



Dynamic Frequency Selection (DFS) Test Report

AIR-CAP1552y-B-K9

Cisco Aironet 802.11n Dual Band Mesh Access Points

FCC ID: LDK102074P

y = E (External Antenna), I (Internal Antenna), C (Cable), H (Hazardous Location)

5250-5350, 5470-5725 MHz

Against the following Specifications:

CFR47 Part 15.407

RSS247

Cisco Systems

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San Jose, CA 95134

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This report replaces any previously entered test report under EDCS – **951651**. This test report has been electronically authorized and archived using the CISCO Engineering Document Control system.



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Section 1: Overview

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

Specifications:
CFR47 Part 15.407 RSS-247

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

Measurements were made in accordance with

- KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

Section 2: Assessment Information

2.1 General

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

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

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

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

110V 60 Hz (+/-20%)

Units of Measurement

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

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

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

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

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

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

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

Measurement Uncertainty Values

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

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

Radiated emissions (expanded uncertainty, confidence interval 95%)

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

Conducted emissions (expanded uncertainty, confidence interval 95%)

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

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**2.2 Date of testing**

13-January-16

2.3 Report Issue Date

14-January-2016

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2.4 Testing facilities

This assessment was performed by:

Testing Laboratory

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

Registration Numbers for Industry Canada

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

Test Engineers

Jose Aguirre

2.5 Equipment Assessed (EUT)

AIR-CAP1552y-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-CAP1552y-B-K9	Cisco Systems	P2	15.3	AP1550_12222015	
S02	AIR-PWR-C	Meanwell	A0	NA	NA	EB46E93226
S03	AIR-CAP3702I-A-K9	Cisco Systems	P2	15.3	AP3G2-K9W7-M	FCW1906NUYD

4.2 System Details

System Number	Description	Samples	System under test	Support equipment
1	AIR-CAP1552y-B-K9	S01	☒	☐
	Support Power Supply	S02	☐	☒
	Support Client Equipment	S03	☐	☒

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-CAP1552y-B-K9 Cisco Aironet 802.11N Module operates in the following bands:
 - a. 5250-5350 MHz
 - b. 5470-5725 MHz
 - c. 5725-5850 MHz

2. The maximum EIRP of the 5GHz equipment is 36 dBm, and the minimum possible EIRP is -1 dBm.

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

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

3. System testing was performed with the designated MPEG test file that streams full motion video at 30 frames per second from the Master to the Client IP based system.
4. The Master requires 106.5 seconds to complete its power-on cycle.
5. Information regarding the parameters of the detected Radar Waveforms is not available to the end user.
6. For the 5250-5350 MHz and 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

A.2 DFS Detection Thresholds

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

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

2. DFS Response requirement values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> 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 <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

A.3 Radar Test Waveforms

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

1. Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Numbers of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \right\}$	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 shall only be used for the channel availability and detection bandwidth tests. It should be noted that any of the radar test waveforms 0 – 4 can be used for the channel availability and detection bandwidth tests.					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

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

Table 5a – Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355.0	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	1139.0	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

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

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

2. Long Pulse Radar Test Waveform

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

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

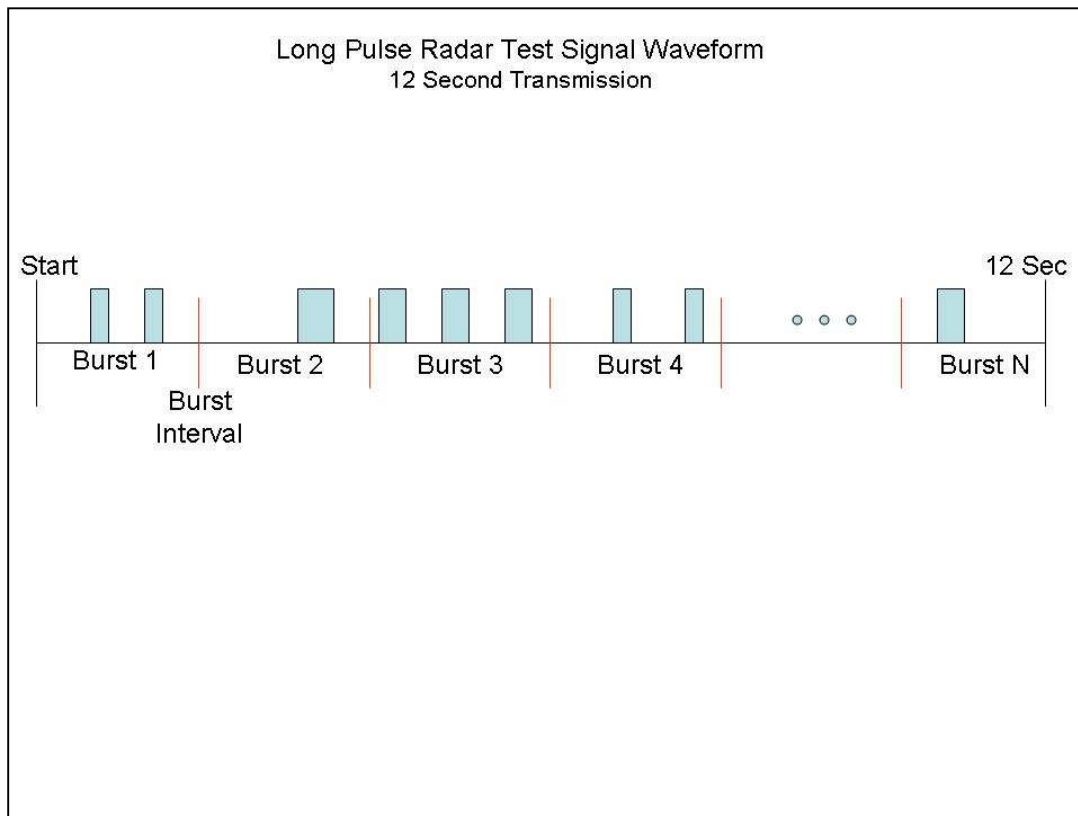
Each waveform is defined as follows:

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

A representative example of a Long Pulse radar test waveform:

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

Graphical Representation of a Long Pulse radar Test Waveform



3. Long Pulse Radar Test Waveform

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

For the Frequency Hopping Radar Type, the same *Burst* parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected¹ from the hopping sequence defined by the following algorithm:

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

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

FCC 15.407 / RSS-247

Test Procedure

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

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

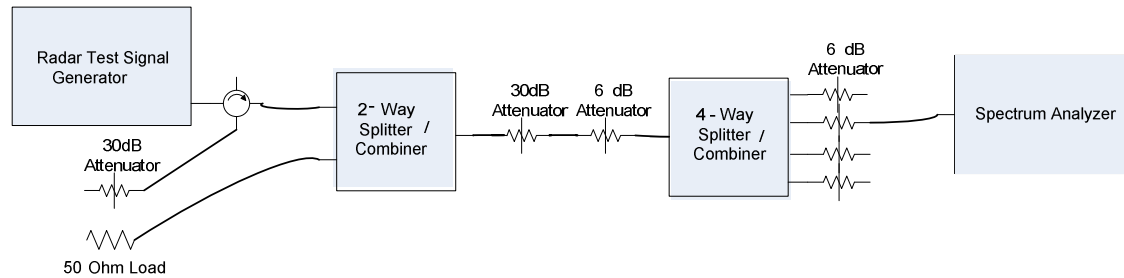
System Number	Description	Samples	System under test	Support equipment
1	AIR-CAP1552y-B-K9	S01	☒	☐
	Support Power Supply	S02	☐	☒
	Support Client Equipment	S03	☐	☒

Tested By : Jose Aguirre	Date of testing: 13-January-16
Test Result : PASS	

See Appendix C for list of test equipment

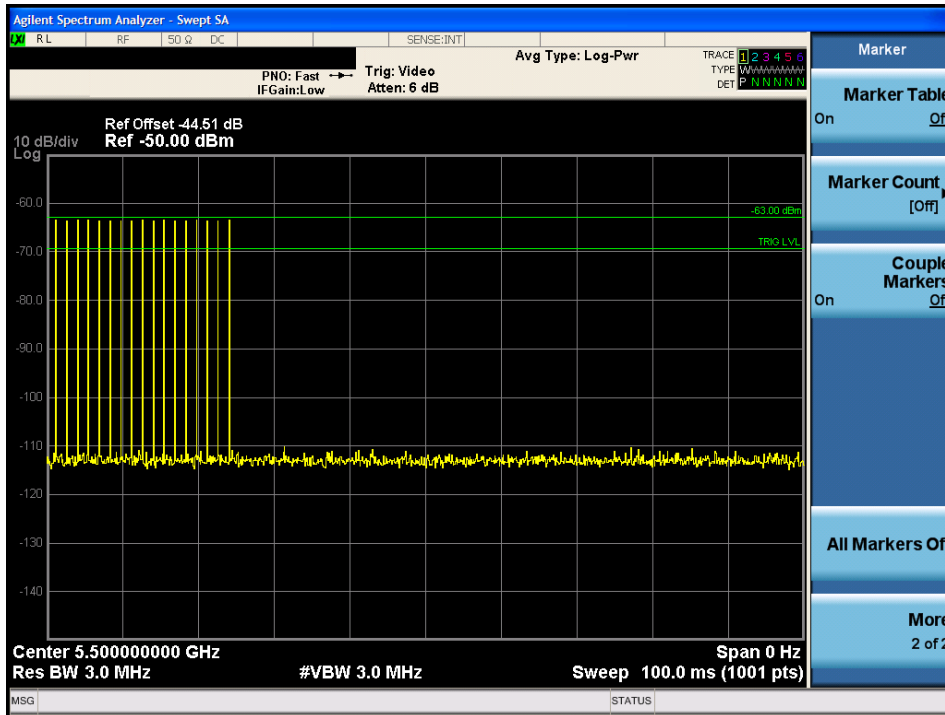
The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero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

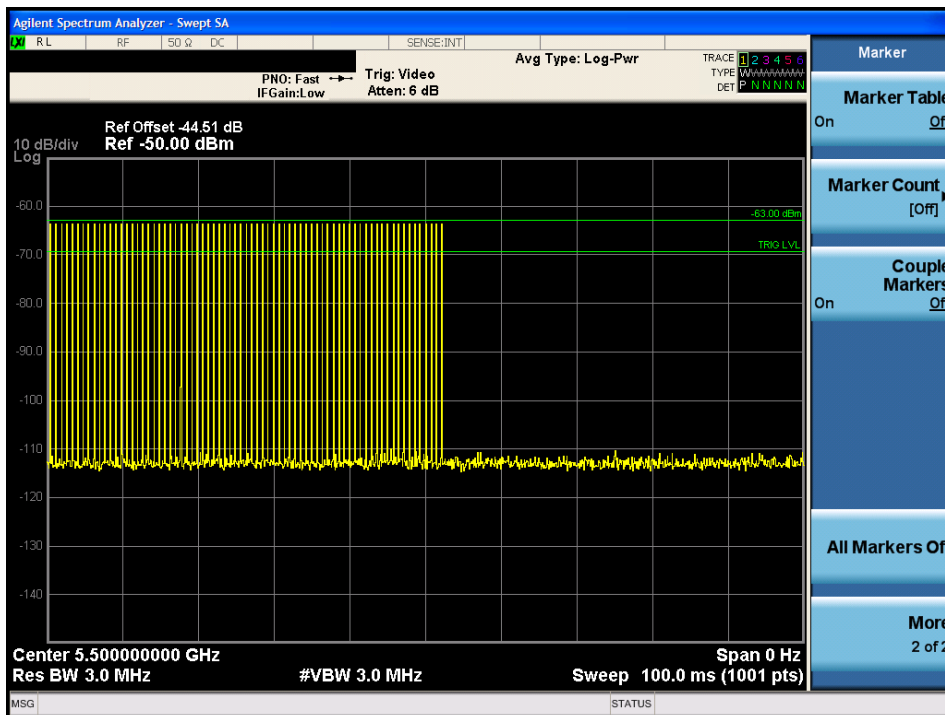


Conducted Calibration Setup

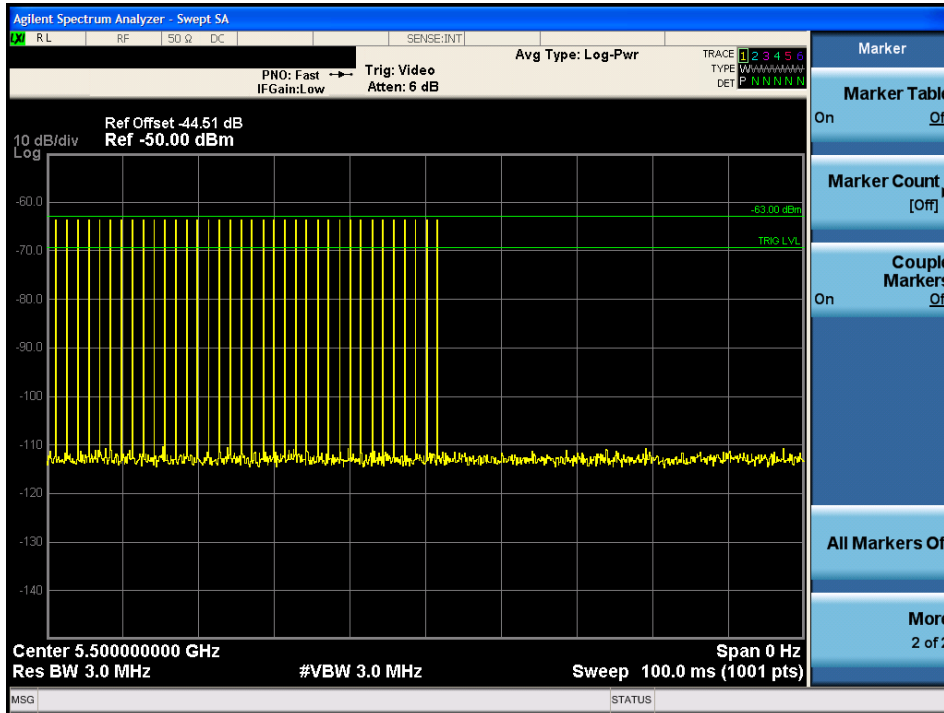
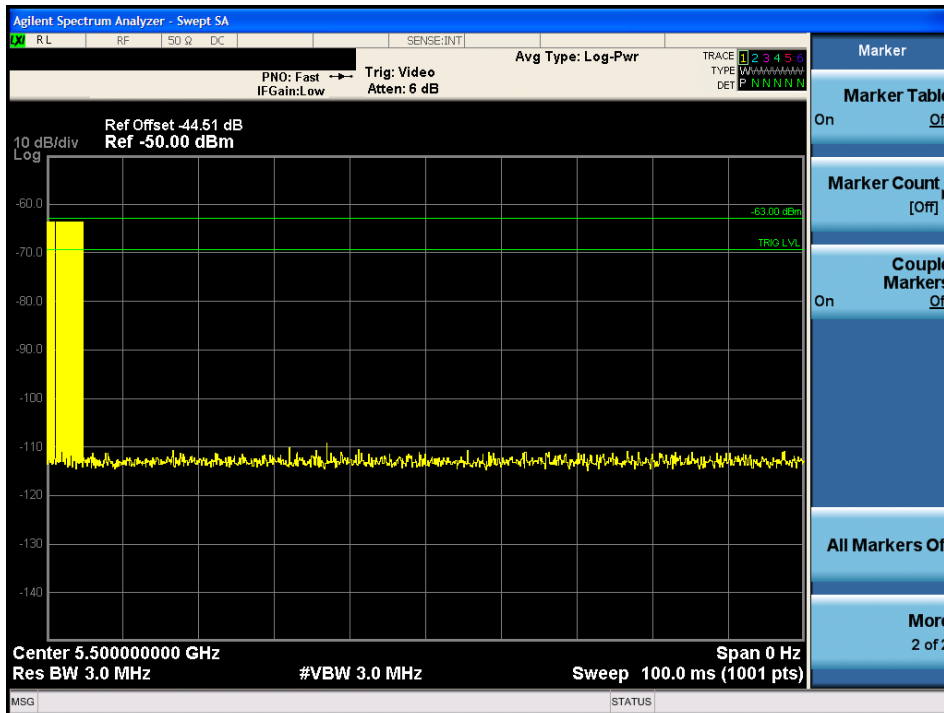
Following are the calibration plots for each of the required radar waveforms.

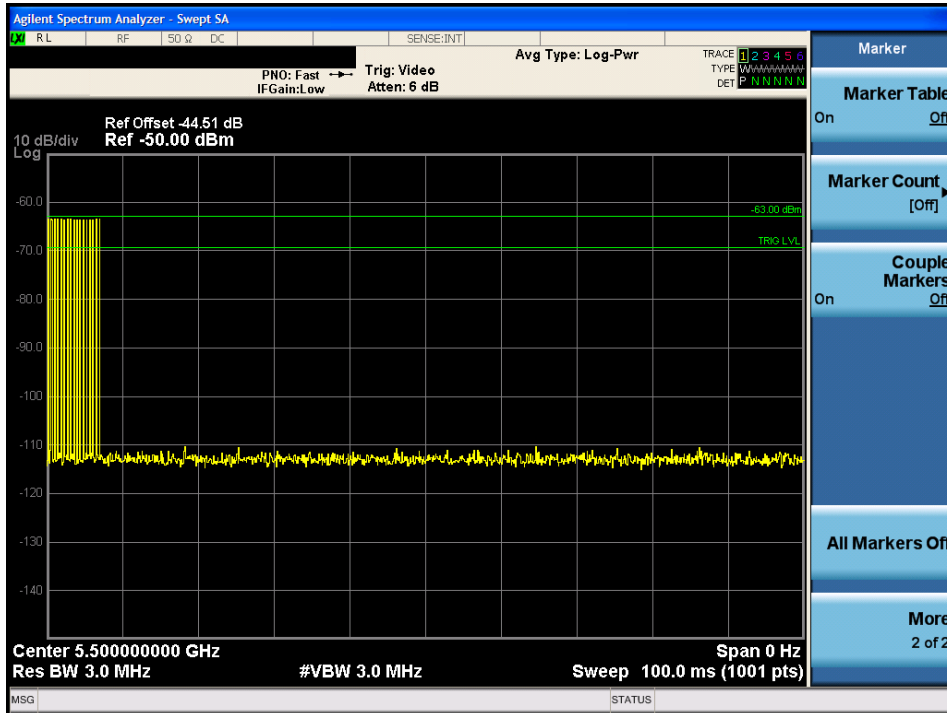
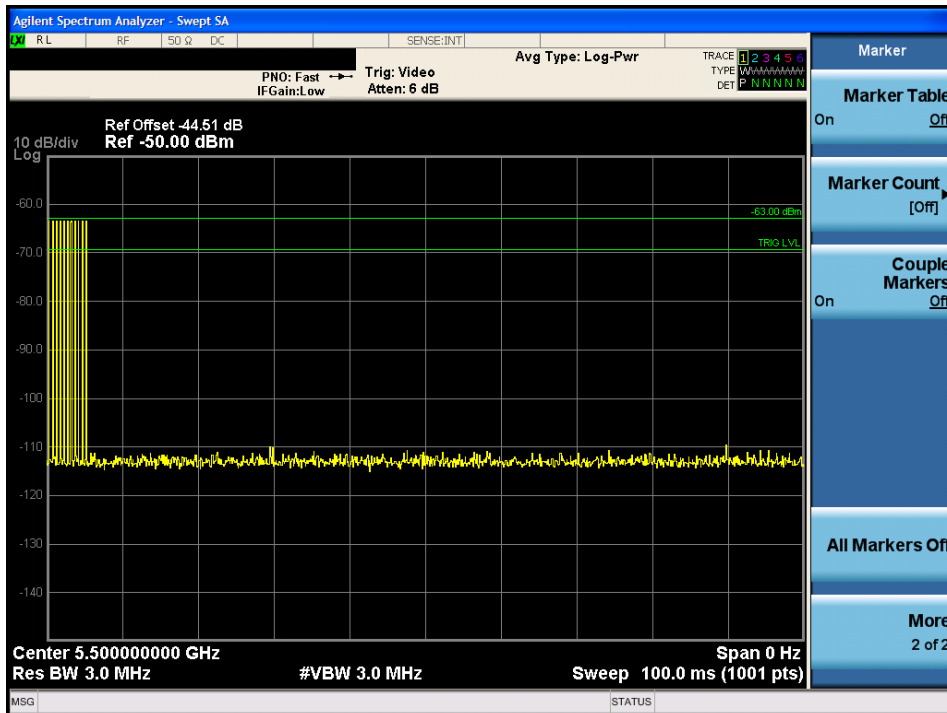


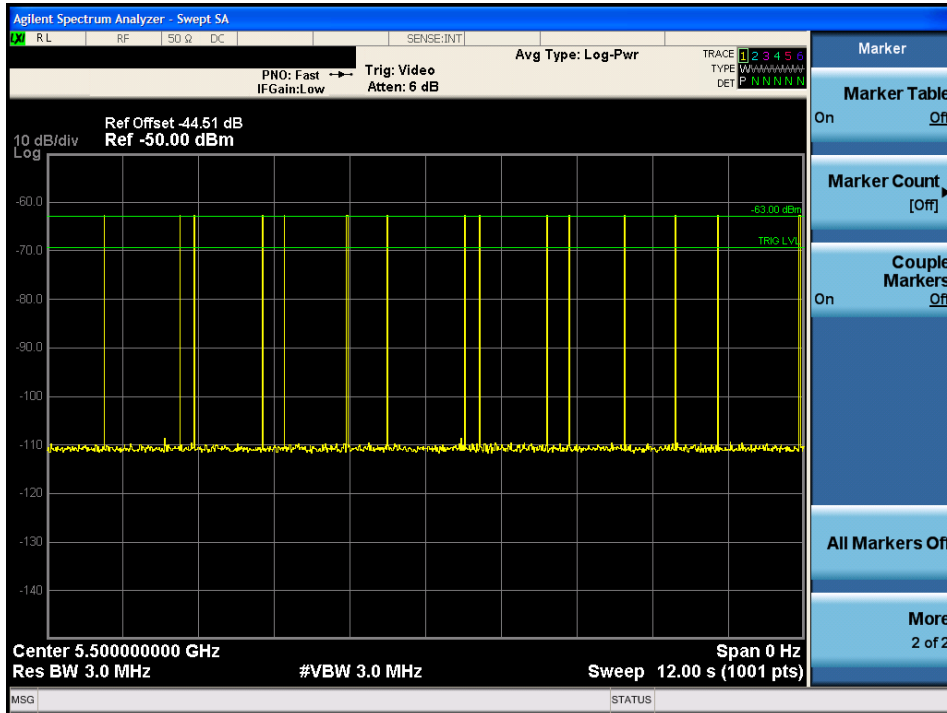
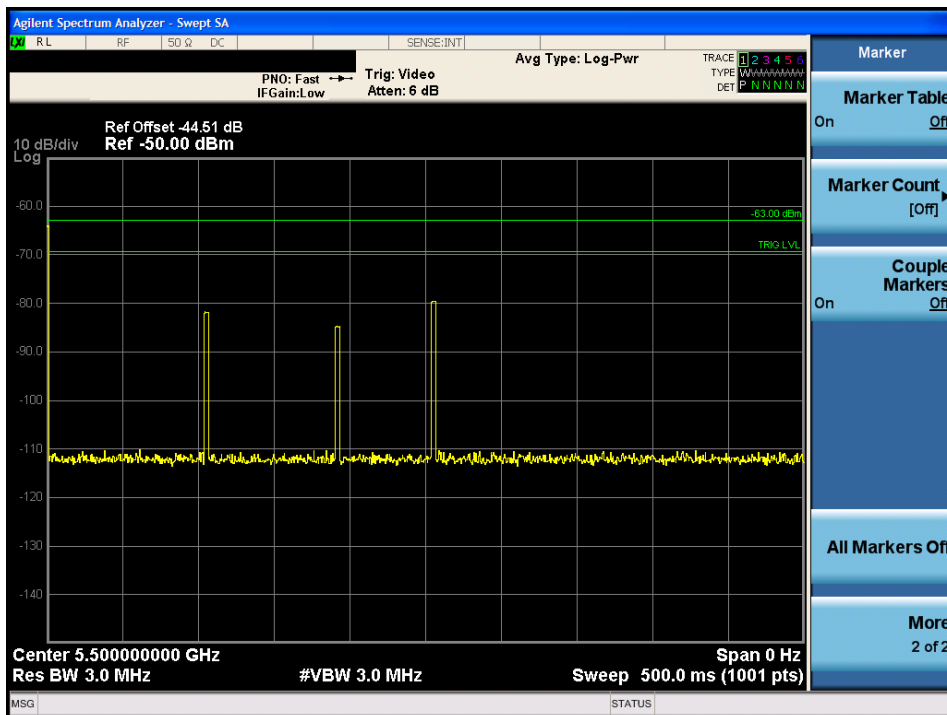
USA Bin 0 Radar Calibration



USA Bin 1A Radar Calibration

**USA Bin 1B Radar Calibration****USA Bin 2 Radar Calibration**

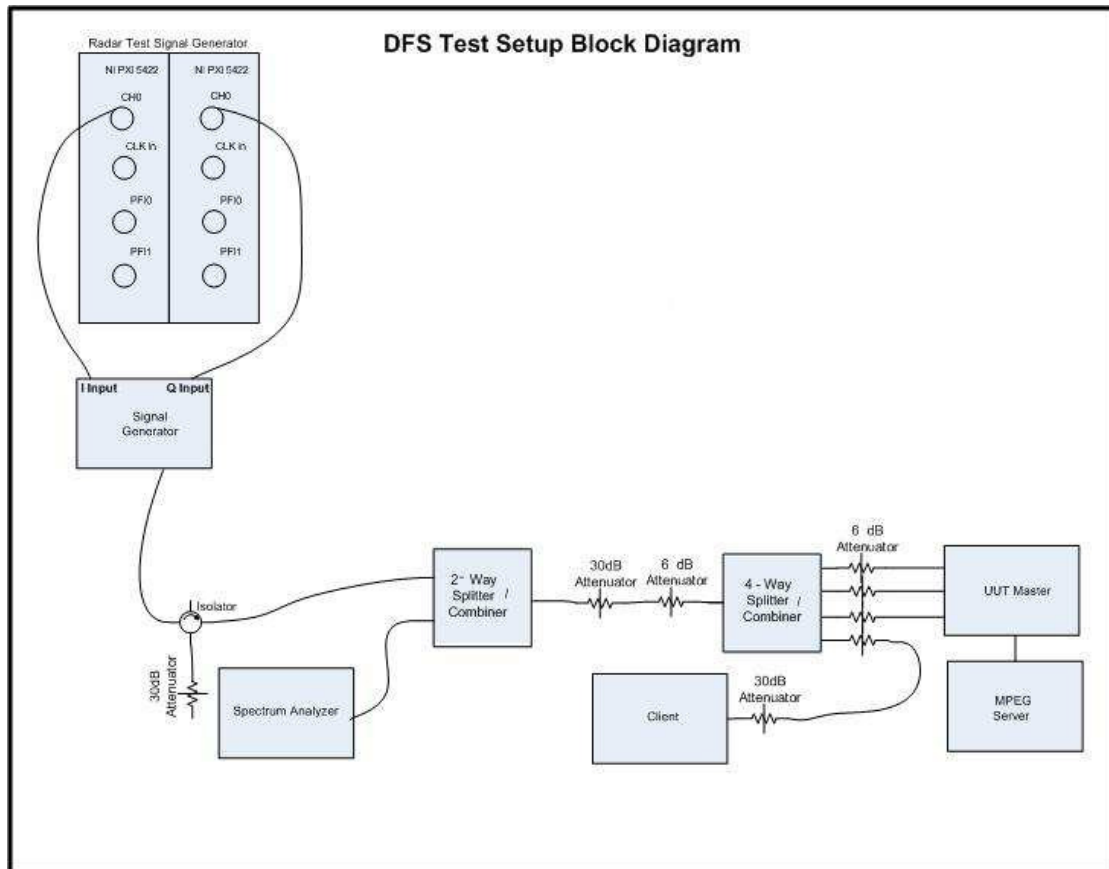
**USA Bin 3 Radar Calibration****USA Bin 4 Radar Calibration**

**USA Bin 5 Radar Calibration****USA Frequency Hopping Radar Calibration****B.1 Test Procedure/Results**

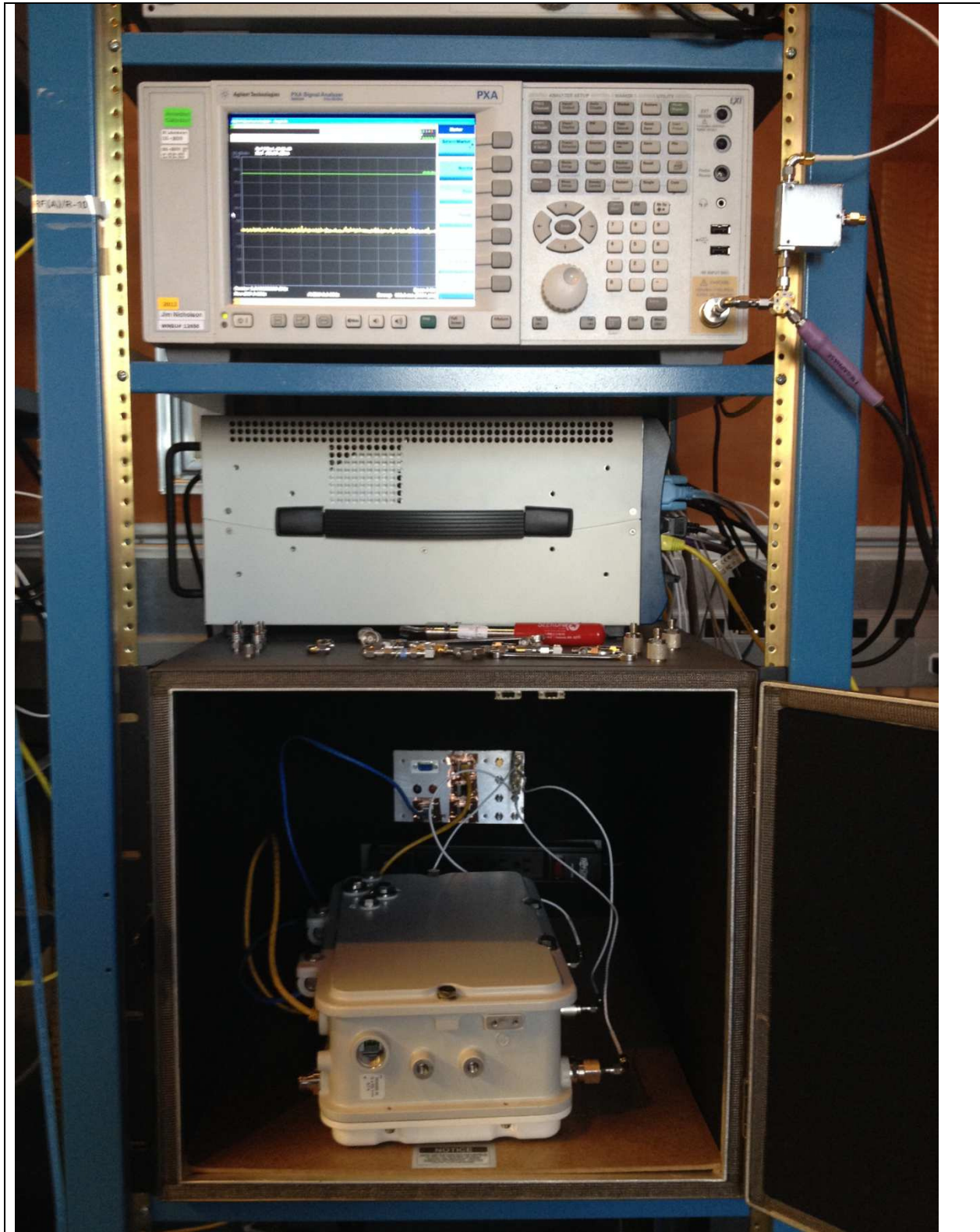
A spectrum analyzer is used as a monitor to verify that the UUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time) and does not transmit on a Channel during the

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 76. (See the 26dB BW section of the RF report for further measurement details).

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

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

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

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

The U-NII Detection Bandwidth is calculated as follows:

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

The U-NII Detection Bandwidth must be at least 100% of the UUT transmitter 99% power bandwidth (18 MHz for 20MHz signals, 36 MHz for 40 MHz signals, and 76 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 (14 MHz for 20MHz signals, 28 MHz for 40 MHz signals, and 60 MHz for 80 MHz signals); otherwise, the UUT does not comply with DFS requirements.

	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	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	0	0		

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	0	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	10		

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	0	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	10		

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	0	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	0	0		

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	0	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	0	0		

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	0	0	0	0	0	0	0	0	0	0	0	18	17
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	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 4 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)												
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
5490	1	1	1	1	1	1	1	1	1	1	100	20	17
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 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	0	1	0	0	0	0	0	0	0	0	10	18	17
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	0	1	90		
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	0	0	0	0	1	1	1	0	0	0	30		

USA Frequency Hopping Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 0 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	1	0	0	0	0	0	0	0	0	0	10		

USA Bin 1A Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 1B Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	0	90		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 2 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	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	0	1	1	1	1	90		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 3 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	38	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Bin 4 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	1	1	1	1	1	1	1	1	1	1	100	40	36
5491	1	1	1	1	1	1	1	1	1	1	100		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	1	1	1	100		
5515	1	1	1	1	1	1	1	1	1	1	100		
5516	1	1	1	1	1	1	1	1	1	1	100		
5517	1	1	1	1	1	1	1	1	1	1	100		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	1	1	100		
5520	1	1	1	1	1	1	1	1	1	1	100		
5521	1	1	1	1	1	1	1	1	1	1	100		
5522	1	1	1	1	1	1	1	1	1	1	100		
5523	1	1	1	1	1	1	1	1	1	1	100		
5524	1	1	1	1	1	1	1	1	1	1	100		
5525	1	1	1	1	1	1	1	1	1	1	100		
5526	1	1	1	1	1	1	1	1	1	1	100		
5527	1	1	1	1	1	1	1	1	1	1	100		
5528	1	1	1	1	1	1	1	1	1	1	100		
5529	1	1	1	1	1	1	1	1	1	1	100		
5530	1	1	1	1	1	1	1	1	1	1	100		

USA Bin 5 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)	Limit (MHz)
	1	2	3	4	5	6	7	8	9	10			
5490	0	0	0	0	0	0	0	0	0	0	0	36	36
5491	0	0	0	0	0	0	0	0	0	0	0		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100		
5511	1	1	1	1	1	1	1	1	1	1	100		
5512	1	1	1	1	1	1	1	1	1	1	100		
5513	1	1	1	1	1	1	1	1	1	1	100		
5514	1	1	1	1	1	1	1	0	1	1	90		
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	0	1	1	1	1	1	1	1	1	90		
5518	1	1	1	1	1	1	1	1	1	1	100		
5519	1	1	1	1	1	1	1	1	0	1	90		
5520	1	0	1	1	1	1	1	1	1	1	90		
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	0	0	0	0	0	0	0	0	0	0	0		
5530	0	0	0	0	0	0	0	0	0	0	0		

USA Frequency Hopping Radar

B.3 Initial Channel Availability Check Time

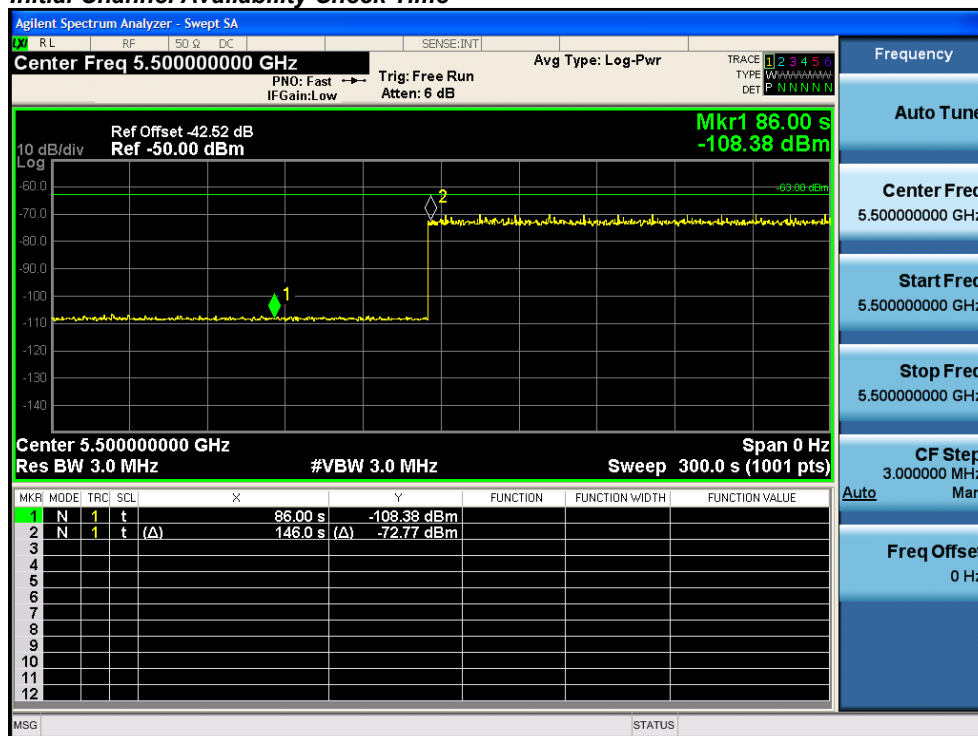
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

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 2.

Initial Channel Availability Check Time



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

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

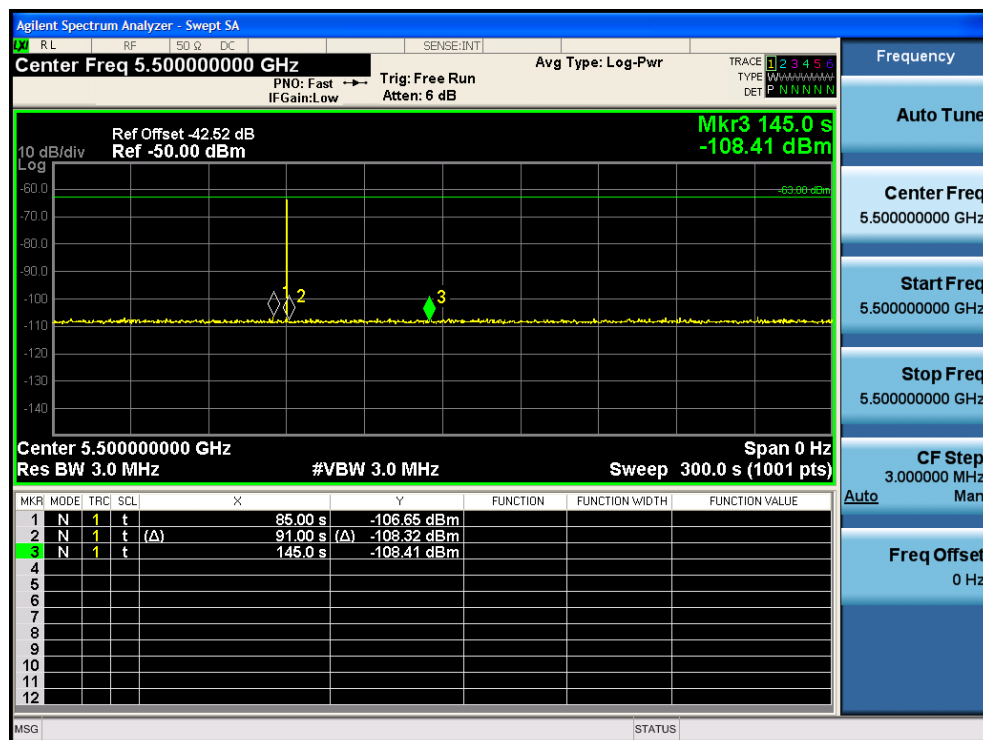
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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

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

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

Radar Burst at the Beginning of the Channel Availability Check Time



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

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

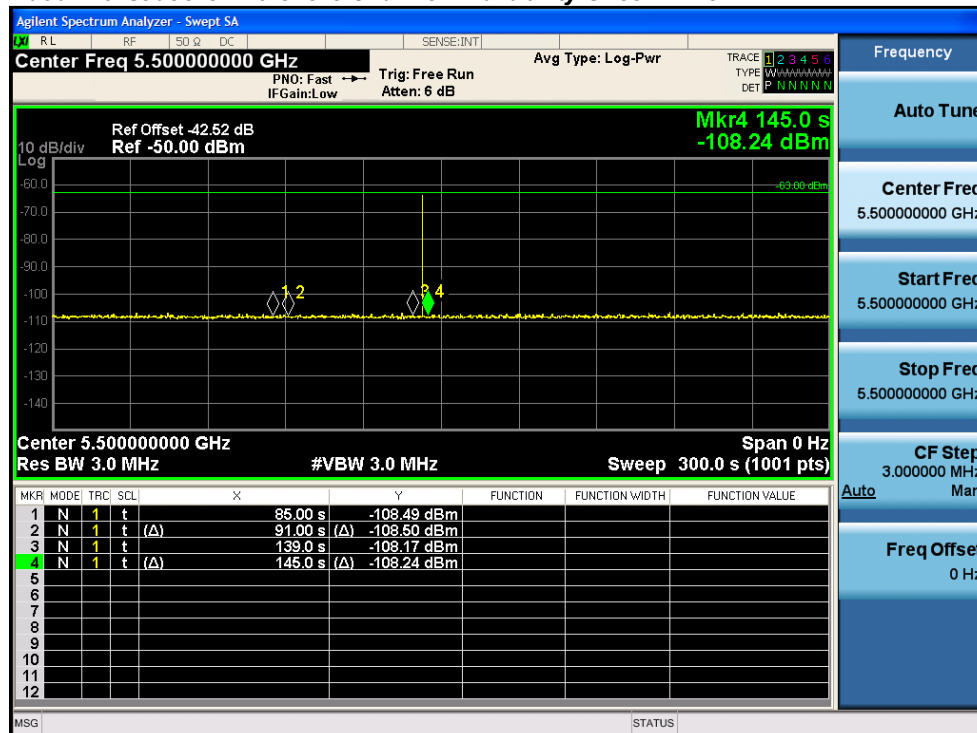
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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

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

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

Radar Burst at the End of the Channel Availability Check Time



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

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

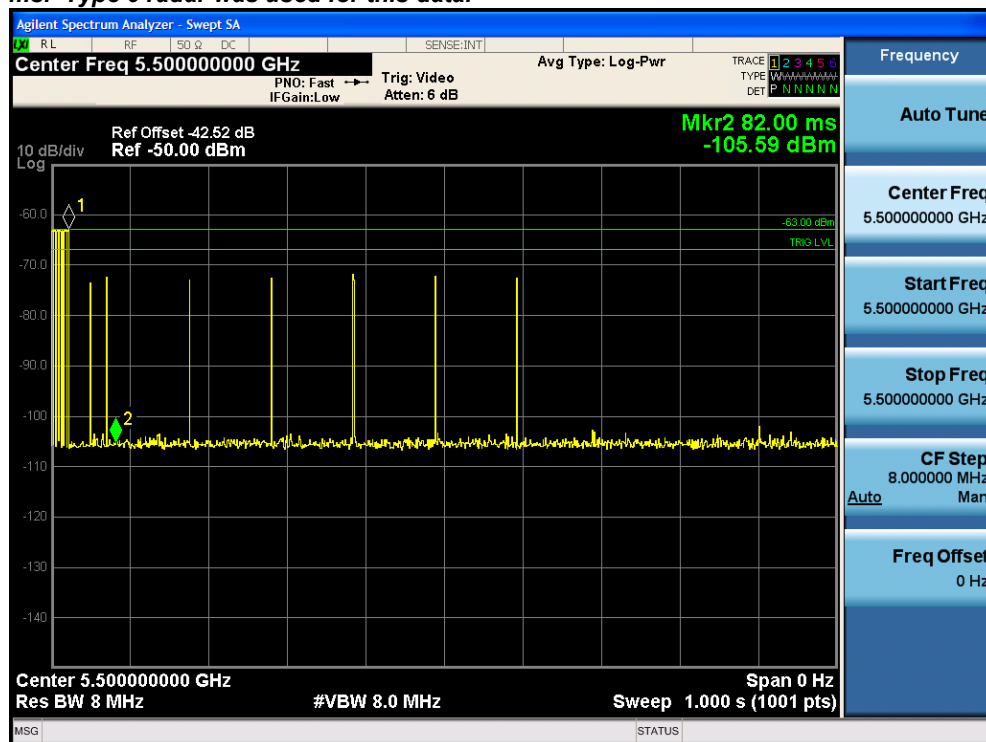
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

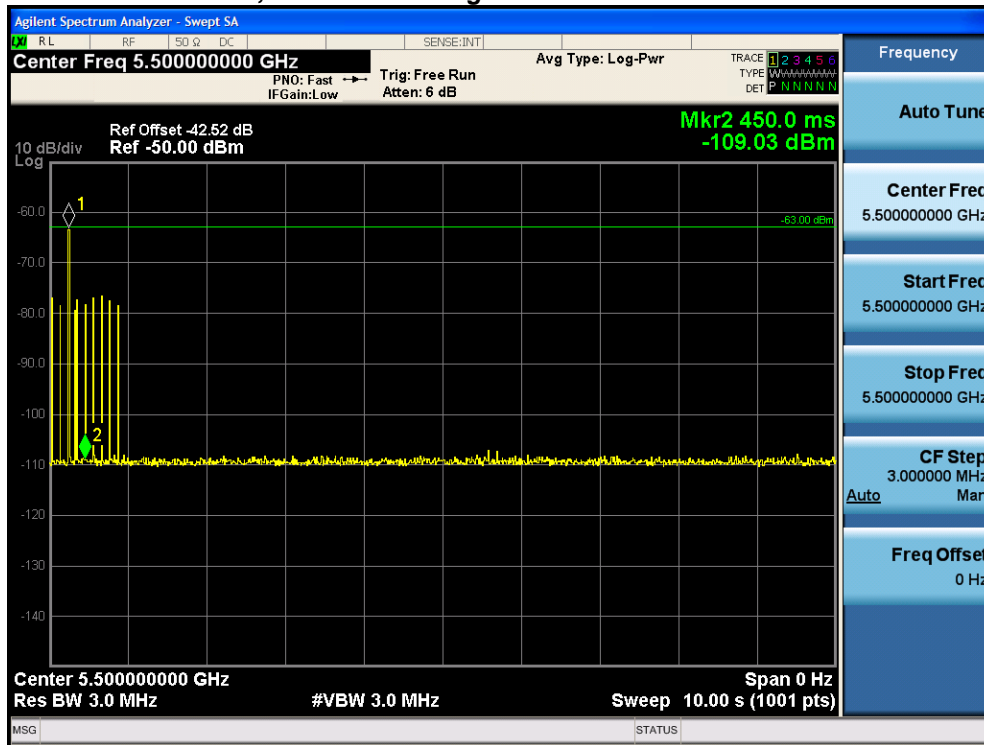
A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

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

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

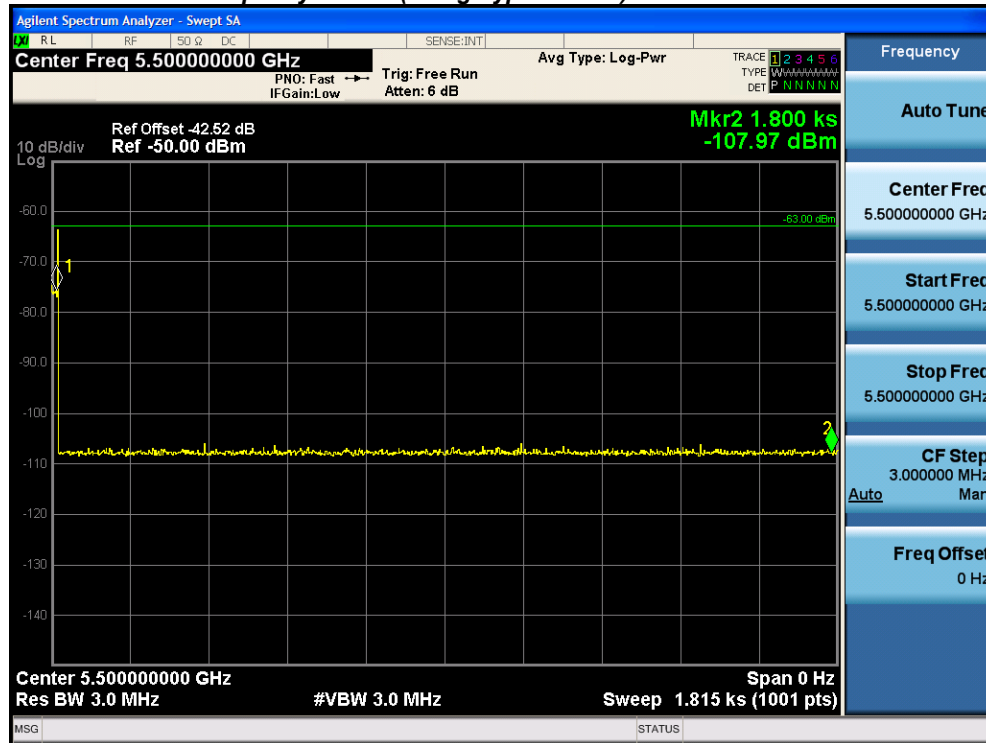
The following plot demonstrates a channel close time of 50ms, with an aggregate of no more than 60 ms. Type 0 radar was used for this data.



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

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

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





B.7 Statistical Performance Check

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

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

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

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

The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in the *Radar Test Waveforms* section. The data represents the worst case detection for 20 MHz, 40 MHz, and 80 MHz signal bandwidths.

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	58	1	918	1		
3	76	1	698	1		
4	61	1	878	1		
5	81	1	658	1		
6	74	1	718	1		
7	74	1	718	1		
8	78	1	678	1		
9	74	1	718	1		
10	70	1	758	1		
11	70	1	758	1		
12	89	1	598	1		
13	83	1	638	1		
14	86	1	618	1		
15	86	1	618	1		
16	35	1	1524	1		
17	54	1	994	1		
18	59	1	903	1		
19	91	1	582	1		
20	69	1	776	1		
21	41	1	1310	1		
22	19	1	2929	1		
23	39	1	1360	1		
24	90	1	592	1		
25	19	1	2929	1		
26	34	1	1585	1		
27	26	1	2072	1		
28	28	1	1886	1		
29	34	1	1557	1		
30	31	1	1735	1		

USA Bin 2 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	28	4.6	205	1	86.7%	60.0%
2	23	1.7	225	1		
3	24	2.5	151	1		
4	23	3	187	1		
5	27	5	172	1		
6	25	3.6	222	1		
7	25	1.2	221	1		
8	25	3.4	193	1		
9	27	3	175	1		
10	24	4.6	209	1		
11	28	2.5	184	1		
12	29	3.4	218	1		
13	29	3.5	210	1		
14	24	3.4	206	1		
15	29	4.8	227	1		
16	29	4.8	158	1		
17	26	1.9	227	0		
18	23	4.5	169	1		
19	26	3.4	221	1		
20	28	5	151	1		
21	26	4.3	174	0		
22	23	4.7	156	1		
23	24	4.9	183	1		
24	24	5	208	0		
25	26	4.9	196	1		
26	23	4.6	195	1		
27	23	2.6	158	0		
28	29	4.8	214	1		
29	25	1.4	182	1		
30	29	4.4	150	1		

USA Bin 3 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	18	8.7	358	1	76.7%	60.0%
2	16	8.3	213	1		
3	16	7.1	361	0		
4	16	8.9	283	1		
5	17	9.4	397	1		
6	18	9.6	424	1		
7	16	6.4	339	0		
8	16	8.6	339	1		
9	17	7.2	490	1		
10	16	9.2	319	0		
11	16	7.6	232	1		
12	18	6.4	497	1		
13	17	8.9	360	0		
14	17	9.5	314	1		
15	17	9.8	318	1		
16	18	8.6	298	0		
17	18	6.1	323	1		
18	17	6.7	495	1		
19	17	7.4	201	1		
20	18	7.1	264	1		
21	18	9.7	319	1		
22	18	7.5	401	0		
23	18	8.1	474	1		
24	16	6.4	222	1		
25	18	9.2	428	1		
26	17	10	263	1		
27	17	6.3	399	1		
28	18	6.7	494	1		
29	17	6.8	342	1		
30	16	9.4	370	0		

USA Bin 4 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	13	16.3	320	0	80.0%	60.0%
2	15	11.4	353	1		
3	14	11.4	405	1		
4	13	19.6	347	1		
5	13	15.4	342	1		
6	16	12	284	1		
7	15	14.4	330	1		
8	12	12.2	356	0		
9	15	15.9	276	0		
10	16	12.4	311	1		
11	16	19.7	301	1		
12	16	16.9	234	1		
13	15	12.4	376	1		
14	16	14.1	259	1		
15	13	18.4	369	0		
16	14	14.1	342	1		
17	15	12.2	358	1		
18	12	12.1	396	1		
19	13	14.1	418	1		
20	16	14.7	216	1		
21	13	13.9	232	0		
22	16	15.5	465	1		
23	16	17.2	219	1		
24	15	14.8	469	1		
25	16	14.7	461	1		
26	16	12.6	377	1		
27	16	18	217	1		
28	14	12.7	327	1		
29	16	11.1	404	1		
30	14	12.9	283	0		

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

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (100.0\% + 86.7\% + 76.7\% + 80.0\%) / 4 = 85.9\% (>80\%)$$

*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		Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
Burst #	Pulses						
1	1	5495.9	11	70			0.64059
2	1	5495.9	11	65			0.715615
3	1	5495.9	11	95			1.646117
4	2	5495.9	11	90	1236		2.043413
5	1	5495.9	11	80			2.811943
6	3	5495.9	11	75	1097	1796	3.484753
7	2	5495.9	11	65	1025		4.606267
8	2	5495.9	11	70	1765		4.682658
9	3	5495.9	11	55	1700	1412	5.499845
10	1	5495.9	11	80			6.233424
11	2	5495.9	11	90	1182		6.713904
12	3	5495.9	11	100	1639	1509	7.714643
13	2	5495.9	11	95	1028		8.581418
14	2	5495.9	11	85	1515		9.005909
15	2	5495.9	11	65	1762		9.7064
16	1	5495.9	11	80			10.594053
17	1	5495.9	11	100			11.25247
18	3	5495.9	11	55	1068	1341	11.39316
USA Bin 5 Trial #2		Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
Burst #	Pulses						
1	3	5495.9	11	85	1868	1732	0.591823
2	1	5495.9	11	60			2.502497
3	3	5495.9	11	100	1062	1647	3.359382
4	1	5495.9	11	85			4.669316
5	3	5495.9	11	80	1467	1310	6.625522
6	2	5495.9	11	100	1889		7.985513
7	1	5495.9	11	65			8.462224
8	3	5495.9	11	70	1693	1554	10.186719
9	1	5495.9	11	75			11.584273
USA Bin 5 Trial #3		Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
Burst #	Pulses						
1	3	5493.5	5	70	1365	1573	1.016493
2	1	5493.5	5	70			1.511777
3	2	5493.5	5	70	1904		3.005746
4	1	5493.5	5	50			4.014872
5	3	5493.5	5	75	1347	1354	5.202142
6	1	5493.5	5	50			6.399398
7	3	5493.5	5	65	1551	1791	6.976258
8	2	5493.5	5	55	1519		7.898635
9	3	5493.5	5	80	1894	1831	8.769716
10	1	5493.5	5	75			9.896375
11	2	5493.5	5	95	1021		11.25378
USA Bin 5 Trial #4		Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
Burst #	Pulses						
1	2	5493.5	5	60	1247		1.222603
2	1	5493.5	5	100			2.415856
3	3	5493.5	5	50	1364	1332	3.97758
4	2	5493.5	5	60	1971		5.280029
5	2	5493.5	5	95	1026		6.622239
6	2	5493.5	5	55	1689		7.212169
7	3	5493.5	5	50	1169	1040	8.811466
8	1	5493.5	5	85			9.869881
9	2	5493.5	5	100	1041		11.650054
USA Bin 5 Trial #5		Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
Burst #	Pulses						
1	2	5494.3	7	75	1912		0.450875
2	3	5494.3	7	85	1222	1228	1.259125
3	2	5494.3	7	60	1846		1.526102
4	3	5494.3	7	80	1210	1940	2.005281
5	1	5494.3	7	75			2.648981
6	1	5494.3	7	60			3.759409
7	3	5494.3	7	65	1724	1176	3.824253
8	3	5494.3	7	75	1794	1252	4.667801
9	2	5494.3	7	70	1304		5.4035
10	2	5494.3	7	60	1381		5.691306
11	2	5494.3	7	100	1404		6.317364
12	3	5494.3	7	70	1427	1885	7.018302
13	2	5494.3	7	80	1726		8.188692
14	2	5494.3	7	65	1778		8.687008
15	2	5494.3	7	95	1921		9.389537
16	3	5494.3	7	65	1507	1184	10.096908



17	2	5494.3	7	85	1268		10.281986
18	2	5494.3	7	90	1131		11.221709
19	1	5494.3	7	90			11.587632
USA Bin 5 Trial #6							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5495.5	10	65			0.655954
2	2	5495.5	10	65	1144		1.267204
3	3	5495.5	10	95	1217	1252	1.821816
4	3	5495.5	10	100	1415	1151	2.234269
5	3	5495.5	10	85	1700	1940	3.157311
6	3	5495.5	10	100	1055	1502	3.681751
7	2	5495.5	10	75	1092		4.57392
8	2	5495.5	10	85	1466		5.058224
9	2	5495.5	10	70	1205		5.71532
10	1	5495.5	10	80			6.52604
11	2	5495.5	10	100	1844		6.93885
12	3	5495.5	10	55	1700	1569	7.789924
13	3	5495.5	10	85	1431	1426	8.050788
14	3	5495.5	10	70	1224	1017	8.980141
15	1	5495.5	10	55			9.854732
16	1	5495.5	10	80			10.503182
17	3	5495.5	10	75	1447	1728	11.177837
18	2	5495.5	10	90	1379		11.687386
USA Bin 5 Trial #7							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5495.9	11	55	1694	1545	0.793881
2	1	5495.9	11	65			1.35034
3	2	5495.9	11	55	1025		3.44359
4	1	5495.9	11	65			4.212336
5	3	5495.9	11	75	1874	1196	5.671939
6	3	5495.9	11	60	1027	1759	7.033283
7	1	5495.9	11	85			7.347967
8	1	5495.9	11	60			9.209827
9	1	5495.9	11	75			10.703316
10	2	5495.9	11	95	1949		11.769655
USA Bin 5 Trial #8							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5494.3	7	65	1474		0.269874
2	3	5494.3	7	85	1559	1005	1.923307
3	1	5494.3	7	55			2.975637
4	3	5494.3	7	80	1424	1111	3.447042
5	3	5494.3	7	85	1965	1537	5.308719
6	3	5494.3	7	65	1347	1143	5.947542
7	1	5494.3	7	100			7.034496
8	3	5494.3	7	95	1046	1664	8.62439
9	2	5494.3	7	50	1860		9.509969
10	3	5494.3	7	100	1197	1498	10.021786
11	1	5494.3	7	65			11.652989
USA Bin 5 Trial #9							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5495.9	11	65	1584		0.114492
2	2	5495.9	11	80	1144		1.811233
3	1	5495.9	11	60			2.831349
4	3	5495.9	11	80	1997	1017	3.802547
5	3	5495.9	11	60	1573	1404	5.202526
6	1	5495.9	11	80			5.935443
7	1	5495.9	11	75			7.536308
8	1	5495.9	11	95			7.806977
9	2	5495.9	11	65	1683		9.209214
10	2	5495.9	11	70	1542		10.19682
11	3	5495.9	11	80	1891	1992	11.006366
USA Bin 5 Trial #10							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5500	10	95	1818		0.845591
2	3	5500	10	100	1570	1975	2.100082
3	2	5500	10	80	1927		3.034433
4	1	5500	10	95			3.480953
5	3	5500	10	75	1081	1026	5.335039
6	1	5500	10	90			6.237435
7	3	5500	10	90	1200	1764	6.70789
8	3	5500	10	75	1775	1763	7.906686
9	1	5500	10	65			9.69255
10	2	5500	10	55	1402		10.75632
11	1	5500	10	60			11.000244



USA Bin 5 Trial #11							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5500	6	50	1870	1919	1.000104
2	3	5500	6	90	1360	1127	1.969587
3	3	5500	6	85	1950	1464	2.961098
4	3	5500	6	50	1169	1063	4.183267
5	3	5500	6	80	1776	1308	5.155297
6	2	5500	6	70	1240		5.623675
7	1	5500	6	50			6.60819
8	3	5500	6	70	1730	1556	8.483853
9	2	5500	6	75	1784		9.463351
10	3	5500	6	95	1195	1677	10.277614
11	1	5500	6	80			11.004516
USA Bin 5 Trial #12							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5500	5	60	1855		0.115046
2	2	5500	5	65	1107		0.943815
3	3	5500	5	100	1474	1892	1.552159
4	3	5500	5	70	1425	1511	2.256387
5	3	5500	5	95	1237	1547	2.439621
6	3	5500	5	95	1578	1020	3.503053
7	1	5500	5	100			4.143372
8	2	5500	5	80	1554		4.37822
9	2	5500	5	60	1051		4.843719
10	1	5500	5	55			5.61246
11	1	5500	5	100			6.573825
12	3	5500	5	60	1272	1023	6.741134
13	2	5500	5	50	1231		7.679851
14	1	5500	5	55			8.01664
15	3	5500	5	50	1596	1159	8.700676
16	1	5500	5	75			9.347212
17	1	5500	5	100			9.690951
18	2	5500	5	55	1939		10.284818
19	1	5500	5	55			11.282543
20	3	5500	5	50	1159	1046	11.958831
USA Bin 5 Trial #13							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5500	11	70			0.347843
2	2	5500	11	80	1053		0.803561
3	2	5500	11	85	1943		2.176155
4	1	5500	11	65			2.865848
5	2	5500	11	65	1825		3.2404
6	2	5500	11	90	1082		4.111831
7	1	5500	11	80			4.603342
8	3	5500	11	70	1084	1181	5.750514
9	1	5500	11	65			6.730436
10	2	5500	11	70	1659		7.174335
11	1	5500	11	70			7.996326
12	2	5500	11	80	1977		8.519008
13	1	5500	11	55			9.026887
14	2	5500	11	95	1009		9.818483
15	2	5500	11	95	1430		11.199244
16	1	5500	11	60			11.410193
USA Bin 5 Trial #14							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5500	19	60			0.185718
2	3	5500	19	90	1941	1633	0.811405
3	2	5500	19	55	1555		1.467404
4	2	5500	19	50	1061		2.405684
5	1	5500	19	80			3.076729
6	3	5500	19	70	1893	1979	3.782864
7	2	5500	19	65	1238		4.390977
8	2	5500	19	60	1538		5.636391
9	2	5500	19	80	1749		6.129416
10	2	5500	19	80	1486		6.544076
11	1	5500	19	80			7.241047
12	2	5500	19	90	1335		7.88845
13	2	5500	19	95	1883		8.503289
14	3	5500	19	65	1585	1621	9.66245
15	3	5500	19	50	1364	1236	9.994012
16	3	5500	19	80	1381	1755	11.098452
17	3	5500	19	75	1257	1421	11.719906
USA Bin 5 Trial #15							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)



1	2	5500	11	60	1341		0.826609
2	2	5500	11	60	1912		1.084575
3	2	5500	11	80	1619		2.079935
4	3	5500	11	85	1923	1493	3.854366
5	2	5500	11	100	1474		4.395966
6	1	5500	11	75			5.516464
7	3	5500	11	95	1443	1726	6.06583
8	1	5500	11	90			7.334785
9	1	5500	11	70			8.165877
10	2	5500	11	80	1315		9.307734
11	2	5500	11	75	1882		10.676517
12	2	5500	11	60	1347		11.874678
USA Bin 5 Trial #16							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5500	7	55	1079	1453	0.350365
2	1	5500	7	85			2.147685
3	2	5500	7	85	1891		3.307154
4	3	5500	7	70	1361	1039	4.438953
5	1	5500	7	70			5.012425
6	1	5500	7	60			6.553746
7	1	5500	7	85			8.332617
8	3	5500	7	60	2000	1460	9.371969
9	3	5500	7	60	1121	1834	10.702319
10	1	5500	7	55			11.349007
USA Bin 5 Trial #17							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5500	6	90	1261		0.118338
2	3	5500	6	75	1991	1727	1.923418
3	1	5500	6	55			2.892057
4	3	5500	6	75	1386	1544	3.960359
5	2	5500	6	75	1202		5.141937
6	2	5500	6	65	1281		5.977469
7	2	5500	6	85	1619		7.379958
8	1	5500	6	80			7.726141
9	2	5500	6	75	1469		8.929685
10	3	5500	6	60	1803	1563	10.084761
11	3	5500	6	95	1822	1425	11.9943
USA Bin 5 Trial #18							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5500	10	75			0.268561
2	1	5500	10	75			0.863251
3	3	5500	10	70	1631	1533	1.696762
4	3	5500	10	55	1193	1493	2.466726
5	2	5500	10	80	1449		3.877724
6	3	5500	10	60	1136	1386	4.729162
7	1	5500	10	80			5.190808
8	2	5500	10	60	1957		6.084537
9	3	5500	10	100	1551	1625	6.553296
10	2	5500	10	60	1095		7.806974
11	3	5500	10	80	1733	1889	8.243422
12	3	5500	10	65	1900	1162	9.1488
13	3	5500	10	90	1973	1071	9.742414
14	3	5500	10	70	1349	1636	10.803079
15	3	5500	10	80	1888	1646	11.58542
USA Bin 5 Trial #19							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5500	16	90	1583	1452	0.486402
2	2	5500	16	90	1134		1.464165
3	3	5500	16	80	1851	1451	1.800087
4	2	5500	16	75	1387		2.614037
5	3	5500	16	60	1863	1722	3.705547
6	3	5500	16	85	1267	1258	4.487654
7	2	5500	16	60	1315		5.553296
8	1	5500	16	55			6.078504
9	3	5500	16	70	1447	1051	7.442732
10	1	5500	16	85			8.314306
11	1	5500	16	95			9.354009
12	3	5500	16	60	1249	1641	9.854446
13	3	5500	16	90	1033	1972	10.4892
14	2	5500	16	55	1817		11.649378
USA Bin 5 Trial #20							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5502.1	16	75	1199	1376	0.035497
2	1	5502.1	16	80			1.783768



3	1	5502.1	16	100			3.145083
4	2	5502.1	16	60	1729		4.552555
5	3	5502.1	16	70	1308	1578	4.984727
6	3	5502.1	16	70	1865	1359	6.724279
7	1	5502.1	16	55			7.606915
8	1	5502.1	16	100			8.51864
9	2	5502.1	16	85	1929		10.790957
10	2	5502.1	16	85	1677		10.938249
USA Bin 5 Trial #21							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5502.1	16	100	1086		0.090347
2	2	5502.1	16	80	1401		1.391215
3	3	5502.1	16	55	1761	1707	3.17473
4	1	5502.1	16	80			4.92652
5	1	5502.1	16	80			6.622018
6	2	5502.1	16	50	1784		7.884996
7	1	5502.1	16	55			8.802491
8	3	5502.1	16	90	1999	1819	10.037972
9	2	5502.1	16	70	1608		10.777366
USA Bin 5 Trial #22							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5500.9	19	55	1904	1277	0.257625
2	2	5500.9	19	70	1720		0.976904
3	2	5500.9	19	50	1885		1.781604
4	1	5500.9	19	55			2.301489
5	3	5500.9	19	85	1706	1174	3.611731
6	1	5500.9	19	70			3.864154
7	1	5500.9	19	80			5.062092
8	3	5500.9	19	50	1160	1664	5.733099
9	3	5500.9	19	90	1733	1725	6.300153
10	3	5500.9	19	70	1347	1775	6.755852
11	2	5500.9	19	70	1284		7.773024
12	1	5500.9	19	95			8.958629
13	1	5500.9	19	70			9.739232
14	1	5500.9	19	100			10.265736
15	3	5500.9	19	100	1927	1091	10.913943
16	3	5500.9	19	80	1173	1763	11.624479
USA Bin 5 Trial #23							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5500.9	19	100	1856		0.508727
2	1	5500.9	19	95			1.952192
3	3	5500.9	19	70	1236	1657	3.308223
4	1	5500.9	19	65			4.125782
5	3	5500.9	19	100	1459	1854	5.590685
6	2	5500.9	19	75	1579		6.167969
7	2	5500.9	19	50	1616		8.215337
8	1	5500.9	19	65			9.087986
9	3	5500.9	19	95	1658	1521	9.793996
10	3	5500.9	19	60	1423	1945	11.982178
USA Bin 5 Trial #24							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5504.9	9	55	1064		0.356794
2	1	5504.9	9	75			1.251508
3	3	5504.9	9	55	1143	1981	1.949767
4	1	5504.9	9	50			2.508606
5	3	5504.9	9	55	1270	1956	2.963627
6	3	5504.9	9	90	1266	1418	3.473925
7	3	5504.9	9	65	1123	1744	4.237111
8	3	5504.9	9	60	1503	1417	5.208195
9	1	5504.9	9	85			5.528214
10	3	5504.9	9	95	1252	1103	6.516455
11	2	5504.9	9	95	1089		7.138735
12	1	5504.9	9	90			7.90216
13	1	5504.9	9	75			8.357008
14	3	5504.9	9	95	1672	1729	9.261305
15	3	5504.9	9	90	1754	1739	9.988264
16	2	5504.9	9	70	1988		10.482441
17	2	5504.9	9	95	1336		11.315404
18	2	5504.9	9	75	1688		11.857742
USA Bin 5 Trial #25							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5500.5	20	70	1158		1.007059
2	3	5500.5	20	60	1806	1247	2.126455
3	1	5500.5	20	55			2.302901



4	2	5500.5	20	85	1519		3.397398
5	3	5500.5	20	65	1748	1849	4.802451
6	1	5500.5	20	50			6.037512
7	2	5500.5	20	70	1293		7.211161
8	2	5500.5	20	65	1712		8.008462
9	3	5500.5	20	100	1739	1398	8.951096
10	1	5500.5	20	65			10.279272
11	2	5500.5	20	80	1968		11.437077
USA Bin 5 Trial #26							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5502.9	14	100	1655	1930	0.124308
2	1	5502.9	14	100			0.730251
3	3	5502.9	14	80	1748	1023	1.603806
4	3	5502.9	14	75	1238	1140	2.098317
5	2	5502.9	14	90	1903		2.738865
6	2	5502.9	14	95	1742		3.293552
7	3	5502.9	14	60	1783	1043	3.921859
8	2	5502.9	14	90	1727		4.232929
9	3	5502.9	14	90	1786	1939	5.096067
10	3	5502.9	14	75	1468	1944	5.572474
11	1	5502.9	14	85			6.285748
12	3	5502.9	14	100	1518	1885	7.105456
13	1	5502.9	14	95			7.712634
14	3	5502.9	14	95	1196	1372	8.317869
15	3	5502.9	14	50	1451	1389	8.469165
16	3	5502.9	14	90	1372	1873	9.336515
17	3	5502.9	14	55	1020	1022	9.832266
18	3	5502.9	14	80	1461	1208	10.461259
19	2	5502.9	14	80	1604		11.070112
20	1	5502.9	14	55			11.857087
USA Bin 5 Trial #27							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5506.1	6	65			0.187856
2	2	5506.1	6	50	1687		1.203237
3	1	5506.1	6	85			2.097706
4	1	5506.1	6	55			2.651877
5	3	5506.1	6	75	1493	1767	3.140266
6	3	5506.1	6	75	1486	1402	3.792771
7	2	5506.1	6	85	1098		4.37615
8	2	5506.1	6	50	1614		5.060027
9	3	5506.1	6	55	1087	1430	6.32194
10	3	5506.1	6	70	1916	1267	6.632924
11	2	5506.1	6	90	1667		7.508706
12	1	5506.1	6	60			8.040911
13	2	5506.1	6	60	1316		8.488596
14	1	5506.1	6	75			9.873082
15	2	5506.1	6	60	1259		10.254119
16	1	5506.1	6	95			11.121082
17	3	5506.1	6	80	1045	1125	11.455384
USA Bin 5 Trial #28							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5506.1	6	55	1016		0.184006
2	2	5506.1	6	50	1829		1.173212
3	2	5506.1	6	75	1785		1.30566
4	2	5506.1	6	70	1270		2.396898
5	1	5506.1	6	100			2.828259
6	2	5506.1	6	85	1890		3.593991
7	2	5506.1	6	95	1050		4.07297
8	3	5506.1	6	80	1991	1654	4.715298
9	2	5506.1	6	75	1191		5.236457
10	2	5506.1	6	100	1995		5.94293
11	1	5506.1	6	65			6.510956
12	3	5506.1	6	50	1778	1963	6.809189
13	1	5506.1	6	50			7.749252
14	3	5506.1	6	65	1087	1915	8.325319
15	2	5506.1	6	95	1310		8.854587
16	2	5506.1	6	90	1650		9.365234
17	1	5506.1	6	75			9.858154
18	1	5506.1	6	50			10.263313
19	2	5506.1	6	80	1267		11.266007
20	3	5506.1	6	85	1669	1759	11.451347
USA Bin 5 Trial #29							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5502.1	16	60	1959		0.491211
2	1	5502.1	16	100			1.914445



3	2	5502.1	16	65	1599		3.532192
4	1	5502.1	16	60			4.581669
5	1	5502.1	16	60			5.137026
6	3	5502.1	16	90	1151	1526	6.135049
7	2	5502.1	16	95	1774		8.344417
8	2	5502.1	16	70	1430		9.099609
9	3	5502.1	16	65	1563	1114	10.342583
10	3	5502.1	16	60	1756	1190	11.432655
USA Bin 5 Trial #30							
Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5497.9	16	55	1973		0.277272
2	1	5497.9	16	90			1.259864
3	1	5497.9	16	65			1.861045
4	3	5497.9	16	100	1859	1485	2.871534
5	2	5497.9	16	85	1413		3.318326
6	1	5497.9	16	100			3.891151
7	2	5497.9	16	100	1420		4.716824
8	2	5497.9	16	55	1378		5.898074
9	2	5497.9	16	80	1590		6.68612
10	2	5497.9	16	50	1963		7.476052
11	2	5497.9	16	70	1076		7.68596
12	1	5497.9	16	70			8.25485
13	2	5497.9	16	85	1789		9.542401
14	1	5497.9	16	80			10.381636
15	1	5497.9	16	60			10.641469
16	1	5497.9	16	95			11.468486

*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	96.7%	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	0		
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)
14	5494	42
19	5497	57
29	5509	87
69	5503	207
94	5495	282

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
0	5500 0	
20	5492	60
46	5504	138
78	5495	234

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
4	5500	12
39	5507	117
81	5499	243

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
27	5496	81
83	5494	249
87	5509	261

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
14	5501	42
37	5503	111
38	5497	114
73	5500	219

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
2	5496	6
65	5492	195
66	5493	198

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
21	5491	63
25	5498	75
39	5507	117
60	5495	180
71	5500	213
89	5492	267
93	5493	279
94	5497	282

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
23	5494	69
39	5509	117
54	5505	162
90	5495	270

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
0	5502 0	
76	5503	228

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
27	5493	81
76	5507	228
83	5508	249
86	5499	258
91	5496	273

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
0	5495 0	
3	5502	9
45	5503	135
72	5498	216
73	5508	219

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
18	5503	54

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
39	5497	117
88	5494	264

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
15	5496	45
30	5492	90
43	5503	129
49	5506	147

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
59	5498	177
95	5505	285
99	5495	297

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
81	5506	243
86	5502	258
89	5500	267

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
13	5497	39
36	5495	108

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
64	5504	192
82	5497	246

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
7	5504	21
24	5495	72
61	5501	183
65	5507	195

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
68	5500	204

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
41	5498	123
49	5506	147
81	5507	243
89	5508	267

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
1	5494	3
12	5507	36
30	5500	90
60	5509	180

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
7	5506	21
62	5495	186
79	5505	237

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
5	5506	15
35	5500	105
47	5492	141
53	5503	159
79	5497	237

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
18	5494	54
45	5495	135
77	5507	231



84	5502	252
93	5508	279
USA Frequency Hopping Trial #26		
Hop #	Freq (GHz)	Pulse Start (mS)
0	5507	0
48	5509	144
59	5499	177
92	5491	276
USA Frequency Hopping Trial #27		
Hop #	Freq (GHz)	Pulse Start (mS)
53	5498	159
72	5501	216
86	5507	258
USA Frequency Hopping Trial #28		
Hop #	Freq (GHz)	Pulse Start (mS)
30	5501	90
35	5492	105
USA Frequency Hopping Trial #29		
Hop #	Freq (GHz)	Pulse Start (mS)
14	5502	42
35	5496	105
48	5500	144
61	5506	183
93	5494	279
USA Frequency Hopping Trial #30		
Hop #	Freq (GHz)	Pulse Start (mS)
14	5493	42
34	5505	102
51	5506	153
78	5509	234
85	5492	255

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-15	6-Oct-16
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
CIS054695	D3C2060 Ditom	Circulator	20-Oct-15	20-Oct-16

END