Dynamic Frequency Selection (DFS) Test Report

AIR-CAP1532I-B-K9

Cisco Aironet 802.11n Dual Band Mesh Access Points

FCC ID: LDK102090P

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:** 3

This report replaces any previously entered test report under EDCS – **1277542**.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

Measurements were made in accordance with

- KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02
- RSS-247 section A9.3a allows the use of applicable FCC KDBs

Section 2: Assessment Information

2.1 General

This report contains an assessment of an apparatus against Radio 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:

Emission level [dBuV] = Indicated voltage level [dBuV] + Cable Loss [dB] + 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:-

Level in uV/m = Common Antilogarithm [(X dBuV/m)/20] = Y uV/m

Measurement Uncertainty Values

voltage and power measurements	± 2 dB
conducted EIRP measurements	± 1.4 dB
radiated measurements	± 3.2 dB
frequency measurements	± 2.4 10-7
temperature measurements	± 0.54º
humidity measurements	± 2.3%
DC and low frequency measurements	± 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

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.

2.2 Date of testing

06-September-2015 – 24-September-2015

2.3 Report Issue Date

30-September-2015

Cisco uses an electronic system to issue, store and control the revision of test reports. This system is called the Engineering Document Control System (EDCS). The actual report issue date is embedded into the original file on EDCS. Any copies of this report, either electronic or paper, that are not on EDCS must be considered uncontrolled.

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-CAP1532I-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-CAP1532I-B-K9	Cisco Systems	P2	ap1g3-k9w7-mx.153	Cisco IOS 15.3	RFDPP1AE004
S02*	AIR-PWR-C	Meanwell	A0	NA	NA	EB46E93226

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

4.2 System Details

System #	Description	Samples
1	AIR-CAP1532I-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 AIR-CAP1532I-B-K9 Cisco Aironet 802.11N 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**
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 precent. 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	Roundup$\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\mathrm{PRI}_{\mu\mathrm{sec}}}\right)\right\}$	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 µsec is selected, the number of pulses would be $\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{3066}\right)\right\} = \text{Roundup}\{17.2\} = 18$

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.

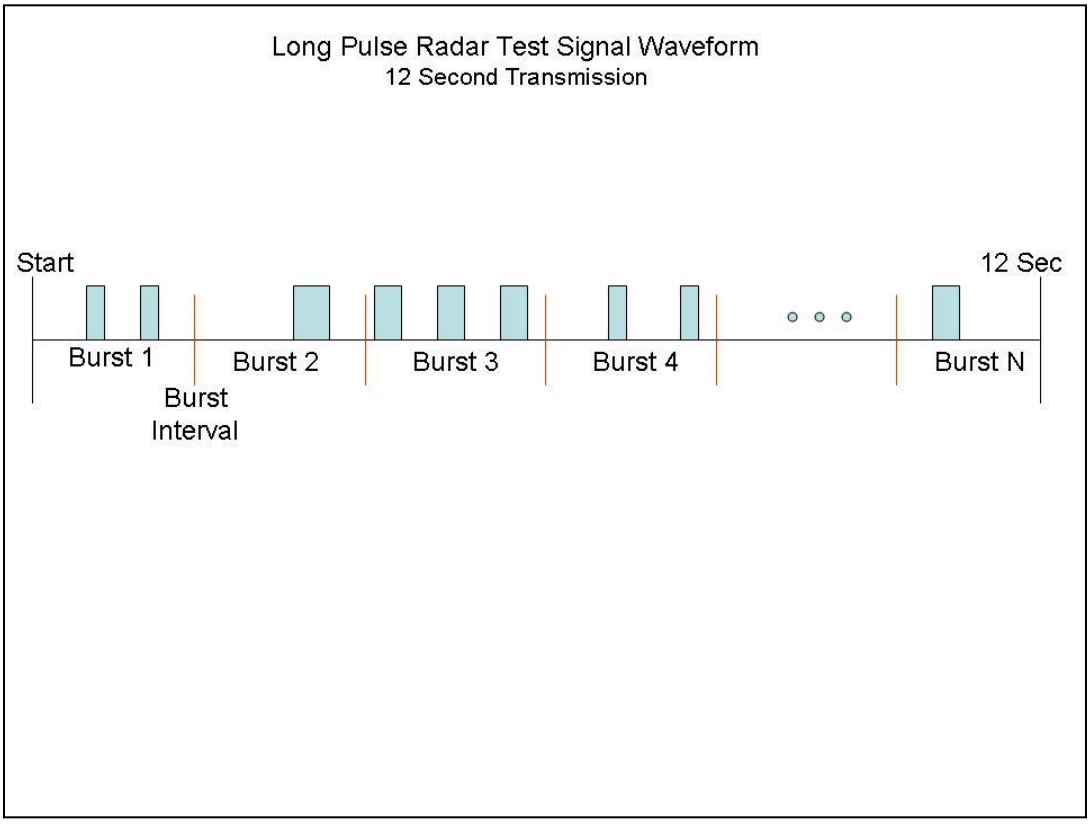
Each waveform is defined as follows:

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 / 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 / Burst_Count) – (Total Burst Length) + (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 selected[1] 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 ≥ 3 MHz VBW ≥ 3 MHz Detector = Peak Trace = Single Sweep

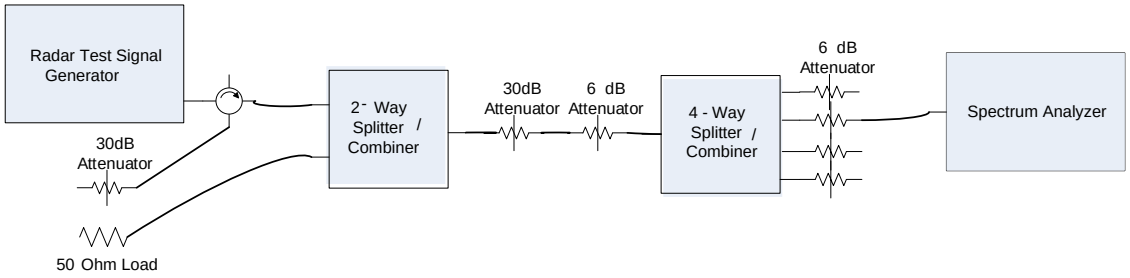
System Number	Description	Samples	System under test	Support equipment
1	AIR-CAP1532I-B-K9	S01	☑	☐
	Support Power Supply	S02	☐	☑
	Support Client Equipment	S03	☐	☑

Tested By :	**Date of testing:**
Jose Aguirre	06-September-2015 – 24-September-2015
Test Result : PASS	

See Appendix C for list of test equipment

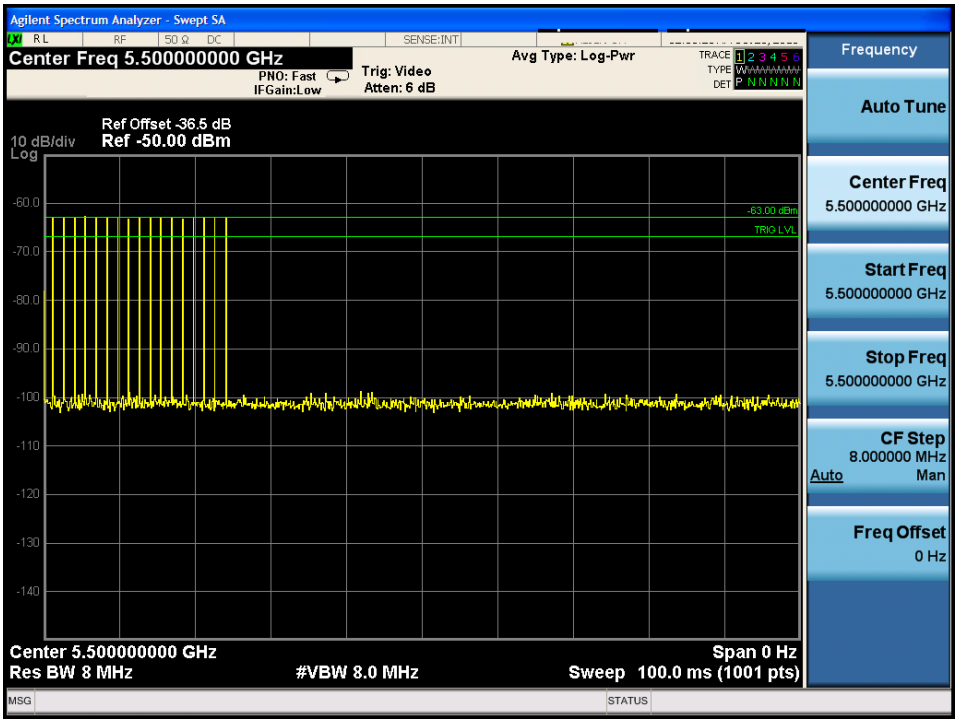
The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero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

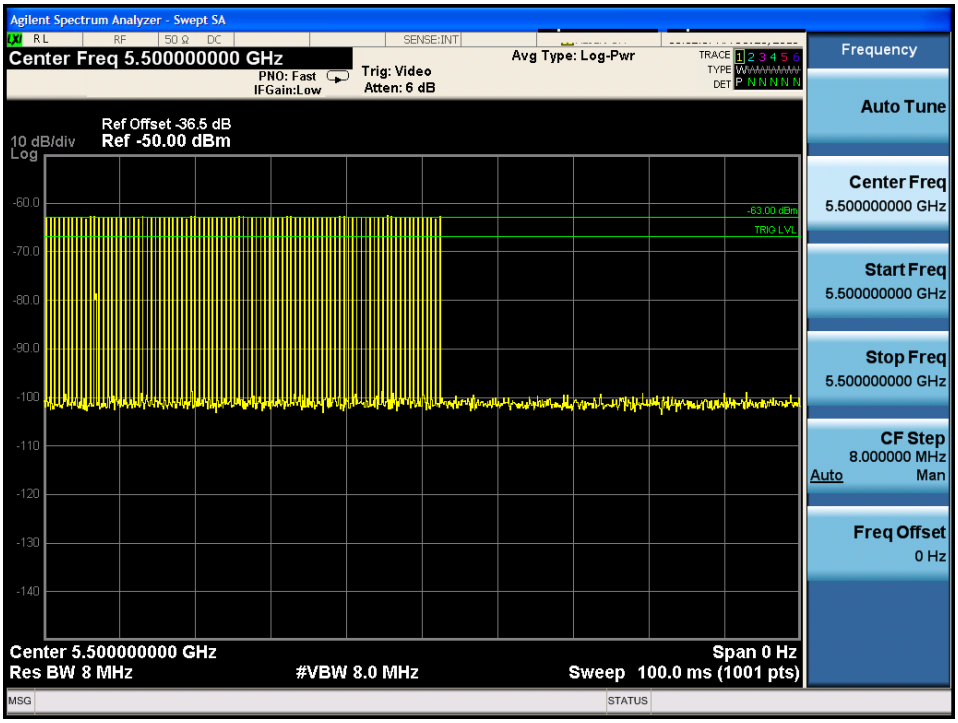


Conducted Calibration Setup

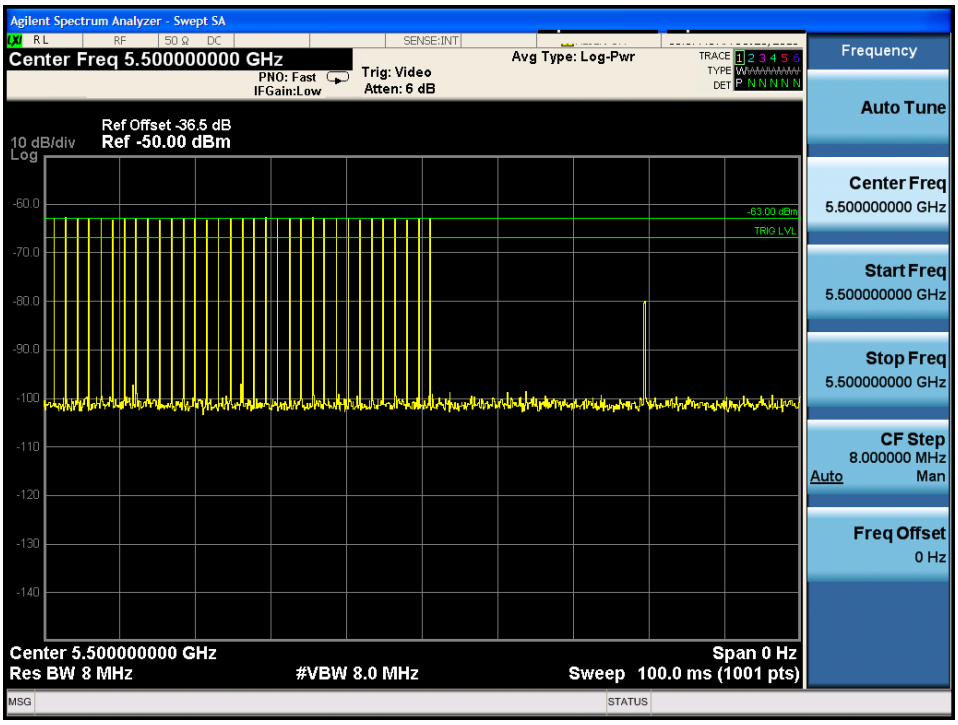
Following are the calibration plots for each of the required radar waveforms.



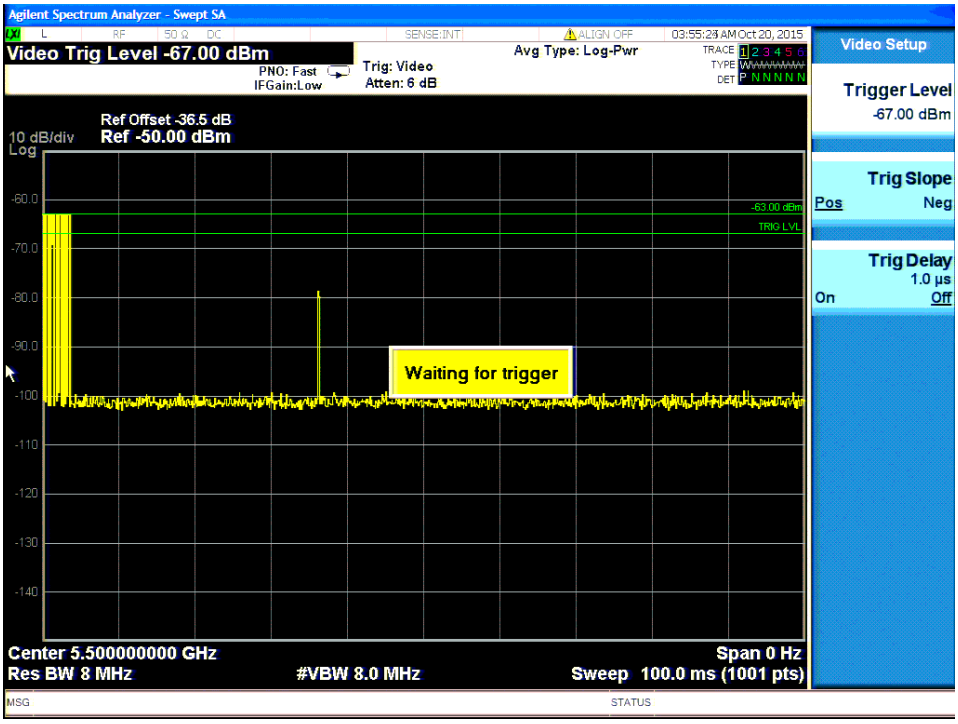
USA Bin 0 Radar Calibration



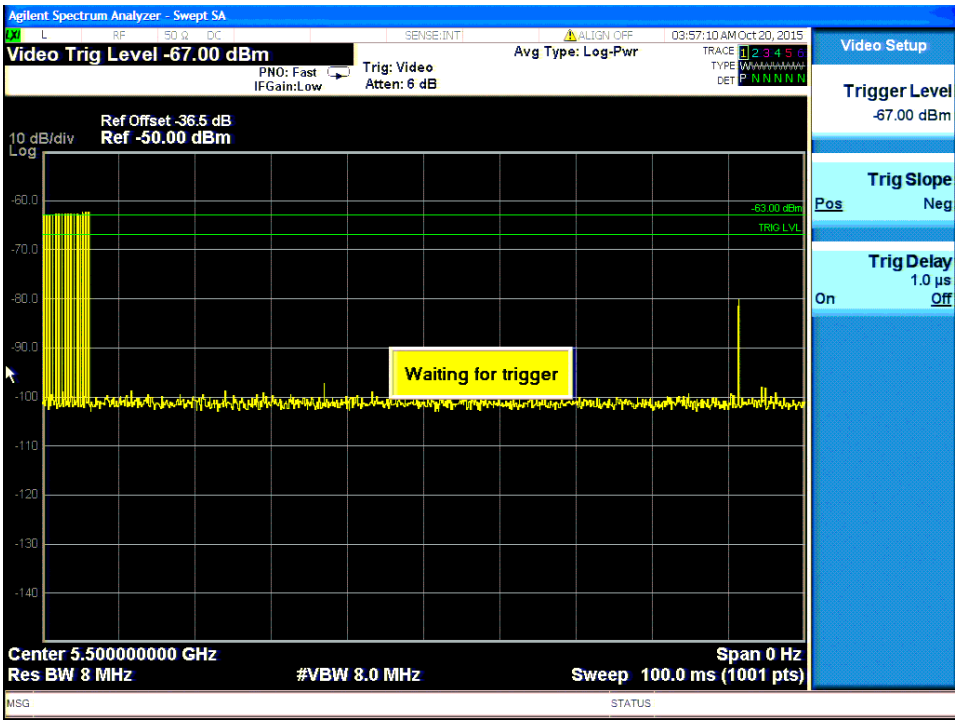
USA Bin 1A Radar Calibration



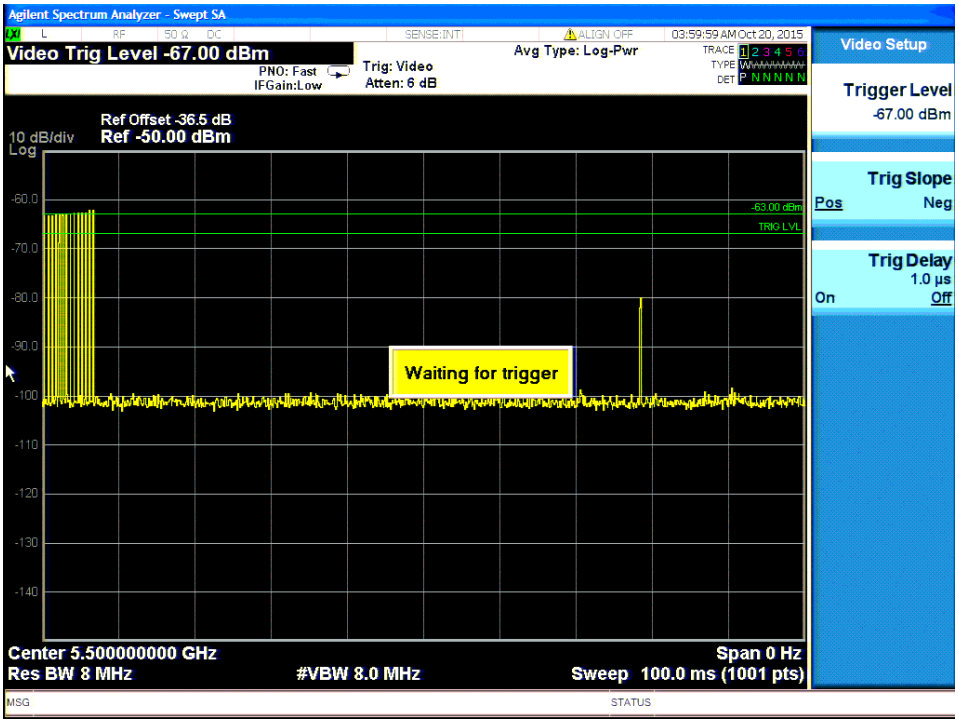
USA Bin 1B Radar Calibration



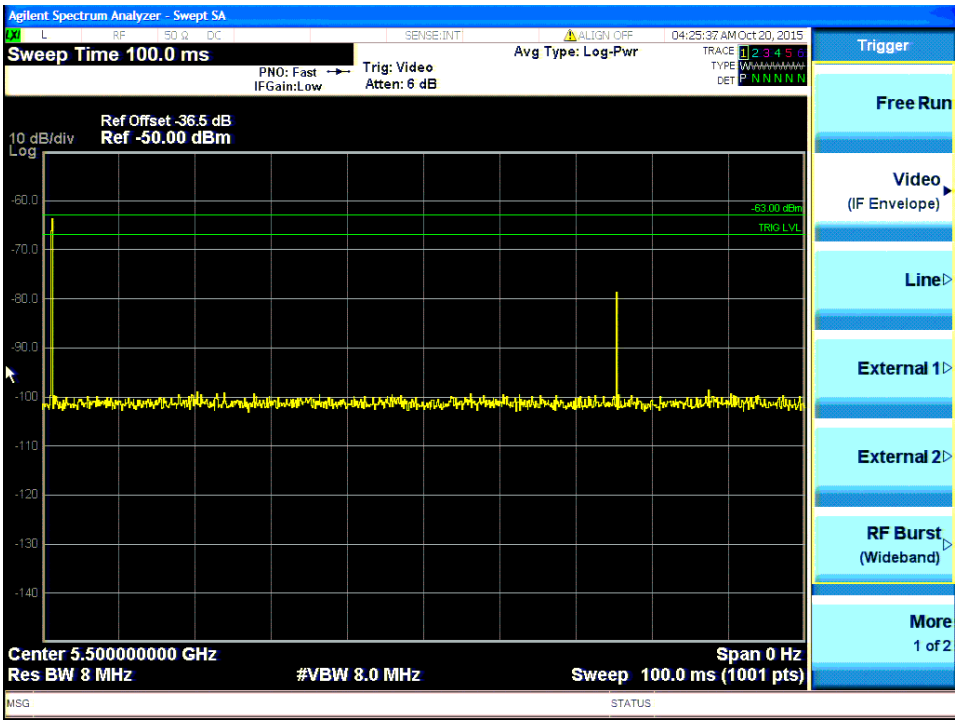
USA Bin 2 Radar Calibration



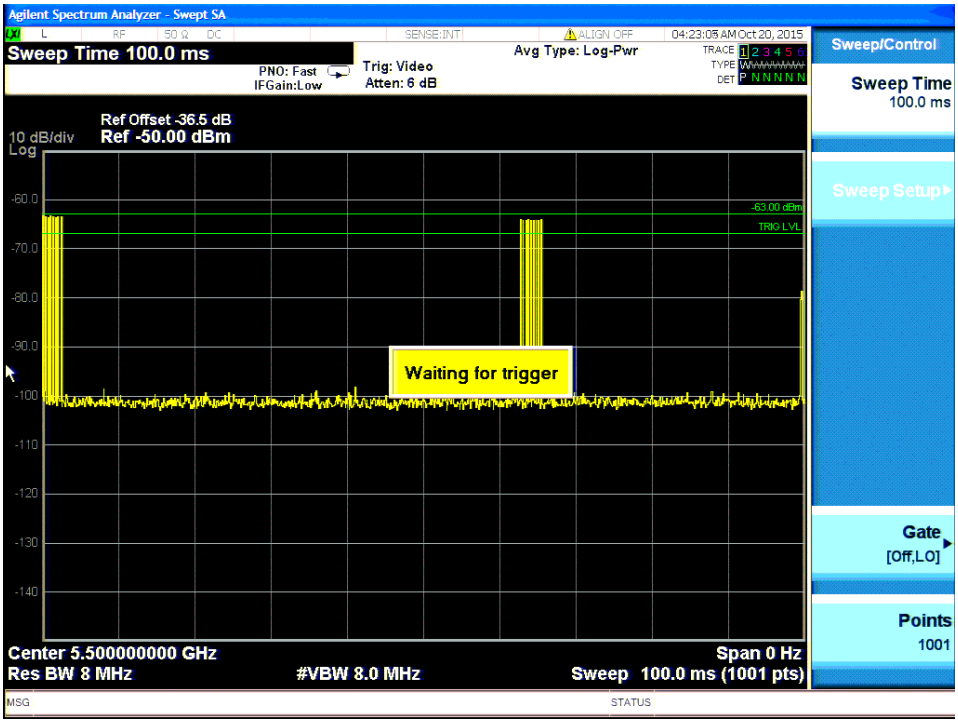
USA Bin 3 Radar Calibration



USA Bin 4 Radar Calibration



USA Bin 5 Radar Calibration

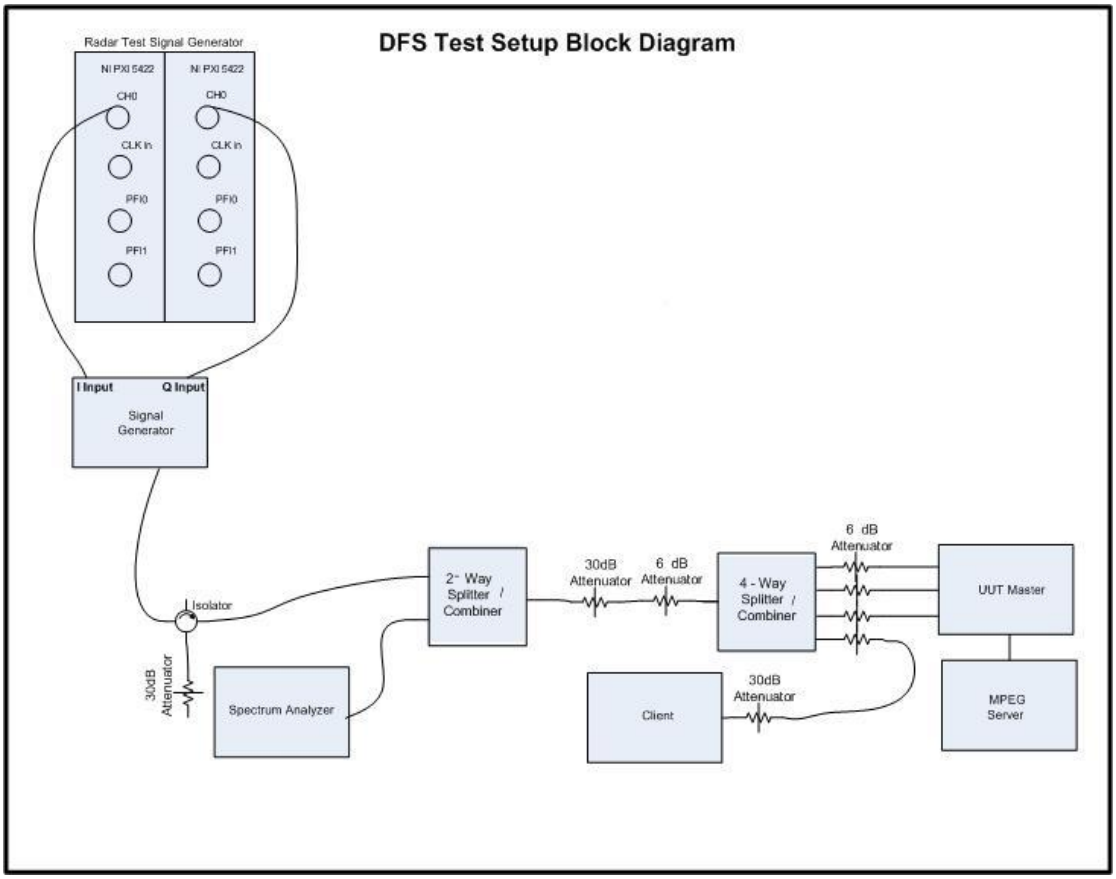


USA Frequency Hopping Radar Calibration

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 Fh.

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 Fl.

The U-NII Detection Bandwidth is calculated as follows:

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		
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	20	18
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		
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	20	18
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		
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	20	18
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		
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	20	18
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		
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	20	18
5501	1	0	1	1	1	1	1	1	1	1	90		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 3 Radar

	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		
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	20	18
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 4 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**	**Detection Bandwidth (MHz)**	**Limit (MHz)**
5490	1	0	1	0	0	0	1	0	0	0	30		
5491	0	0	1	1	1	1	1	1	1	1	90		
5492	1	1	1	1	1	1	1	1	0	1	90		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100	19	18
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 5 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**	**Detection Bandwidth (MHz)**	**Limit (MHz)**
5490	1	1	1	1	1	1	1	1	1	1	100		
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	20	18
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

	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		
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	0	1	1	1	1	1	90		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	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	40	36
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

	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		
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	40	36
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

	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		
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	40	36
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

	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		
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	40	36
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

	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		
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	0	1	1	1	1	1	1	1	90		
5510	1	1	1	1	1	1	1	1	1	1	100	38	36
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	0	1	1	1	1	1	1	1	1	90		
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	0	90		
5530	1	1	0	0	0	1	1	0	0	0	40		

USA Bin 3 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		
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	38	36
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	0	1	1	1	1	1	1	90		
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	0	1	1	1	1	1	1	1	90		
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	0	1	1	90		
5530	0	0	1	0	0	1	1	0	0	0	30		

USA Bin 4 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**	**Detection Bandwidth (MHz)**	**Limit (MHz)**
5490	0	1	1	0	1	0	0	1	1	1	60		
5491	0	1	1	1	1	1	1	1	1	1	90		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	0	1	1	1	1	1	1	1	90		
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	38	36
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

	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		
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	40	36
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Frequency Hopping Radar

B.3 Initial Channel Availability Check Time

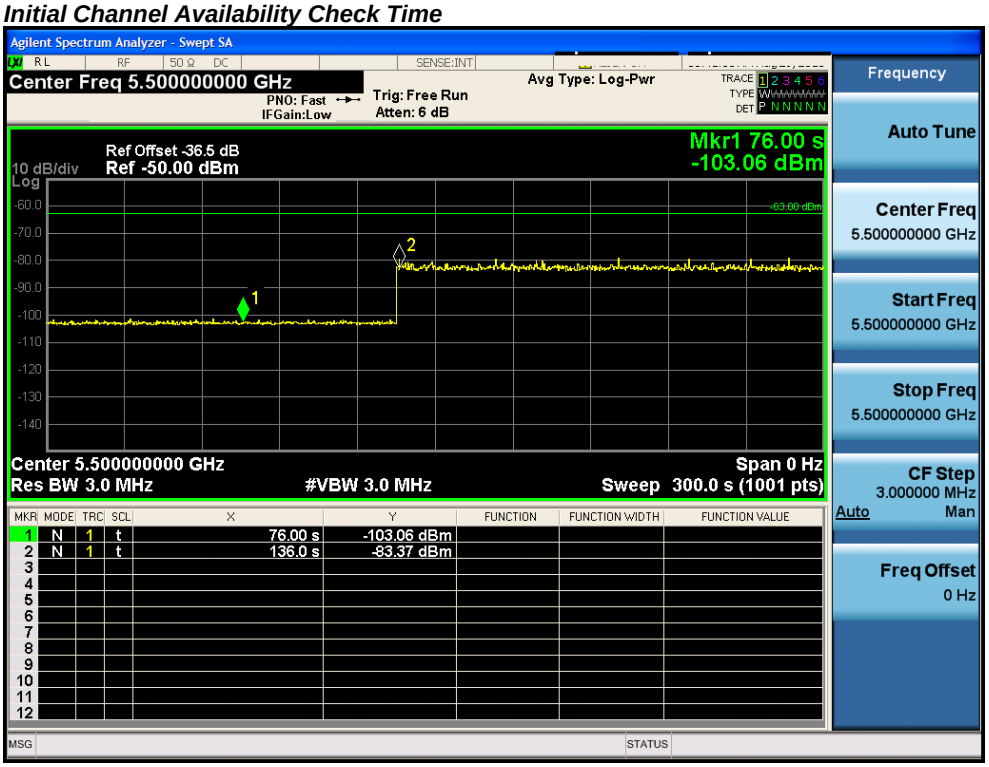
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

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

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

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

Initial Channel Availability Check Time



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

The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63dBm) occurs at the beginning of the Channel Availability Check Time.

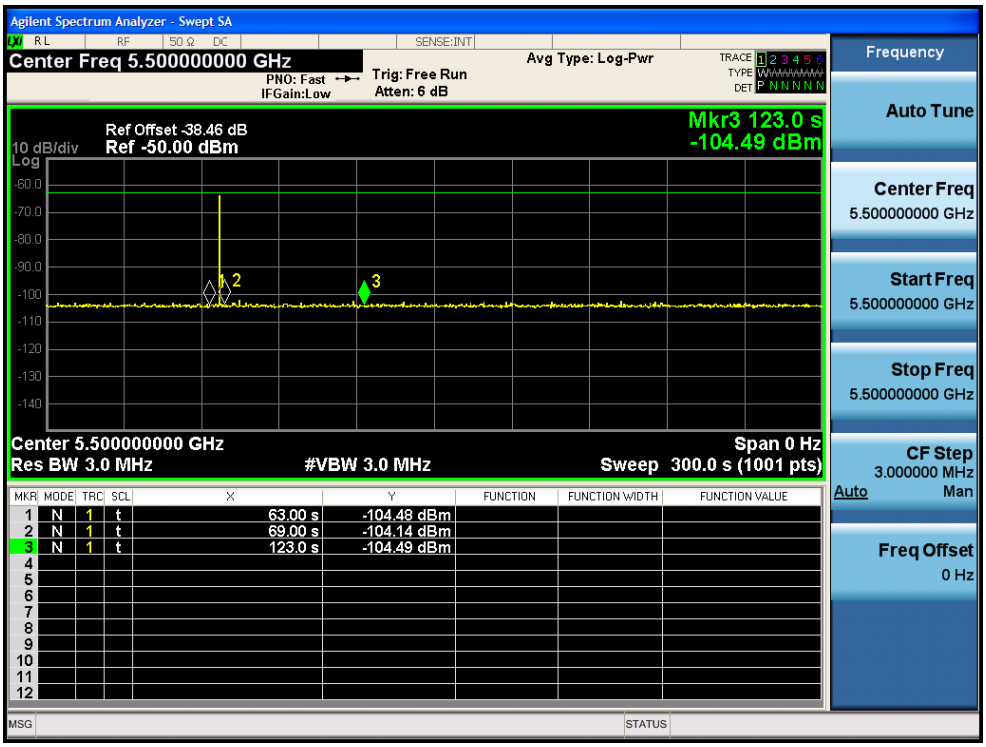
The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than T_1 + 60 seconds.

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

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

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

Radar Burst at the Beginning of the Channel Availability Check Time



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

The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63dBm) occurs at the end of the Channel Availability Check Time.

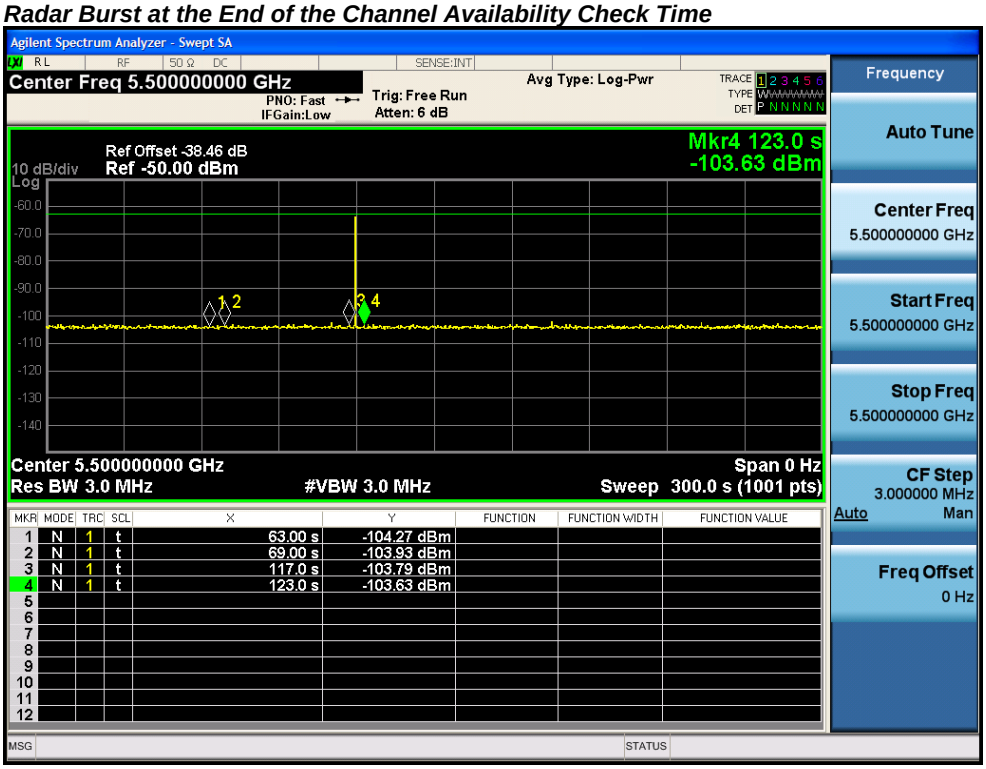
The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than T_1 + 60 seconds.

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

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

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

Radar Burst at the End of the Channel Availability Check Time



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

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

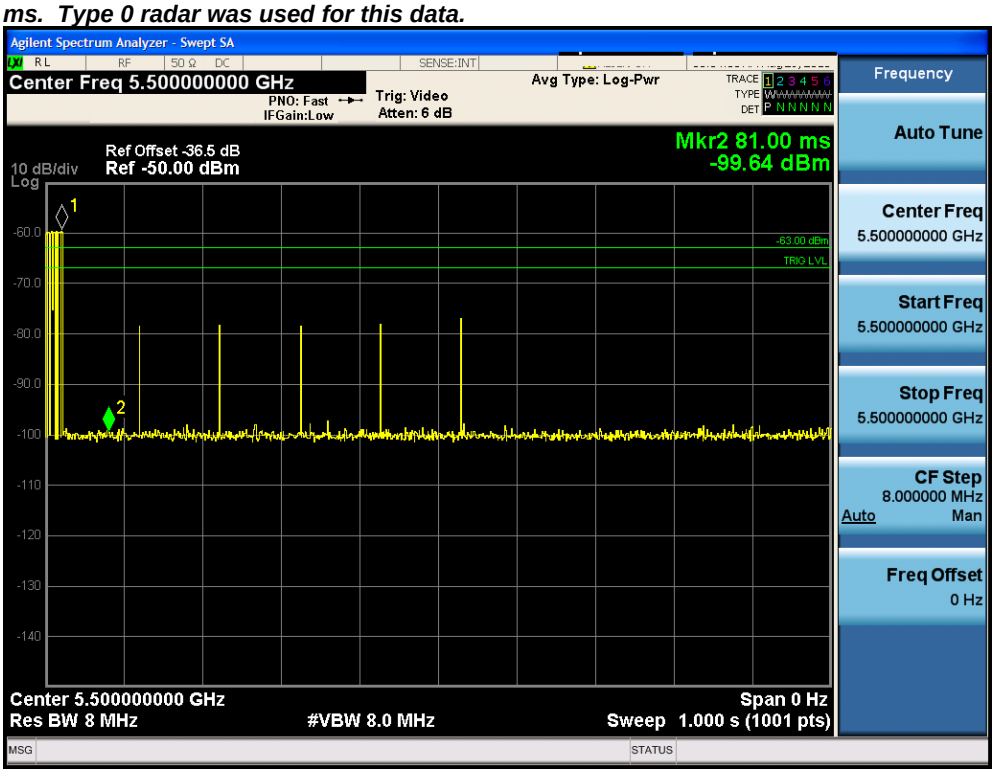
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

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

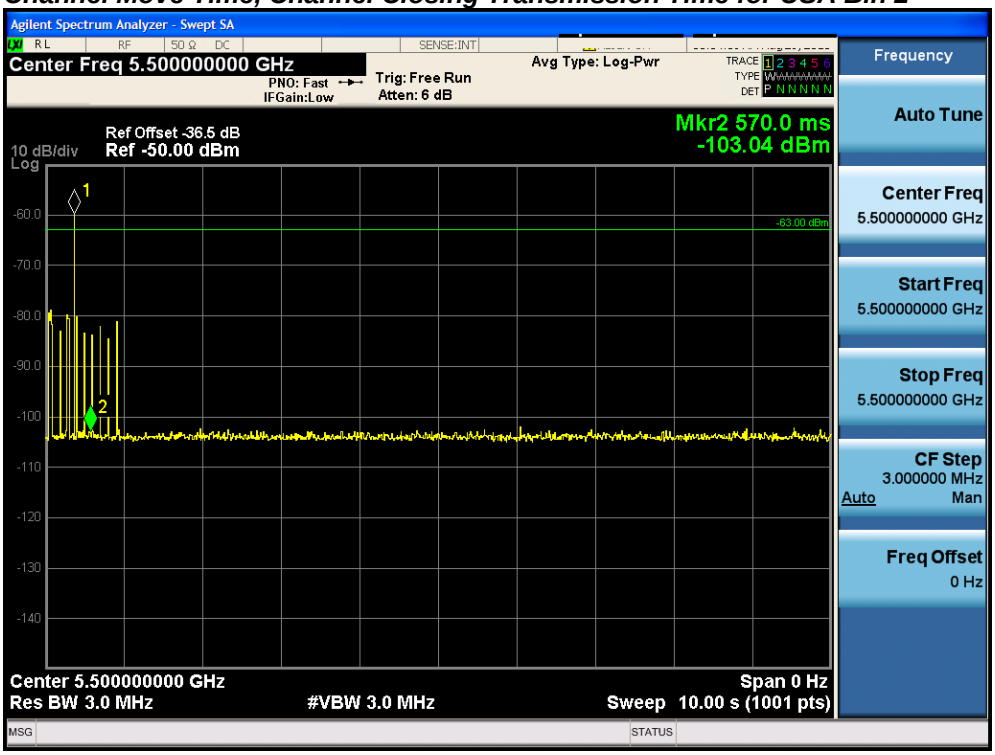
At time T_0 the Radar Waveform generator sends a Burst of pulses for radar type 0 at -63dBm.

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

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

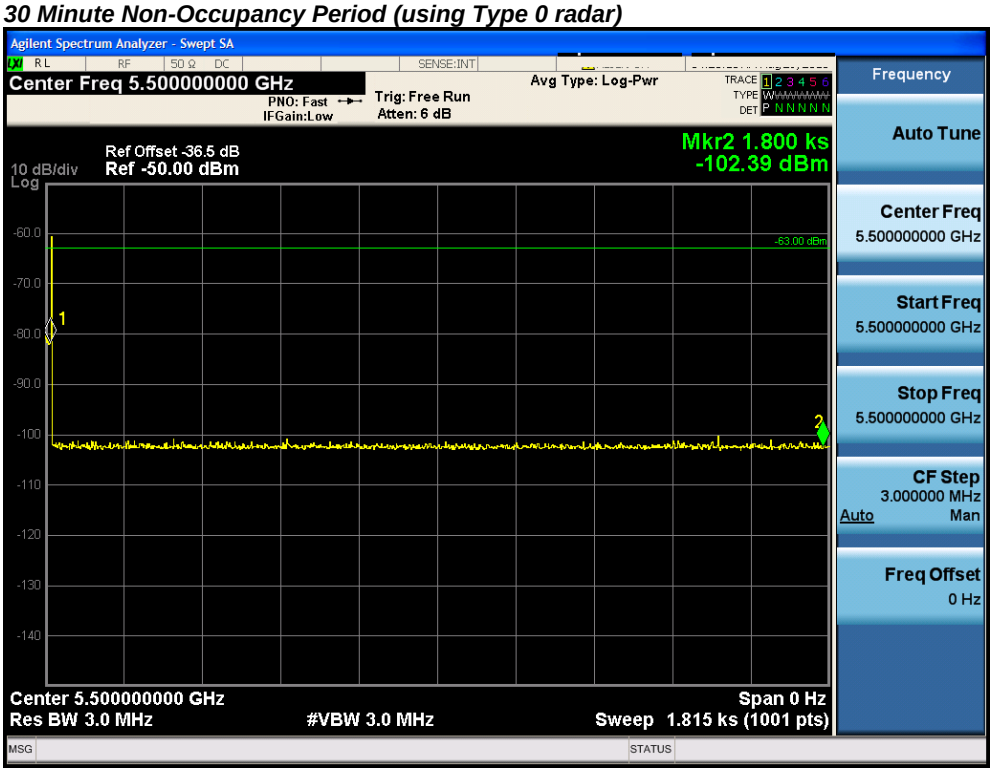


Channel Move Time, Channel Closing Transmission Time for USA Bin 2



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

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



B.7 Statistical Performance Check

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

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

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

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100$$ = 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 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	63	1	838	1	100.0%	60.0%
2	86	1	618	1		
3	63	1	838	1		
4	72	1	738	1		
5	70	1	758	1		
6	70	1	758	1		
7	81	1	658	1		
8	86	1	618	1		
9	57	1	938	1		
10	95	1	558	1		
11	63	1	838	1		
12	102	1	518	1		
13	68	1	778	1		
14	59	1	898	1		
15	81	1	658	1		
16	47	1	1133	1		
17	27	1	1958	1		
18	25	1	2196	1		
19	25	1	2159	1		
20	42	1	1267	1		
21	21	1	2579	1		
22	45	1	1173	1		
23	30	1	1811	1		
24	31	1	1744	1		
25	33	1	1624	1		
26	18	1	2982	1		
27	65	1	812	1		
28	36	1	1501	1		
29	21	1	2637	1		
30	26	1	2043	1		

USA Bin 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	65	1	818	1	100.0%	60.0%
2	68	1	778	1		
3	74	1	718	1		
4	76	1	698	1		
5	59	1	898	1		
6	68	1	778	1		
7	76	1	698	1		
8	58	1	918	1		
9	63	1	838	1		
10	70	1	758	1		
11	59	1	898	1		
12	95	1	558	1		
13	89	1	598	1		
14	76	1	698	1		
15	58	1	918	1		
16	39	1	1382	1		
17	56	1	956	1		
18	38	1	1411	1		
19	23	1	2314	1		
20	20	1	2713	1		
21	24	1	2283	1		
22	26	1	2037	1		
23	34	1	1581	1		
24	25	1	2121	1		
25	86	1	616	1		
26	98	1	540	1		
27	30	1	1791	1		
28	46	1	1165	1		
29	22	1	2459	1		
30	22	1	2463	1		

USA Bin 2 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	27	3.2	214	1	96.7%	60.0%
2	27	3.7	226	1		
3	26	2.9	222	1		
4	29	2.8	162	1		
5	25	4.4	202	1		
6	29	1.4	212	1		
7	26	3	194	1		
8	24	3.3	164	1		
9	25	2.2	151	1		
10	27	3.3	219	1		
11	27	2.5	185	1		
12	23	3.4	219	1		
13	24	3.3	220	0		
14	28	4.8	193	1		
15	24	3.6	163	1		
16	28	4.7	169	1		
17	28	3.4	176	1		
18	27	2.4	161	1		
19	24	2.9	165	1		
20	25	1.5	197	1		
21	28	4.4	188	1		
22	23	4	224	1		
23	28	4.8	210	1		
24	23	4.4	193	1		
25	24	3.4	175	1		
26	25	1.5	230	1		
27	29	1.7	205	1		
28	23	3.9	186	1		
29	29	1.7	229	1		
30	27	4.8	157	1		

USA Bin 3 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	16	6.4	458	1		
2	18	8.3	469	1		
3	18	6	245	1		
4	18	7.7	406	1		
5	16	8.4	208	1		
6	17	9.3	377	1		
7	16	6	327	1		
8	18	9.7	356	1		
9	17	9.9	465	1		
10	18	8.8	256	1		
11	17	8.6	305	1		
12	18	8.2	350	1		
13	16	7.8	395	1		
14	18	9.6	264	1		
15	18	6.5	367	1		
16	16	9.9	264	1	100.0%	60.0%
17	17	7.8	436	1		
18	18	6.5	260	1		
19	18	6.9	313	1		
20	16	9.2	402	1		
21	16	7	315	1		
22	16	7.7	255	1		
23	18	10	355	1		
24	18	7.8	234	1		
25	16	9.7	442	1		
26	16	7.5	330	1		
27	17	6.6	306	1		
28	18	9.5	370	1		
29	16	7.9	226	1		
30	18	6.5	425	1		

USA Bin 4 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	14	12.9	315	1	96.7%	60.0%
2	13	12.7	500	1		
3	14	17.1	359	1		
4	13	11.7	296	1		
5	15	13.8	264	1		
6	12	12.7	208	1		
7	16	17.8	246	1		
8	12	15.4	446	1		
9	14	13.3	326	1		
10	15	13	306	1		
11	13	16.8	454	1		
12	12	13.2	369	0		
13	12	14.9	493	1		
14	13	18.5	264	1		
15	15	17.3	384	1		
16	15	11.6	485	1		
17	14	12.2	245	1		
18	12	18.4	307	1		
19	12	13	407	1		
20	15	11.4	439	1		
21	12	18.2	424	1		
22	16	13.5	418	1		
23	16	19.3	381	1		
24	12	14.7	466	1		
25	15	19.4	281	1		
26	15	18.4	412	1		
27	12	13.5	380	1		
28	12	17.4	311	1		
29	13	11.6	392	1		
30	13	19.8	324	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%+96.7%+100.0%+96.7)/5 = 98.7% (>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	2	15	55	1459		0.081868
2	1	16	90			1.401042
3	3	5	70	1229	1588	2.197076
4	2	17	90	1123		3.233755
5	3	12	90	1160	1730	4.25453
6	3	13	95	1972	1200	5.694828
7	2	18	55	1909		6.464954
8	1	18	60			7.35432
9	3	6	65	1641	1956	8.55512
10	2	19	95	1328		9.737992
11	2	16	65	1518		10.760278
12	3	17	100	1000	1718	11.107579

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	13	80	1313		1.232984
2	3	18	60	1051	1238	2.578358
3	2	11	65	1853		3.526306
4	2	20	100	1253		4.50855
5	3	19	60	1676	1091	7.472606
6	3	17	95	1970	1785	7.507136
7	1	6	85			10.005528
8	1	17	80			11.944186

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	95			0.3612
2	2	5	70	1591		2.078489
3	1	16	80			4.023171
4	3	17	55	1491	1285	5.665246
5	1	15	60			6.964087
6	1	11	95			7.796909
7	2	17	90	1474		9.353021
8	2	16	95	1907		10.710248

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	16	80	1515	1662	0.256163
2	2	15	70	1460		1.731911
3	1	15	60			3.731884
4	1	9	65			4.044075
5	2	8	60	1977		5.805714
6	3	18	50	1358	1642	7.288384
7	1	18	60			8.854669
8	3	9	70	1652	1029	10.361978
9	3	14	55	1714	1338	11.824452

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	95			0.432901
2	1	5	85			1.391106
3	3	19	100	1467	1924	1.636596
4	3	5	70	1030	1993	2.682024
5	2	18	90	1511		3.335355
6	3	16	75	1588	1375	3.636324
7	1	9	100			4.258183
8	3	17	90	1090	1474	5.384395
9	3	15	70	1815	1412	6.214239
10	1	13	100			6.972553
11	1	19	50			7.356609
12	1	13	90			8.386466
13	3	18	70	1434	1564	8.838379
14	2	9	65	1317		9.25201

15	1	6	75			10.257249
16	1	18	95			10.903803
17	1	9	70			11.62523

USA Bin 5 Trial #6

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	55	1513		0.571624
2	3	14	95	1060	1274	1.433372
3	3	17	85	1191	1373	2.280689
4	1	15	55			2.885312
5	3	7	60	1006	1189	3.858459
6	3	5	95	1472	1209	4.604517
7	1	17	50			5.47601
8	3	14	75	1949	1402	5.866317
9	3	17	55	1670	1497	6.638317
10	1	17	80			7.577555
11	1	5	85			8.365103
12	1	20	95			9.563909
13	1	6	95			10.041529
14	1	17	75			11.093834
15	3	19	70	1972	1713	11.51251

USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	65	1558		0.027275
2	3	12	50	1468	1933	1.497116
3	3	10	100	1367	1011	2.826378
4	3	10	95	1347	1783	3.807335
5	1	11	50			5.065374
6	2	15	85	1477		6.298121
7	1	8	60			6.914291
8	1	8	95			7.762237
9	2	16	50	1121		8.946244
10	2	19	65	1354		10.859302
11	1	11	55			11.438744

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	60	1587	1571	0.749739
2	2	8	85	1473		1.255087
3	3	19	100	1549	1312	2.535828
4	3	11	90	1777	1626	4.351627
5	3	7	95	1800	1819	5.521341
6	1	9	50			7.015815
7	1	15	90			7.223577
8	2	5	65	1782		8.4374
9	2	11	75	1082		10.783132
10	1	17	75			10.81537

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	70	1032		0.098245
2	3	16	60	1089	1891	1.327504
3	3	16	100	1526	1096	2.292393
4	1	11	55			3.164455
5	1	17	85			4.432217
6	2	11	80	1766		5.394596
7	3	7	65	1191	1323	5.939374
8	3	14	50	1470	1137	7.24321
9	1	15	70			8.26043
10	2	5	75	1167		9.110665
11	2	9	80	1598		9.576258
12	3	5	100	1378	1026	10.970946
13	3	11	85	1123	1348	11.505533

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)

1	3	9	100	1225	1688	0.358249
2	1	7	60			1.97414
3	3	8	95	1460	1474	3.094329
4	3	17	100	1812	1210	4.194958
5	1	20	50			5.725445
6	3	12	55	1921	1814	7.034764
7	1	12	80			7.228002
8	2	19	75	1494		8.486105
9	1	9	65			10.663581
10	2	16	90	1031		11.928423

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	75	1880		0.221003
2	2	18	85	1919		0.734483
3	1	10	95			1.766994
4	3	8	90	1514	1363	2.414463
5	2	14	95	1587		2.772616
6	2	9	55	1485		3.191908
7	1	19	70			4.380777
8	1	20	100			4.44541
9	1	10	95			5.163966
10	3	14	70	1676	1281	5.820531
11	3	16	100	1611	1999	6.330514
12	1	14	55			7.450582
13	1	19	65			7.934866
14	2	15	70	1524		8.719421
15	1	18	95			9.128676
16	2	14	95	1699		10.090334
17	1	17	85			10.720108
18	2	13	60	1390		11.358278
19	2	12	95	1819		11.687392

USA Bin 5 Trial #12

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	100	1244	1740	0.416466
2	3	15	85	1585	1601	1.834692
3	3	6	70	1342	1517	2.721657
4	1	12	75			3.652116
5	2	13	50	1921		4.047535
6	1	8	60			5.034167
7	2	19	75	1590		6.312103
8	1	11	100			6.782637
9	2	16	65	1783		7.783668
10	2	13	80	1722		9.157798
11	3	18	70	1179	1231	10.093779
12	2	8	95	1189		10.925173
13	2	10	80	1825		11.275425

USA Bin 5 Trial #13

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	65	1195	1174	0.194801
2	1	7	95			0.772318
3	2	9	80	1494		1.391971
4	2	11	70	1999		2.601251
5	2	17	75	1305		3.08806
6	2	15	75	1048		3.91928
7	2	10	70	1531		4.292839
8	1	16	90			4.686847
9	1	11	50			5.649108
10	1	15	90			6.405945
11	3	17	55	1766	1007	7.013536
12	3	13	95	1754	1152	7.348446
13	2	12	50	1599		8.218659
14	3	8	85	1052	1218	8.743118

15	1	11	80			9.69667
16	3	5	70	1673	1083	10.287601
17	1	17	75			10.899384
18	3	17	70	1208	1541	11.697593

USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	75	1641		0.257344
2	1	10	70			1.392971
3	1	14	50			1.81213
4	3	18	65	1933	1373	2.564469
5	1	19	60			3.423949
6	3	17	65	1029	1772	4.233111
7	1	17	95			5.594119
8	3	19	55	1692	1885	5.860038
9	1	18	50			6.756959
10	1	11	60			7.809933
11	2	15	100	1124		8.125821
12	3	17	100	1623	1548	9.068392
13	3	16	70	1116	1135	9.776647
14	1	18	70			11.189542
15	2	19	60	1432		11.269657

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	60	1900	1864	0.3974
2	2	10	75	1628		0.878793
3	1	14	50			2.022748
4	1	13	70			2.664292
5	3	19	95	1021	1674	3.510488
6	2	18	85	1385		3.763924
7	1	20	70			4.266924
8	3	19	75	1775	1340	5.079108
9	1	17	90			6.110591
10	3	16	70	1771	1280	6.94662
11	2	13	75	1571		7.178395
12	2	7	65	1012		7.941682
13	1	5	85			8.637578
14	3	13	85	1123	1764	9.45926
15	2	5	95	1396		10.402702
16	1	7	100			11.06765
17	1	7	80			11.304121

USA Bin 5 Trial #16

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5	60			0.019815
2	3	18	70	1069	1015	1.772543
3	2	7	60	1629		3.085588
4	3	8	60	1625	1307	4.145459
5	2	14	75	1481		5.700814
6	2	14	95	1036		7.219207
7	2	17	85	1372		8.297761
8	3	5	90	1873	1270	10.458936
9	3	10	55	1037	1502	10.871274

USA Bin 5 Trial #17

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	19	55			0.349457
2	2	13	65	1265		0.884634
3	1	14	85			2.098061
4	2	17	70	1259		2.632889
5	3	19	70	1456	1896	3.762401
6	1	14	90			4.849497
7	2	14	70	1285		5.271844
8	2	5	55	1484		6.106933
9	2	5	90	1759		7.600012

10	2	9	95	1528		8.300928
11	1	20	60			9.305112
12	1	13	60			9.933473
13	2	17	85	1256		10.407741
14	3	8	95	1379	1768	11.500418

USA Bin 5 Trial #18

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	80	1797		0.857064
2	2	20	85	1238		1.43808
3	3	11	50	1171	1869	2.807022
4	3	18	60	1676	1899	5.17002
5	1	13	80			5.745066
6	3	7	65	1119	1983	7.96659
7	2	9	55	1379		8.097345
8	3	11	85	1301	1119	10.399092
9	1	7	55			11.466904

USA Bin 5 Trial #19

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	7	55			0.092436
2	3	16	55	1993	1207	1.921584
3	1	13	80			2.068419
4	3	9	55	1476	1013	3.111896
5	1	15	60			4.132652
6	3	12	75	1927	1906	5.181259
7	2	10	95	1665		6.043507
8	2	11	60	1220		7.901961
9	3	8	85	1829	1943	8.774952
10	3	12	50	1540	1932	9.25145
11	1	15	60			10.384417
12	3	20	80	1780	1817	11.307816

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	85			0.136803
2	1	9	90			1.140268
3	2	12	60	1341		2.594424
4	2	14	50	1550		3.920077
5	3	7	60	1515	1508	4.886393
6	3	18	55	1058	1325	5.745144
7	3	11	100	1259	1912	6.416569
8	2	9	80	1008		7.437248
9	1	12	80			8.83962
10	1	7	85			9.090416
11	3	9	85	1651	1683	10.985346
12	1	8	65			11.973986

USA Bin 5 Trial #21

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	70	1327		0.074091
2	2	14	90	1839		2.366724
3	1	5	55			3.677784
4	3	15	80	1055	1120	4.795748
5	1	13	85			5.727743
6	1	7	90			7.548094
7	3	9	50	1372	1503	8.895868
8	2	9	55	1133		10.515401
9	3	17	85	1567	1271	11.788052

USA Bin 5 Trial #22

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	75	1226		0.347422
2	2	14	80	2000		0.683746
3	2	20	50	1536		1.545326
4	1	12	90			2.26383
5	3	17	85	1078	1452	3.318823

6	1	14	80			3.697212
7	3	9	95	1001	1046	4.493932
8	2	13	75	1238		5.136945
9	2	14	95	1206		5.776487
10	1	14	60			6.502956
11	3	14	80	1081	1324	7.286231
12	1	10	50			7.403886
13	3	12	60	1899	1826	8.184884
14	3	6	85	1689	1316	8.812515
15	2	10	60	1266		9.691314
16	1	13	75			10.108087
17	2	9	60	1535		11.236178
18	3	13	85	1224	1683	11.565987

USA Bin 5 Trial #23

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	18	50			0.111772
2	3	5	75	1083	1930	0.667972
3	1	5	70			1.583748
4	2	16	90	1296		2.423072
5	1	6	90			2.889284
6	3	15	100	1879	1513	3.798204
7	3	19	80	1915	1024	4.343387
8	3	8	80	1901	1436	5.174135
9	1	6	70			5.73716
10	2	10	50	1454		6.208109
11	2	6	75	1719		7.314933
12	3	12	100	1341	1482	7.800066
13	3	8	90	1303	1745	8.240147
14	3	10	95	1764	1421	8.92567
15	2	15	80	1723		9.415352
16	1	5	70			10.254135
17	3	15	65	1529	1047	10.736344
18	1	13	70			11.68538

USA Bin 5 Trial #24

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	50			0.283649
2	2	10	70	1377		0.864086
3	1	17	50			1.54835
4	1	20	55			2.390907
5	2	10	65	1645		2.402967
6	2	5	70	1101		3.324509
7	2	9	100	1932		3.698699
8	1	10	70			4.570229
9	2	11	100	1861		5.125201
10	3	14	65	1204	1908	5.817376
11	2	7	95	1313		6.299914
12	2	12	60	1628		6.705916
13	3	17	80	1860	1449	7.487876
14	2	8	95	1734		7.960078
15	3	8	60	1661	1453	8.772959
16	2	18	85	1699		9.287777
17	2	7	90	1997		9.824098
18	1	5	55			10.343069
19	2	19	70	1071		11.360745
20	2	8	95	1467		11.448456

USA Bin 5 Trial #25

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	9	55	1482		0.193168
2	3	12	50	1479	1919	0.711604
3	3	17	100	1887	1960	1.726261
4	1	14	100			2.151458
5	3	10	95	1135	1840	2.76174

6	3	20	85	1701	1164	3.004076
7	2	8	80	1784		4.184224
8	1	11	85			4.617057
9	2	10	55	1719		5.286212
10	1	9	90			5.717365
11	1	7	75			6.327745
12	2	18	55	1682		6.62735
13	1	12	70			7.518323
14	2	15	90	1764		7.859734
15	3	19	50	1685	1973	8.81472
16	1	5	55			9.147905
17	3	9	60	1673	1006	10.125098
18	3	10	90	1690	1375	10.332807
19	1	9	85			11.028148
20	1	5	80			11.728683

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	80	1214		0.723846
2	2	8	85	1826		1.764265
3	3	6	70	1739	1052	2.590873
4	3	5	55	1846	1291	3.373558
5	3	18	65	1456	1070	4.702527
6	1	14	85			5.48161
7	1	14	80			6.57107
8	2	18	80	1534		8.037736
9	3	11	75	1688	1527	9.433253
10	1	8	50			10.318531
11	2	18	95	1400		11.394402

USA Bin 5 Trial #27

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	55			0.425291
2	3	17	70	1613	1547	0.861077
3	3	10	55	1620	1997	1.372539
4	1	11	80			2.62824
5	2	14	60	1946		3.018081
6	2	15	75	1934		3.56884
7	1	5	90			4.056901
8	2	12	85	1048		4.973217
9	1	17	60			5.850608
10	2	6	70	1335		6.027485
11	2	17	95	1964		6.806692
12	3	6	75	1876	1102	7.729766
13	2	15	75	1537		8.283172
14	2	6	60	1272		9.331397
15	1	5	65			9.355169
16	2	8	100	1577		10.511312
17	3	11	60	1287	1602	11.105678
18	1	15	90			11.406943

USA Bin 5 Trial #28

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	75	1254	1311	0.474409
2	3	11	100	1435	1204	0.6678
3	3	11	65	1123	1049	1.643102
4	3	20	80	1323	1100	1.989193
5	3	20	70	1548	1575	2.569503
6	3	20	95	1602	1361	3.667797
7	3	19	85	1937	1547	3.973196
8	1	19	90			4.561639
9	2	18	90	1947		5.305144
10	3	11	85	1932	1831	6.290531
11	1	17	50			6.833126
12	1	8	70			7.568652

13	3	5	60	1171	1514	8.070563
14	2	7	75	1269		8.561968
15	1	13	90			9.409319
16	2	7	55	1275		9.876596
17	1	8	80			10.244619
18	3	12	85	1281	1446	10.962888
19	2	6	50	1177		11.965212

USA Bin 5 Trial #29

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	70			0.671561
2	1	12	50			1.69751
3	3	15	50	1704	1141	2.920659
4	3	18	100	1722	1149	4.532291
5	1	12	95			6.063622
6	2	12	85	1032		7.225941
7	3	8	90	1993	1680	8.542498
8	2	18	90	1084		10.609098
9	2	17	100	1029		11.55352

USA Bin 5 Trial #30

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	9	50	1247	1777	0.408583
2	1	5	85			0.974138
3	3	8	100	1398	1979	2.012755
4	3	17	80	1116	1617	2.641464
5	3	9	85	1211	1036	3.09473
6	1	12	65			4.240291
7	1	6	65			4.807929
8	1	20	80			5.575395
9	3	8	70	1189	1936	6.223848
10	2	19	80	1206		7.292215
11	3	19	55	1128	1312	8.141638
12	1	18	90			8.785039
13	1	16	50			9.045161
14	3	11	60	1453	1854	10.158686
15	3	7	80	1431	1787	10.833741
16	1	9	55			11.731794
8	3	10	95	1036	1470	4.418823
9	2	5	85	1429		4.959958
10	3	14	100	1372	1844	5.975337
11	1	20	60			6.086737
12	2	8	50	1931		7.120978
13	1	12	50			7.611027
14	1	18	75			8.070123
15	1	20	50			8.563516
16	1	16	90			9.017162
17	2	11	85	1795		10.022205
18	3	16	55	1548	1423	10.600394
19	3	9	60	1556	1728	11.103429
20	2	10	70	1578		11.818834

USA Bin 5 Trial #1

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	15	55	1459		0.081868
2	1	16	90			1.401042
3	3	5	70	1229	1588	2.197076
4	2	17	90	1123		3.233755
5	3	12	90	1160	1730	4.25453
6	3	13	95	1972	1200	5.694828
7	2	18	55	1909		6.464954
8	1	18	60			7.35432
9	3	6	65	1641	1956	8.55512
10	2	19	95	1328		9.737992
11	2	16	65	1518		10.760278

12	3	17	100	1000	1718	11.107579

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	13	80	1313		1.232984
2	3	18	60	1051	1238	2.578358
3	2	11	65	1853		3.526306
4	2	20	100	1253		4.50855
5	3	19	60	1676	1091	7.472606
6	3	17	95	1970	1785	7.507136
7	1	6	85			10.005528
8	1	17	80			11.944186

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	95			0.3612
2	2	5	70	1591		2.078489
3	1	16	80			4.023171
4	3	17	55	1491	1285	5.665246
5	1	15	60			6.964087
6	1	11	95			7.796909
7	2	17	90	1474		9.353021
8	2	16	95	1907		10.710248

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	16	80	1515	1662	0.256163
2	2	15	70	1460		1.731911
3	1	15	60			3.731884
4	1	9	65			4.044075
5	2	8	60	1977		5.805714
6	3	18	50	1358	1642	7.288384
7	1	18	60			8.854669
8	3	9	70	1652	1029	10.361978
9	3	14	55	1714	1338	11.824452

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	95			0.432901
2	1	5	85			1.391106
3	3	19	100	1467	1924	1.636596
4	3	5	70	1030	1993	2.682024
5	2	18	90	1511		3.335355
6	3	16	75	1588	1375	3.636324
7	1	9	100			4.258183
8	3	17	90	1090	1474	5.384395
9	3	15	70	1815	1412	6.214239
10	1	13	100			6.972553
11	1	19	50			7.356609
12	1	13	90			8.386466
13	3	18	70	1434	1564	8.838379
14	2	9	65	1317		9.25201
15	1	6	75			10.257249
16	1	18	95			10.903803
17	1	9	70			11.62523

USA Bin 5 Trial #6

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	55	1513		0.571624
2	3	14	95	1060	1274	1.433372
3	3	17	85	1191	1373	2.280689
4	1	15	55			2.885312
5	3	7	60	1006	1189	3.858459
6	3	5	95	1472	1209	4.604517
7	1	17	50			5.47601
8	3	14	75	1949	1402	5.866317
9	3	17	55	1670	1497	6.638317

10	1	17	80			7.577555
11	1	5	85			8.365103
12	1	20	95			9.563909
13	1	6	95			10.041529
14	1	17	75			11.093834
15	3	19	70	1972	1713	11.51251

USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	65	1558		0.027275
2	3	12	50	1468	1933	1.497116
3	3	10	100	1367	1011	2.826378
4	3	10	95	1347	1783	3.807335
5	1	11	50			5.065374
6	2	15	85	1477		6.298121
7	1	8	60			6.914291
8	1	8	95			7.762237
9	2	16	50	1121		8.946244
10	2	19	65	1354		10.859302
11	1	11	55			11.438744

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	60	1587	1571	0.749739
2	2	8	85	1473		1.255087
3	3	19	100	1549	1312	2.535828
4	3	11	90	1777	1626	4.351627
5	3	7	95	1800	1819	5.521341
6	1	9	50			7.015815
7	1	15	90			7.223577
8	2	5	65	1782		8.4374
9	2	11	75	1082		10.783132
10	1	17	75			10.81537

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	70	1032		0.098245
2	3	16	60	1089	1891	1.327504
3	3	16	100	1526	1096	2.292393
4	1	11	55			3.164455
5	1	17	85			4.432217
6	2	11	80	1766		5.394596
7	3	7	65	1191	1323	5.939374
8	3	14	50	1470	1137	7.24321
9	1	15	70			8.26043
10	2	5	75	1167		9.110665
11	2	9	80	1598		9.576258
12	3	5	100	1378	1026	10.970946
13	3	11	85	1123	1348	11.505533

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	9	100	1225	1688	0.358249
2	1	7	60			1.97414
3	3	8	95	1460	1474	3.094329
4	3	17	100	1812	1210	4.194958
5	1	20	50			5.725445
6	3	12	55	1921	1814	7.034764
7	1	12	80			7.228002
8	2	19	75	1494		8.486105
9	1	9	65			10.663581
10	2	16	90	1031		11.928423

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	75	1880		0.221003
2	2	18	85	1919		0.734483

3	1	10	95			1.766994
4	3	8	90	1514	1363	2.414463
5	2	14	95	1587		2.772616
6	2	9	55	1485		3.191908
7	1	19	70			4.380777
8	1	20	100			4.44541
9	1	10	95			5.163966
10	3	14	70	1676	1281	5.820531
11	3	16	100	1611	1999	6.330514
12	1	14	55			7.450582
13	1	19	65			7.934866
14	2	15	70	1524		8.719421
15	1	18	95			9.128676
16	2	14	95	1699		10.090334
17	1	17	85			10.720108
18	2	13	60	1390		11.358278
19	2	12	95	1819		11.687392

USA Bin 5 Trial #12

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	100	1244	1740	0.416466
2	3	15	85	1585	1601	1.834692
3	3	6	70	1342	1517	2.721657
4	1	12	75			3.652116
5	2	13	50	1921		4.047535
6	1	8	60			5.034167
7	2	19	75	1590		6.312103
8	1	11	100			6.782637
9	2	16	65	1783		7.783668
10	2	13	80	1722		9.157798
11	3	18	70	1179	1231	10.093779
12	2	8	95	1189		10.925173
13	2	10	80	1825		11.275425

USA Bin 5 Trial #13

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	8	65	1195	1174	0.194801
2	1	7	95			0.772318
3	2	9	80	1494		1.391971
4	2	11	70	1999		2.601251
5	2	17	75	1305		3.08806
6	2	15	75	1048		3.91928
7	2	10	70	1531		4.292839
8	1	16	90			4.686847
9	1	11	50			5.649108
10	1	15	90			6.405945
11	3	17	55	1766	1007	7.013536
12	3	13	95	1754	1152	7.348446
13	2	12	50	1599		8.218659
14	3	8	85	1052	1218	8.743118
15	1	11	80			9.69667
16	3	5	70	1673	1083	10.287601
17	1	17	75			10.899384
18	3	17	70	1208	1541	11.697593

USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	75	1641		0.257344
2	1	10	70			1.392971
3	1	14	50			1.81213
4	3	18	65	1933	1373	2.564469
5	1	19	60			3.423949
6	3	17	65	1029	1772	4.233111
7	1	17	95			5.594119
8	3	19	55	1692	1885	5.860038

9	1	18	50			6.756959
10	1	11	60			7.809933
11	2	15	100	1124		8.125821
12	3	17	100	1623	1548	9.068392
13	3	16	70	1116	1135	9.776647
14	1	18	70			11.189542
15	2	19	60	1432		11.269657

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	60	1900	1864	0.3974
2	2	10	75	1628		0.878793
3	1	14	50			2.022748
4	1	13	70			2.664292
5	3	19	95	1021	1674	3.510488
6	2	18	85	1385		3.763924
7	1	20	70			4.266924
8	3	19	75	1775	1340	5.079108
9	1	17	90			6.110591
10	3	16	70	1771	1280	6.94662
11	2	13	75	1571		7.178395
12	2	7	65	1012		7.941682
13	1	5	85			8.637578
14	3	13	85	1123	1764	9.45926
15	2	5	95	1396		10.402702
16	1	7	100			11.06765
17	1	7	80			11.304121

USA Bin 5 Trial #16

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5	60			0.019815
2	3	18	70	1069	1015	1.772543
3	2	7	60	1629		3.085588
4	3	8	60	1625	1307	4.145459
5	2	14	75	1481		5.700814
6	2	14	95	1036		7.219207
7	2	17	85	1372		8.297761
8	3	5	90	1873	1270	10.458936
9	3	10	55	1037	1502	10.871274

USA Bin 5 Trial #17

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	19	55			0.349457
2	2	13	65	1265		0.884634
3	1	14	85			2.098061
4	2	17	70	1259		2.632889
5	3	19	70	1456	1896	3.762401
6	1	14	90			4.849497
7	2	14	70	1285		5.271844
8	2	5	55	1484		6.106933
9	2	5	90	1759		7.600012
10	2	9	95	1528		8.300928
11	1	20	60			9.305112
12	1	13	60			9.933473
13	2	17	85	1256		10.407741
14	3	8	95	1379	1768	11.500418

USA Bin 5 Trial #18

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	80	1797		0.857064
2	2	20	85	1238		1.43808
3	3	11	50	1171	1869	2.807022
4	3	18	60	1676	1899	5.17002
5	1	13	80			5.745066
6	3	7	65	1119	1983	7.96659
7	2	9	55	1379		8.097345

8	3	11	85	1301	1119	10.399092
9	1	7	55			11.466904

USA Bin 5 Trial #19

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	7	55			0.092436
2	3	16	55	1993	1207	1.921584
3	1	13	80			2.068419
4	3	9	55	1476	1013	3.111896
5	1	15	60			4.132652
6	3	12	75	1927	1906	5.181259
7	2	10	95	1665		6.043507
8	2	11	60	1220		7.901961
9	3	8	85	1829	1943	8.774952
10	3	12	50	1540	1932	9.25145
11	1	15	60			10.384417
12	3	20	80	1780	1817	11.307816

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	85			0.136803
2	1	9	90			1.140268
3	2	12	60	1341		2.594424
4	2	14	50	1550		3.920077
5	3	7	60	1515	1508	4.886393
6	3	18	55	1058	1325	5.745144
7	3	11	100	1259	1912	6.416569
8	2	9	80	1008		7.437248
9	1	12	80			8.83962
10	1	7	85			9.090416
11	3	9	85	1651	1683	10.985346
12	1	8	65			11.973986

USA Bin 5 Trial #21

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	70	1327		0.074091
2	2	14	90	1839		2.366724
3	1	5	55			3.677784
4	3	15	80	1055	1120	4.795748
5	1	13	85			5.727743
6	1	7	90			7.548094
7	3	9	50	1372	1503	8.895868
8	2	9	55	1133		10.515401
9	3	17	85	1567	1271	11.788052

USA Bin 5 Trial #22

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	7	75	1226		0.347422
2	2	14	80	2000		0.683746
3	2	20	50	1536		1.545326
4	1	12	90			2.26383
5	3	17	85	1078	1452	3.318823
6	1	14	80			3.697212
7	3	9	95	1001	1046	4.493932
8	2	13	75	1238		5.136945
9	2	14	95	1206		5.776487
10	1	14	60			6.502956
11	3	14	80	1081	1324	7.286231
12	1	10	50			7.403886
13	3	12	60	1899	1826	8.184884
14	3	6	85	1689	1316	8.812515
15	2	10	60	1266		9.691314
16	1	13	75			10.108087
17	2	9	60	1535		11.236178
18	3	13	85	1224	1683	11.565987

USA Bin 5 Trial #23

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	18	50			0.111772
2	3	5	75	1083	1930	0.667972
3	1	5	70			1.583748
4	2	16	90	1296		2.423072
5	1	6	90			2.889284
6	3	15	100	1879	1513	3.798204
7	3	19	80	1915	1024	4.343387
8	3	8	80	1901	1436	5.174135
9	1	6	70			5.73716
10	2	10	50	1454		6.208109
11	2	6	75	1719		7.314933
12	3	12	100	1341	1482	7.800066
13	3	8	90	1303	1745	8.240147
14	3	10	95	1764	1421	8.92567
15	2	15	80	1723		9.415352
16	1	5	70			10.254135
17	3	15	65	1529	1047	10.736344
18	1	13	70			11.68538

USA Bin 5 Trial #24

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	50			0.283649
2	2	10	70	1377		0.864086
3	1	17	50			1.54835
4	1	20	55			2.390907
5	2	10	65	1645		2.402967
6	2	5	70	1101		3.324509
7	2	9	100	1932		3.698699
8	1	10	70			4.570229
9	2	11	100	1861		5.125201
10	3	14	65	1204	1908	5.817376
11	2	7	95	1313		6.299914
12	2	12	60	1628		6.705916
13	3	17	80	1860	1449	7.487876
14	2	8	95	1734		7.960078
15	3	8	60	1661	1453	8.772959
16	2	18	85	1699		9.287777
17	2	7	90	1997		9.824098
18	1	5	55			10.343069
19	2	19	70	1071		11.360745
20	2	8	95	1467		11.448456

USA Bin 5 Trial #25

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	9	55	1482		0.193168
2	3	12	50	1479	1919	0.711604
3	3	17	100	1887	1960	1.726261
4	1	14	100			2.151458
5	3	10	95	1135	1840	2.76174
6	3	20	85	1701	1164	3.004076
7	2	8	80	1784		4.184224
8	1	11	85			4.617057
9	2	10	55	1719		5.286212
10	1	9	90			5.717365
11	1	7	75			6.327745
12	2	18	55	1682		6.62735
13	1	12	70			7.518323
14	2	15	90	1764		7.859734
15	3	19	50	1685	1973	8.81472
16	1	5	55			9.147905
17	3	9	60	1673	1006	10.125098
18	3	10	90	1690	1375	10.332807
19	1	9	85			11.028148

20	1	5	80			11.728683

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	80	1214		0.723846
2	2	8	85	1826		1.764265
3	3	6	70	1739	1052	2.590873
4	3	5	55	1846	1291	3.373558
5	3	18	65	1456	1070	4.702527
6	1	14	85			5.48161
7	1	14	80			6.57107
8	2	18	80	1534		8.037736
9	3	11	75	1688	1527	9.433253
10	1	8	50			10.318531
11	2	18	95	1400		11.394402

USA Bin 5 Trial #27

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	16	55			0.425291
2	3	17	70	1613	1547	0.861077
3	3	10	55	1620	1997	1.372539
4	1	11	80			2.62824
5	2	14	60	1946		3.018081
6	2	15	75	1934		3.56884
7	1	5	90			4.056901
8	2	12	85	1048		4.973217
9	1	17	60			5.850608
10	2	6	70	1335		6.027485
11	2	17	95	1964		6.806692
12	3	6	75	1876	1102	7.729766
13	2	15	75	1537		8.283172
14	2	6	60	1272		9.331397
15	1	5	65			9.355169
16	2	8	100	1577		10.511312
17	3	11	60	1287	1602	11.105678
18	1	15	90			11.406943

USA Bin 5 Trial #28

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	75	1254	1311	0.474409
2	3	11	100	1435	1204	0.6678
3	3	11	65	1123	1049	1.643102
4	3	20	80	1323	1100	1.989193
5	3	20	70	1548	1575	2.569503
6	3	20	95	1602	1361	3.667797
7	3	19	85	1937	1547	3.973196
8	1	19	90			4.561639
9	2	18	90	1947		5.305144
10	3	11	85	1932	1831	6.290531
11	1	17	50			6.833126
12	1	8	70			7.568652
13	3	5	60	1171	1514	8.070563
14	2	7	75	1269		8.561968
15	1	13	90			9.409319
16	2	7	55	1275		9.876596
17	1	8	80			10.244619
18	3	12	85	1281	1446	10.962888
19	2	6	50	1177		11.965212

USA Bin 5 Trial #29

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	70			0.671561
2	1	12	50			1.69751
3	3	15	50	1704	1141	2.920659
4	3	18	100	1722	1149	4.532291
5	1	12	95			6.063622

6	2	12	85	1032		7.225941
7	3	8	90	1993	1680	8.542498
8	2	18	90	1084		10.609098
9	2	17	100	1029		11.55352

USA Bin 5 Trial #30

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	9	50	1247	1777	0.408583
2	1	5	85			0.974138
3	3	8	100	1398	1979	2.012755
4	3	17	80	1116	1617	2.641464
5	3	9	85	1211	1036	3.09473
6	1	12	65			4.240291
7	1	6	65			4.807929
8	1	20	80			5.575395
9	3	8	70	1189	1936	6.223848
10	2	19	80	1206		7.292215
11	3	19	55	1128	1312	8.141638
12	1	18	90			8.785039
13	1	16	50			9.045161
14	3	11	60	1453	1854	10.158686
15	3	7	80	1431	1787	10.833741
16	1	9	55			11.731794
8	3	10	95	1036	1470	4.418823
9	2	5	85	1429		4.959958
10	3	14	100	1372	1844	5.975337
11	1	20	60			6.086737
12	2	8	50	1931		7.120978
13	1	12	50			7.611027
14	1	18	75			8.070123
15	1	20	50			8.563516
16	1	16	90			9.017162
17	2	11	85	1795		10.022205
18	3	16	55	1548	1423	10.600394
19	3	9	60	1556	1728	11.103429
20	2	10	70	1578		11.818834

*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)
15	5488	45
18	5491	54
19	5503	57
23	5497	69
24	5495	72
25	5504	75
31	5505	93
40	5486	120
53	5483	159
63	5516	189

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
5	5510	15
11	5517	33
12	5489	36
13	5513	39
35	5493	105
90	5507	270

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
2	5517	6
24	5494	72
35	5514	105
38	5512	114
45	5503	135
56	5513	168
58	5493	174
64	5485	192
74	5510	222
99	5483	297

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
7	5517	21
12	5516	36
21	5518	63
23	5498	69
33	5499	99
43	5485	129
52	5488	156
56	5493	168
62	5504	186
72	5491	216
76	5484	228
80	5513	240
90	5489	270

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)

42	5507	126
52	5512	156
55	5488	165
66	5509	198
78	5491	234
90	5493	270

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
9	5493	27
15	5499	45
16	5489	48
31	5494	93
33	5498	99
37	5511	111
42	5486	126
57	5514	171
68	5495	204
76	5517	228
81	5516	243
88	5503	264

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
7	5497	21
36	5518	108
40	5512	120
53	5504	159
57	5482	171
73	5491	219

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
10	5497	30
19	5512	57
37	5514	111
57	5488	171

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
32	5508	96
35	5483	105
42	5511	126
73	5485	219
88	5494	264
89	5484	267

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
7	5486	21
13	5497	39
35	5517	105
39	5492	117
45	5510	135

64	5511	192
79	5506	237
83	5491	249
98	5501	294

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
9	5502	27
17	5489	51
39	5491	117
66	5510	198
81	5505	243
98	5487	294
99	5517	297

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
29	5494	87
40	5497	120
71	5503	213
77	5511	231
86	5506	258
91	5510	273

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
1	5496	3
39	5501	117
56	5492	168
65	5491	195
69	5516	207
81	5495	243
94	5488	282

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
12	5493	36
26	5482	78
32	5516	96
36	5489	108
43	5484	129
54	5498	162
67	5499	201
78	5518	234
93	5510	279
94	5506	282

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
16	5503	48
24	5515	72
42	5487	126
54	5496	162
70	5493	210

78	5507	234
91	5518	273

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
1	5483	3
2	5503	6
58	5496	174
66	5504	198
76	5501	228
77	5511	231
91	5517	273

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
4	5498	12
9	5516	27
35	5499	105
50	5512	150
56	5496	168
61	5497	183
65	5489	195
67	5502	201
98	5509	294

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
10	5491	30
28	5502	84
36	5504	108
49	5515	147
86	5512	258

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
7	5492	21
15	5490	45
18	5503	54
22	5514	66
45	5483	135
67	5505	201

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
26	5499	78
28	5486	84
43	5507	129
56	5489	168
75	5488	225
79	5511	237
93	5512	279
98	5494	294

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)

1	5489	3
3	5504	9
4	5510	12
12	5482	36
15	5517	45
36	5487	108
45	5503	135
60	5509	180
65	5518	195
82	5507	246
92	5492	276

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
21	5489	63
25	5505	75
38	5488	114
46	5502	138
58	5493	174
62	5503	186
65	5513	195
66	5490	198
78	5494	234
84	5491	252
97	5504	291

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
17	5492	51
31	5493	93
33	5507	99
35	5495	105
42	5501	126

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
27	5515	81
44	5510	132
52	5502	156
81	5482	243
95	5489	285

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
36	5515	108
74	5498	222
81	5510	243

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
16	5505	48
27	5488	81
33	5494	99
39	5510	117

47	5504	141
65	5484	195
67	5485	201
77	5502	231
79	5515	237
95	5483	285
98	5495	294

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
0	5491	0
21	5516	63
36	5502	108
54	5486	162
69	5513	207
79	5512	237
91	5515	273
98	5497	294

USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
13	5502	39
26	5493	78
37	5506	111
39	5484	117
56	5510	168
57	5508	171
60	5495	180

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
3	5493	9
8	5482	24
26	5488	78
61	5517	183
69	5508	207
92	5502	276
95	5515	285

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
2	5487	6
4	5495	12
15	5502	45
29	5493	87
36	5492	108
46	5486	138
78	5482	234

USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
3	5504	9
31	5500	93
32	5502	96

50	5513	150
57	5526	171
62	5514	186
67	5516	201
71	5527	213
90	5525	270

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
27	5509	81
62	5496	186
65	5517	195
78	5515	234
79	5492	237
81	5518	243
84	5526	252
86	5502	258

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
22	5526	66
36	5504	108
40	5521	120
47	5527	141
68	5520	204
81	5496	243
83	5524	249
85	5514	255

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
2	5506	6
3	5516	9
7	5528	21
25	5515	75
27	5522	81
46	5521	138
77	5496	231
78	5498	234
86	5513	258
94	5492	282

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
1	5514	3
21	5498	63
31	5504	93
34	5506	102
48	5509	144
68	5500	204
70	5518	210
90	5527	270
97	5522	291

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
42	5512	126
56	5523	168
61	5514	183
86	5521	258

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
13	5513	39
24	5504	72
27	5514	81
31	5496	93
35	5516	105
52	5494	156
57	5506	171
72	5495	216
74	5525	222
76	5523	228
77	5519	231
86	5492	258
96	5509	288

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
19	5527	57
79	5512	237
86	5504	258

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
16	5519	48
30	5527	90
61	5494	183
62	5523	186
67	5504	201
72	5516	216
75	5492	225
93	5520	279

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
33	5509	99
40	5512	120
43	5505	129
71	5519	213
76	5521	228
77	5499	231

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
5	5508	15
14	5524	42
32	5492	96

35	5509	105
49	5507	147
58	5517	174
82	5521	246
86	5522	258

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
19	5520	57
37	5507	111
41	5518	123
48	5524	144
49	5511	147
60	5500	180
81	5527	243
82	5523	246

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
36	5524	108
47	5516	141
60	5497	180
66	5517	198
81	5514	243
95	5509	285
96	5504	288

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
31	5512	93
41	5528	123
66	5524	198
88	5506	264

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
9	5520	27
39	5523	117
53	5510	159
66	5509	198
75	5517	225
86	5507	258
88	5508	264
95	5502	285
98	5521	294

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
0	5518	0
1	5526	3
12	5517	36
13	5497	39
14	5494	42
19	5511	57

37	5513	111
40	5505	120
57	5522	171
69	5527	207
89	5515	267
94	5514	282

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
3	5511	9
14	5523	42
21	5528	63
54	5514	162
64	5519	192
93	5520	279
94	5516	282

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
19	5515	57
21	5500	63
23	5496	69
24	5527	72
60	5525	180
96	5513	288

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
14	5527	42
19	5517	57
21	5520	63
25	5504	75
70	5523	210

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
5	5503	15
16	5516	48
21	5520	63
53	5501	159
57	5513	171
78	5521	234

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
0	5507	0
5	5522	15
13	5516	39
39	5520	117
45	5497	135
68	5508	204
75	5495	225
96	5498	288

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
7	5496	21
60	5517	180
76	5524	228
81	5505	243
92	5515	276
95	5514	285

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
12	5512	36
31	5518	93
34	5508	102
48	5528	144

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
2	5506	6
14	5524	42
15	5496	45
28	5513	84
85	5492	255

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
8	5498	24
13	5504	39
15	5514	45
31	5513	93
44	5501	132
58	5512	174
84	5495	252
99	5496	297

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
1	5517	3
7	5525	21
35	5509	105
88	5500	264
93	5516	279

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
10	5527	30
24	5513	72
29	5509	87
43	5515	129
88	5501	264
93	5524	279

USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
0	5520	0
15	5518	45

16	5497	48
19	5492	57
28	5526	84
42	5495	126
69	5525	207
70	5507	210
78	5515	234

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
6	5527	18
8	5512	24
34	5524	102
45	5492	135
53	5503	159
59	5523	177
63	5508	189
79	5517	237
81	5506	243
85	5528	255

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
6	5519	18
13	5513	39
20	5526	60
34	5494	102
37	5506	111
55	5507	165
64	5516	192
88	5496	264

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