

Dynamic Frequency Selection (DFS) Test Report

AIR-CAP702W-B-K9

Cisco Aironet 802.11n

FCC ID: LDK102092

IC:2461B-102092

Also covers:

AIR-CAP702W-A-K9

AIR-CAP702W-D-K9

AIR-CAP702W-N-K9

AIR-CAP702W-T-K9

AIR-CAP702W-Z-K9

5250-5350, 5470-5725 MHz

Against the following Specifications:

CFR47 Part 15.407
RSS247

Cisco Systems
170 West Tasman Drive
San Jose, CA 95134

	
Author: Jose Aguirre Tested By	Approved By: Jim Nicolson Title: Technical Leader, Engineering Revision: 2

This report replaces any previously entered test report under **EDCS-1326320** This test report has been electronically authorized and archived using the CISCO Engineering Document Control system.



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Section 1: Overview

The samples were assessed against the tests detailed in section 3 under the requirements of the following specifications:

Specifications:
CFR47 Part 15.407 RSS-247

RSS-247 section A9.3a allows the use of applicable FCC KDBs

Measurements were made in accordance with

- KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

Section 2: Assessment Information

2.1 General

This report contains an assessment of an apparatus against Electromagnetic Compatibility Standards based upon tests carried out on the samples submitted. The testing was performed by and for the use of Cisco systems Inc:

With regard to this assessment, the following points should be noted:

- a) The results contained in this report relate only to the items tested and were obtained in the period between the date of the initial assessment and the date of issue of the report. Manufactured products will not necessarily give identical results due to production and measurement tolerances.
- b) The apparatus was set up and exercised using the configuration and modes of operation defined in this report only.
- c) Where relevant, the apparatus was only assessed using the susceptibility criteria defined in this report and the Test Assessment Plan (TAP).
- d) All testing was performed under the following environmental conditions:

Temperature	15°C to 35°C (54°F to 95°F)
Atmospheric Pressure	860mbar to 1060mbar (25.4" to 31.3")
Humidity	10% to 75*%
- e) All AC testing was performed at one or more of the following supply voltages:

110V 60 Hz (+/-20%)

Units of Measurement

The units of measurements defined in the appendices are reported in specific terms, which are test dependent. Where radiated measurements are concerned these are defined at a particular distance. Basic voltage measurements are defined in units of [dBuV]

As an example, the basic calculation for all measurements is as follows:

$$\text{Emission level [dBuV]} = \text{Indicated voltage level [dBuV]} + \text{Cable Loss [dB]} + \text{Other correction factors [dB]}$$

The combinations of correction factors are dependent upon the exact test configurations [see test equipment lists for further details] and may include:-

Antenna Factors, Pre Amplifier Gain, LISN Loss, Pulse Limiter Loss and Filter Insertion Loss..

Note: to convert the results from dBuV/m to uV/m use the following formula:-

$$\text{Level in uV/m} = \text{Common Antilogarithm} [(X \text{ dBuV/m})/20] = Y \text{ uV/m}$$

Measurement Uncertainty Values

voltage and power measurements	± 2 dB
conducted EIRP measurements	± 1.4 dB
radiated measurements	± 3.2 dB
frequency measurements	$\pm 2.4 \cdot 10^{-7}$
temperature measurements	$\pm 0.54^\circ$
humidity measurements	$\pm 2.3\%$
DC and low frequency measurements	$\pm 2.5\%$

Where relevant measurement uncertainty levels have been estimated for tests performed on the apparatus. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Radiated emissions (expanded uncertainty, confidence interval 95%)

30 MHz - 300 MHz	+/- 3.8 dB
300 MHz - 1000 MHz	+/- 4.3 dB
1 GHz - 10 GHz	+/- 4.0 dB
10 GHz - 18GHz	+/- 8.2 dB
18GHz - 26.5GHz	+/- 4.1 dB
26.5GHz - 40GHz	+/- 3.9 dB

Conducted emissions (expanded uncertainty, confidence interval 95%)

30 MHz – 40GHz	+/- 0.38 dB
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A product is considered to comply with a requirement if the nominal measured value is below the limit line. The product is considered to not be in compliance in case the nominal measured value is above the limit line.

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**2.2 Date of testing**

07-July-2015 – 25-Aug-2015

2.3 Report Issue Date

25-August-2015

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2.4 Testing facilities

This assessment was performed by:

Testing Laboratory

Cisco Systems, Inc.,
125 West Tasman Drive
San Jose, CA 95134, USA

Registration Numbers for Industry Canada

Cisco System Site	Address	Site Identifier
Building P, 10m Chamber	125 West Tasman Dr San Jose, CA 95134	Company #: 2461N-2
Building P, 5m Chamber	125 West Tasman Dr San Jose, CA 95134	Company #: 2461N-1
Building I, 5m Chamber	285 W. Tasman Drive San Jose, California 95134	Company #: 2461M-1

Test Engineers

Jose Aguirre

2.5 Equipment Assessed (EUT)

AIR-CAP702W-B-K9

Section 3: Result Summary

3.1 Results Summary Table

Conducted emissions

Basic Standard	Technical Requirements / Details	Result
FCC 15.407 RSS-247	Dynamic Frequency Selection (DFS) Detection Threshold	Pass
FCC 15.407 RSS-247	Channel Availability Check Time	Pass
FCC 15.407 RSS-247	Channel Move Time	Pass
FCC 15.407 RSS-247	Channel Closing Time	Pass
FCC 15.407 RSS-247	Non-Occupancy Period	Pass
FCC 15.407 RSS-247	U-NII Detection Bandwidth	Pass

Section 4: Sample Details

Note: Each sample was evaluated to ensure that its condition was suitable to be used as a test sample prior to the commencement of testing.

4.1 Sample Details (Photographs of the test samples, where appropriate can be found in appendix H)

Sample No.	Equipment Details	Part Number	Manufacturer	Hardware Rev.	Firmware Rev.	Software Rev.	Serial Number
S01	AIR-CAP702W-B-K9 ACCESS POINT	AIR-CAP702W-B-K9	Cisco Systems	02	Ap1g1-k9 w7-mx.1 53	IOS 15.3	KWC1731 01XY
S02	AIR-PWR-C POWER SUPPLY	341-0712-01	MEAN WELL	01	NA	NA	EB518508 44

4.2 System Details

System #	Description	Samples
1	AIR-CAP702W-B-K9 ACCESS POINT (EUT)	S01
2	AIR-PWR-C POWER SUPPLY (SUPPORT EQUIPMENT)	S02

4.3 Mode of Operation Details

Mode#	Description	Comments
1	Continuous Transmitting	Continuous Transmitting >98% duty cycle

All measurements were made in accordance with

- KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

Appendix A: Dynamic Frequency Selection (DFS)

15.407: U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

U-NII devices operating in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

A.1 UNII Device Description

The AIR-CAP702W-B-K9

1. Cisco Aironet 802.11ac Module operates in the following bands:
 - a. 5150-5250 MHz
 - b. 5250-5350 MHz
 - c. 5470-5725 MHz
 - d. 5725-5850 MHz
2. The maximum EIRP of the 5GHz equipment is 29 dBm, and the minimum possible EIRP is 10 dBm.

Below are the available 50 ohm antenna assemblies and their corresponding gains. 0dBi gain was used to set the -63 dBm threshold level (-64dBm +1 dB) during calibration of the test setup.

Frequency	Part Number	Antenna Type	Antenna Gain (dBi)
5GHz	Internal	omnidirectional	4

3. System testing was performed with the designated MPEG test file that streams full motion video at 30 frames per second from the Master to the Client IP based system.
4. The Master requires 106.5 seconds to complete its power-on cycle.
5. Information regarding the parameters of the detected Radar Waveforms is not available to the end user.
6. For the 5250-5350 MHz and 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.

A.2 DFS Detection Thresholds

1. Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 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.	

2. DFS Response requirement values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	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.	

A.3 Radar Test Waveforms

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.

1. Short Pulse Radar Test Waveforms

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

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. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 μ sec is selected, the number of pulses would be $\text{Roundup}\left\{\left(\frac{1}{360}\right) \cdot \left(\frac{19 \cdot 10^6}{3066}\right)\right\} = \text{Roundup}\{17.2\} = 18$

Table 5a – Pulse Repetition Intervals Values for Test A

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

The aggregate is the average of the percentage of successful detections of Short Pulse Radar Types 1-4. For example, the following table indicates how to compute the aggregate of percentage of successful detections.

Radar Type	Number of Trials	Number of Successful Detections	Minimum Percentage of Successful Detection
1	35	29	82.9%
2	30	18	60%
3	30	27	90%
4	50	44	88%
Aggregate (82.9% + 60% + 90% + 88%)/4 = 80.2%			

2. 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 Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

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

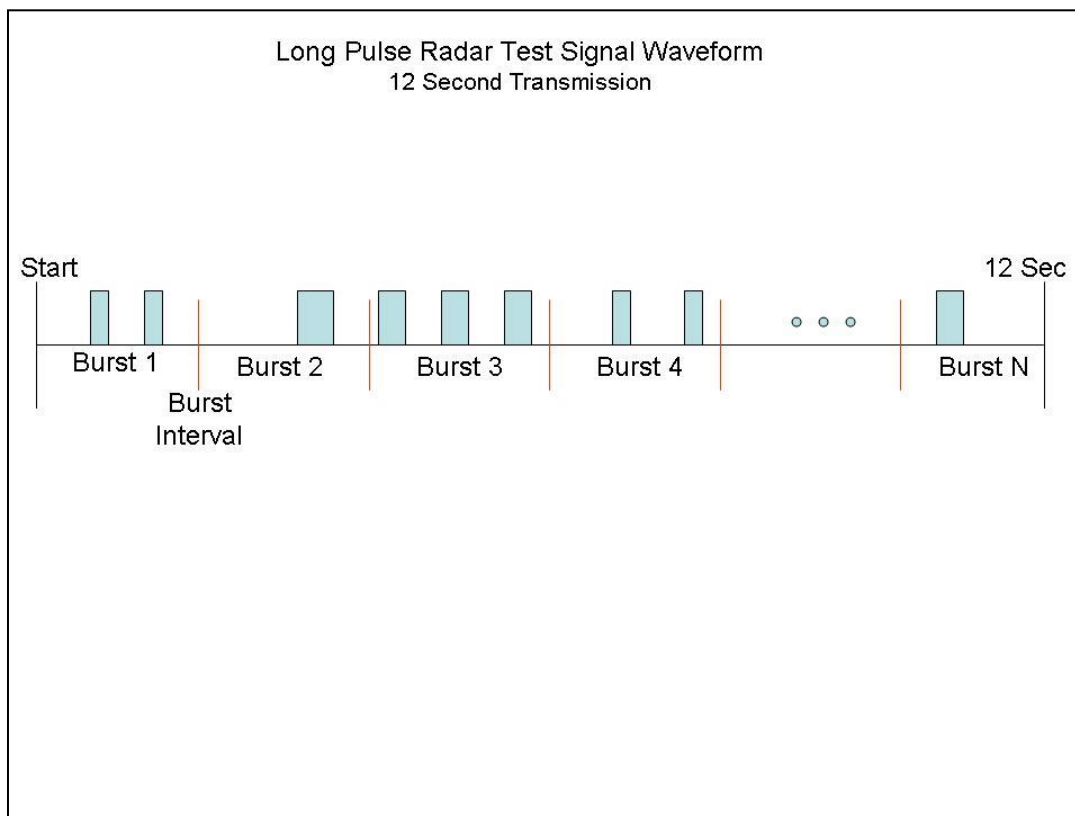
Each waveform is defined as follows:

- 1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
- 2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst_Count.
- 3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- 4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- 5) Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulses in different Bursts may have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
- 6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
- 7) The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst_Count. Each interval is of length $(12,000,000 / \text{Burst_Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12,000,000 / \text{Burst_Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

A representative example of a Long Pulse radar test waveform:

- 1) The total test signal length is 12 seconds.
- 2) 8 Bursts are randomly generated for the Burst_Count.
- 3) Burst 1 has 2 randomly generated pulses.
- 4) The pulse width (for both pulses) is randomly selected to be 75 microseconds.
- 5) The PRI is randomly selected to be at 1213 microseconds.
- 6) Bursts 2 through 8 are generated using steps 3 – 5.
- 7) Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. Bursts 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. Burst 2 falls in the 1,500,001 – 3,000,000 microsecond range).

Graphical Representation of a Long Pulse radar Test Waveform



3. Long Pulse 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 Trials
6	1	333	9	.333	300	70%	30

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 selected¹ 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 – 5724 MHz. 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.

**Appendix B: Dynamic Frequency Selection / Test Results****Standards Reference:**

FCC 15.407 / RSS-247

Test Procedure

Ref. KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

Test parameters
Span = 0 Hz
RBW $\geq$ 3 MHz
VBW $\geq$ 3 MHz
Detector = Peak
Trace = Single Sweep

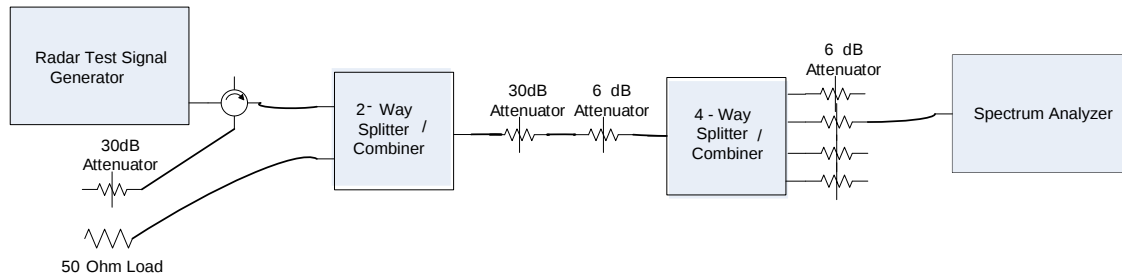
System Number	Description	Samples	System under test	Support equipment
1	EUT	S01	☒	☐
	Support	S02	☐	☒

Tested By : Jose Aguirre	Date of testing: 07-July-2015
Test Result : PASS	

See Appendix C for list of test equipment

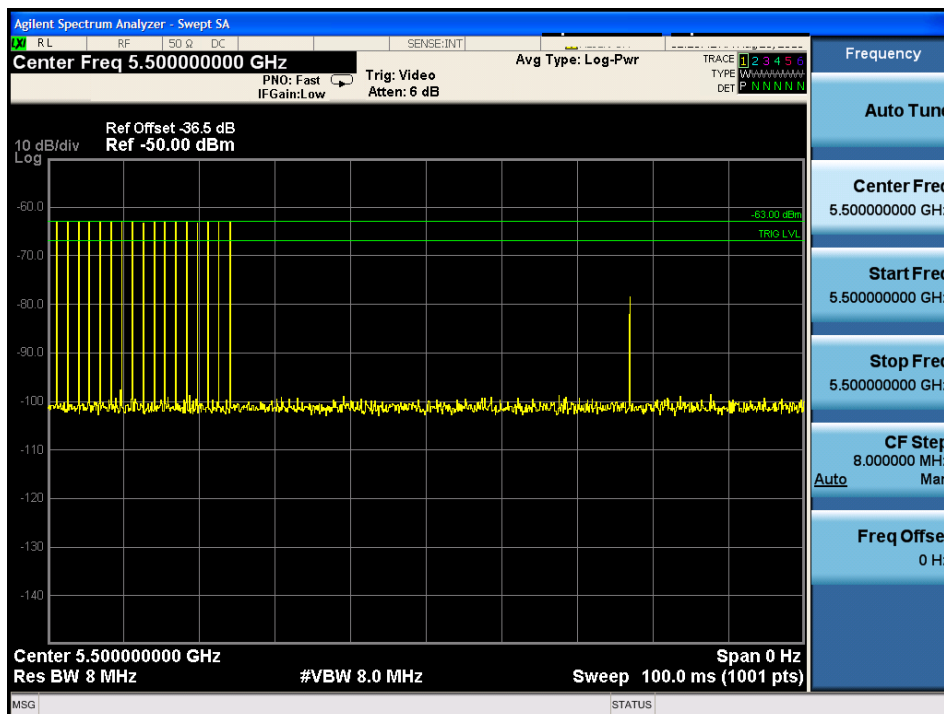
The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) mode at the frequency of the Radar Waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -63dBm.

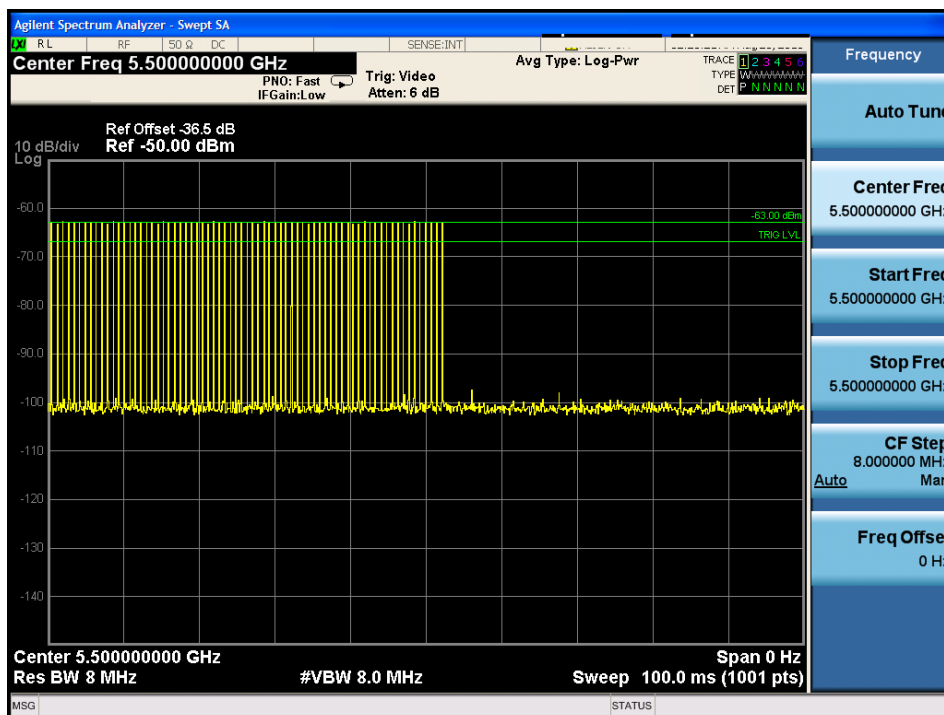


Conducted Calibration Setup

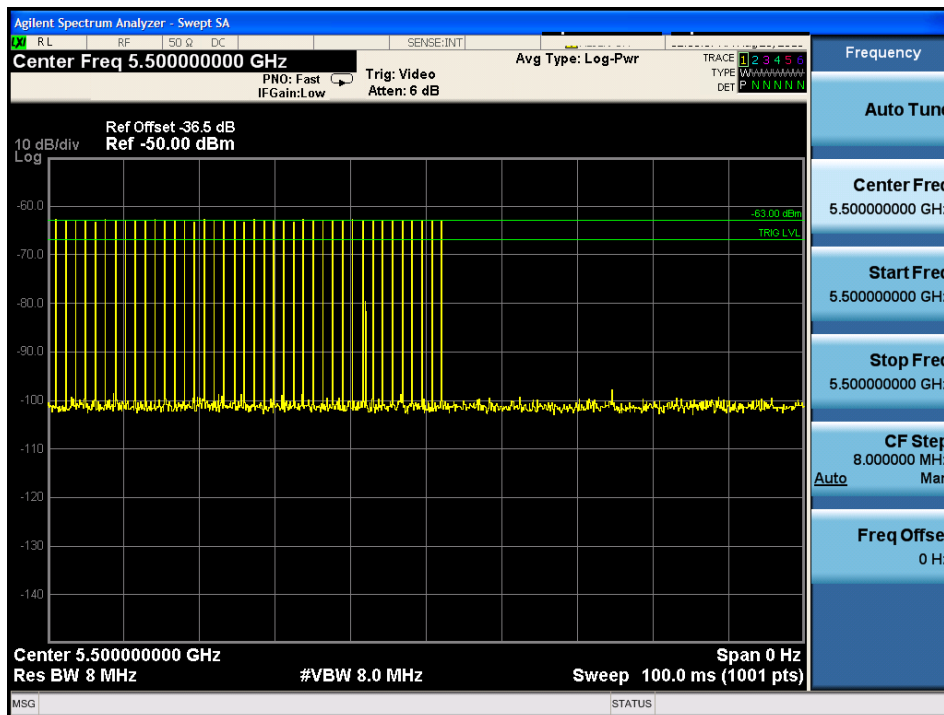
Following are the calibration plots for each of the required radar waveforms.



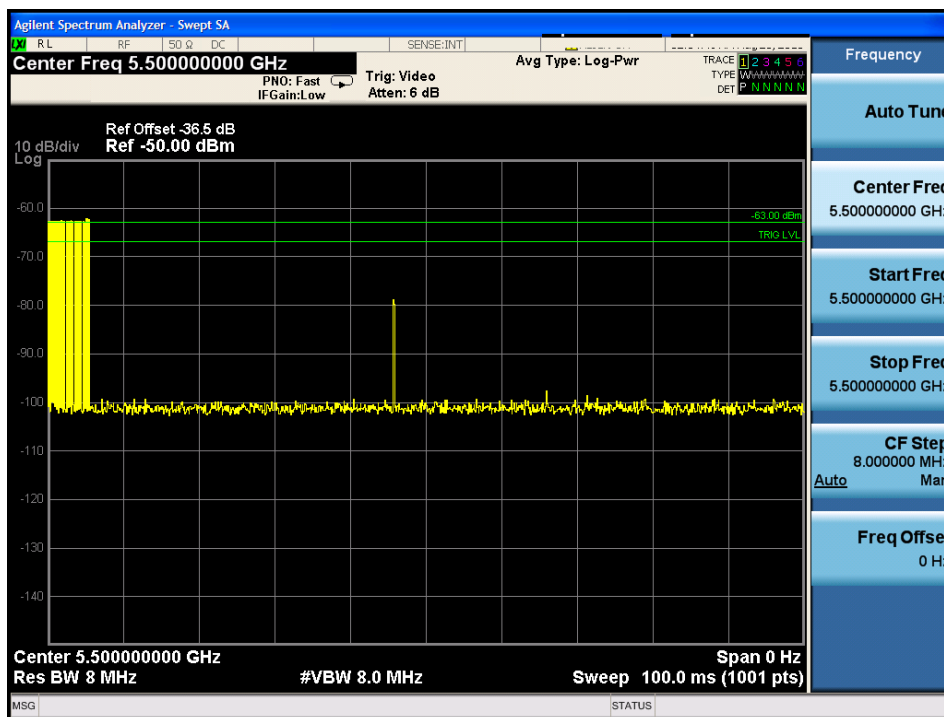
USA Bin 0 Radar Calibration



USA Bin 1A Radar Calibration



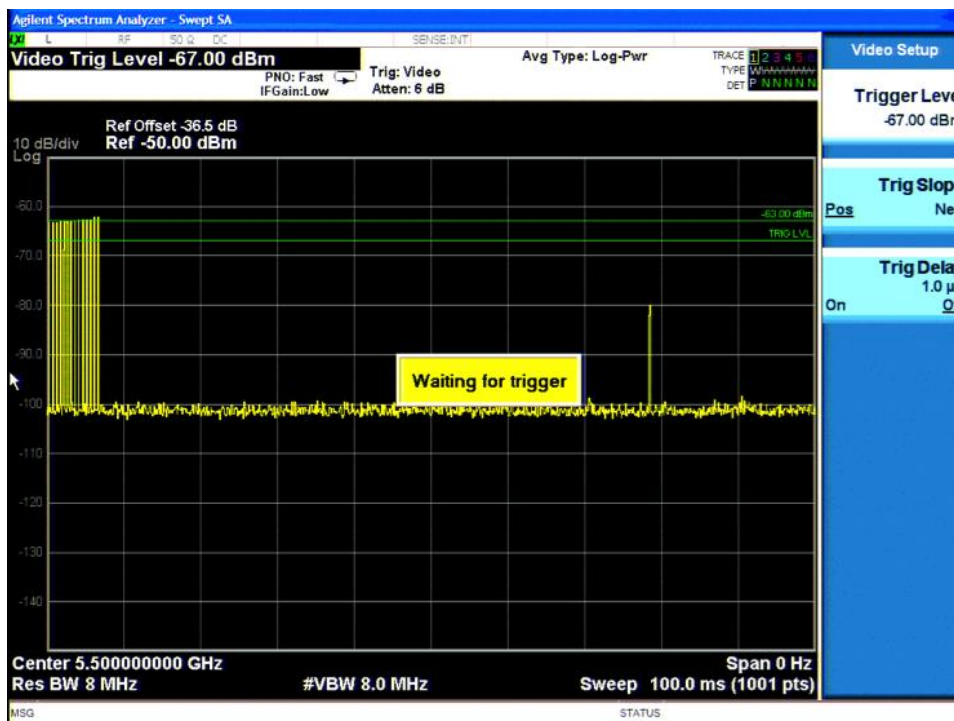
USA Bin 1B Radar Calibration



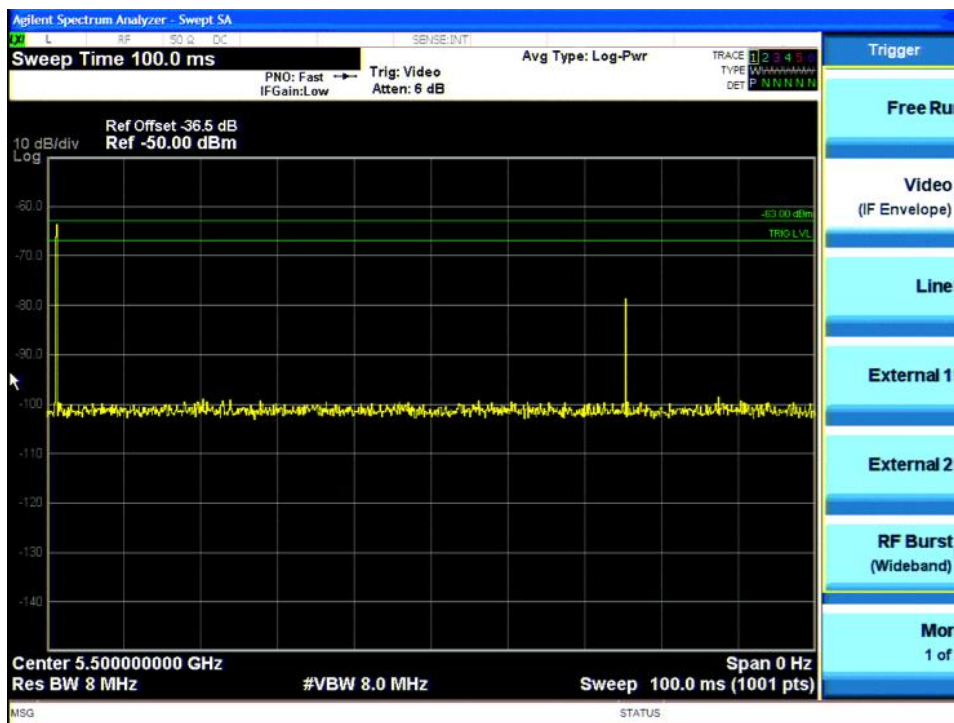
USA Bin 2 Radar Calibration



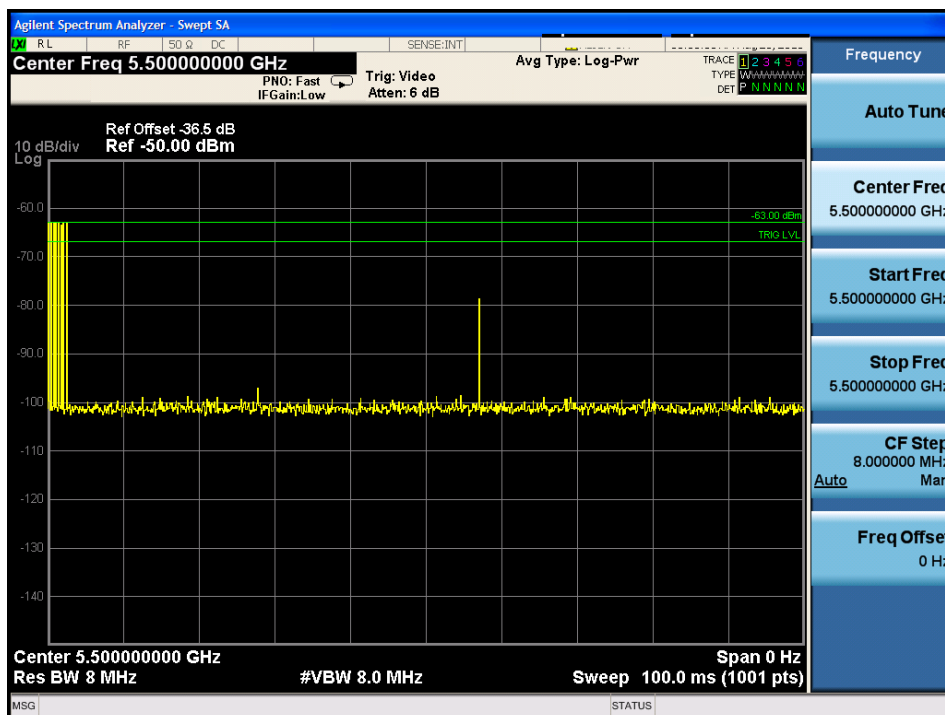
USA Bin 3 Radar Calibration



USA Bin 4 Radar Calibration



USA Bin 5 Radar Calibration



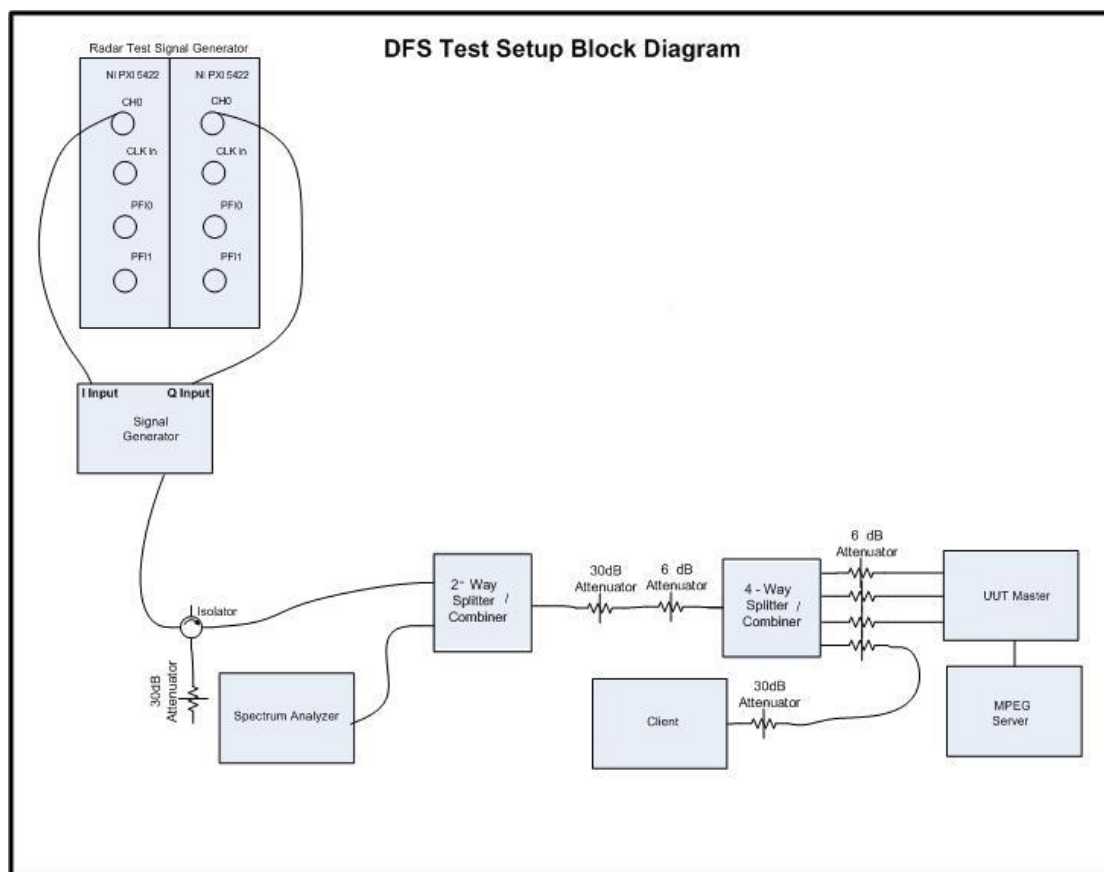
USA Frequency Hopping Radar Calibration

B.1 Test Procedure/Results

A spectrum analyzer is used as a monitor to verify that the UUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the

Non-Occupancy Period after the detection and Channel move. It is also used to monitor UUT transmissions during the Channel Availability Check Time.

Following is the test setup used to generate the Radar Waveforms, and for all DFS tests described herein.



Conducted Setup: Radar Test Waveforms are injected into the Master



Title: DFS Setup

B.2 UNII Detection Bandwidth

Test Procedure

Ref. KDB 905462 D02 UNII section 7.8.1

All UNII 20 MHz channels for this device have identical Channel bandwidths, all 40 MHz channels have identical Channel bandwidths, and all 80 MHz channels have identical Channel bandwidths. Therefore, all DFS testing was done at 5500 MHz. The 99% channel bandwidth for 20MHz signals is 18 MHz, the the 99% channel bandwidth for 40MHz signals is 36 MHz, and the 99% channel bandwidth for 80MHz signals is 72. (See the 26dB BW section of the RF report for further measurement details).

The generating equipment is configured as shown in the Conducted Test Setup above. A single *Burst* of the desired radar profile is produced at 5500MHz at a -63dBm level. The UUT is set up as a standalone device (no associated Client and no traffic).

A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time.

The radar frequency is increased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The highest frequency at which detection is greater than or equal to 90% is denoted as F_H .

The radar frequency is decreased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The lowest frequency at which detection is greater than or equal to 90% is denoted as F_L .

The U-NII Detection Bandwidth is calculated as follows:

$$\text{U-NII Detection Bandwidth} = F_H - F_L$$

The U-NII Detection Bandwidth must be at least 100% of the UUT transmitter 99% power bandwidth (20 MHz for 20MHz signals, 40 MHz for 40 MHz signals, and 80 MHz for 80 MHz signals), otherwise, the UUT does not comply with DFS requirements.

For the chirped Bin 5 radar, the U-NII Detection Bandwidth must be at least 80% of the UUT transmitter 99% power bandwidth (16 MHz for 20MHz signals, 32 MHz for 40 MHz signals, and 64 MHz for 80 MHz signals), otherwise, the UUT does not comply with DFS requirements.

UNII Detection Bandwidth Results, 20MHz Signal Bandwidth

DFS Detection Trials (1=Detection, Blank= No Detection)												Detection Bandwidth (MHz)	Limit (MHz)
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)		
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 0 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 1A Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 1B Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 2 Radar



	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	0	1	1	1	1	90		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 3 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 4 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	0	1	1	1	1	0	0	1	70	18	18
5491	1	1	1	1	1	0	1	1	1	1	90		
5492	1	1	1	1	1	0	1	1	1	1	90		
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	0	1	90		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 5 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	18
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Frequency Hopping Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 0 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 1A Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 1B Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	0	1	1	90		
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	0	1	1	90		

USA Bin 2 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 3 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	38	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	0	0	1	1	1	1	1	1	80		

USA Bin 4 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 5 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
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		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	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	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	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	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Frequency Hopping Radar

B.3 Initial Channel Availability Check Time

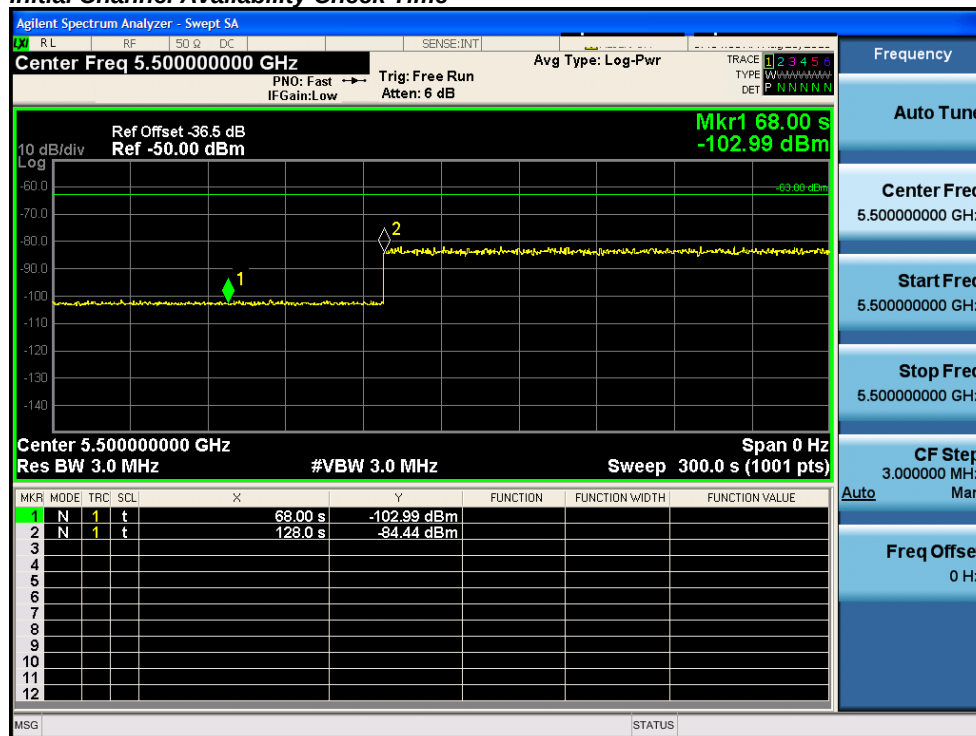
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

The U-NII device is powered on and instructed to operate at 5500 MHz. At the same time the UUT is powered on, the spectrum analyzer is set to zero span mode with a 3 MHz resolution bandwidth at 5500MHz with a 2.5 minute sweep time. The analyzer's sweep will be started the same time power is applied to the U-NII device.

The UUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.

The initial power up time of the UUT is indicated by marker 1 in the plot. Initial beacons/data transmissions are indicated by marker 1R.

Initial Channel Availability Check Time



B.4 Radar Burst at the Beginning of the Channel Availability Check Time

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 (-63dBm) occurs at the beginning of the Channel Availability Check Time.

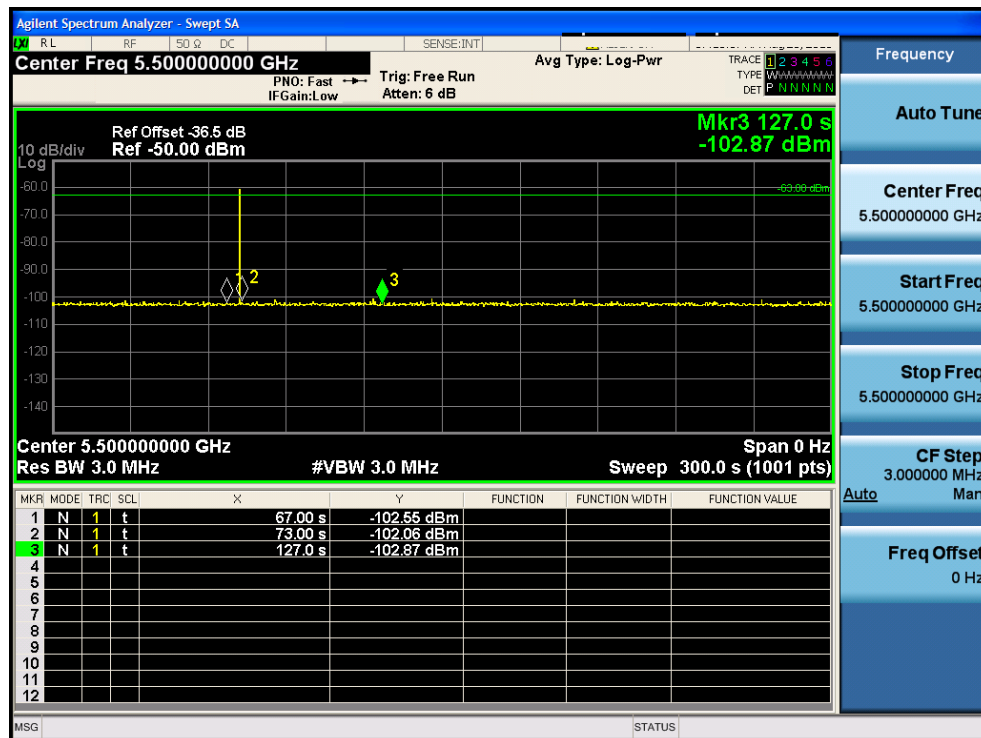
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

A single Burst of short pulse of radar type 0 at -63 dBm will commence within a 6 second window starting at T_1 .

Visual indication on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions at 5500MHz will continue for 2.5 minutes after the radar Burst has been generated.

Verify that during the 2.5 minute measurement window no UUT transmissions occurred at 5500MHz.

Radar Burst at the Beginning of the Channel Availability Check Time



B.5 Radar Burst at the End of the Channel Availability Check Time

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 (-63dBm) occurs at the end of the Channel Availability Check Time.

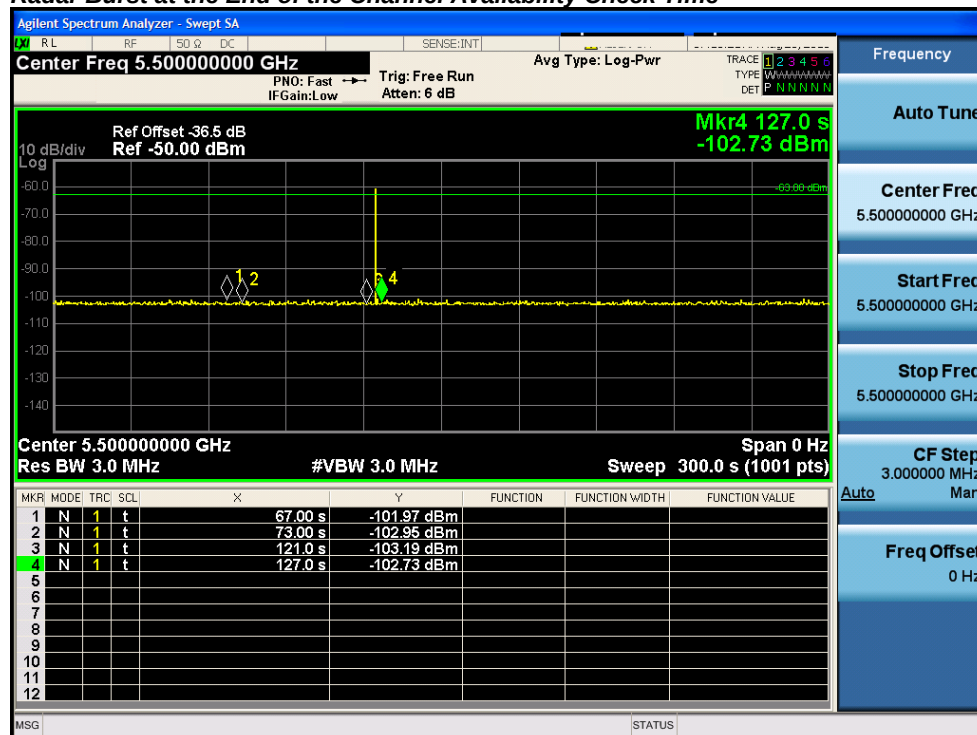
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

A single Burst of short pulse of radar type 0 at -63 dBm will commence within a 6 second window starting at $T_1 + 54$ seconds.

Visual indication on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions at 5500MHz will continue for 2.5 minutes after the radar Burst has been generated.

Verify that during the 2.5 minute measurement window no UUT transmissions occurred at 5500MHz.

Radar Burst at the End of the Channel Availability Check Time



B.6 In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period.

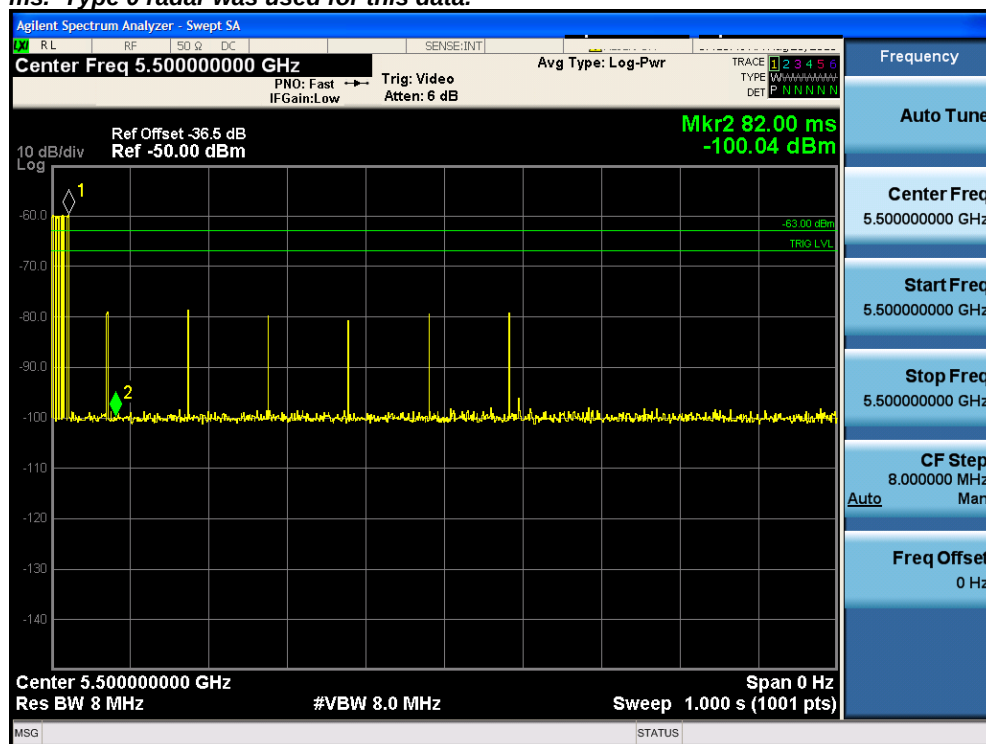
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

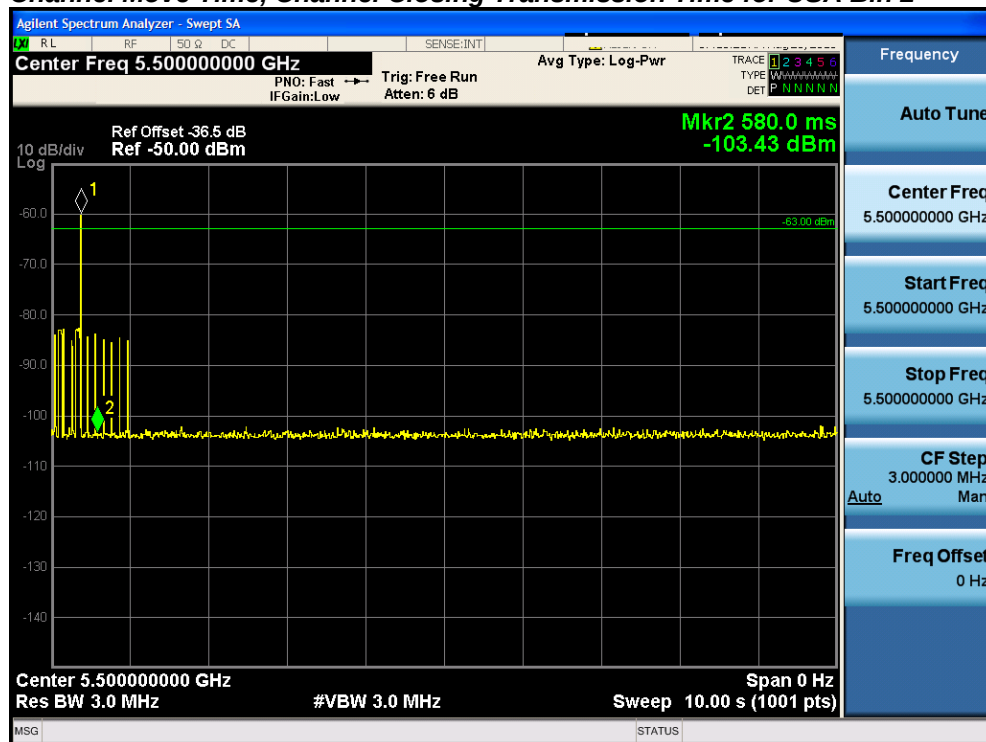
A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

At time T_0 the Radar Waveform generator sends a Burst of pulses for radar type 0 at -63dBm.

Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the *DFS Response requirement values table*.

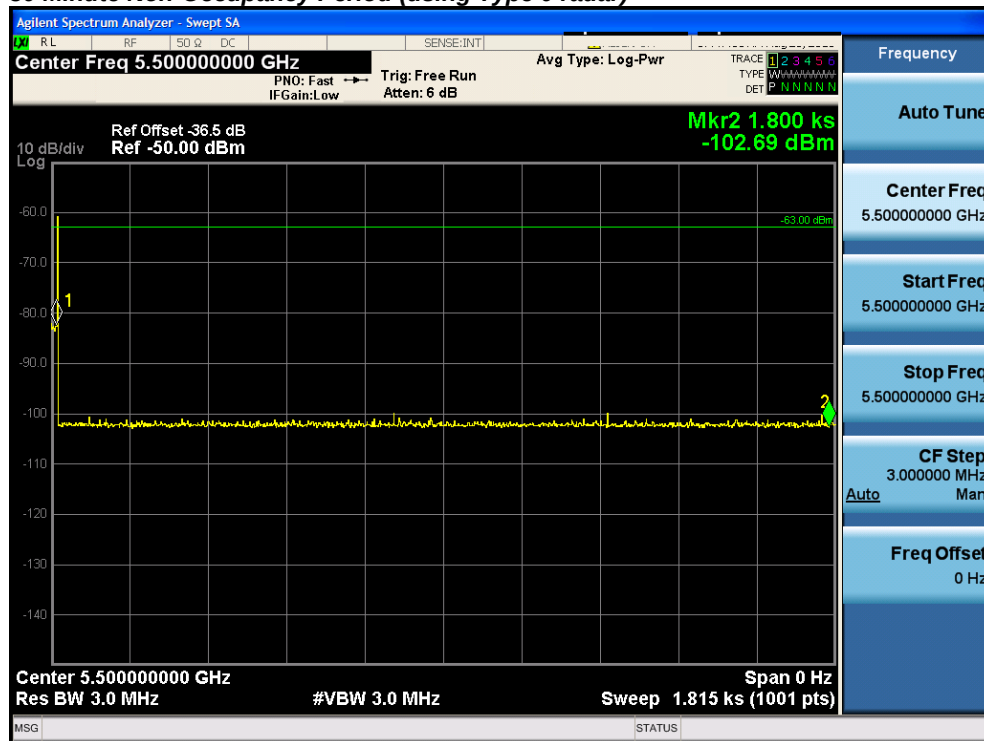
The following plot demonstrates a channel close time of 50ms, with an aggregate of no more than 60 ms. Type 0 radar was used for this data.



Channel Move Time, Channel Closing Transmission Time for USA Bin 2

Measure the UUT for more than 30 minutes following the channel close/move time to verify that the UUT does not resume any transmissions on this Channel.

30 Minute Non-Occupancy Period (using Type 0 radar)



B.7 Statistical Performance Check

The steps below define the procedure to determine the minimum percentage of detection when a radar burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

The Radar Waveform generator sends the individual waveform for each of the radar types 1-6 at -63dbm. Statistical data will be gathered to determine the ability of the device to detect the radar test waveforms. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs. The percentage of successful detection is calculated by:

$$\frac{\text{TotalWaveformDetections}}{\text{TotalWaveformTrials}} \times 100 = \text{Probability of Detection Radar Waveform}$$

The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in the *Radar Test Waveforms* section. The data represents the worst case detection for 20 MHz and 40 MHz signal bandwidths.

USA Bin 0 Radar Statistical Performance

Trial	Pulses	PW (uS)	PRI (uS)	1=Detection 0=No Detection	Detection Percentage	Limit
1	18	1	1428	1	93.3%	60.0%
2	18	1	1428	1		
3	18	1	1428	1		
4	18	1	1428	1		
5	18	1	1428	1		
6	18	1	1428	1		
7	18	1	1428	0		
8	18	1	1428	1		
9	18	1	1428	1		
10	18	1	1428	1		
11	18	1	1428	1		
12	18	1	1428	1		
13	18	1	1428	1		
14	18	1	1428	1		
15	18	1	1428	1		
16	18	1	1428	1		
17	18	1	1428	1		
18	18	1	1428	1		
19	18	1	1428	1		
20	18	1	1428	1		
21	18	1	1428	1		
22	18	1	1428	1		
23	18	1	1428	1		
24	18	1	1428	1		
25	18	1	1428	1		
26	18	1	1428	0		
27	18	1	1428	1		
28	18	1	1428	1		
29	18	1	1428	1		
30	18	1	1428	1		

USA Bin 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	89	1	598	1	100.0%	60.0%
2	62	1	858	1		
3	95	1	558	1		
4	76	1	698	1		
5	18	1	3066	1		
6	59	1	898	1		
7	58	1	918	1		
8	65	1	818	1		
9	78	1	678	1		
10	63	1	838	1		
11	74	1	718	1		
12	70	1	758	1		
13	67	1	798	1		
14	70	1	758	1		
15	74	1	718	1		
16	62	1	853	1		
17	26	1	2105	1		
18	20	1	2704	1		
19	39	1	1356	1		
20	29	1	1844	1		
21	19	1	2862	1		
22	93	1	571	1		
23	23	1	2318	1		
24	20	1	2734	1		
25	98	1	541	1		
26	40	1	1332	1		
27	54	1	978	1		
28	79	1	672	1		
29	30	1	1766	1		
30	20	1	2712	1		

USA Bin 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	57	1	938	1	100.0%	60.0%
2	70	1	758	1		
3	61	1	878	1		
4	81	1	658	1		
5	89	1	598	1		
6	89	1	598	1		
7	74	1	718	1		
8	62	1	858	1		
9	76	1	698	1		
10	63	1	838	1		
11	95	1	558	1		
12	102	1	518	1		
13	102	1	518	1		
14	86	1	618	1		
15	102	1	518	1		
16	25	1	2131	1		
17	33	1	1631	1		
18	23	1	2308	1		
19	74	1	721	1		
20	20	1	2763	1		
21	28	1	1912	1		
22	49	1	1093	1		
23	19	1	2799	1		
24	22	1	2454	1		
25	63	1	844	1		
26	47	1	1142	1		
27	65	1	813	1		
28	19	1	2881	1		
29	23	1	2363	1		
30	92	1	575	1		

USA Bin 2 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	23	3.5	152	0	83.3%	60.0%
2	25	2.6	167	0		
3	24	1	174	1		
4	28	2.1	222	1		
5	28	4.4	217	1		
6	23	1.1	184	1		
7	24	4.4	206	1		
8	27	3.8	169	1		
9	28	4.5	221	1		
10	29	1.4	193	1		
11	29	3.5	164	1		
12	28	4.4	230	1		
13	28	1	188	1		
14	29	1.6	200	1		
15	23	1.2	228	1		
16	24	1.6	150	1		
17	24	4	170	1		
18	27	1.6	212	1		
19	27	3.2	224	1		
20	28	1.8	202	1		
21	25	3.5	159	1		
22	24	1.5	157	1		
23	25	2.7	229	1		
24	25	2.6	199	0		
25	29	3.7	196	0		
26	25	2.9	167	0		
27	23	4.9	183	1		
28	28	2.1	218	1		
29	23	4.5	207	1		
30	27	4.3	211	1		

USA Bin 3 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	16	6.3	371	1	80.0%	60.0%
2	16	9.2	408	1		
3	18	9.1	224	1		
4	17	6.2	403	1		
5	18	6.2	381	1		
6	16	9.3	226	1		
7	16	8.1	384	1		
8	17	9.3	205	0		
9	16	6.9	452	1		
10	17	7.3	253	1		
11	16	8.6	244	1		
12	18	9.4	263	0		
13	18	9.3	270	1		
14	16	6.1	335	1		
15	18	9.5	409	0		
16	16	7.1	321	0		
17	18	8.2	364	1		
18	17	8.3	262	1		
19	18	8.2	275	1		
20	17	9.8	329	1		
21	16	8.5	279	1		
22	16	8.1	201	1		
23	17	9.8	452	1		
24	18	6.3	351	1		
25	17	8.1	380	1		
26	16	9.9	225	1		
27	18	6.3	228	1		
28	16	8.8	430	0		
29	17	8.6	353	0		
30	17	7	354	1		

USA Bin 4 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	12	12.1	462	0	93.3%	60.0%
2	12	17.4	253	0		
3	16	13.6	274	1		
4	16	14.4	400	1		
5	14	15.1	341	1		
6	16	12.1	414	1		
7	13	18.8	356	1		
8	12	19.3	424	1		
9	12	16.1	387	1		
10	16	13.4	351	1		
11	13	16.9	428	1		
12	13	13.8	412	1		
13	14	14.9	476	1		
14	12	17.6	332	1		
15	16	12.4	265	1		
16	14	11.7	318	1		
17	12	12.3	306	1		
18	13	11.6	489	1		
19	15	15.2	452	1		
20	14	18.9	485	1		
21	13	19.3	495	1		
22	13	14.8	238	1		
23	16	17.7	433	1		
24	14	16.9	476	1		
25	15	13.5	375	1		
26	12	14	269	1		
27	15	11.9	281	1		
28	13	16.1	414	1		
29	16	13.2	443	1		
30	13	14.9	413	1		

In addition an average minimum percentage of successful detection across all four Short pulse radar test waveforms is required and is calculated as follows:

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (100.0\% + 100.0\% + 83.3\% + 80.0\% + 93.3\%)/5 = 91.3\% (>80\%)$$

*See the Bin5 Radar Characteristics at the end of this report.

USA Bin 5 Radar Statistical Performance

Trial #	Name	1=Detection 0=No Detection	Detection Percentage	Limit
1	USA Bin 5 Radar Test 1	1	100.0%	80.0%
2	USA Bin 5 Radar Test 2	1		
3	USA Bin 5 Radar Test 3	1		
4	USA Bin 5 Radar Test 4	1		
5	USA Bin 5 Radar Test 5	1		
6	USA Bin 5 Radar Test 6	1		
7	USA Bin 5 Radar Test 7	1		
8	USA Bin 5 Radar Test 8	1		
9	USA Bin 5 Radar Test 9	1		
10	USA Bin 5 Radar Test 10	1		
11	USA Bin 5 Radar Test 11	1		
12	USA Bin 5 Radar Test 12	1		
13	USA Bin 5 Radar Test 13	1		
14	USA Bin 5 Radar Test 14	1		
15	USA Bin 5 Radar Test 15	1		
16	USA Bin 5 Radar Test 16	1		
17	USA Bin 5 Radar Test 17	1		
18	USA Bin 5 Radar Test 18	1		
19	USA Bin 5 Radar Test 19	1		
20	USA Bin 5 Radar Test 20	1		
21	USA Bin 5 Radar Test 21	1		
22	USA Bin 5 Radar Test 22	1		
23	USA Bin 5 Radar Test 23	1		
24	USA Bin 5 Radar Test 24	1		
25	USA Bin 5 Radar Test 25	1		
26	USA Bin 5 Radar Test 26	1		
27	USA Bin 5 Radar Test 27	1		
28	USA Bin 5 Radar Test 28	1		
29	USA Bin 5 Radar Test 29	1		
30	USA Bin 5 Radar Test 30	1		



USA Bin 5 Trial #1

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	55	1245	1727	0.665049
2	2	10	100	1988		1.361654
3	3	10	85	1626	1185	3.253786
4	1	14	95			4.963459
5	1	5	65			5.911607
6	1	20	55			7.479069
7	1	16	80			8.497625
8	3	20	80	1489	1298	10.654184
9	3	16	50	1351	1307	11.481104

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	12	90	1211	1472	0.720241
2	2	15	75	1819		1.293579
3	1	12	50			2.148578
4	2	16	90	1994		2.782244
5	3	14	95	1656	1040	3.410255
6	2	7	65	1713		4.224085
7	1	17	50			4.609569
8	3	16	55	1280	1173	5.388154
9	1	18	50			6.359709
10	2	6	80	1710		6.759459
11	3	6	60	1170	1427	8.216661
12	3	14	55	1363	1925	8.496715
13	3	17	60	1647	1108	9.720813
14	1	19	70			10.000158
15	1	14	50			11.245391
16	2	9	95	1238		11.840754

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	95	1024		0.232019
2	3	13	90	1841	1209	1.452156
3	2	6	60	1382		2.216754
4	1	12	85			3.071796
5	2	20	65	1796		3.709665
6	3	11	100	1215	1155	4.66824
7	1	19	55			5.915798
8	1	10	65			6.033207
9	2	17	50	1921		7.647111
10	2	19	65	1994		7.720254
11	2	17	80	1276		9.33556
12	3	9	95	1986	1712	9.983992
13	2	18	90	1924		10.958109
14	3	12	60	1144	1657	11.883401

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	75			1.040754
2	2	19	55	1121		1.093118
3	2	6	90	1184		2.489166
4	2	13	85	1113		4.326558
5	2	16	80	1115		4.549061
6	3	9	95	1698	1464	6.079166
7	1	12	95			7.119262
8	2	6	90	1571		7.793367
9	3	6	55	1080	1420	9.487057
10	3	14	85	1052	1196	10.528469
11	2	17	55	1350		11.811268

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	75	1104		0.432825



2	3	10	100	1231	1047	1.070732
3	1	12	80			1.352255
4	1	9	90			2.037534
5	1	13	50			2.885733
6	1	14	95			3.12336
7	1	9	95			4.141301
8	2	15	70	1116		4.713627
9	3	18	75	1109	1163	5.24067
10	1	7	70			5.566576
11	2	10	100	1683		6.078825
12	2	9	65	1026		6.857067
13	2	13	55	1903		7.785448
14	2	18	60	1211		8.043386
15	2	20	65	1659		8.931713
16	3	13	95	1403	1905	9.042892
17	1	15	80			9.771347
18	1	9	80			10.256198
19	3	11	55	1038	1445	11.151341
20	2	10	60	1663		11.674702

USA Bin 5 Trial #6

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	55	1678	1626	0.643487
2	1	13	95			1.525964
3	2	17	75	1811		2.183512
4	1	10	100			3.161225
5	1	16	65			3.935449
6	3	20	80	1109	1941	4.494464
7	1	17	55			5.237376
8	3	7	50	1946	1923	5.889643
9	1	17	100			7.077662
10	1	14	90			7.63142
11	1	17	90			8.51779
12	3	16	95	1195	1351	9.42138
13	2	11	85	1860		10.190658
14	3	19	90	1424	1959	10.631286
15	3	9	95	1054	1661	11.696397

USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	12	55			1.349268
2	3	9	60	1031	1379	2.534315
3	3	17	85	1158	1854	4.156769
4	2	9	50	1441		5.198883
5	3	17	95	1509	1755	6.490782
6	2	15	95	1431		8.29484
7	3	18	65	1489	1275	10.276756
8	1	18	90			11.371935

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	12	65	1452	1729	0.78912
2	3	17	60	1076	1695	1.556883
3	3	7	75	1668	1397	2.098034
4	3	5	80	1943	1817	3.65636
5	2	5	60	1743		4.181261
6	1	9	70			5.447338
7	1	19	80			6.204541
8	1	15	95			6.547624
9	2	16	70	1214		7.614435
10	3	8	55	1965	1336	8.960079
11	3	13	60	1430	1009	9.515722
12	2	6	90	1331		10.190734
13	3	18	95	1106	1192	11.478412

USA Bin 5 Trial #9



Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	6	100	1373	1900	0.817495
2	2	13	85	1469		1.89281
3	3	11	55	1372	1881	3.379505
4	2	10	70	1457		4.534981
5	3	18	55	1093	1549	5.877788
6	1	11	50			6.337999
7	3	7	60	1171	1865	7.937871
8	3	16	80	1847	2000	9.433344
9	1	10	100			10.216878
10	1	11	90			11.330205

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	90	1739	1522	0.094907
2	1	18	55			2.144329
3	2	5	60	1353		4.170611
4	1	16	75			5.428647
5	2	9	80	1798		6.944495
6	3	14	65	1925	1207	8.358157
7	1	13	70			9.698309
8	3	17	100	1337	1731	11.400734

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	55	1202		0.19025
2	3	20	90	1515	1732	1.065173
3	3	19	70	1849	1955	2.966845
4	2	18	55	1791		3.474443
5	2	12	65	1559		4.39823
6	2	10	75	1921		5.383902
7	2	10	55	1834		6.979823
8	1	15	85			7.935303
9	3	14	70	1758	1722	8.080332
10	3	6	65	1754	1711	9.125521
11	2	10	55	1783		10.87607
12	1	5	85			11.649005

USA Bin 5 Trial #12

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	20	95			0.27186
2	1	10	55			1.055485
3	1	15	85			1.928916
4	2	6	50	1584		2.623105
5	2	16	75	1506		3.940053
6	1	7	55			4.529971
7	2	8	90	1611		5.665163
8	3	6	80	1872	1228	6.636252
9	3	18	65	1115	1969	7.177869
10	2	8	50	1770		7.876509
11	3	17	65	1064	1224	9.236654
12	1	16	90			9.577242
13	1	5	95			10.461807
14	3	18	80	1022	1841	11.635981

USA Bin 5 Trial #13

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5	75	1604		1.11459
2	2	12	65	1159		2.048113
3	1	5	90			3.064026
4	3	9	60	1767	1483	5.166956
5	2	19	95	1879		5.756535
6	2	16	85	1102		6.891032
7	3	15	60	1304	1455	8.056333
8	3	6	70	1553	1097	9.901144
9	2	20	80	1597		11.241432



USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	12	50	1210		0.047343
2	2	7	70	1342		1.432765
3	1	12	90			2.32849
4	2	16	70	1604		3.101886
5	1	15	90			3.589354
6	3	20	75	1317	1527	4.74098
7	2	11	65	1261		5.248064
8	3	13	55	1991	1465	6.056367
9	1	16	100			6.628637
10	2	15	90	1236		7.506067
11	1	5	50			8.735919
12	3	11	80	1116	1656	8.906405
13	1	7	60			10.370884
14	1	6	90			11.061248
15	3	5	75	1891	1478	11.620535

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	100	1107		0.38261
2	2	6	60	1419		1.032554
3	2	20	100	1466		1.761282
4	1	19	90			2.328474
5	1	6	80			2.447805
6	2	6	95	1530		3.207691
7	3	15	100	1929	1235	4.035559
8	1	10	90			4.540085
9	1	8	95			4.930536
10	2	16	80	1735		5.794206
11	3	15	65	1327	1179	6.358248
12	1	9	90			6.914837
13	3	12	60	1915	1973	7.765966
14	2	9	70	1394		7.911701
15	2	5	100	1563		8.804349
16	1	16	95			9.563487
17	1	14	80			9.702803
18	3	15	100	1503	1062	10.234852
19	3	7	60	1188	1885	11.202686
20	2	12	100	1647		11.446446

USA Bin 5 Trial #16

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	75	1044		0.618283
2	2	20	90	1586		1.90779
3	2	9	85	1991		2.770302
4	2	11	60	1300		3.538882
5	1	8	70			4.641384
6	1	6	95			5.237437
7	3	20	70	1337	1304	6.28686
8	3	7	50	1487	1107	7.958515
9	2	19	85	1908		8.878125
10	3	12	60	1393	1669	9.793008
11	3	15	85	1911	1965	10.499109
12	3	11	100	1358	1797	11.954543

USA Bin 5 Trial #17

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	85	1559		0.095225
2	1	11	100			1.455982
3	3	12	55	1001	1146	1.978204
4	1	15	80			2.627221
5	2	9	90	1452		4.009137
6	1	16	100			4.74822
7	3	10	70	1797	1371	5.589855



8	1	10	95			6.298536
9	1	18	75			7.274532
10	3	7	50	1366	1577	8.052414
11	3	19	100	1136	1966	9.042411
12	3	8	55	1835	1318	9.740961
13	3	7	75	1863	1043	10.759927
14	3	18	60	1564	1725	11.457902
USA Bin 5 Trial #18						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	50	1208	1256	0.167268
2	2	20	85	1911		0.875879
3	1	9	100			1.528103
4	1	6	60			2.230012
5	3	16	55	1644	1939	3.297665
6	1	5	55			3.753519
7	3	8	70	1677	1565	4.348537
8	3	10	65	1448	1799	5.383617
9	3	13	60	1226	1008	6.152776
10	1	18	80			6.891466
11	3	18	90	1480	1889	7.084616
12	1	15	55			7.955146
13	2	7	75	1201		8.91935
14	2	9	70	1702		9.201827
15	1	10	90			10.273237
16	3	7	55	1407	1893	10.736157
17	2	11	75	1891		11.38255
USA Bin 5 Trial #19						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	17	80	1644	1999	0.305927
2	3	19	90	1339	1130	0.807714
3	1	7	70			1.894191
4	3	19	55	1396	1828	2.244284
5	2	14	55	1785		3.200606
6	1	6	70			3.39828
7	2	15	90	1203		4.120772
8	1	8	55			4.811205
9	3	12	60	1418	1846	5.784775
10	2	16	55	1866		6.510908
11	1	19	100			7.263755
12	1	13	75			7.498269
13	1	5	50			8.226419
14	2	8	95	1928		9.190271
15	1	13	55			9.982137
16	1	8	70			10.213491
17	3	14	95	1637	1315	10.901269
18	1	8	95			11.609648
USA Bin 5 Trial #20						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	80	1882		0.672027
2	3	18	85	1877	1692	1.588801
3	2	11	75	1646		3.192719
4	3	12	60	1514	1250	4.941134
5	2	9	50	1967		6.328452
6	3	15	85	1530	1842	7.235291
7	1	17	90			8.698355
8	3	8	50	1341	1660	9.379775
9	3	19	60	1880	1324	10.739478
USA Bin 5 Trial #21						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	100	1512		0.036218
2	3	19	70	1534	1777	1.803658
3	1	10	70			2.695937



4	2	10	55	1793		3.638775
5	2	19	75	1968		4.81795
6	3	8	55	1281	1449	5.454719
7	2	17	85	1843		6.747857
8	1	11	65			7.868785
9	3	14	60	1229	1201	8.317321
10	2	10	75	1930		9.315357
11	1	14	90			10.349351
12	3	6	85	1593	1550	11.972756
USA Bin 5 Trial #22						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	13	60			0.334726
2	1	10	80			1.097287
3	1	5	100			1.473441
4	1	19	85			2.360941
5	3	7	100	1380	1352	2.999655
6	2	9	90	1780		3.617713
7	3	14	95	1779	1102	4.102505
8	3	20	85	1808	1469	4.473476
9	3	20	95	1448	1433	5.143435
10	2	13	50	1451		5.796516
11	1	14	80			6.416459
12	3	5	55	1498	1496	7.117338
13	1	13	100			8.170419
14	2	20	75	1944		8.293804
15	1	7	50			9.002579
16	1	16	70			9.76874
17	1	7	50			10.376623
18	2	12	60	1606		11.044069
19	3	16	100	1181	1018	11.373366
USA Bin 5 Trial #23						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	80	1845	1800	0.807592
2	2	6	85	1331		1.645707
3	2	17	65	1385		2.65259
4	1	11	85			3.965996
5	2	8	50	1449		4.798678
6	3	6	55	1887	1370	6.274926
7	2	20	95	1110		7.009449
8	2	5	100	1855		7.810204
9	3	19	50	1072	1895	8.856092
10	2	11	95	1385		10.231086
11	1	8	65			10.942432
USA Bin 5 Trial #24						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	65	1657	1145	0.570082
2	2	13	100	1988		1.273893
3	1	13	100			2.446822
4	3	17	95	1883	1404	3.550351
5	1	17	80			4.667647
6	3	13	75	1534	1886	5.94121
7	2	12	90	1126		6.941093
8	3	10	85	1334	1186	7.119526
9	3	11	70	1165	1197	8.620014
10	2	19	50	1260		9.194979
11	3	11	50	1730	1725	10.906866
12	3	10	80	1650	1848	11.288442
USA Bin 5 Trial #25						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	18	95			0.846165
2	1	12	65			1.360236
3	2	18	70	1239		2.657613



4	3	5	80	1457	1657	3.637088
5	1	10	85			5.00321
6	1	13	75			6.829668
7	2	16	90	1228		7.867617
8	1	20	90			9.454399
9	2	5	85	1022		10.382183
10	1	11	65			11.721484
USA Bin 5 Trial #26						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	17	95	1512	1181	0.183199
2	3	12	75	1649	1723	1.273444
3	1	14	55			1.799536
4	1	20	55			2.201512
5	2	10	90	1430		2.89753
6	1	17	55			3.843796
7	3	15	90	1561	1585	4.05873
8	3	13	80	1018	1906	4.732973
9	3	6	55	1789	1455	5.468245
10	1	5	100			6.14513
11	3	14	100	1096	1450	7.150148
12	2	15	55	1006		7.340339
13	3	12	60	1885	1364	8.021543
14	3	10	65	1596	1201	9.023625
15	2	7	95	1268		9.353026
16	3	20	95	1988	1793	10.145198
17	3	12	90	1166	1925	10.931615
18	1	17	100			11.993848
USA Bin 5 Trial #27						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	55			0.551043
2	1	13	95			1.797888
3	2	10	65	1489		2.044397
4	2	8	75	1949		3.590534
5	2	9	80	1854		4.004266
6	2	20	95	1366		4.840503
7	2	14	75	1463		5.931989
8	2	19	50	1654		6.602652
9	1	18	100			8.08565
10	1	18	100			8.73975
11	1	10	60			9.444638
12	2	7	95	1270		11.020625
13	1	6	85			11.538576
USA Bin 5 Trial #28						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	65	1200		0.979431
2	2	12	75	1751		1.713977
3	1	18	50			3.967704
4	2	19	55	1960		4.769316
5	1	19	70			6.341108
6	3	18	70	1863	1811	6.834499
7	1	8	50			8.998516
8	2	13	80	1067		9.947966
9	1	18	60			11.295445
USA Bin 5 Trial #29						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	50	1069	1525	0.526224
2	3	19	55	1353	1257	0.737891
3	1	20	70			1.396227
4	3	11	75	1395	1866	1.904285
5	2	15	75	1870		2.460903
6	2	12	65	1266		3.489883
7	1	11	60			3.792758



8	3	15	75	1782	1266	4.686683
9	3	5	60	1069	1195	5.112636
10	2	8	50	1905		5.839778
11	1	11	70			6.308279
12	1	5	75			7.124476
13	2	7	80	1161		7.41739
14	2	12	50	1295		7.877597
15	3	19	90	1867	1699	8.415026
16	3	15	75	1265	1799	9.249162
17	2	13	95	1747		9.761679
18	2	16	100	1578		10.21967
19	2	18	90	1148		11.017392
20	2	6	50	1305		11.740848
USA Bin 5 Trial #30						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	16	85	1828	1960	0.486638
2	2	17	70	1410		1.68924
3	2	17	100	1975		2.857723
4	3	10	60	1967	1624	3.99227
5	3	6	60	1871	1551	4.494959
6	3	15	65	1153	1074	5.103887
7	1	12	80			6.038341
8	2	5	75	1853		7.051911
9	2	17	65	1293		8.729025
10	1	17	75			9.354103
11	2	13	65	1403		10.89176
12	2	17	95	1479		11.594095
USA Bin 5 Trial #1						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	55	1245	1727	0.665049
2	2	10	100	1988		1.361654
3	3	10	85	1626	1185	3.253786
4	1	14	95			4.963459
5	1	5	65			5.911607
6	1	20	55			7.479069
7	1	16	80			8.497625
8	3	20	80	1489	1298	10.654184
9	3	16	50	1351	1307	11.481104
USA Bin 5 Trial #2						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	12	90	1211	1472	0.720241
2	2	15	75	1819		1.293579
3	1	12	50			2.148578
4	2	16	90	1994		2.782244
5	3	14	95	1656	1040	3.410255
6	2	7	65	1713		4.224085
7	1	17	50			4.609569
8	3	16	55	1280	1173	5.388154
9	1	18	50			6.359709
10	2	6	80	1710		6.759459
11	3	6	60	1170	1427	8.216661
12	3	14	55	1363	1925	8.496715
13	3	17	60	1647	1108	9.720813
14	1	19	70			10.000158
15	1	14	50			11.245391
16	2	9	95	1238		11.840754
USA Bin 5 Trial #3						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	95	1024		0.232019
2	3	13	90	1841	1209	1.452156
3	2	6	60	1382		2.216754
4	1	12	85			3.071796



5	2	20	65	1796		3.709665
6	3	11	100	1215	1155	4.66824
7	1	19	55			5.915798
8	1	10	65			6.033207
9	2	17	50	1921		7.647111
10	2	19	65	1994		7.720254
11	2	17	80	1276		9.33556
12	3	9	95	1986	1712	9.983992
13	2	18	90	1924		10.958109
14	3	12	60	1144	1657	11.883401
USA Bin 5 Trial #4						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	75			1.040754
2	2	19	55	1121		1.093118
3	2	6	90	1184		2.489166
4	2	13	85	1113		4.326558
5	2	16	80	1115		4.549061
6	3	9	95	1698	1464	6.079166
7	1	12	95			7.119262
8	2	6	90	1571		7.793367
9	3	6	55	1080	1420	9.487057
10	3	14	85	1052	1196	10.528469
11	2	17	55	1350		11.811268
USA Bin 5 Trial #5						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	75	1104		0.432825
2	3	10	100	1231	1047	1.070732
3	1	12	80			1.352255
4	1	9	90			2.037534
5	1	13	50			2.885733
6	1	14	95			3.12336
7	1	9	95			4.141301
8	2	15	70	1116		4.713627
9	3	18	75	1109	1163	5.24067
10	1	7	70			5.566576
11	2	10	100	1683		6.078825
12	2	9	65	1026		6.857067
13	2	13	55	1903		7.785448
14	2	18	60	1211		8.043386
15	2	20	65	1659		8.931713
16	3	13	95	1403	1905	9.042892
17	1	15	80			9.771347
18	1	9	80			10.256198
19	3	11	55	1038	1445	11.151341
20	2	10	60	1663		11.674702
USA Bin 5 Trial #6						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	55	1678	1626	0.643487
2	1	13	95			1.525964
3	2	17	75	1811		2.183512
4	1	10	100			3.161225
5	1	16	65			3.935449
6	3	20	80	1109	1941	4.494464
7	1	17	55			5.237376
8	3	7	50	1946	1923	5.889643
9	1	17	100			7.077662
10	1	14	90			7.63142
11	1	17	90			8.51779
12	3	16	95	1195	1351	9.42138
13	2	11	85	1860		10.190658
14	3	19	90	1424	1959	10.631286
15	3	9	95	1054	1661	11.696397



USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	12	55			1.349268
2	3	9	60	1031	1379	2.534315
3	3	17	85	1158	1854	4.156769
4	2	9	50	1441		5.198883
5	3	17	95	1509	1755	6.490782
6	2	15	95	1431		8.29484
7	3	18	65	1489	1275	10.276756
8	1	18	90			11.371935

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	12	65	1452	1729	0.78912
2	3	17	60	1076	1695	1.556883
3	3	7	75	1668	1397	2.098034
4	3	5	80	1943	1817	3.65636
5	2	5	60	1743		4.181261
6	1	9	70			5.447338
7	1	19	80			6.204541
8	1	15	95			6.547624
9	2	16	70	1214		7.614435
10	3	8	55	1965	1336	8.960079
11	3	13	60	1430	1009	9.515722
12	2	6	90	1331		10.190734
13	3	18	95	1106	1192	11.478412

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	6	100	1373	1900	0.817495
2	2	13	85	1469		1.89281
3	3	11	55	1372	1881	3.379505
4	2	10	70	1457		4.534981
5	3	18	55	1093	1549	5.877788
6	1	11	50			6.337999
7	3	7	60	1171	1865	7.937871
8	3	16	80	1847	2000	9.433344
9	1	10	100			10.216878
10	1	11	90			11.330205

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	90	1739	1522	0.094907
2	1	18	55			2.144329
3	2	5	60	1353		4.170611
4	1	16	75			5.428647
5	2	9	80	1798		6.944495
6	3	14	65	1925	1207	8.358157
7	1	13	70			9.698309
8	3	17	100	1337	1731	11.400734

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	55	1202		0.19025
2	3	20	90	1515	1732	1.065173
3	3	19	70	1849	1955	2.966845
4	2	18	55	1791		3.474443
5	2	12	65	1559		4.39823
6	2	10	75	1921		5.383902
7	2	10	55	1834		6.979823
8	1	15	85			7.935303
9	3	14	70	1758	1722	8.080332
10	3	6	65	1754	1711	9.125521
11	2	10	55	1783		10.87607
12	1	5	85			11.649005

USA Bin 5 Trial #12



Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	20	95			0.27186
2	1	10	55			1.055485
3	1	15	85			1.928916
4	2	6	50	1584		2.623105
5	2	16	75	1506		3.940053
6	1	7	55			4.529971
7	2	8	90	1611		5.665163
8	3	6	80	1872	1228	6.636252
9	3	18	65	1115	1969	7.177869
10	2	8	50	1770		7.876509
11	3	17	65	1064	1224	9.236654
12	1	16	90			9.577242
13	1	5	95			10.461807
14	3	18	80	1022	1841	11.635981

USA Bin 5 Trial #13

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5	75	1604		1.11459
2	2	12	65	1159		2.048113
3	1	5	90			3.064026
4	3	9	60	1767	1483	5.166956
5	2	19	95	1879		5.756535
6	2	16	85	1102		6.891032
7	3	15	60	1304	1455	8.056333
8	3	6	70	1553	1097	9.901144
9	2	20	80	1597		11.241432

USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	12	50	1210		0.047343
2	2	7	70	1342		1.432765
3	1	12	90			2.32849
4	2	16	70	1604		3.101886
5	1	15	90			3.589354
6	3	20	75	1317	1527	4.74098
7	2	11	65	1261		5.248064
8	3	13	55	1991	1465	6.056367
9	1	16	100			6.628637
10	2	15	90	1236		7.506067
11	1	5	50			8.735919
12	3	11	80	1116	1656	8.906405
13	1	7	60			10.370884
14	1	6	90			11.061248
15	3	5	75	1891	1478	11.620535

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	100	1107		0.38261
2	2	6	60	1419		1.032554
3	2	20	100	1466		1.761282
4	1	19	90			2.328474
5	1	6	80			2.447805
6	2	6	95	1530		3.207691
7	3	15	100	1929	1235	4.035559
8	1	10	90			4.540085
9	1	8	95			4.930536
10	2	16	80	1735		5.794206
11	3	15	65	1327	1179	6.358248
12	1	9	90			6.914837
13	3	12	60	1915	1973	7.765966
14	2	9	70	1394		7.911701
15	2	5	100	1563		8.804349
16	1	16	95			9.563487
17	1	14	80			9.702803



18	3	15	100	1503	1062	10.234852
19	3	7	60	1188	1885	11.202686
20	2	12	100	1647		11.446446
USA Bin 5 Trial #16						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	75	1044		0.618283
2	2	20	90	1586		1.90779
3	2	9	85	1991		2.770302
4	2	11	60	1300		3.538882
5	1	8	70			4.641384
6	1	6	95			5.237437
7	3	20	70	1337	1304	6.28686
8	3	7	50	1487	1107	7.958515
9	2	19	85	1908		8.878125
10	3	12	60	1393	1669	9.793008
11	3	15	85	1911	1965	10.499109
12	3	11	100	1358	1797	11.954543
USA Bin 5 Trial #17						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	85	1559		0.095225
2	1	11	100			1.455982
3	3	12	55	1001	1146	1.978204
4	1	15	80			2.627221
5	2	9	90	1452		4.009137
6	1	16	100			4.74822
7	3	10	70	1797	1371	5.589855
8	1	10	95			6.298536
9	1	18	75			7.274532
10	3	7	50	1366	1577	8.052414
11	3	19	100	1136	1966	9.042411
12	3	8	55	1835	1318	9.740961
13	3	7	75	1863	1043	10.759927
14	3	18	60	1564	1725	11.457902
USA Bin 5 Trial #18						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	50	1208	1256	0.167268
2	2	20	85	1911		0.875879
3	1	9	100			1.528103
4	1	6	60			2.230012
5	3	16	55	1644	1939	3.297665
6	1	5	55			3.753519
7	3	8	70	1677	1565	4.348537
8	3	10	65	1448	1799	5.383617
9	3	13	60	1226	1008	6.152776
10	1	18	80			6.891466
11	3	18	90	1480	1889	7.084616
12	1	15	55			7.955146
13	2	7	75	1201		8.91935
14	2	9	70	1702		9.201827
15	1	10	90			10.273237
16	3	7	55	1407	1893	10.736157
17	2	11	75	1891		11.38255
USA Bin 5 Trial #19						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	17	80	1644	1999	0.305927
2	3	19	90	1339	1130	0.807714
3	1	7	70			1.894191
4	3	19	55	1396	1828	2.244284
5	2	14	55	1785		3.200606
6	1	6	70			3.39828
7	2	15	90	1203		4.120772
8	1	8	55			4.811205



9	3	12	60	1418	1846	5.784775
10	2	16	55	1866		6.510908
11	1	19	100			7.263755
12	1	13	75			7.498269
13	1	5	50			8.226419
14	2	8	95	1928		9.190271
15	1	13	55			9.982137
16	1	8	70			10.213491
17	3	14	95	1637	1315	10.901269
18	1	8	95			11.609648
USA Bin 5 Trial #20						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	80	1882		0.672027
2	3	18	85	1877	1692	1.588801
3	2	11	75	1646		3.192719
4	3	12	60	1514	1250	4.941134
5	2	9	50	1967		6.328452
6	3	15	85	1530	1842	7.235291
7	1	17	90			8.698355
8	3	8	50	1341	1660	9.379775
9	3	19	60	1880	1324	10.739478
USA Bin 5 Trial #21						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	100	1512		0.036218
2	3	19	70	1534	1777	1.803658
3	1	10	70			2.695937
4	2	10	55	1793		3.638775
5	2	19	75	1968		4.81795
6	3	8	55	1281	1449	5.454719
7	2	17	85	1843		6.747857
8	1	11	65			7.868785
9	3	14	60	1229	1201	8.317321
10	2	10	75	1930		9.315357
11	1	14	90			10.349351
12	3	6	85	1593	1550	11.972756
USA Bin 5 Trial #22						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	13	60			0.334726
2	1	10	80			1.097287
3	1	5	100			1.473441
4	1	19	85			2.360941
5	3	7	100	1380	1352	2.999655
6	2	9	90	1780		3.617713
7	3	14	95	1779	1102	4.102505
8	3	20	85	1808	1469	4.473476
9	3	20	95	1448	1433	5.143435
10	2	13	50	1451		5.796516
11	1	14	80			6.416459
12	3	5	55	1498	1496	7.117338
13	1	13	100			8.170419
14	2	20	75	1944		8.293804
15	1	7	50			9.002579
16	1	16	70			9.76874
17	1	7	50			10.376623
18	2	12	60	1606		11.044069
19	3	16	100	1181	1018	11.373366
USA Bin 5 Trial #23						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	80	1845	1800	0.807592
2	2	6	85	1331		1.645707
3	2	17	65	1385		2.65259
4	1	11	85			3.965996



5	2	8	50	1449		4.798678
6	3	6	55	1887	1370	6.274926
7	2	20	95	1110		7.009449
8	2	5	100	1855		7.810204
9	3	19	50	1072	1895	8.856092
10	2	11	95	1385		10.231086
11	1	8	65			10.942432
USA Bin 5 Trial #24						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	65	1657	1145	0.570082
2	2	13	100	1988		1.273893
3	1	13	100			2.446822
4	3	17	95	1883	1404	3.550351
5	1	17	80			4.667647
6	3	13	75	1534	1886	5.94121
7	2	12	90	1126		6.941093
8	3	10	85	1334	1186	7.119526
9	3	11	70	1165	1197	8.620014
10	2	19	50	1260		9.194979
11	3	11	50	1730	1725	10.906866
12	3	10	80	1650	1848	11.288442
USA Bin 5 Trial #25						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	18	95			0.846165
2	1	12	65			1.360236
3	2	18	70	1239		2.657613
4	3	5	80	1457	1657	3.637088
5	1	10	85			5.00321
6	1	13	75			6.829668
7	2	16	90	1228		7.867617
8	1	20	90			9.454399
9	2	5	85	1022		10.382183
10	1	11	65			11.721484
USA Bin 5 Trial #26						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	17	95	1512	1181	0.183199
2	3	12	75	1649	1723	1.273444
3	1	14	55			1.799536
4	1	20	55			2.201512
5	2	10	90	1430		2.89753
6	1	17	55			3.843796
7	3	15	90	1561	1585	4.05873
8	3	13	80	1018	1906	4.732973
9	3	6	55	1789	1455	5.468245
10	1	5	100			6.14513
11	3	14	100	1096	1450	7.150148
12	2	15	55	1006		7.340339
13	3	12	60	1885	1364	8.021543
14	3	10	65	1596	1201	9.023625
15	2	7	95	1268		9.353026
16	3	20	95	1988	1793	10.145198
17	3	12	90	1166	1925	10.931615
18	1	17	100			11.993848
USA Bin 5 Trial #27						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	55			0.551043
2	1	13	95			1.797888
3	2	10	65	1489		2.044397
4	2	8	75	1949		3.590534
5	2	9	80	1854		4.004266
6	2	20	95	1366		4.840503
7	2	14	75	1463		5.931989



8	2	19	50	1654		6.602652
9	1	18	100			8.08565
10	1	18	100			8.73975
11	1	10	60			9.444638
12	2	7	95	1270		11.020625
13	1	6	85			11.538576
USA Bin 5 Trial #28						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	65	1200		0.979431
2	2	12	75	1751		1.713977
3	1	18	50			3.967704
4	2	19	55	1960		4.769316
5	1	19	70			6.341108
6	3	18	70	1863	1811	6.834499
7	1	8	50			8.998516
8	2	13	80	1067		9.947966
9	1	18	60			11.295445
USA Bin 5 Trial #29						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	50	1069	1525	0.526224
2	3	19	55	1353	1257	0.737891
3	1	20	70			1.396227
4	3	11	75	1395	1866	1.904285
5	2	15	75	1870		2.460903
6	2	12	65	1266		3.489883
7	1	11	60			3.792758
8	3	15	75	1782	1266	4.686683
9	3	5	60	1069	1195	5.112636
10	2	8	50	1905		5.839778
11	1	11	70			6.308279
12	1	5	75			7.124476
13	2	7	80	1161		7.41739
14	2	12	50	1295		7.877597
15	3	19	90	1867	1699	8.415026
16	3	15	75	1265	1799	9.249162
17	2	13	95	1747		9.761679
18	2	16	100	1578		10.21967
19	2	18	90	1148		11.017392
20	2	6	50	1305		11.740848
USA Bin 5 Trial #30						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	16	85	1828	1960	0.486638
2	2	17	70	1410		1.68924
3	2	17	100	1975		2.857723
4	3	10	60	1967	1624	3.99227
5	3	6	60	1871	1551	4.494959
6	3	15	65	1153	1074	5.103887
7	1	12	80			6.038341
8	2	5	75	1853		7.051911
9	2	17	65	1293		8.729025
10	1	17	75			9.354103
11	2	13	65	1403		10.89176
12	2	17	95	1479		11.594095

*See the Bin6 Radar Characteristics at the end of this report.

USA Frequency Hopping Radar Statistical Performance

Trial #	Name	1=Detection 0=No Detection	Detection Percentage	Limit
1	USA Bin 6 Radar Test 1	1	100.0%	70.0%
2	USA Bin 6 Radar Test 2	1		
3	USA Bin 6 Radar Test 3	1		
4	USA Bin 6 Radar Test 4	1		
5	USA Bin 6 Radar Test 5	1		
6	USA Bin 6 Radar Test 6	1		
7	USA Bin 6 Radar Test 7	1		
8	USA Bin 6 Radar Test 8	1		
9	USA Bin 6 Radar Test 9	1		
10	USA Bin 6 Radar Test 10	1		
11	USA Bin 6 Radar Test 11	1		
12	USA Bin 6 Radar Test 12	1		
13	USA Bin 6 Radar Test 13	1		
14	USA Bin 6 Radar Test 14	1		
15	USA Bin 6 Radar Test 15	1		
16	USA Bin 6 Radar Test 16	1		
17	USA Bin 6 Radar Test 17	1		
18	USA Bin 6 Radar Test 18	1		
19	USA Bin 6 Radar Test 19	1		
20	USA Bin 6 Radar Test 20	1		
21	USA Bin 6 Radar Test 21	1		
22	USA Bin 6 Radar Test 22	1		
23	USA Bin 6 Radar Test 23	1		
24	USA Bin 6 Radar Test 24	1		
25	USA Bin 6 Radar Test 25	1		
26	USA Bin 6 Radar Test 26	1		
27	USA Bin 6 Radar Test 27	1		
28	USA Bin 6 Radar Test 28	1		
29	USA Bin 6 Radar Test 29	1		
30	USA Bin 6 Radar Test 30	1		



USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
24	5501	72
63	5502	189
64	5493	192
84	5492	252
85	5503	255

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
20	5505	60
21	5493	63
23	5507	69
33	5497	99

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
2	5493	6
4	5504	12
10	5497	30
33	5507	99
55	5501	165
89	5508	267
99	5505	297

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
25	5495	75
33	5494	99
59	5492	177

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
13	5497	39
27	5499	81
65	5498	195
87	5492	261

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
4	5496	12
18	5499	54
40	5506	120
80	5505	240
82	5498	246
92	5497	276

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
38	5504	114
46	5493	138
49	5507	147
77	5505	231
80	5503	240
87	5508	261



92 5498 276

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
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6	5504	18
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7	5501	21
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34	5497	102
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77	5500	231
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USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
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17	5500	51
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43	5494	129
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49	5492	147
----	------	-----

60	5495	180
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70	5501	210
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76	5497	228
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USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
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1	5504	3
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14	5498	42
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45	5505	135
----	------	-----

60	5507	180
----	------	-----

63	5494	189
----	------	-----

66	5492	198
----	------	-----

86	5499	258
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USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
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13	5500	39
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73	5496	219
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USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
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9	5504	27
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23	5507	69
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55	5496	165
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USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
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3	5508	9
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81	5506	243
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85	5496	255
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87	5492	261
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USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
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6	5493	18
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41	5495	123
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USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
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2	5507	6
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17	5494	51
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33	5496	99
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USA Frequency Hopping Trial #16



Hop #	Freq (GHz)	Pulse Start (mS)
2	5497	6
46	5496	138
58	5508	174
85	5501	255
91	5495	273

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
0	5496	0
72	5498	216
82	5500	246

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
98	5503	294

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
24	5500	72
62	5496	186
66	5504	198
69	5502	207
84	5506	252

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
54	5494	162

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
20	5496	60
24	5508	72
35	5501	105
40	5494	120

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
24	5503	72
31	5492	93
87	5505	261

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
23	5500	69
25	5505	75
29	5508	87
39	5501	117
66	5496	198
86	5492	258
88	5503	264

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
5	5507	15
26	5498	78
31	5495	93



46 5504 138

60 5500 180

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
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5	5498	15
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15	5493	45
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24	5500	72
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77	5494	231
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79	5504	237
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USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
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20	5493	60
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35	5503	105
----	------	-----

38	5494	114
----	------	-----

81	5495	243
----	------	-----

84	5492	252
----	------	-----

89	5506	267
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96	5505	288
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USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
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36	5499	108
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52	5492	156
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77	5497	231
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USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
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28	5499	84
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64	5495	192
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69	5508	207
----	------	-----

96	5492	288
----	------	-----

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
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32	5508	96
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65	5497	195
----	------	-----

88	5503	264
----	------	-----

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
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0	5502	0
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69	5498	207
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USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
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25	5508	75
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39	5517	117
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97	5505	291
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98	5502	294
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USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
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2	5505	6
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22	5509	66
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76	5515	228
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USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
11	5513	33
27	5514	81
48	5504	144
88	5516	264

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
26	5516	78
41	5508	123

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
14	5504	42
76	5511	228

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
2	5514	6
43	5507	129
65	5511	195
81	5516	243

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
17	5510	51
61	5518	183
64	5508	192
71	5502	213

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
6	5508	18
11	5506	33
53	5509	159
69	5505	207
76	5513	228
86	5512	258

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
26	5518	78
48	5511	144
81	5517	243
91	5515	273

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
30	5510	90
50	5511	150
56	5512	168
61	5507	183
77	5513	231

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
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6	5504	18
56	5517	168
65	5510	195
77	5518	231

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
55	5518	165

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
31	5513	93
57	5515	171
98	5516	294

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
7	5509	21
29	5512	87
36	5502	108
58	5516	174
74	5510	222

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
7	5505	21
10	5506	30
30	5513	90
78	5510	234
79	5516	237
83	5515	249

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
9	5512	27
54	5514	162
62	5508	186

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
31	5513	93
40	5515	120
42	5509	126
94	5508	282

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
29	5511	87
50	5518	150
69	5515	207

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
8	5518	24
34	5506	102
47	5507	141
69	5512	207



USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
4	5504	12
62	5505	186
63	5515	189
99	5509	297

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
84	5511	252
90	5508	270

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
42	5505	126
43	5511	129
89	5515	267

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
0	5510	0
10	5515	30
12	5503	36
14	5517	42
61	5509	183
79	5518	237

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
4	5508	12
52	5502	156
62	5503	186

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
2	5507	6
30	5517	90
42	5503	126
62	5518	186
87	5506	261

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
40	5518	120
59	5515	177
71	5512	213
82	5504	246

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
18	5503	54
35	5511	105
40	5509	120
60	5506	180
71	5502	213

USA Frequency Hopping Trial #28



Hop #	Freq (GHz)	Pulse Start (mS)
12	5518	36
96	5516	288
98	5517	294

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
1	5502	3
13	5514	39
33	5504	99
47	5518	141

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
34	5507	102
40	5514	120
48	5515	144
67	5510	201

Appendix C: List of Test Equipment Used to perform the test

Equip#	Manufacturer/ Model	Description	Last Cal	Next Due
CIS-54303	Keysight / N5182B	MXG Signal Generator	09-Mar-15	09-Mar-16
CIS-49514	National Instruments /PXI-1042	DFS Automation System	Cal before Use	Cal before Use
	National Instruments /PXI-5422	16-Bit 200MS/s AWG	Cal before Use	Cal before Use
	National Instruments /PXI-5422	16-Bit 200MS/s AWG	Cal before Use	Cal before Use
	National Instruments /PXI-2796	40GHz Dual 6x1 Multiplex	Cal before Use	Cal before Use
CIS050721	N9030A Keysight	PXA Signal Analyzer	13-Apr-15	13-Apr-16
CIS054662	SF18-S1S1-36 MegaPhase	SMA 36" cable	24-Jun-15	24-Jun-16
CIS054661	BWS30-W2 Aeroflex	SMA 30dB Attenuator	24-Jun-15	24-Jun-16
CIS054660	BWS20-W2 Aeroflex	SMA 20dB Attenuator	24-Jun-15	24-Jun-16
CIS054659	PS4-09-452/4S Pulsar	Splitter	24-Jun-15	24-Jun-16
CIS054657	ZFSC-2-10G Mini-Circuits	Splitter	24-Jun-15	24-Jun-16
CIS054678	RA08-S1S1-12 MegaPhase	SMA 12" Cable	24-Jun-15	24-Jun-16
CIS054668	RA08-S1S1-18 MegaPhase	SMA 18" Cable	24-Jun-15	24-Jun-16
CIS054667	RA08-S1S1-18 MegaPhase	SMA 18" Cable	24-Jun-15	24-Jun-16
CIS054665	RA08-S1S1-24 MegaPhase	SMA 24" Cable	24-Jun-15	24-Jun-16
CIS054663	F120-S1S1-48 MegaPhase	SMA 48" Cable	24-Jun-15	24-Jun-16
CIS054686	NI PXI-2796 National Instruments	Plug-in switch module	6-Oct-14	6-Oct-15
CIS-49514	National Instruments /PXI-1042	DFS Automation System	Cal before Use	Cal before Use
CIS-49514	National Instruments /PXI-5422	16-Bit 200MS/s AWG	Cal before Use	Cal before Use
CIS-49514	National Instruments /PXI-5422	16-Bit 200MS/s AWG	Cal before Use	Cal before Use
CIS054658	D3C2060 Ditom	Circulator	20-Oct-14	20-Oct-15

END