



Dynamic Frequency Selection (DFS) Test Report

AIR-CAP702y-B-K9 Series

FCC ID: LDK102085

Also covers:
AIR-SAP702y-B-K9

y = E (External Antenna) or I (Internal Antenna)

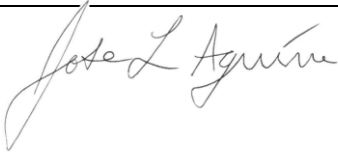
z=A,B

5250-5350, 5470-5725 MHz

Against the following Specifications:

CFR47 Part 15.407

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-1245236. 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

14-July-2015

2.3 Report Issue Date

01-September-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-CAP702E-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

Sample No.	Equipment Details	Manufacturer	Hardware Rev.	Firmware Rev.	Software Rev.	Serial Number
S01	AIR-CAP702E-B-K9	Cisco Systems	A0	AP1G1-k9w7-mx.153	Cisco IOS 15.3	KWC1630002X
S02*	AIR-PWR-C	Meanwell	A0	NA	NA	EB46E93226

(*) S02 is support equipment Power supply for EUT S01

4.2 System Details

System #	Description	Samples
1	AIR-CAP702E-B-K9	S01
2	AIR-PWR-C	S02

4.3 Mode of Operation Details

Mode#	Description	Comments
1	Continuous Transmitting	Continuous Transmitting

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

1. The 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	5

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.

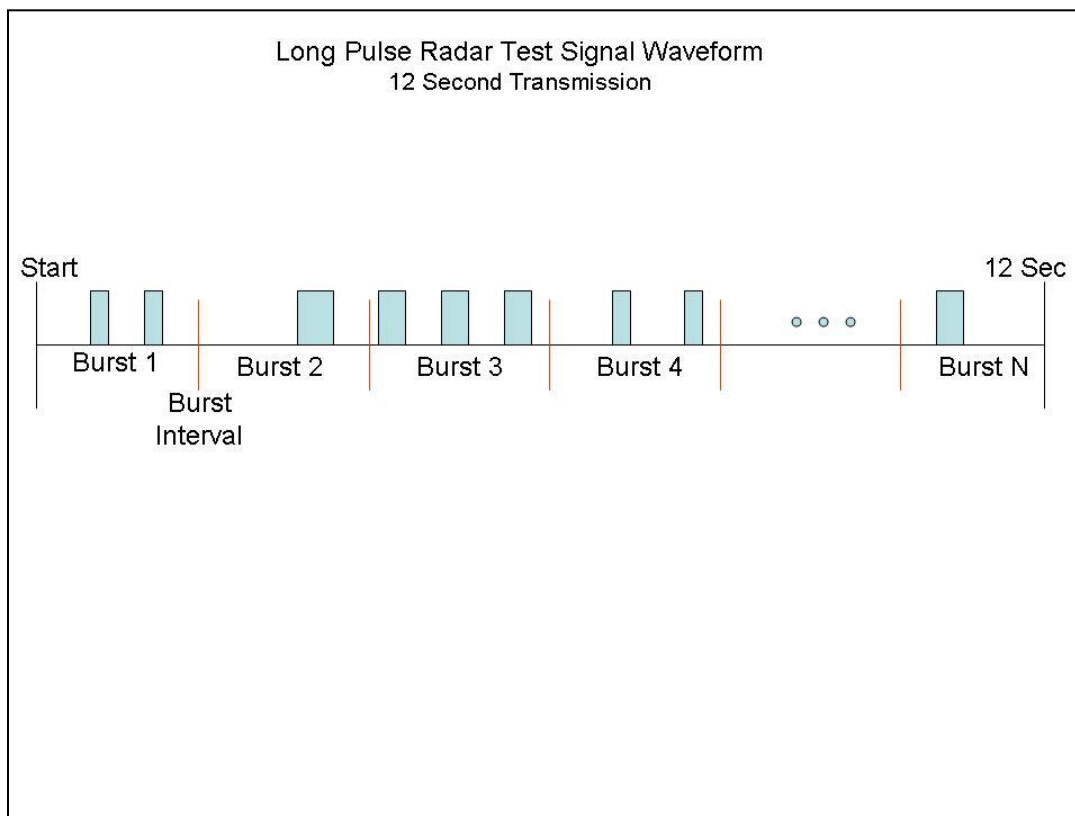
Each waveform is defined as follows:

- 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

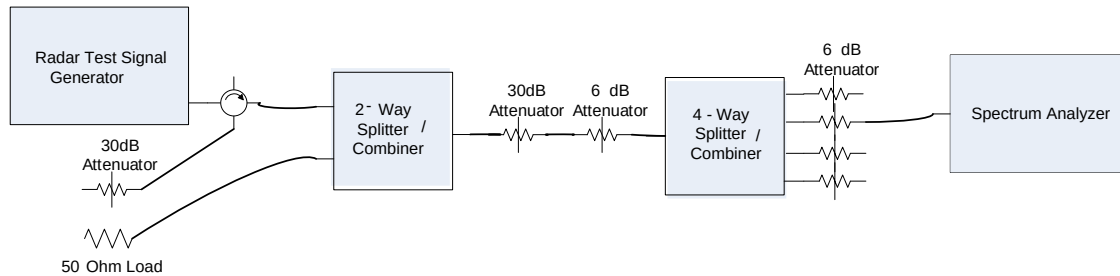
System Number	Description	Samples	System under test	Support equipment
1	AIR-CAP702E-B-K9	S01	☒	☐
	Support Power Supply	S02	☐	☒
	Support Client Equipment	S03	☐	☒

Tested By : Jose Aguirre	Date of testing: 14-July-2015
Test Result : PASS	

See Appendix C for list of test equipment

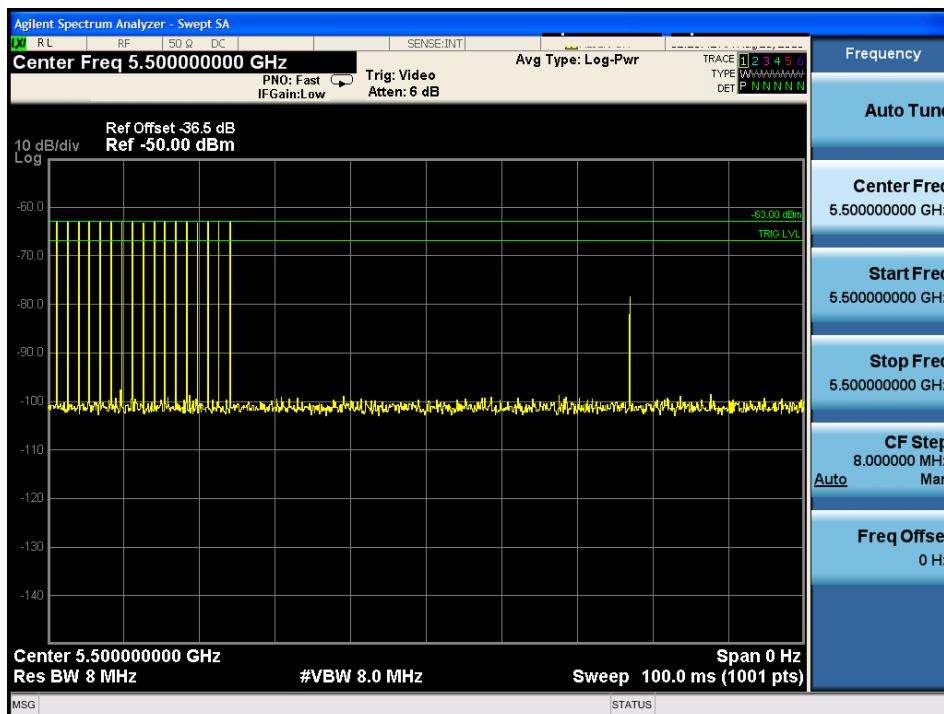
The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero 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.

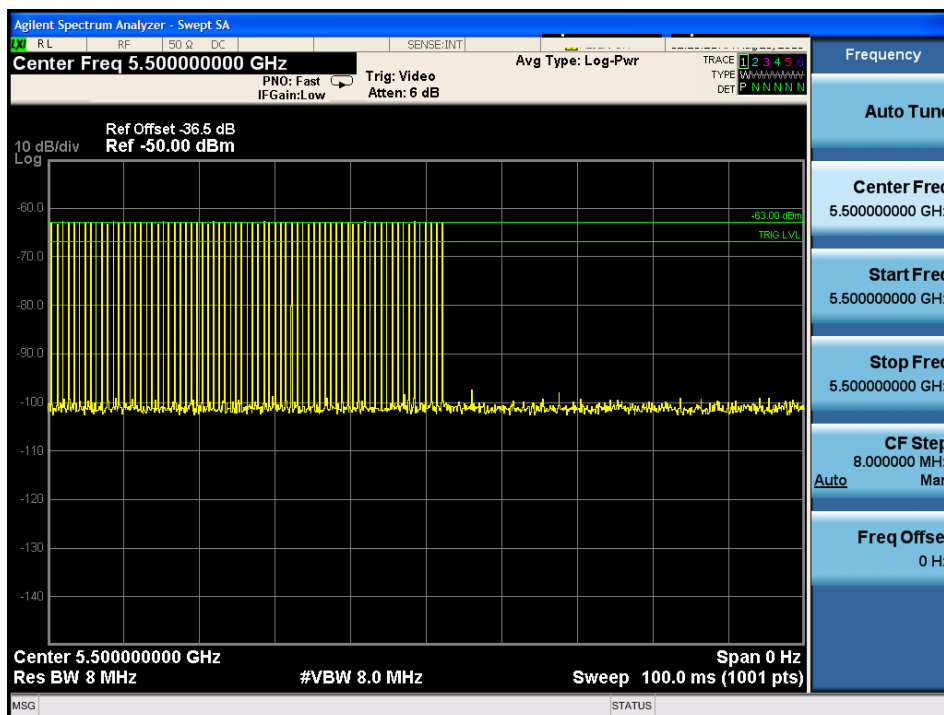


Conducted Calibration Setup

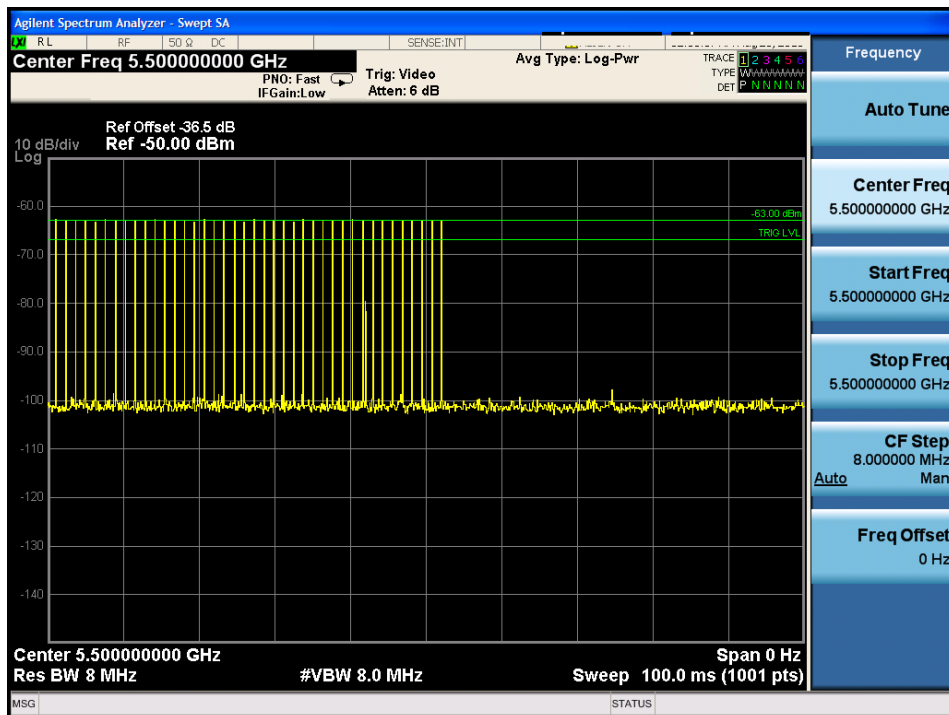
Following are the calibration plots for each of the required radar waveforms.



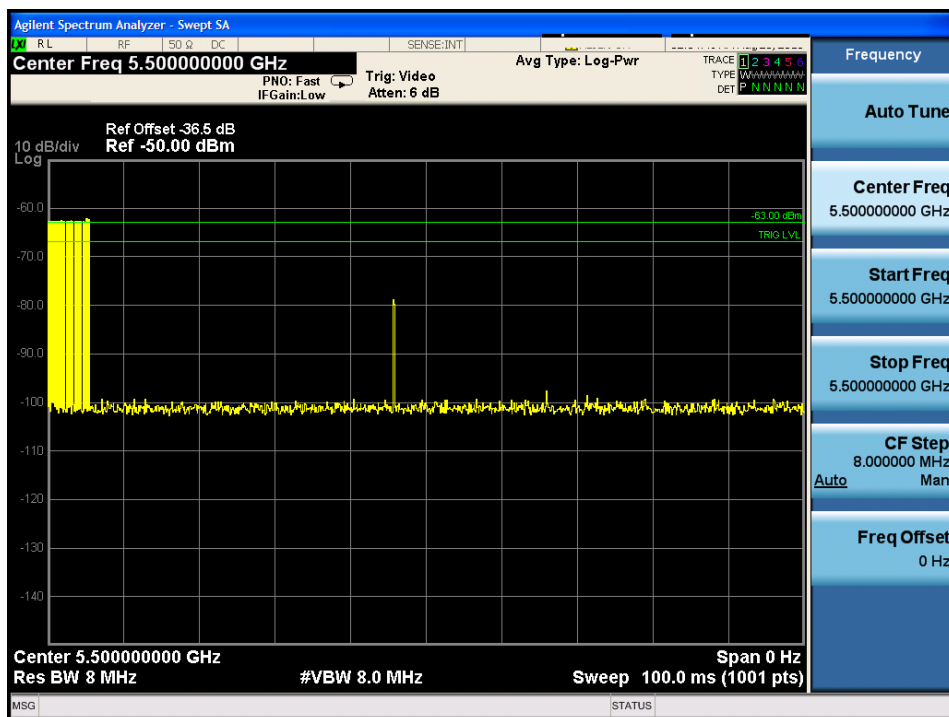
USA Bin 0 Radar Calibration



USA Bin 1A Radar Calibration



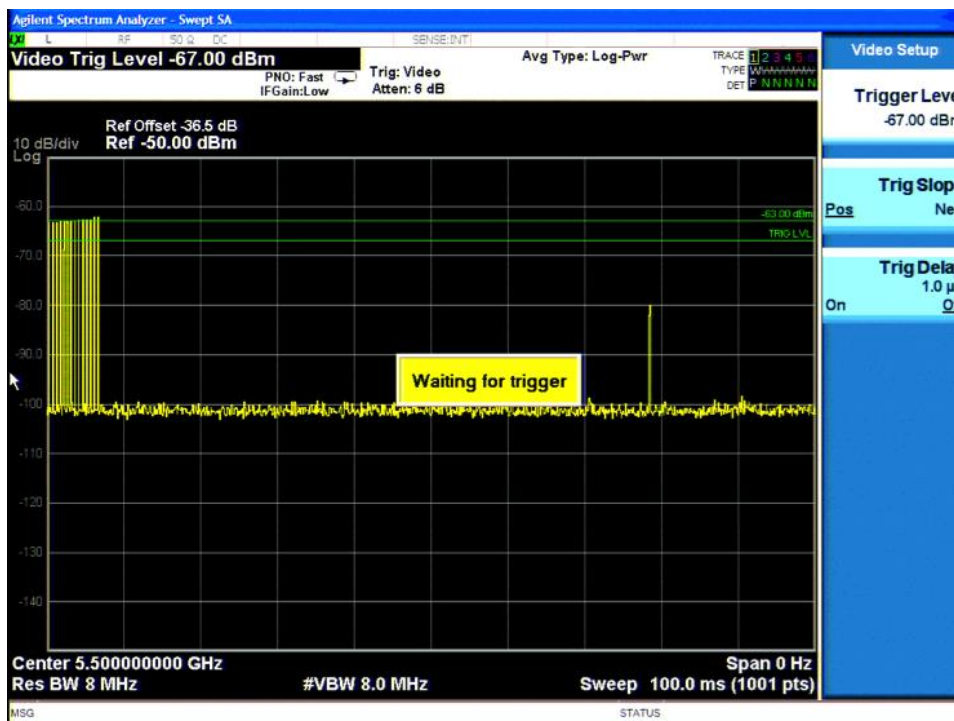
USA Bin 1B Radar Calibration



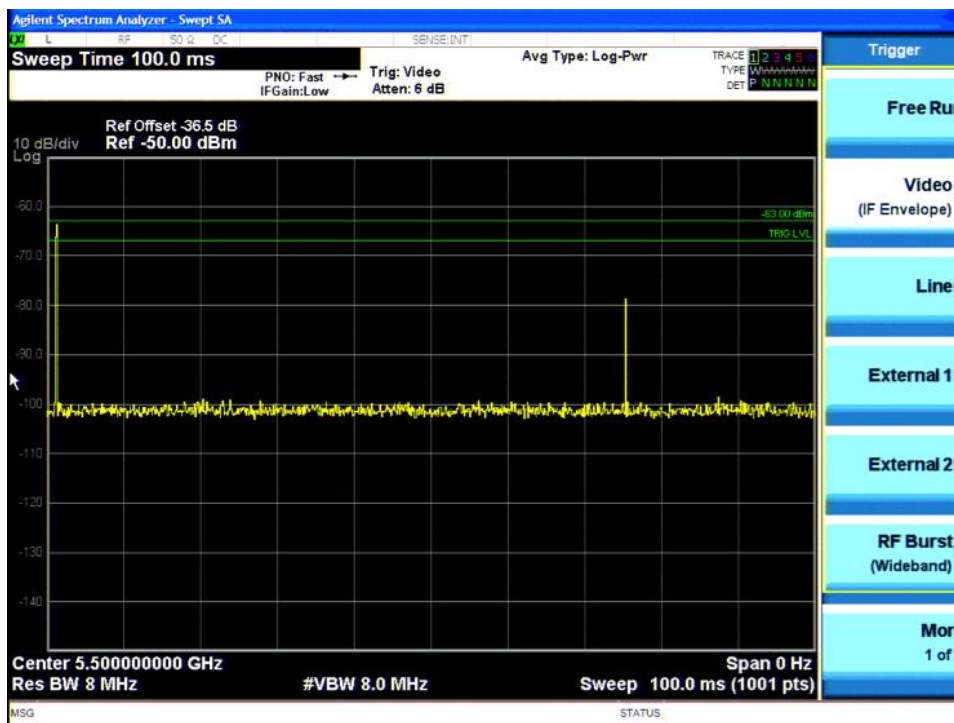
USA Bin 2 Radar Calibration



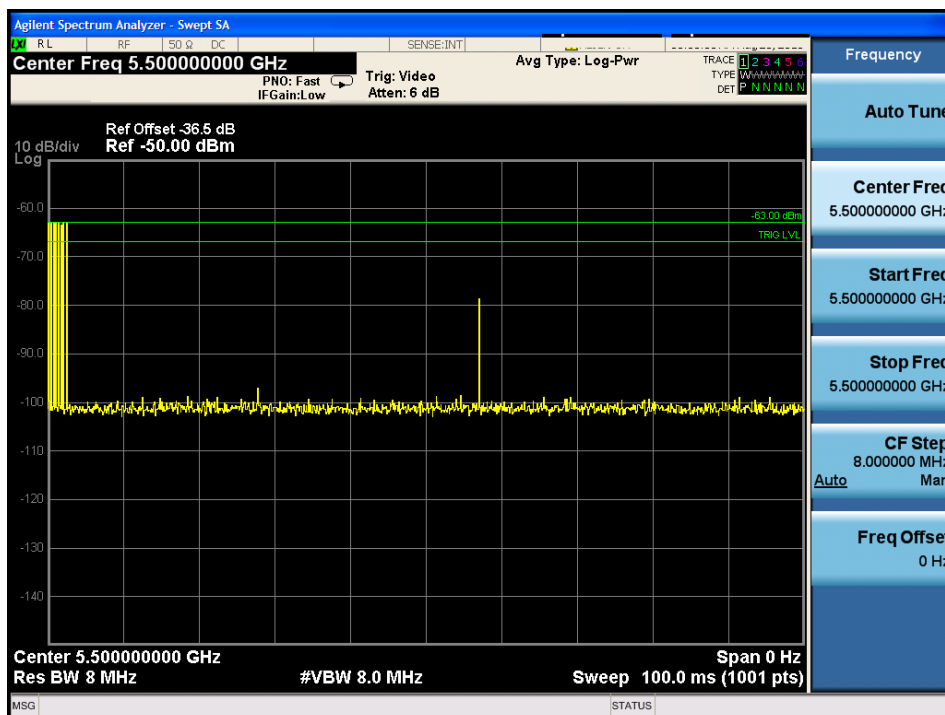
USA Bin 3 Radar Calibration



USA Bin 4 Radar Calibration



USA Bin 5 Radar Calibration



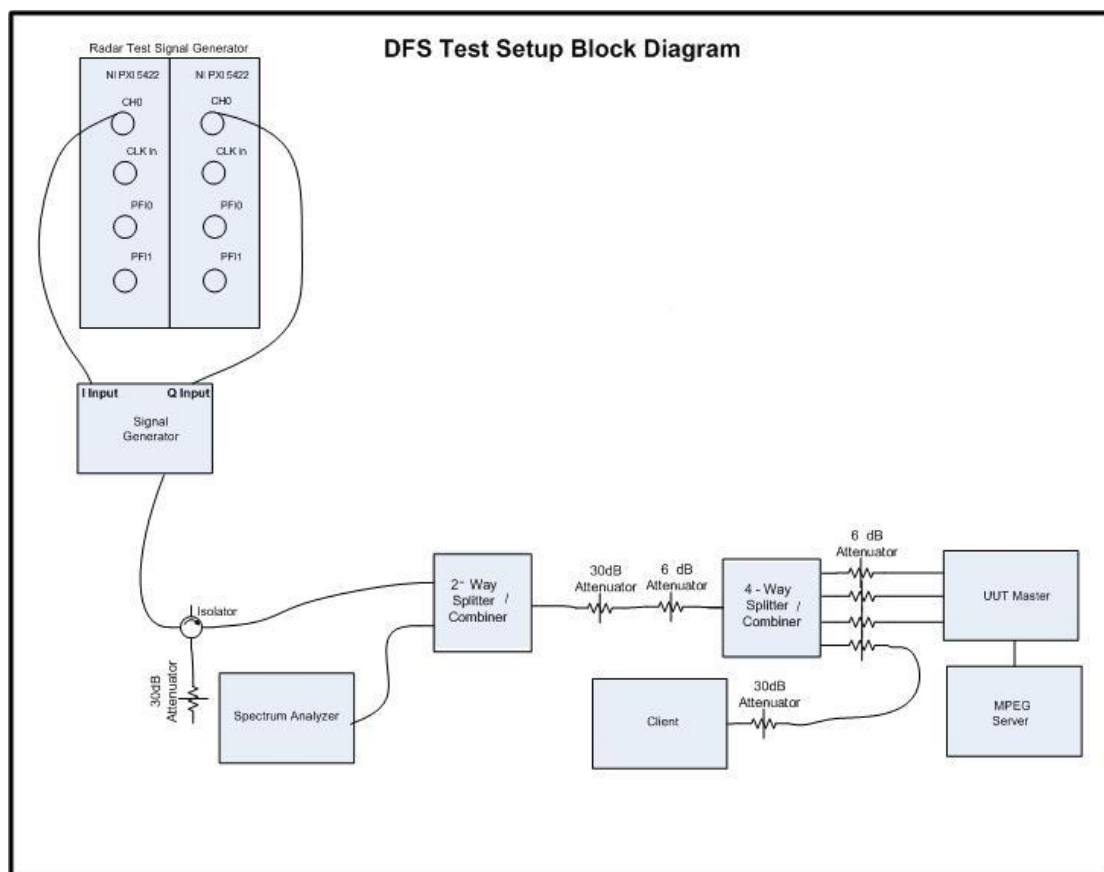
USA Frequency Hopping Radar Calibration

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)												
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 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	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 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

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	0	1	0	0	1	1	1	70	19	18
5491	1	0	1	1	1	1	1	1	1	1	90		
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 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	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	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	0	1	1	1	90		
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 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	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 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	0	1	1	1	1	0	1	80	38	36
5491	1	1	0	1	1	1	1	1	1	1	90		
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

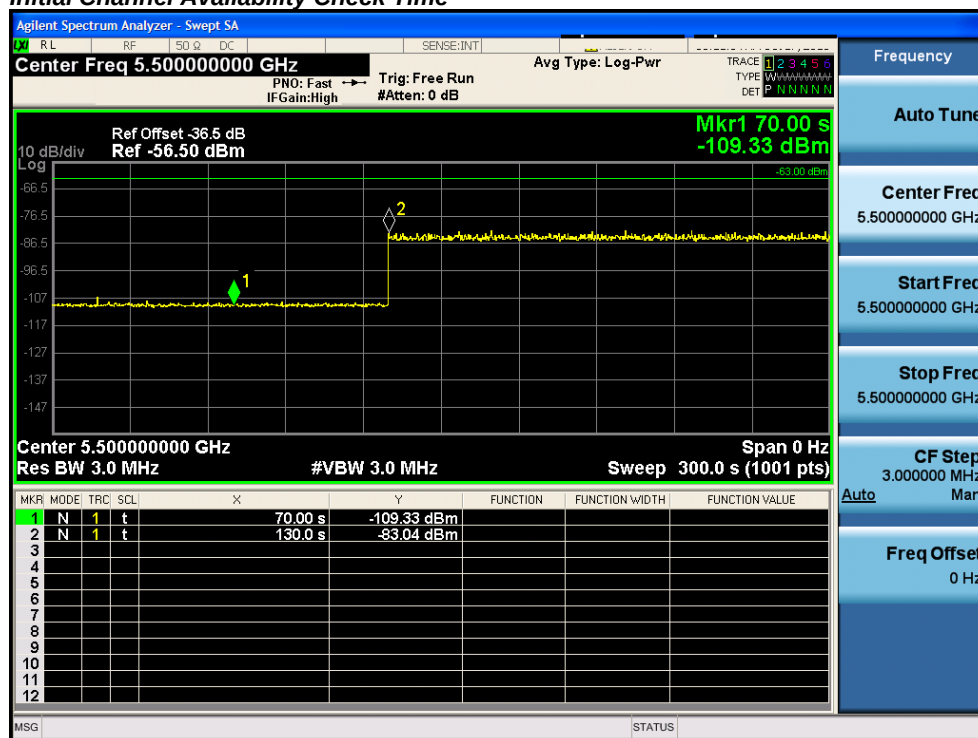
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

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.

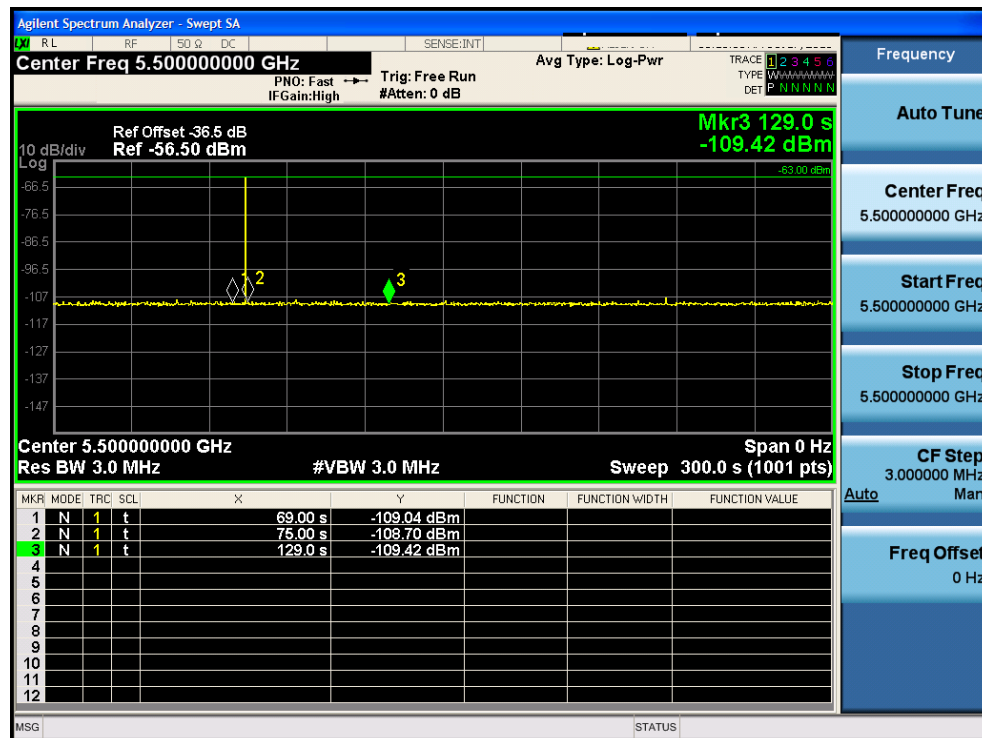
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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.

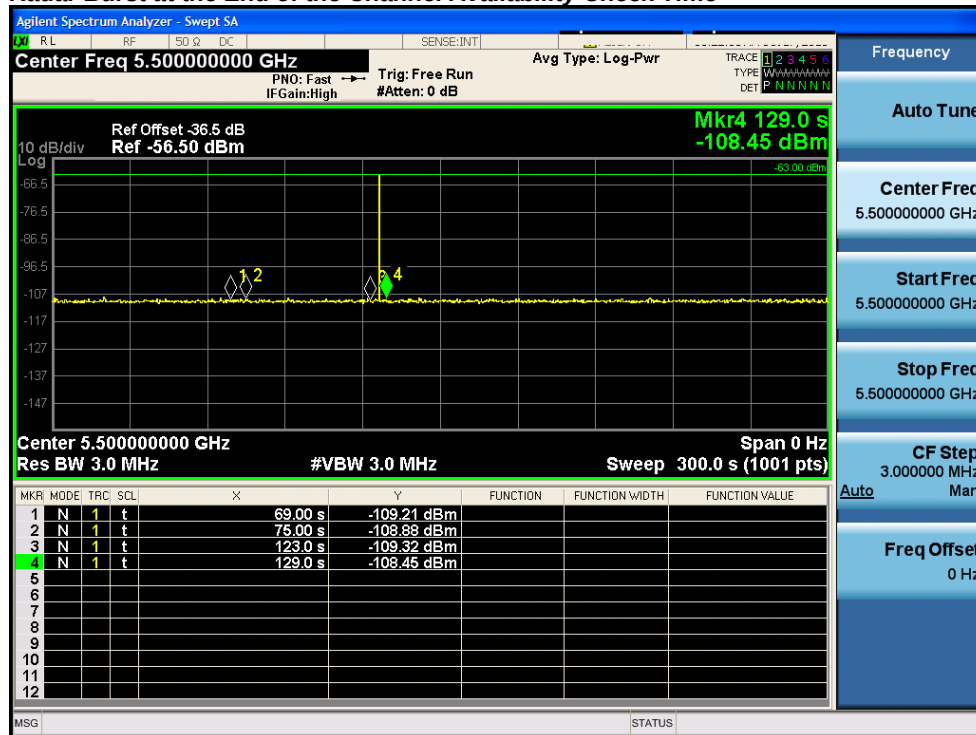
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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.

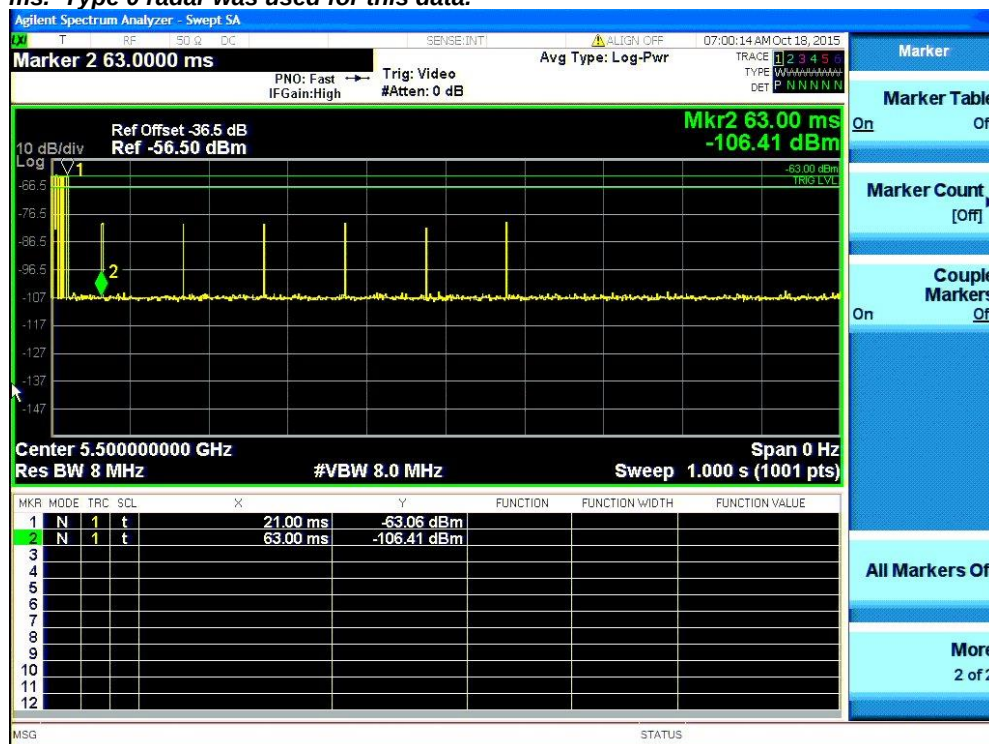
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

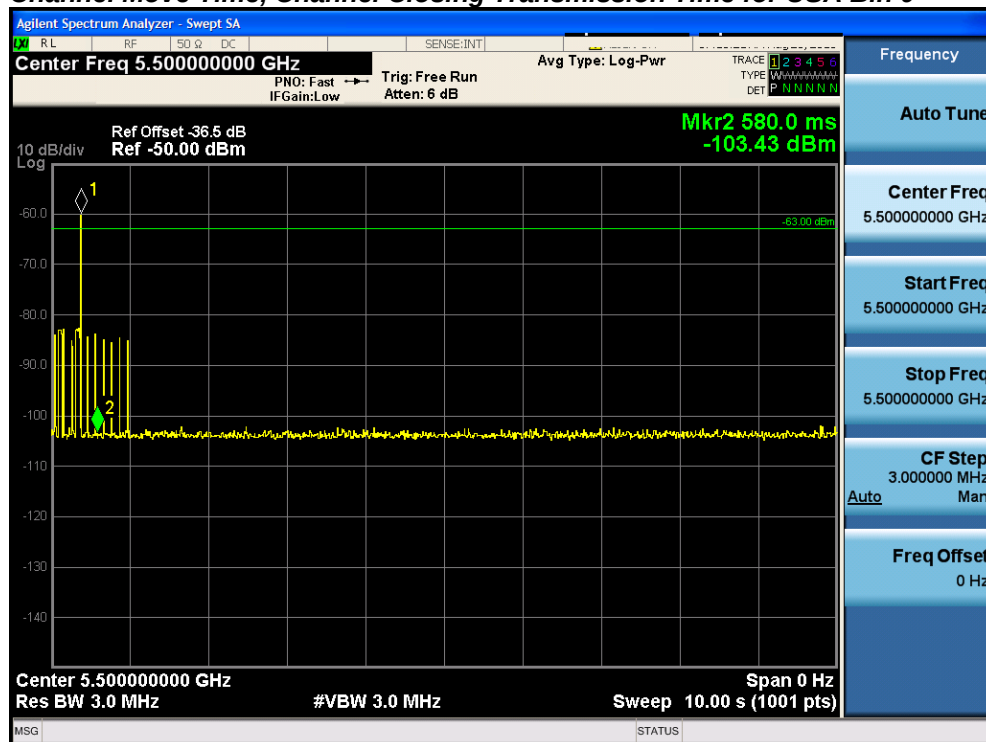
A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

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*.

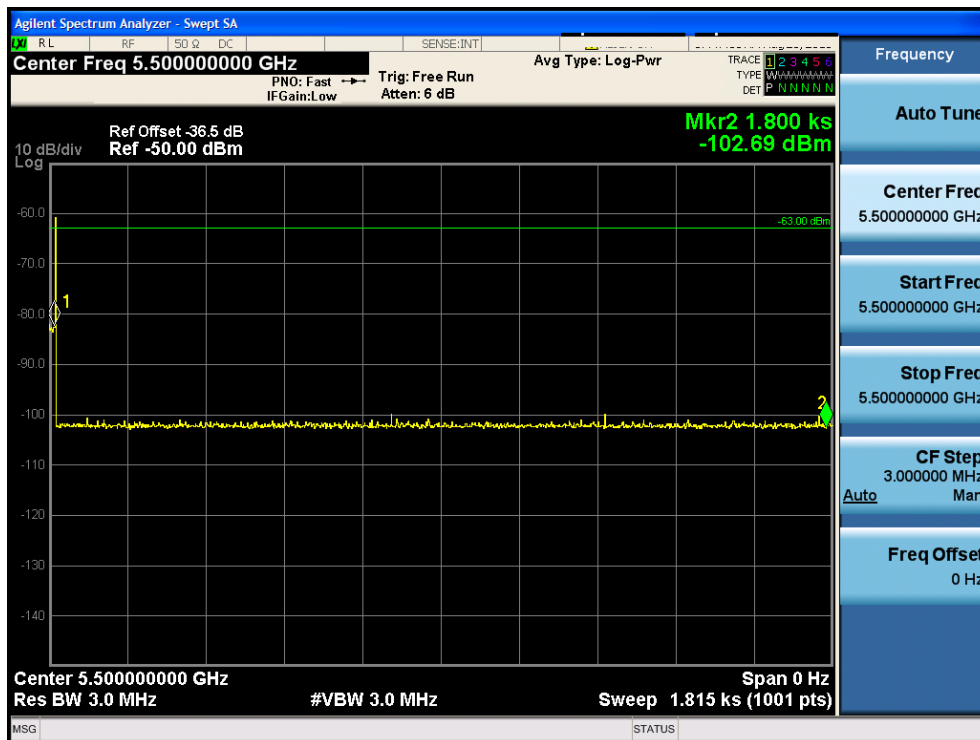
The following plot demonstrates a channel close time of 50ms, with an aggregate of no more than 60 ms. Type 0 radar was used for this data.



Channel Move Time, Channel Closing Transmission Time for USA Bin 0

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	100.0%	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	1		
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	1		
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	92	1	578	1	100.0%	60.0%
2	89	1	598	1		
3	81	1	658	1		
4	65	1	818	1		
5	59	1	898	1		
6	83	1	638	1		
7	58	1	918	1		
8	59	1	898	1		
9	83	1	638	1		
10	18	1	3066	1		
11	102	1	518	1		
12	59	1	898	1		
13	68	1	778	1		
14	102	1	518	1		
15	68	1	778	1		
16	20	1	2711	1		
17	59	1	908	1		
18	29	1	1839	1		
19	49	1	1086	1		
20	18	1	2985	1		
21	32	1	1701	1		
22	21	1	2589	1		
23	61	1	876	1		
24	21	1	2575	1		
25	74	1	722	1		
26	84	1	631	1		
27	94	1	562	1		
28	30	1	1814	1		
29	41	1	1309	1		
30	39	1	1360	1		

USA Bin 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	68	1	778	1	100.0%	60.0%
2	76	1	698	1		
3	67	1	798	1		
4	63	1	838	1		
5	102	1	518	1		
6	67	1	798	1		
7	76	1	698	1		
8	74	1	718	1		
9	86	1	618	1		
10	76	1	698	1		
11	89	1	598	1		
12	86	1	618	1		
13	83	1	638	1		
14	99	1	538	1		
15	72	1	738	1		
16	18	1	3000	1		
17	26	1	2071	1		
18	41	1	1289	1		
19	72	1	736	1		
20	75	1	704	1		
21	25	1	2131	1		
22	59	1	900	1		
23	60	1	888	1		
24	46	1	1168	1		
25	26	1	2081	1		
26	22	1	2416	1		
27	33	1	1639	1		
28	19	1	2910	1		
29	42	1	1269	1		
30	37	1	1461	1		

USA Bin 2 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	27	1.2	194	0	83.3%	60.0%
2	24	3.6	192	0		
3	23	2.4	224	0		
4	25	2.1	164	0		
5	29	3.4	213	1		
6	26	4.3	193	1		
7	29	1.7	199	1		
8	29	4.9	220	1		
9	25	1.3	163	1		
10	28	1.1	215	1		
11	23	4.2	189	0		
12	25	1.7	152	1		
13	23	2.8	196	1		
14	29	3	160	1		
15	27	4.5	216	1		
16	25	1.8	191	1		
17	24	2.3	169	1		
18	25	4.4	179	1		
19	23	2.5	187	1		
20	29	4.4	229	1		
21	26	2.6	221	1		
22	29	3.4	173	1		
23	27	1.7	152	1		
24	24	2	187	1		
25	27	2.8	153	1		
26	24	1.4	158	1		
27	27	2.6	170	1		
28	27	2.9	223	1		
29	28	4.4	196	1		
30	23	4.7	192	1		

USA Bin 3 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	17	7.3	498	0	93.3%	60.0%
2	16	8.7	279	0		
3	18	6.9	387	1		
4	17	6.4	379	1		
5	16	6.8	456	1		
6	18	7.4	262	1		
7	17	8.5	232	1		
8	17	9.2	305	1		
9	18	6.3	427	1		
10	17	8.7	323	1		
11	17	7.9	208	1		
12	16	7.4	368	1		
13	17	7.4	219	1		
14	16	8.5	297	1		
15	18	9.5	224	1		
16	18	8.2	266	1		
17	18	6	232	1		
18	17	7.9	378	1		
19	16	7.6	269	1		
20	17	8.6	369	1		
21	16	7.6	463	1		
22	18	6.7	238	1		
23	17	7.3	260	1		
24	17	9.6	252	1		
25	17	9.6	275	1		
26	18	6.7	410	1		
27	16	7.6	497	1		
28	18	6.8	394	1		
29	16	9.5	333	1		
30	17	8.8	493	1		

USA Bin 4 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	16	12.4	260	0	80.0%	60.0%
2	14	19.1	386	0		
3	13	17.2	326	1		
4	16	12.9	454	1		
5	15	19.4	434	1		
6	15	12.1	491	1		
7	15	16.9	483	1		
8	15	19.7	499	1		
9	14	17.9	222	1		
10	14	12	362	1		
11	15	12.4	337	1		
12	15	14.7	211	1		
13	14	19.6	264	1		
14	15	14.8	288	1		
15	12	19.9	220	1		
16	14	13.9	401	1		
17	12	14.5	381	1		
18	15	11.7	260	1		
19	13	19.9	291	0		
20	13	18.9	454	0		
21	12	19.5	368	0		
22	13	11.4	304	0		
23	14	11.1	282	1		
24	14	14.4	236	1		
25	14	14.6	223	1		
26	12	14.9	217	1		
27	12	11.8	247	1		
28	12	12.7	222	1		
29	16	19.2	227	1		
30	12	16.8	291	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:

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



*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	9	80	1687	1952	0.140462
2	1	11	55			1.898425
3	3	16	50	1635	1498	2.980561
4	2	12	50	1544		3.959713
5	1	11	90			4.420383
6	2	8	85	1916		6.364274
7	3	16	85	1620	1282	7.216936
8	3	11	85	1498	1256	8.493243
9	2	13	100	1405		9.355921
10	2	14	95	1880		10.104511
11	3	12	55	1549	1776	11.64206

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	90	1197	1962	0.700344
2	1	11	85			1.574306
3	3	8	55	1452	1794	2.606164
4	3	20	55	1255	1749	3.908524
5	1	5	55			4.558631
6	2	19	95	1824		6.227507
7	3	13	100	1483	1675	6.669886
8	3	8	75	1903	1940	7.771852
9	3	20	75	1768	1684	9.298018
10	1	5	85			10.745374
11	3	13	90	1853	1386	11.239254

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	85	1161		0.305257
2	1	7	100			2.281871
3	2	20	75	1634		3.332561
4	1	13	65			4.000205
5	1	10	90			5.493118
6	3	5	55	1721	1138	6.281529
7	2	6	100	1898		8.340201
8	1	7	75			9.010512
9	3	8	95	1043	1464	10.541907
10	2	9	85	1996		11.048101

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	50	1013		0.58173
2	1	11	95			1.58222
3	1	5	70			2.271429
4	1	16	85			2.661777
5	1	6	100			3.967585
6	3	9	80	1870	1936	5.079673
7	1	18	85			5.757561
8	2	18	95	1783		6.85311
9	1	20	80			7.675889
10	1	18	55			8.342625
11	2	11	70	1311		9.260783
12	3	16	65	1875	1157	10.075182
13	3	15	65	1155	1888	11.022596
14	2	12	95	1737		11.382402

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	85	1825	1794	0.937846
2	3	20	65	1914	1558	1.988338
3	3	5	60	1656	1893	3.899008
4	1	8	95			4.547298
5	3	9	60	1107	1336	7.259904



6	1	12	85			8.000247
7	1	14	50			9.106194
8	1	8	80			10.616625
USA Bin 5 Trial #6						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	55	1308		0.11033
2	2	8	70	1270		1.796376
3	3	20	55	1572	1709	2.85594
4	2	9	65	1362		4.646757
5	1	7	90			5.864917
6	2	20	100	1558		6.805989
7	1	11	65			7.844548
8	1	12	80			9.037386
9	1	11	55			10.777917
10	3	20	55	1781	1135	11.839621
USA Bin 5 Trial #7						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	60	1027		0.827557
2	3	7	55	1390	1997	2.161735
3	3	20	85	1843	1096	3.210081
4	1	13	100			4.60715
5	3	16	55	1547	1261	5.430093
6	2	9	80	1914		6.976822
7	3	7	90	1315	1400	7.872853
8	3	14	75	1502	1092	9.222969
9	3	10	100	1366	1696	10.203178
10	1	16	100			11.315613
USA Bin 5 Trial #8						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	70	1717		0.334114
2	3	11	100	1696	1879	0.66103
3	2	15	60	1008		1.481377
4	3	5	95	1043	1172	2.200391
5	3	16	70	1824	1256	3.094703
6	3	8	50	1403	1658	3.451843
7	1	20	70			4.235852
8	2	12	80	1243		4.588898
9	1	13	50			5.237075
10	1	14	50			5.998648
11	1	20	50			6.637588
12	3	19	65	1088	1468	7.501801
13	2	18	75	1212		7.783702
14	3	7	85	1457	1608	8.282501
15	3	6	85	1382	1132	9.195641
16	3	10	75	1343	1245	9.538502
17	3	20	75	1430	1528	10.455844
18	2	5	75	1652		11.027768
19	2	14	95	1867		11.639579
USA Bin 5 Trial #9						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	14	60			0.337293
2	3	6	95	1383	1249	0.917132
3	2	17	50	1951		2.064348
4	3	5	100	1755	1853	2.813912
5	3	10	80	1230	1295	3.213206
6	1	8	50			3.612837
7	3	11	65	1124	1757	4.4599
8	2	14	50	1608		5.126987
9	2	14	90	1919		6.013733
10	1	11	55			6.454938
11	1	14	65			7.693063
12	2	7	60	1647		8.447296



13	3	19	70	1168	1887	8.513648
14	3	11	95	1161	1666	9.742681
15	3	17	55	1619	1041	10.450303
16	3	7	60	1324	1868	11.099728
17	1	17	95			11.588161
USA Bin 5 Trial #10						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	95	1522	1605	0.600882
2	1	20	75			1.522602
3	3	14	65	1038	1870	2.33436
4	2	15	70	1931		2.617613
5	3	16	55	1123	1093	3.773051
6	3	12	50	1544	1673	4.61944
7	3	8	55	1052	1016	4.988158
8	1	19	55			6.198655
9	2	15	80	1446		6.604039
10	2	15	95	1028		7.569789
11	2	19	60	1092		8.320423
12	1	11	70			9.045294
13	2	14	75	1180		9.631269
14	2	9	80	1761		11.073984
15	3	8	75	1947	1633	11.604707
USA Bin 5 Trial #11						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	75	1285	1466	0.472473
2	1	15	55			1.487965
3	2	11	90	1364		2.101166
4	2	7	80	1725		2.933359
5	2	9	90	1316		3.592281
6	2	11	75	1367		4.351832
7	2	12	55	1621		4.814
8	2	9	85	1564		5.651951
9	2	9	95	1819		6.417773
10	3	15	75	1313	1414	7.877734
11	3	15	90	1584	1556	8.405144
12	2	8	85	1296		9.31603
13	2	5	65	1151		9.923334
14	3	5	90	1313	1956	11.159874
15	1	20	95			11.296595
USA Bin 5 Trial #12						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	19	55			0.507204
2	3	19	70	1086	1005	0.656593
3	1	15	65			1.44832
4	2	7	60	1758		1.98064
5	1	18	90			2.678265
6	1	16	90			3.499558
7	3	6	50	1084	1533	4.042099
8	1	9	55			4.545608
9	3	10	55	1397	1051	5.045456
10	3	8	65	1271	1197	5.88115
11	3	18	75	1598	1452	6.134501
12	1	14	65			6.871728
13	2	5	100	1443		7.326466
14	3	13	70	1028	1662	8.382258
15	2	19	80	1923		8.426996
16	3	8	80	1881	1801	9.172614
17	1	10	65			9.740889
18	3	9	95	1364	1250	10.708001
19	2	13	90	1027		10.927763
20	1	5	100			11.95743
USA Bin 5 Trial #13						



Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	90			0.851533
2	3	14	50	1704	1780	1.514727
3	2	19	55	1031		1.732853
4	2	12	95	1777		3.387001
5	2	16	65	1456		4.226384
6	1	6	85			5.025013
7	3	14	75	1212	1247	5.820237
8	3	18	85	1490	1105	6.831156
9	1	12	95			7.002189
10	1	16	100			7.800181
11	2	15	80	1592		8.893389
12	3	10	60	1083	1110	9.82209
13	2	20	60	1052		10.814748
14	2	20	95	1404		11.82789

USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	100	1052	1305	0.566146
2	1	18	65			1.117463
3	2	13	75	1886		1.674746
4	2	13	50	1639		2.85854
5	2	14	80	1736		3.229944
6	2	10	55	1670		4.015607
7	3	20	90	1973	1618	4.925494
8	3	15	70	1850	1022	5.269905
9	2	5	85	1897		6.10911
10	1	8	75			6.825503
11	2	16	60	1597		7.965976
12	3	5	100	1469	1775	8.424665
13	1	17	100			9.689541
14	2	13	100	1870		10.044705
15	1	19	60			10.588335
16	3	19	80	1232	1819	11.470762

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	95	1776	1960	0.370142
2	3	16	80	1405	1948	1.077265
3	1	9	75			1.834476
4	3	19	90	1246	1050	2.375131
5	1	16	70			2.892994
6	3	15	65	1715	1157	3.946511
7	2	11	95	1459		4.50457
8	2	13	50	1040		4.961577
9	2	15	70	1160		5.550564
10	1	10	70			6.199579
11	3	8	95	1376	1768	7.082375
12	2	15	65	1765		7.655045
13	3	13	90	1397	1801	8.177781
14	2	5	55	1735		8.970056
15	3	10	75	1048	1385	9.422605
16	1	7	55			10.318962
17	1	11	95			11.031964
18	1	15	70			11.820839

USA Bin 5 Trial #16

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	80	1969	1708	0.489087
2	1	11	95			2.782585
3	2	19	70	1576		4.028317
4	2	14	55	1236		5.14918
5	1	11	55			6.516795
6	2	18	75	1697		8.899907
7	2	20	95	1029		9.237434



8	1	17	95			11.32937
USA Bin 5 Trial #17						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	80	1192		0.248449
2	1	20	80			1.030802
3	1	11	90			1.623745
4	2	7	70	1990		2.197182
5	3	19	50	1341	1570	3.164391
6	2	6	55	1980		3.794423
7	1	9	75			4.800379
8	2	5	85	1823		5.083315
9	2	12	90	1708		5.792943
10	1	11	65			6.857925
11	1	5	90			7.430989
12	3	11	80	1454	1252	7.823869
13	2	9	100	1570		8.754093
14	1	5	75			9.654992
15	2	6	90	1232		10.453066
16	2	6	85	1180		10.716959
17	3	16	55	1488	1033	11.743015
USA Bin 5 Trial #18						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	50			0.412002
2	2	17	80	1124		0.659075
3	3	18	90	1250	1008	1.365587
4	1	10	95			1.930124
5	3	7	90	1016	1533	2.846207
6	1	11	60			3.401777
7	1	16	95			3.901217
8	2	7	75	1873		4.548543
9	1	5	95			4.950061
10	1	14	55			5.420543
11	2	19	55	1949		6.456242
12	1	6	80			6.616132
13	3	16	75	1959	1501	7.780293
14	2	18	95	1158		7.981193
15	3	12	65	1589	1095	8.980617
16	2	7	95	1651		9.163361
17	1	9	90			9.931661
18	3	19	75	1537	1291	10.399764
19	1	11	90			11.336125
20	3	16	85	1256	1343	11.844334
USA Bin 5 Trial #19						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	6	60			0.530429
2	1	17	95			1.661978
3	3	5	65	1076	1685	2.593755
4	1	11	80			3.178195
5	3	18	95	1856	1827	4.548813
6	3	12	65	1898	1155	4.616483
7	3	8	100	1477	1411	5.800475
8	1	6	70			6.953734
9	1	10	95			7.670571
10	1	10	100			8.954992
11	3	19	95	1488	1966	9.44701
12	3	11	50	1238	1545	10.850034
13	1	10	95			11.364232
USA Bin 5 Trial #20						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	14	75			0.064842
2	3	18	75	1927	1951	1.590981
3	2	8	90	1036		2.241206



4	2	5	95	1753		2.867286
5	1	8	55			4.257612
6	2	9	50	1172		4.674928
7	3	6	95	1546	1503	5.529094
8	1	8	95			6.847193
9	3	8	55	1914	1326	7.346668
10	2	15	90	1851		7.86694
11	3	14	50	1999	1120	8.813276
12	3	15	90	1352	1798	9.869089
13	2	5	50	1680		11.035485
14	1	14	60			11.816363

USA Bin 5 Trial #21

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	60	1899		0.473116
2	1	5	55			0.924297
3	3	5	70	1269	1262	1.985915
4	1	7	55			2.604213
5	2	11	95	1461		3.270478
6	1	17	100			3.740534
7	1	6	95			4.062051
8	3	11	100	1037	1777	4.693827
9	1	7	75			5.352174
10	3	6	100	1445	1570	6.363599
11	2	9	100	1714		7.208192
12	2	7	60	1660		7.96695
13	1	15	100			8.533537
14	3	16	50	1016	1737	8.75973
15	3	6	85	1083	1968	9.93401
16	3	15	85	1707	1627	10.398088
17	1	10	65			10.890479
18	3	17	100	1808	1048	11.673389

USA Bin 5 Trial #22

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	60	1881	1724	0.182964
2	2	20	80	1712		0.915014
3	3	6	100	1626	2000	2.015779
4	3	20	90	1383	1713	3.185896
5	2	19	75	1057		3.888037
6	3	10	50	1072	1100	4.760325
7	2	9	80	1614		5.475173
8	2	19	100	1302		6.429335
9	3	9	100	1059	1707	7.422842
10	2	19	80	1100		7.809004
11	2	11	60	1180		9.337243
12	1	5	100			9.432411
13	1	13	70			10.395128
14	2	20	75	1063		11.259315

USA Bin 5 Trial #23

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	55			0.426249
2	1	8	75			0.965889
3	1	18	65			1.619238
4	3	13	95	1077	1183	2.951035
5	3	11	65	1207	1054	3.90844
6	3	14	80	1812	1958	4.763157
7	2	14	70	1507		5.222239
8	3	13	60	1857	1478	6.298264
9	2	12	60	1112		7.107996
10	3	10	85	1723	1789	7.84015
11	3	19	80	1180	1878	8.168642
12	1	20	70			9.448353
13	2	20	50	1970		10.227889



14	3	16	100	1672	1302	10.691178
15	3	13	95	1421	1667	11.414575
USA Bin 5 Trial #24						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	10	60			0.450783
2	2	13	50	1315		0.918207
3	1	6	90			1.434754
4	2	8	50	1383		1.80628
5	2	8	90	1248		2.870329
6	2	12	60	1305		3.370602
7	2	15	70	1578		3.895687
8	3	16	95	1860	1806	4.250779
9	3	15	95	1483	1020	5.221891
10	3	8	90	1749	1842	5.957956
11	3	8	65	1932	1324	6.479535
12	1	7	100			7.134344
13	2	10	60	1548		7.573965
14	1	6	85			7.979718
15	3	14	50	1899	1975	8.529175
16	1	14	55			9.031283
17	2	7	90	1995		9.610191
18	2	5	75	1165		10.372743
19	2	13	65	1887		11.121261
20	1	14	90			11.756499
USA Bin 5 Trial #25						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	50			1.135122
2	3	17	80	1037	1611	2.253519
3	1	11	70			3.638277
4	2	5	50	1557		4.318024
5	1	6	80			5.694046
6	3	18	100	1753	1854	7.778217
7	1	16	55			9.005325
8	1	5	95			9.432491
9	2	17	80	1276		11.585577
USA Bin 5 Trial #26						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	50	1392		0.539519
2	2	19	70	1793		1.617645
3	2	6	65	1666		3.985815
4	1	19	95			5.580139
5	1	18	50			6.011128
6	3	20	50	1375	1559	8.407297
7	2	9	65	1521		10.044712
8	2	20	95	1563		11.706584
USA Bin 5 Trial #27						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	100	1191		1.281723
2	3	6	80	1184	1785	1.564991
3	3	11	85	1658	1217	3.983266
4	1	17	60			4.406672
5	2	14	80	1507		5.602762
6	2	12	60	1712		7.123163
7	3	18	95	1279	1501	9.235208
8	3	15	75	1850	1778	10.469971
9	1	5	65			11.923508
USA Bin 5 Trial #28						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	95	1962	1695	0.783987
2	3	7	100	1258	1457	1.247434
3	3	5	95	1150	1753	2.353991
4	1	10	55			3.377293



5	1	20	85			3.827634
6	2	11	100	1421		5.381914
7	3	17	55	1024	1915	5.745493
8	3	18	100	1031	1472	7.064961
9	3	8	85	1211	1001	8.203204
10	3	18	85	1708	1730	9.007952
11	1	7	55			9.675097
12	3	9	75	1417	1932	10.660409
13	2	15	80	1041		11.831791
USA Bin 5 Trial #29						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	55	1598		0.714545
2	1	9	60			1.547472
3	2	12	55	1040		3.159914
4	1	17	65			5.490345
5	3	19	95	1943	1205	6.195651
6	3	12	80	1479	1669	8.349644
7	2	16	55	1045		10.338699
8	3	18	80	1767	1157	11.79509
USA Bin 5 Trial #30						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	65	1752		0.962589
2	2	15	50	1765		1.347311
3	3	13	95	1936	1044	2.10733
4	2	13	85	1319		3.74137
5	1	17	55			4.378991
6	3	9	60	1637	1738	5.032482
7	3	20	85	1385	1900	6.50461
8	1	15	70			7.603047
9	2	20	75	1113		8.550887
10	1	8	90			9.712948
11	2	16	55	1727		10.312909
12	1	16	60			11.512952
USA Bin 5 Trial #1						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	9	80	1687	1952	0.140462
2	1	11	55			1.898425
3	3	16	50	1635	1498	2.980561
4	2	12	50	1544		3.959713
5	1	11	90			4.420383
6	2	8	85	1916		6.364274
7	3	16	85	1620	1282	7.216936
8	3	11	85	1498	1256	8.493243
9	2	13	100	1405		9.355921
10	2	14	95	1880		10.104511
11	3	12	55	1549	1776	11.64206
USA Bin 5 Trial #2						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	90	1197	1962	0.700344
2	1	11	85			1.574306
3	3	8	55	1452	1794	2.606164
4	3	20	55	1255	1749	3.908524
5	1	5	55			4.558631
6	2	19	95	1824		6.227507
7	3	13	100	1483	1675	6.669886
8	3	8	75	1903	1940	7.771852
9	3	20	75	1768	1684	9.298018
10	1	5	85			10.745374
11	3	13	90	1853	1386	11.239254
USA Bin 5 Trial #3						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	85	1161		0.305257



2	1	7	100			2.281871
3	2	20	75	1634		3.332561
4	1	13	65			4.000205
5	1	10	90			5.493118
6	3	5	55	1721	1138	6.281529
7	2	6	100	1898		8.340201
8	1	7	75			9.010512
9	3	8	95	1043	1464	10.541907
10	2	9	85	1996		11.048101
USA Bin 5 Trial #4						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	50	1013		0.58173
2	1	11	95			1.58222
3	1	5	70			2.271429
4	1	16	85			2.661777
5	1	6	100			3.967585
6	3	9	80	1870	1936	5.079673
7	1	18	85			5.757561
8	2	18	95	1783		6.85311
9	1	20	80			7.675889
10	1	18	55			8.342625
11	2	11	70	1311		9.260783
12	3	16	65	1875	1157	10.075182
13	3	15	65	1155	1888	11.022596
14	2	12	95	1737		11.382402
USA Bin 5 Trial #5						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	85	1825	1794	0.937846
2	3	20	65	1914	1558	1.988338
3	3	5	60	1656	1893	3.899008
4	1	8	95			4.547298
5	3	9	60	1107	1336	7.259904
6	1	12	85			8.000247
7	1	14	50			9.106194
8	1	8	80			10.616625
USA Bin 5 Trial #6						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	55	1308		0.11033
2	2	8	70	1270		1.796376
3	3	20	55	1572	1709	2.85594
4	2	9	65	1362		4.646757
5	1	7	90			5.864917
6	2	20	100	1558		6.805989
7	1	11	65			7.844548
8	1	12	80			9.037386
9	1	11	55			10.777917
10	3	20	55	1781	1135	11.839621
USA Bin 5 Trial #7						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	60	1027		0.827557
2	3	7	55	1390	1997	2.161735
3	3	20	85	1843	1096	3.210081
4	1	13	100			4.60715
5	3	16	55	1547	1261	5.430093
6	2	9	80	1914		6.976822
7	3	7	90	1315	1400	7.872853
8	3	14	75	1502	1092	9.222969
9	3	10	100	1366	1696	10.203178
10	1	16	100			11.315613
USA Bin 5 Trial #8						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	70	1717		0.334114



2	3	11	100	1696	1879	0.66103
3	2	15	60	1008		1.481377
4	3	5	95	1043	1172	2.200391
5	3	16	70	1824	1256	3.094703
6	3	8	50	1403	1658	3.451843
7	1	20	70			4.235852
8	2	12	80	1243		4.588898
9	1	13	50			5.237075
10	1	14	50			5.998648
11	1	20	50			6.637588
12	3	19	65	1088	1468	7.501801
13	2	18	75	1212		7.783702
14	3	7	85	1457	1608	8.282501
15	3	6	85	1382	1132	9.195641
16	3	10	75	1343	1245	9.538502
17	3	20	75	1430	1528	10.455844
18	2	5	75	1652		11.027768
19	2	14	95	1867		11.639579

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	14	60			0.337293
2	3	6	95	1383	1249	0.917132
3	2	17	50	1951		2.064348
4	3	5	100	1755	1853	2.813912
5	3	10	80	1230	1295	3.213206
6	1	8	50			3.612837
7	3	11	65	1124	1757	4.4599
8	2	14	50	1608		5.126987
9	2	14	90	1919		6.013733
10	1	11	55			6.454938
11	1	14	65			7.693063
12	2	7	60	1647		8.447296
13	3	19	70	1168	1887	8.513648
14	3	11	95	1161	1666	9.742681
15	3	17	55	1619	1041	10.450303
16	3	7	60	1324	1868	11.099728
17	1	17	95			11.588161

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	19	95	1522	1605	0.600882
2	1	20	75			1.522602
3	3	14	65	1038	1870	2.33436
4	2	15	70	1931		2.617613
5	3	16	55	1123	1093	3.773051
6	3	12	50	1544	1673	4.61944
7	3	8	55	1052	1016	4.988158
8	1	19	55			6.198655
9	2	15	80	1446		6.604039
10	2	15	95	1028		7.569789
11	2	19	60	1092		8.320423
12	1	11	70			9.045294
13	2	14	75	1180		9.631269
14	2	9	80	1761		11.073984
15	3	8	75	1947	1633	11.604707

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	75	1285	1466	0.472473
2	1	15	55			1.487965
3	2	11	90	1364		2.101166
4	2	7	80	1725		2.933359
5	2	9	90	1316		3.592281
6	2	11	75	1367		4.351832



7	2	12	55	1621		4.814
8	2	9	85	1564		5.651951
9	2	9	95	1819		6.417773
10	3	15	75	1313	1414	7.877734
11	3	15	90	1584	1556	8.405144
12	2	8	85	1296		9.31603
13	2	5	65	1151		9.923334
14	3	5	90	1313	1956	11.159874
15	1	20	95			11.296595
USA Bin 5 Trial #12						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	19	55			0.507204
2	3	19	70	1086	1005	0.656593
3	1	15	65			1.44832
4	2	7	60	1758		1.98064
5	1	18	90			2.678265
6	1	16	90			3.499558
7	3	6	50	1084	1533	4.042099
8	1	9	55			4.545608
9	3	10	55	1397	1051	5.045456
10	3	8	65	1271	1197	5.88115
11	3	18	75	1598	1452	6.134501
12	1	14	65			6.871728
13	2	5	100	1443		7.326466
14	3	13	70	1028	1662	8.382258
15	2	19	80	1923		8.426996
16	3	8	80	1881	1801	9.172614
17	1	10	65			9.740889
18	3	9	95	1364	1250	10.708001
19	2	13	90	1027		10.927763
20	1	5	100			11.95743
USA Bin 5 Trial #13						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	90			0.851533
2	3	14	50	1704	1780	1.514727
3	2	19	55	1031		1.732853
4	2	12	95	1777		3.387001
5	2	16	65	1456		4.226384
6	1	6	85			5.025013
7	3	14	75	1212	1247	5.820237
8	3	18	85	1490	1105	6.831156
9	1	12	95			7.002189
10	1	16	100			7.800181
11	2	15	80	1592		8.893389
12	3	10	60	1083	1110	9.82209
13	2	20	60	1052		10.814748
14	2	20	95	1404		11.82789
USA Bin 5 Trial #14						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	100	1052	1305	0.566146
2	1	18	65			1.117463
3	2	13	75	1886		1.674746
4	2	13	50	1639		2.85854
5	2	14	80	1736		3.229944
6	2	10	55	1670		4.015607
7	3	20	90	1973	1618	4.925494
8	3	15	70	1850	1022	5.269905
9	2	5	85	1897		6.10911
10	1	8	75			6.825503
11	2	16	60	1597		7.965976
12	3	5	100	1469	1775	8.424665
13	1	17	100			9.689541



14	2	13	100	1870		10.044705
15	1	19	60			10.588335
16	3	19	80	1232	1819	11.470762
USA Bin 5 Trial #15						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	95	1776	1960	0.370142
2	3	16	80	1405	1948	1.077265
3	1	9	75			1.834476
4	3	19	90	1246	1050	2.375131
5	1	16	70			2.892994
6	3	15	65	1715	1157	3.946511
7	2	11	95	1459		4.50457
8	2	13	50	1040		4.961577
9	2	15	70	1160		5.550564
10	1	10	70			6.199579
11	3	8	95	1376	1768	7.082375
12	2	15	65	1765		7.655045
13	3	13	90	1397	1801	8.177781
14	2	5	55	1735		8.970056
15	3	10	75	1048	1385	9.422605
16	1	7	55			10.318962
17	1	11	95			11.031964
18	1	15	70			11.820839
USA Bin 5 Trial #16						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	80	1969	1708	0.489087
2	1	11	95			2.782585
3	2	19	70	1576		4.028317
4	2	14	55	1236		5.14918
5	1	11	55			6.516795
6	2	18	75	1697		8.899907
7	2	20	95	1029		9.237434
8	1	17	95			11.32937
USA Bin 5 Trial #17						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	80	1192		0.248449
2	1	20	80			1.030802
3	1	11	90			1.623745
4	2	7	70	1990		2.197182
5	3	19	50	1341	1570	3.164391
6	2	6	55	1980		3.794423
7	1	9	75			4.800379
8	2	5	85	1823		5.083315
9	2	12	90	1708		5.792943
10	1	11	65			6.857925
11	1	5	90			7.430989
12	3	11	80	1454	1252	7.823869
13	2	9	100	1570		8.754093
14	1	5	75			9.654992
15	2	6	90	1232		10.453066
16	2	6	85	1180		10.716959
17	3	16	55	1488	1033	11.743015
USA Bin 5 Trial #18						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	50			0.412002
2	2	17	80	1124		0.659075
3	3	18	90	1250	1008	1.365587
4	1	10	95			1.930124
5	3	7	90	1016	1533	2.846207
6	1	11	60			3.401777
7	1	16	95			3.901217
8	2	7	75	1873		4.548543



9	1	5	95			4.950061
10	1	14	55			5.420543
11	2	19	55	1949		6.456242
12	1	6	80			6.616132
13	3	16	75	1959	1501	7.780293
14	2	18	95	1158		7.981193
15	3	12	65	1589	1095	8.980617
16	2	7	95	1651		9.163361
17	1	9	90			9.931661
18	3	19	75	1537	1291	10.399764
19	1	11	90			11.336125
20	3	16	85	1256	1343	11.844334
USA Bin 5 Trial #19						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	6	60			0.530429
2	1	17	95			1.661978
3	3	5	65	1076	1685	2.593755
4	1	11	80			3.178195
5	3	18	95	1856	1827	4.548813
6	3	12	65	1898	1155	4.616483
7	3	8	100	1477	1411	5.800475
8	1	6	70			6.953734
9	1	10	95			7.670571
10	1	10	100			8.954992
11	3	19	95	1488	1966	9.44701
12	3	11	50	1238	1545	10.850034
13	1	10	95			11.364232
USA Bin 5 Trial #20						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	14	75			0.064842
2	3	18	75	1927	1951	1.590981
3	2	8	90	1036		2.241206
4	2	5	95	1753		2.867286
5	1	8	55			4.257612
6	2	9	50	1172		4.674928
7	3	6	95	1546	1503	5.529094
8	1	8	95			6.847193
9	3	8	55	1914	1326	7.346668
10	2	15	90	1851		7.86694
11	3	14	50	1999	1120	8.813276
12	3	15	90	1352	1798	9.869089
13	2	5	50	1680		11.035485
14	1	14	60			11.816363
USA Bin 5 Trial #21						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	60	1899		0.473116
2	1	5	55			0.924297
3	3	5	70	1269	1262	1.985915
4	1	7	55			2.604213
5	2	11	95	1461		3.270478
6	1	17	100			3.740534
7	1	6	95			4.062051
8	3	11	100	1037	1777	4.693827
9	1	7	75			5.352174
10	3	6	100	1445	1570	6.363599
11	2	9	100	1714		7.208192
12	2	7	60	1660		7.96695
13	1	15	100			8.533537
14	3	16	50	1016	1737	8.75973
15	3	6	85	1083	1968	9.93401
16	3	15	85	1707	1627	10.398088
17	1	10	65			10.890479



18	3	17	100	1808	1048	11.673389
USA Bin 5 Trial #22						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	11	60	1881	1724	0.182964
2	2	20	80	1712		0.915014
3	3	6	100	1626	2000	2.015779
4	3	20	90	1383	1713	3.185896
5	2	19	75	1057		3.888037
6	3	10	50	1072	1100	4.760325
7	2	9	80	1614		5.475173
8	2	19	100	1302		6.429335
9	3	9	100	1059	1707	7.422842
10	2	19	80	1100		7.809004
11	2	11	60	1180		9.337243
12	1	5	100			9.432411
13	1	13	70			10.395128
14	2	20	75	1063		11.259315
USA Bin 5 Trial #23						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	55			0.426249
2	1	8	75			0.965889
3	1	18	65			1.619238
4	3	13	95	1077	1183	2.951035
5	3	11	65	1207	1054	3.90844
6	3	14	80	1812	1958	4.763157
7	2	14	70	1507		5.222239
8	3	13	60	1857	1478	6.298264
9	2	12	60	1112		7.107996
10	3	10	85	1723	1789	7.84015
11	3	19	80	1180	1878	8.168642
12	1	20	70			9.448353
13	2	20	50	1970		10.227889
14	3	16	100	1672	1302	10.691178
15	3	13	95	1421	1667	11.414575
USA Bin 5 Trial #24						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	10	60			0.450783
2	2	13	50	1315		0.918207
3	1	6	90			1.434754
4	2	8	50	1383		1.80628
5	2	8	90	1248		2.870329
6	2	12	60	1305		3.370602
7	2	15	70	1578		3.895687
8	3	16	95	1860	1806	4.250779
9	3	15	95	1483	1020	5.221891
10	3	8	90	1749	1842	5.957956
11	3	8	65	1932	1324	6.479535
12	1	7	100			7.134344
13	2	10	60	1548		7.573965
14	1	6	85			7.979718
15	3	14	50	1899	1975	8.529175
16	1	14	55			9.031283
17	2	7	90	1995		9.610191
18	2	5	75	1165		10.372743
19	2	13	65	1887		11.121261
20	1	14	90			11.756499
USA Bin 5 Trial #25						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	50			1.135122
2	3	17	80	1037	1611	2.253519
3	1	11	70			3.638277
4	2	5	50	1557		4.318024



5	1	6	80			5.694046
6	3	18	100	1753	1854	7.778217
7	1	16	55			9.005325
8	1	5	95			9.432491
9	2	17	80	1276		11.585577
USA Bin 5 Trial #26						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	50	1392		0.539519
2	2	19	70	1793		1.617645
3	2	6	65	1666		3.985815
4	1	19	95			5.580139
5	1	18	50			6.011128
6	3	20	50	1375	1559	8.407297
7	2	9	65	1521		10.044712
8	2	20	95	1563		11.706584
USA Bin 5 Trial #27						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	100	1191		1.281723
2	3	6	80	1184	1785	1.564991
3	3	11	85	1658	1217	3.983266
4	1	17	60			4.406672
5	2	14	80	1507		5.602762
6	2	12	60	1712		7.123163
7	3	18	95	1279	1501	9.235208
8	3	15	75	1850	1778	10.469971
9	1	5	65			11.923508
USA Bin 5 Trial #28						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	95	1962	1695	0.783987
2	3	7	100	1258	1457	1.247434
3	3	5	95	1150	1753	2.353991
4	1	10	55			3.377293
5	1	20	85			3.827634
6	2	11	100	1421		5.381914
7	3	17	55	1024	1915	5.745493
8	3	18	100	1031	1472	7.064961
9	3	8	85	1211	1001	8.203204
10	3	18	85	1708	1730	9.007952
11	1	7	55			9.675097
12	3	9	75	1417	1932	10.660409
13	2	15	80	1041		11.831791
USA Bin 5 Trial #29						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	55	1598		0.714545
2	1	9	60			1.547472
3	2	12	55	1040		3.159914
4	1	17	65			5.490345
5	3	19	95	1943	1205	6.195651
6	3	12	80	1479	1669	8.349644
7	2	16	55	1045		10.338699
8	3	18	80	1767	1157	11.79509
USA Bin 5 Trial #30						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	65	1752		0.962589
2	2	15	50	1765		1.347311
3	3	13	95	1936	1044	2.10733
4	2	13	85	1319		3.74137
5	1	17	55			4.378991
6	3	9	60	1637	1738	5.032482
7	3	20	85	1385	1900	6.50461
8	1	15	70			7.603047
9	2	20	75	1113		8.550887



10	1	8	90		9.712948
11	2	16	55	1727	10.312909
12	1	16	60		11.512952



*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)
33	5496	99
36	5497	108
57	5499	171
65	5504	195
72	5500	216

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
27	5508	81
32	5504	96
62	5503	186

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
18	5493	54
29	5506	87
37	5502	111
87	5498	261
90	5497	270
92	5492	276
94	5504	282

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
17	5495	51
33	5497	99
42	5500	126
44	5492	132
46	5508	138
87	5504	261

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
11	5504	33
39	5495	117
52	5498	156
84	5499	252

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
10	5506	30
40	5503	120

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
32	5492	96
55	5498	165
71	5502	213
76	5504	228
85	5499	255
96	5494	288

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
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0	5503	0
35	5505	105
72	5494	216
75	5506	225

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
2	5505	6
4	5500	12
48	5501	144
64	5503	192

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
59	5503	177
69	5498	207
94	5500	282
95	5505	285

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
3	5492	9
9	5508	27
15	5506	45

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
12	5495	36
41	5504	123
64	5499	192
75	5496	225

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
47	5492	141
84	5503	252
86	5495	258
92	5498	276

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
54	5496	162
76	5506	228
80	5493	240

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
2	5500	6
23	5499	69
48	5498	144
54	5501	162
91	5495	273
97	5494	291

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
24	5493	72



54 5507 162
57 5501 171
64 5505 192

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
17	5492	51
59	5495	177
71	5498	213

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
13	5502	39
36	5495	108
90	5508	270

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
24	5504	72
72	5500	216

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
10	5508	30
20	5501	60
29	5505	87
30	5502	90
63	5492	189
69	5494	207

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
9	5495	27
28	5506	84
58	5496	174
91	5504	273

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
26	5507	78
33	5496	99
71	5505	213
87	5499	261

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
68	5493	204

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
2	5507	6
13	5492	39
31	5505	93
83	5502	249

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
5	5496	15

81 5508 243

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
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3	5495	9
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7	5498	21
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10	5502	30
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29	5505	87
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51	5503	153
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58	5506	174
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62	5499	186
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USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
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31	5496	93
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40	5506	120
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44	5500	132
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57	5505	171
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74	5507	222
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77	5499	231
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79	5492	237
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93	5503	279
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USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
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24	5505	72
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29	5497	87
----	------	----

39	5495	117
----	------	-----

40	5506	120
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51	5493	153
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85	5499	255
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USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
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17	5505	51
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21	5495	63
----	------	----

23	5500	69
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25	5497	75
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31	5501	93
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48	5502	144
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USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
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30	5498	90
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80	5507	240
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82	5506	246
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USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
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33	5496	99
----	------	----

36	5497	108
----	------	-----

57	5499	171
----	------	-----

65	5504	195
----	------	-----

72	5500	216
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USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
27	5508	81
32	5504	96
62	5503	186

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
18	5493	54
29	5506	87
37	5502	111
87	5498	261
90	5497	270
92	5492	276
94	5504	282

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
17	5495	51
33	5497	99
42	5500	126
44	5492	132
46	5508	138
87	5504	261

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
11	5504	33
39	5495	117
52	5498	156
84	5499	252

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
10	5506	30
40	5503	120

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
32	5492	96
55	5498	165
71	5502	213
76	5504	228
85	5499	255
96	5494	288

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
0	5503	0
35	5505	105
72	5494	216
75	5506	225

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
2	5505	6
4	5500	12

48 5501 144

64 5503 192

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
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59	5503	177
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69	5498	207
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94	5500	282
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95	5505	285
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USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
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3	5492	9
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9	5508	27
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15	5506	45
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USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
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12	5495	36
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41	5504	123
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64	5499	192
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75	5496	225
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USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
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47	5492	141
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84	5503	252
----	------	-----

86	5495	258
----	------	-----

92	5498	276
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USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
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54	5496	162
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76	5506	228
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80	5493	240
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USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
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2	5500	6
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23	5499	69
----	------	----

48	5498	144
----	------	-----

54	5501	162
----	------	-----

91	5495	273
----	------	-----

97	5494	291
----	------	-----

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
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24	5493	72
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54	5507	162
----	------	-----

57	5501	171
----	------	-----

64	5505	192
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USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
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17	5492	51
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59	5495	177
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71	5498	213
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USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
13	5502	39
36	5495	108
90	5508	270

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
24	5504	72
72	5500	216

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
10	5508	30
20	5501	60
29	5505	87
30	5502	90
63	5492	189
69	5494	207

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
9	5495	27
28	5506	84
58	5496	174
91	5504	273

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
26	5507	78
33	5496	99
71	5505	213
87	5499	261

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
68	5493	204

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
2	5507	6
13	5492	39
31	5505	93
83	5502	249

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
5	5496	15
81	5508	243

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
3	5495	9
7	5498	21
10	5502	30
29	5505	87
51	5503	153



58 5506 174

62 5499 186

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
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31	5496	93
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40	5506	120
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44	5500	132
----	------	-----

57	5505	171
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74	5507	222
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77	5499	231
----	------	-----

79	5492	237
----	------	-----

93	5503	279
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USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
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24	5505	72
----	------	----

29	5497	87
----	------	----

39	5495	117
----	------	-----

40	5506	120
----	------	-----

51	5493	153
----	------	-----

85	5499	255
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USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
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17	5505	51
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21	5495	63
----	------	----

23	5500	69
----	------	----

25	5497	75
----	------	----

31	5501	93
----	------	----

48	5502	144
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USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
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30	5498	90
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80	5507	240
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82	5506	246
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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