	0	5332	0
14	5316	42	1	5290	3
43	5338	129	16	5322	48
53	5308	159	19	5316	57
55	5287	165	21	5318	63
66	5315	198	58	5281	174
87	5279	261	77	5334	231
--	--	--	78	5299	234
--	--	--	82	5325	246
--	--	--	93	5339	279
--	--	--	94	5291	282

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5301	60	15	5313	45
32	5302	96	18	5297	54
33	5306	99	22	5322	66
44	5290	132	33	5303	99
53	5330	159	40	5298	120
58	5282	174	42	5295	126
59	5324	177	71	5331	213
60	5336	180	73	5302	219
66	5304	198	74	5326	222
69	5321	207	83	5305	249
--	--	--	86	5287	258
--	--	--	93	5339	279
--	--	--	96	5311	288
--	--	--	98	5341	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5339	30	7	5348	21
20	5292	60	10	5338	30
24	5350	72	11	5299	33
27	5337	81	18	5305	54
36	5324	108	22	5309	66
49	5325	147	31	5307	93
52	5302	156	36	5313	108
55	5313	165	42	5331	126
63	5297	189	44	5293	132
70	5290	210	59	5291	177
72	5319	216	64	5339	192
75	5323	225	66	5335	198
79	5329	237	69	5332	207
82	5349	246	71	5308	213
87	5312	261	74	5298	222
88	5296	264	98	5311	294
93	5304	279	--	--	--
95	5340	285	--	--	--
97	5333	291	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5355	18	2	5316	6
10	5350	30	12	5301	36
23	5357	69	18	5358	54
30	5343	90	24	5314	72
39	5331	117	26	5342	78
48	5356	144	31	5306	93
66	5341	198	34	5330	102
71	5313	213	42	5354	126
88	5304	264	47	5344	141
--	--	--	48	5348	144
--	--	--	51	5317	153
--	--	--	54	5325	162
--	--	--	55	5333	165
--	--	--	65	5343	195
--	--	--	78	5300	234
--	--	--	81	5310	243
--	--	--	87	5308	261
--	--	--	97	5350	291

Product	AX11000 MU-MIMO Tri-Band Gaming Router	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	AC1	Test Date	2018/11/30
Test Item	Radar Statistical Performance Check (802.11ax-HE160 mode – 5570MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	1	738	72	0
2	5491	1	698	76	1
3	5500	1	798	67	1
4	5510	1	878	61	1
5	5520	1	578	92	1
6	5530	1	898	59	1
7	5540	1	558	95	1
8	5550	1	778	68	1
9	5560	1	598	89	1
10	5570	1	3066	18	1
11	5570	1	658	81	1
12	5570	1	858	62	1
13	5570	1	918	58	1
14	5570	1	938	57	1
15	5570	1	718	74	1
16	5570	1	2979	18	1
17	5570	1	1156	46	1
18	5570	1	1293	41	1
19	5570	1	1668	32	1
20	5570	1	3027	18	1
21	5570	1	644	82	1
22	5580	1	1414	38	1
23	5590	1	2966	18	1
24	5600	1	933	57	1
25	5610	1	2683	20	1
26	5620	1	684	78	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5630	1	2939	18	1
28	5640	1	1110	48	1
29	5649	1	2944	18	1
30	5649	1	2819	19	1
Detection Percentage (%)					96.67%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	2.0	221	28	1
2	5491	3.1	171	29	1
3	5500	4.5	207	24	1
4	5510	4.8	198	26	1
5	5520	3.6	215	24	1
6	5530	4.3	228	27	1
7	5540	3.1	175	25	0
8	5550	1.6	174	23	1
9	5560	3.9	175	26	1
10	5570	3.6	228	29	1
11	5570	5.0	152	27	1
12	5570	4.7	154	26	1
13	5570	1.7	189	23	1
14	5570	1.1	152	28	1
15	5570	2.0	184	27	0
16	5570	5.0	156	25	1
17	5570	1.8	192	25	1
18	5570	1.7	191	26	1
19	5570	1.2	172	29	1
20	5570	4.5	179	27	1
21	5570	4.4	193	24	1
22	5580	3.0	166	24	1
23	5590	3.4	228	28	1
24	5600	3.9	185	23	1
25	5610	4.8	227	27	1
26	5620	2.7	154	25	1
27	5630	4.7	160	27	1
28	5640	1.5	208	26	0
29	5649	2.5	166	23	1
30	5649	2.9	187	24	0
Detection Percentage (%)					86.67%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	8.8	451	17	1
2	5491	8.5	449	17	0
3	5500	9.5	446	18	0
4	5510	8.6	262	16	1
5	5520	9.9	292	17	1
6	5530	9.0	433	17	1
7	5540	8.8	490	16	1
8	5550	9.0	478	18	1
9	5560	6.1	268	16	1
10	5570	9.4	477	16	1
11	5570	8.4	485	18	1
12	5570	6.6	452	16	1
13	5570	6.6	382	16	1
14	5570	8.5	440	18	1
15	5570	8.3	267	18	1
16	5570	6.2	473	17	1
17	5570	6.3	297	17	1
18	5570	6.1	316	18	1
19	5570	9.6	424	16	0
20	5570	6.2	480	18	0
21	5570	9.5	345	16	1
22	5580	7.0	264	18	1
23	5590	7.0	440	16	1
24	5600	8.5	472	18	1
25	5610	8.3	254	18	1
26	5620	8.2	465	16	1
27	5630	6.8	451	16	1
28	5640	9.5	403	16	1
29	5649	8.2	308	17	1
30	5649	9.5	400	17	1
Detection Percentage (%)					86.67%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	17.9	251	15	1
2	5491	13.6	398	12	1
3	5500	15.1	493	14	1
4	5510	11.7	371	12	1
5	5520	11.8	326	15	1
6	5530	17.2	255	16	1
7	5540	20.0	267	16	1
8	5550	16.8	482	12	1
9	5560	18.0	430	16	1
10	5570	19.4	476	12	0
11	5570	12.0	323	12	1
12	5570	15.5	251	15	1
13	5570	11.5	389	16	1
14	5570	19.4	323	14	1
15	5570	18.2	462	14	1
16	5570	11.2	282	16	1
17	5570	14.1	309	12	1
18	5570	17.8	419	15	1
19	5570	17.3	333	12	1
20	5570	19.5	491	14	1
21	5570	16.2	458	12	1
22	5580	16.6	410	15	1
23	5590	12.2	485	13	1
24	5600	14.5	308	15	1
25	5610	17.2	489	12	0
26	5620	14.8	470	16	1
27	5630	11.6	374	13	1
28	5640	12.3	277	13	1
29	5649	12.9	446	13	1
30	5649	19.7	359	13	1
Detection Percentage (%)					93.33%

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

waveforms is as follows: $\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (96.67\% + 86.67\% + 86.67\% + 93.33\%) / 4 = 90.84\% (>80\%)$