Dynamic Frequency Selection (DFS) Test Report

AIR-CAP3602y-B-K9
AIR-AP3602y-UXK9

Cisco Aironet 802.11n Dual Band Access Points

FCC ID: LDK102075

(Also covers AIR-CAP3602y-N-K9)

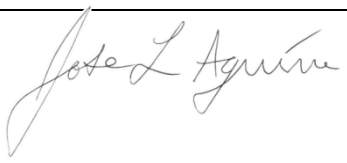
y = E (External Antenna) or I (Internal Antenna)

5250-5350, 5470-5725 MHz

Against the following Specifications:

CFR47 Part 15.407

Cisco Systems
170 West Tasman Drive
San Jose, CA 95134

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

This report replaces any previously entered test report under EDCS – **1034051**.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

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:

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

17-Dec-2015 – 18-Dec-2015

2.3 Report Issue Date

18-Dec-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-CAP3602E-B-K9

Section 3: Result Summary

3.1 Results Summary Table

Conducted emissions

Basic Standard	Technical Requirements / Details	Result
FCC 15.407	Dynamic Frequency Selection (DFS) Detection Threshold	Pass
FCC 15.407	Channel Availability Check Time	Pass
FCC 15.407	Channel Move Time	Pass
FCC 15.407	Channel Closing Time	Pass
FCC 15.407	Non-Occupancy Period	Pass
FCC 15.407	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-CAP3602E-B-K9	Cisco Systems	V01	AP3G2-K9W7-MX.153	Cisco IOS v15.3	FTX1918R0WQ
S02*	AIR-PWR-C	Meanwell	A0	NA	NA	EB46E93226
S03*	AIR-CAP2702I-A-K9	Cisco Systems	A0	AP3G2-K9W7-MX.153	Cisco IOS v15.3	FOC18255JH6

(*) S02 , S03 are support equipment Power supplies for EUT S01

4.2 System Details

System #	Description	Samples
1	AIR-CAP3602E-B-K9 (EUT)	S01
2	AIR-PWR-C (Support Power Supply)	S02
3	AIR-CAP2702I-A-K9 (Client Device)	S03

4.3 Mode of Operation Details

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

All measurements were made in accordance with

- KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

Appendix A: Dynamic Frequency Selection (DFS)

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

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

A.1 UNII Device Description

1. The AIR-CAP3602E-B-K9 Cisco Aironet 802.11ac Module operates in the following bands:
   a. 5150-5250 MHz
   b. 5250-5350 MHz
   c. 5470-5725 MHz
   d. 5725-5850 MHz

2. The maximum EIRP of the 5GHz equipment is 29 dBm, and the minimum possible EIRP is 10 dBm.

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

Frequency	Part Number	Antenna Type	Antenna Gain (dBi)
2.4/5 GHz	Internal	Omni	2 / 4
	AIR-ANT2524DB-R	Dual-resonant black dipole	2 / 4
	AIR-ANT2524DW-R	Dual-resonant white dipole	2 / 4
	AIR-ANT2524DG-R	Dual-resonant gray dipole	2 / 4
	AIR-ANT2524V4C-R	Dual-resonant ceiling mount omni (4-pack)	2 / 4
	AIR-ANT2544V4M-R	Dual-resonant omni (4-pack)	4 / 4
	AIR-ANT2566P4W-R	Dual-resonant "directional" antenna (4-pack)	6 / 6

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 ≥ 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**
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. **Note 2:** The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. **Note 3:** During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

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 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 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	1355.0	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.

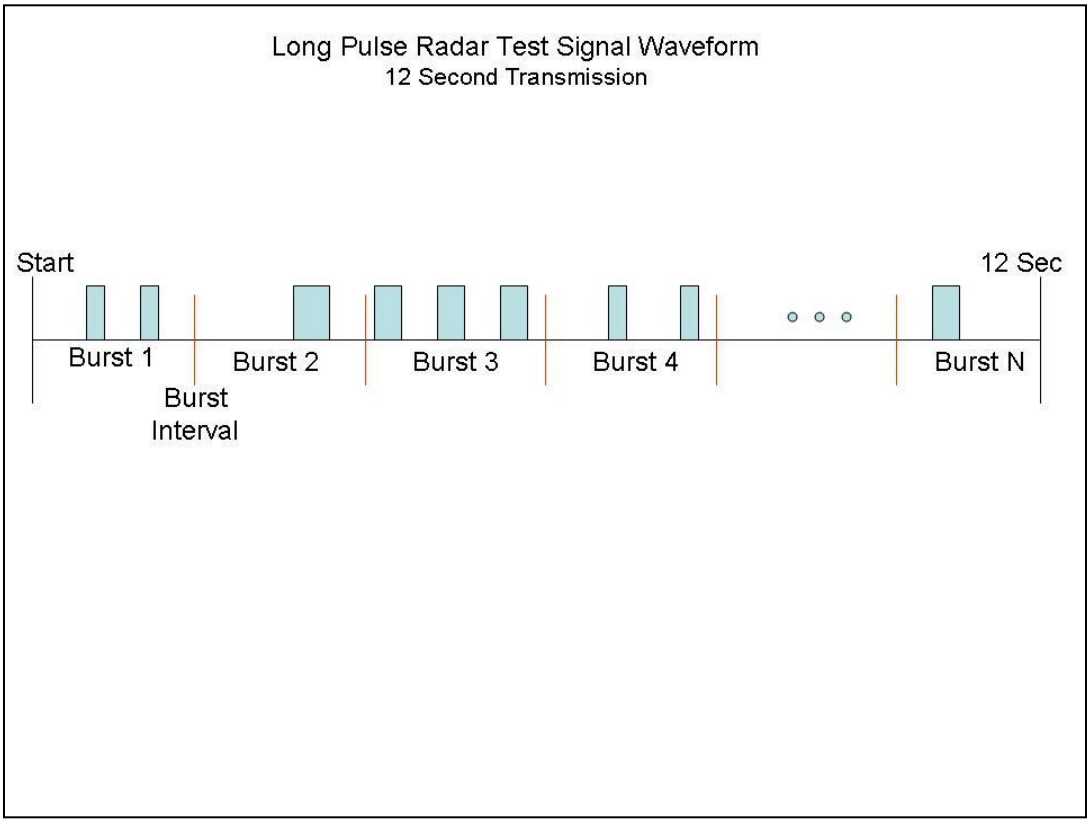
Each waveform is defined as follows:

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 / 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 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 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

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

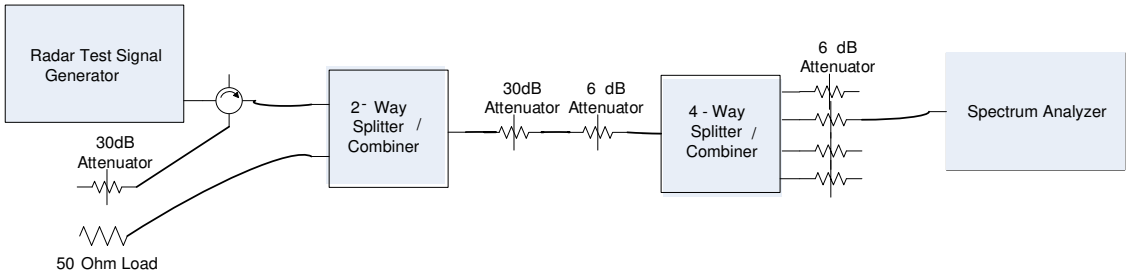
System Number	Description	Samples	System under test	Support equipment
1	AIR-CAP3602E-B-K9	S01	☑	☐
	Support Power Supply	S02	☐	☑
	Support Client Equipment	S03	☐	☑

Tested By :	**Date of testing:**
Jose Aguirre	17-Dec-2015 – 18-Dec-2015
Test Result : PASS	

See Appendix C for list of test equipment

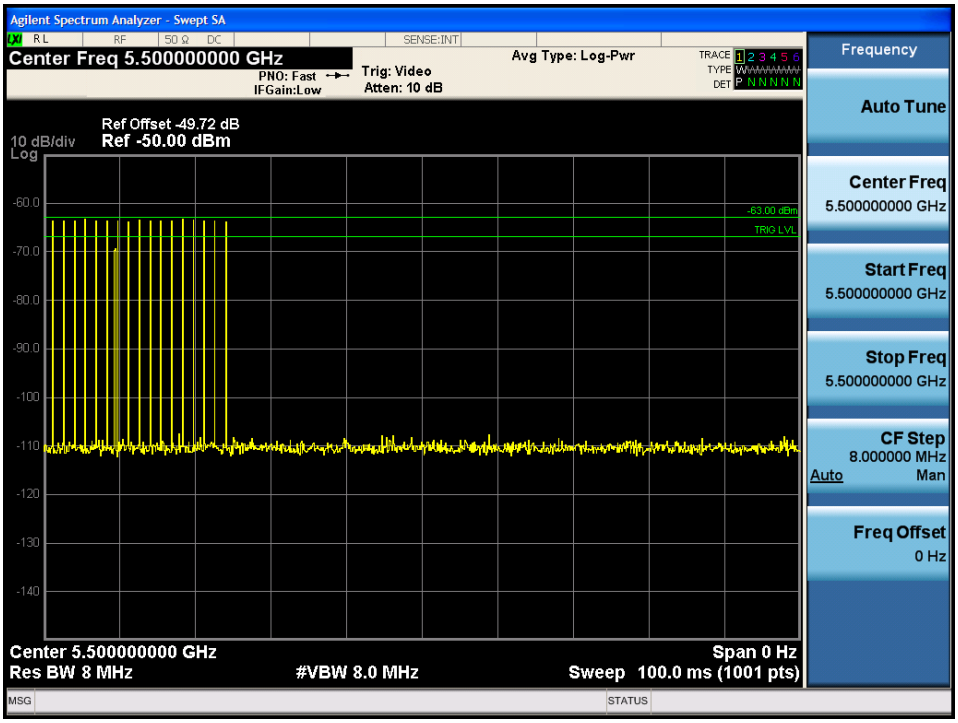
The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero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

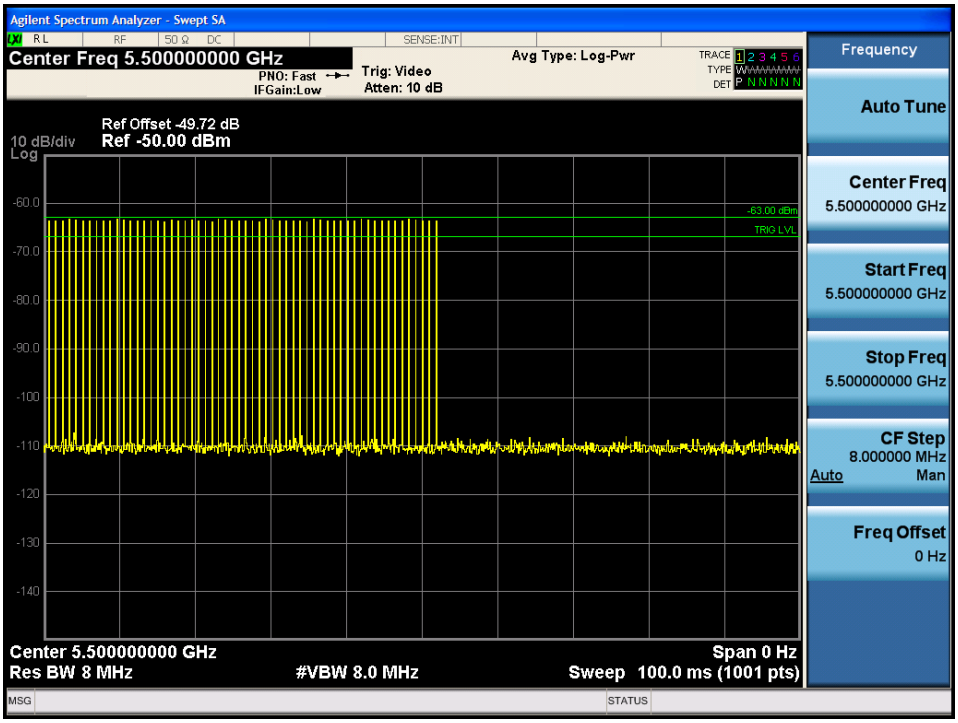


Conducted Calibration Setup

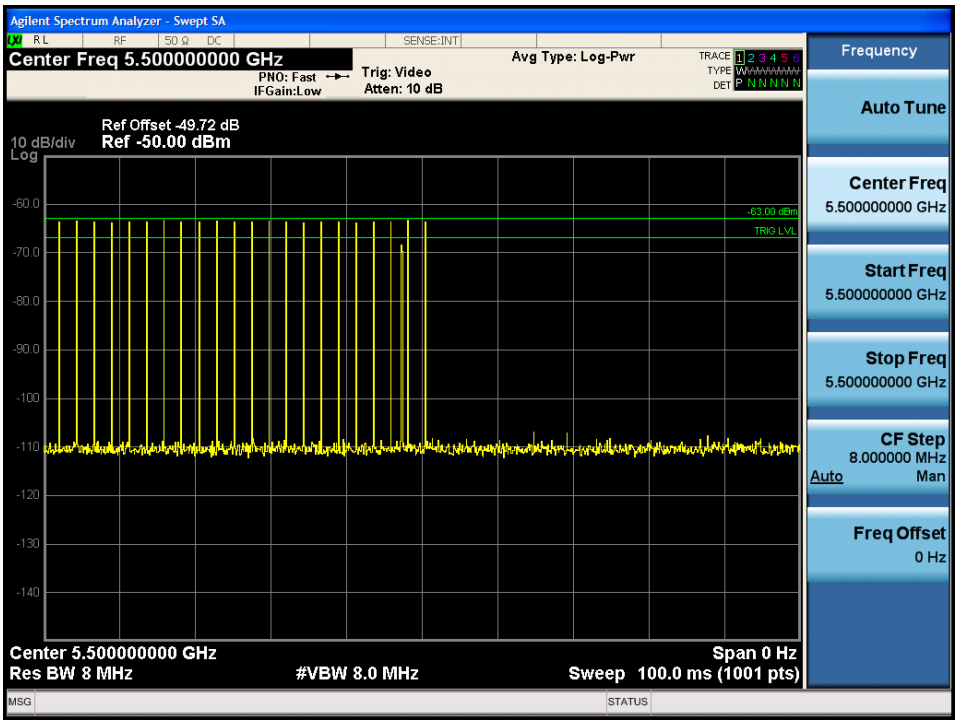
Following are the calibration plots for each of the required radar waveforms.



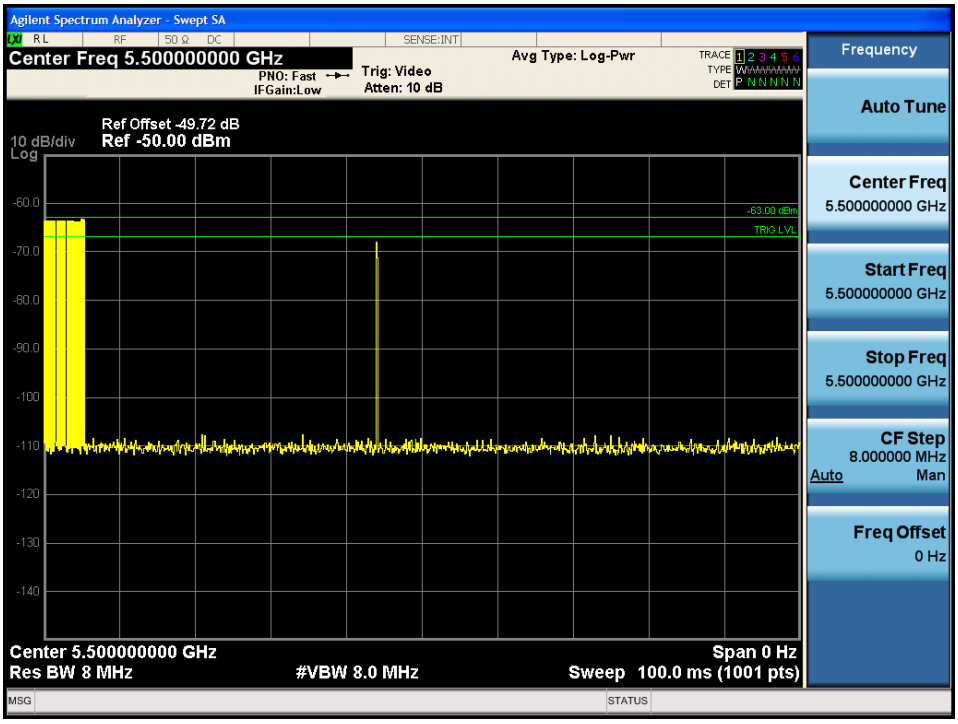
USA Bin 0 Radar Calibration



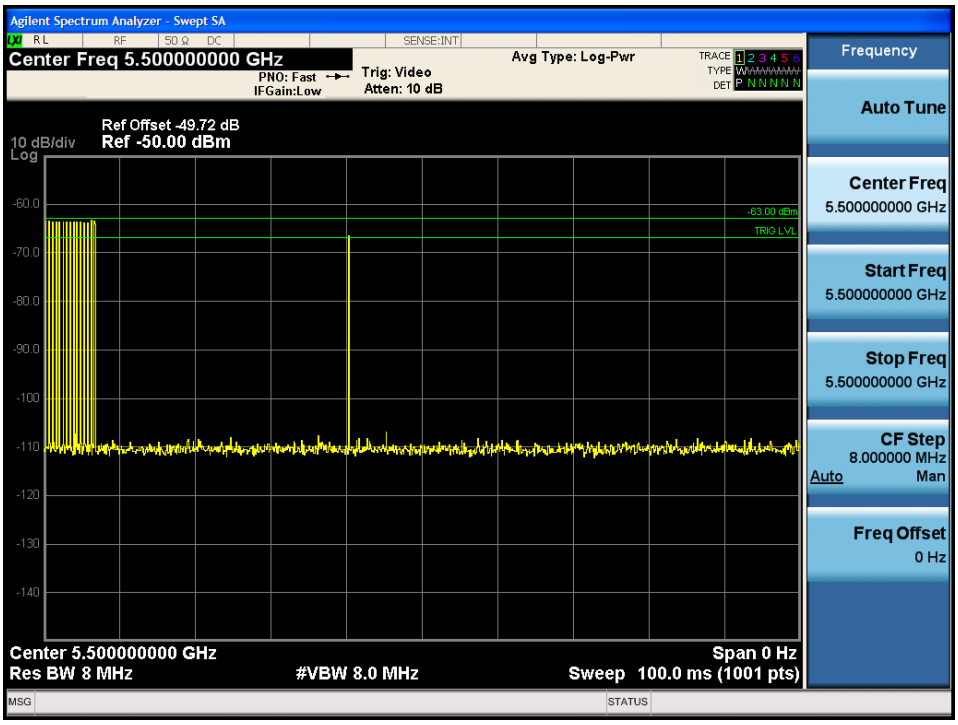
USA Bin 1A Radar Calibration



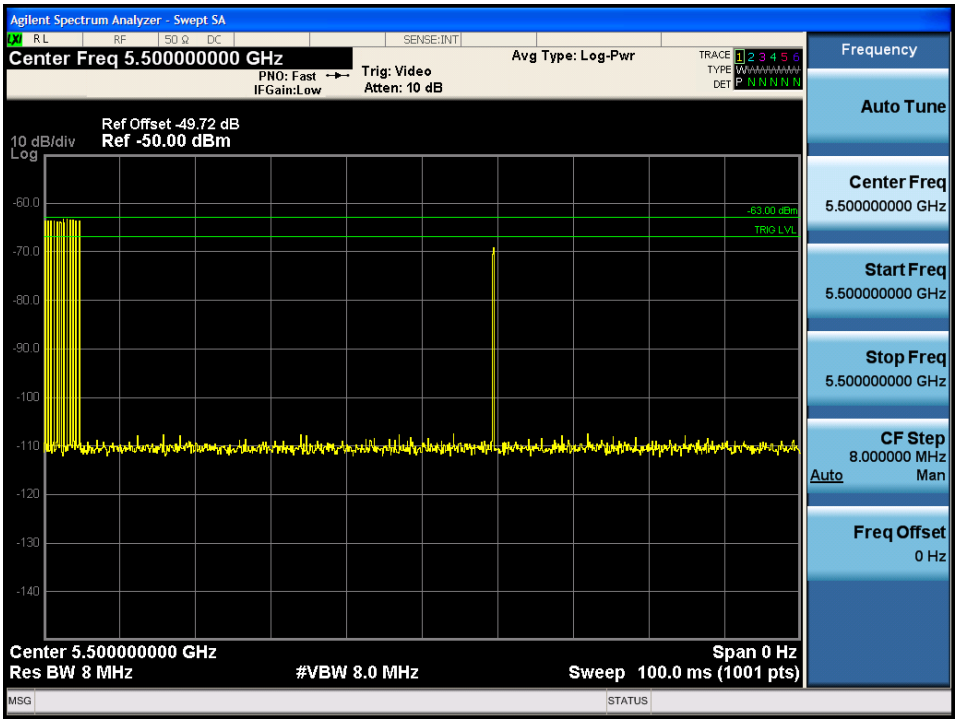
USA Bin 1B Radar Calibration



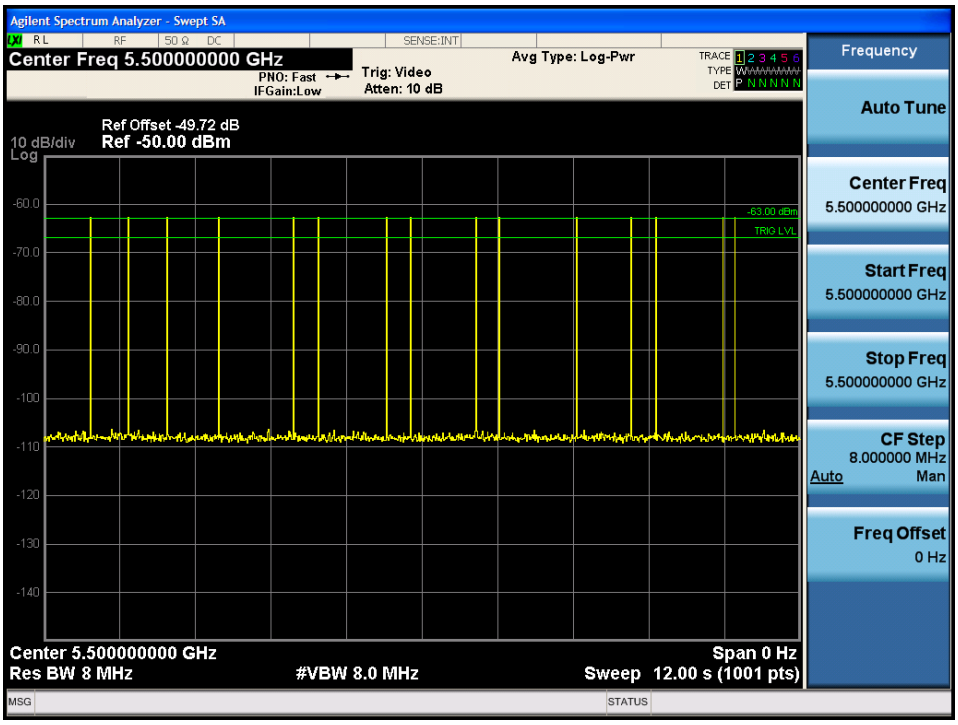
USA Bin 2 Radar Calibration



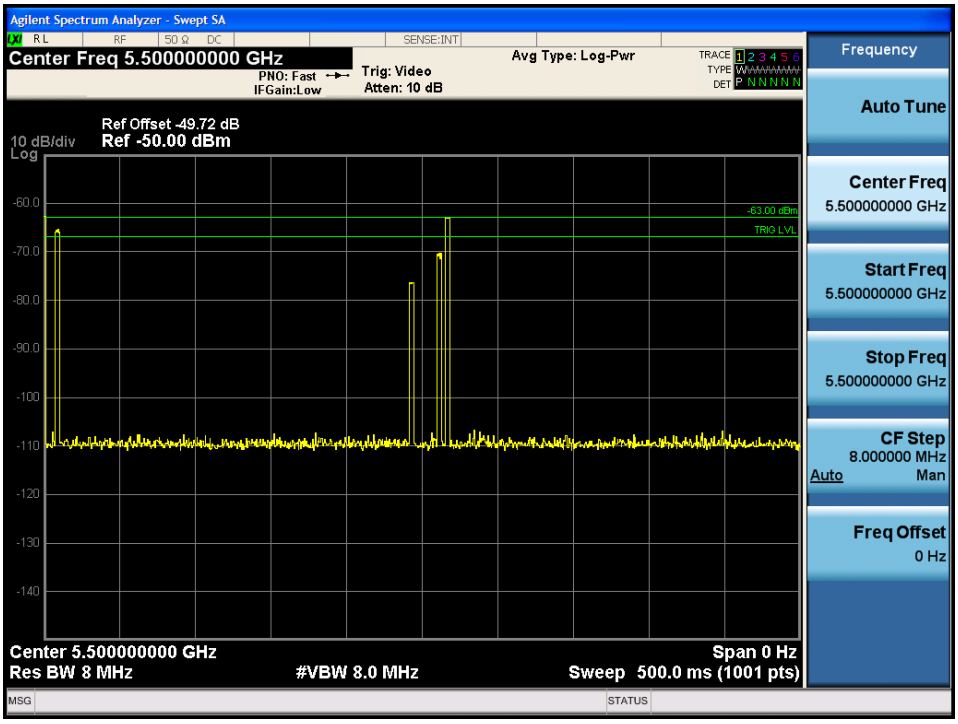
USA Bin 3 Radar Calibration



USA Bin 4 Radar Calibration



USA Bin 5 Radar Calibration



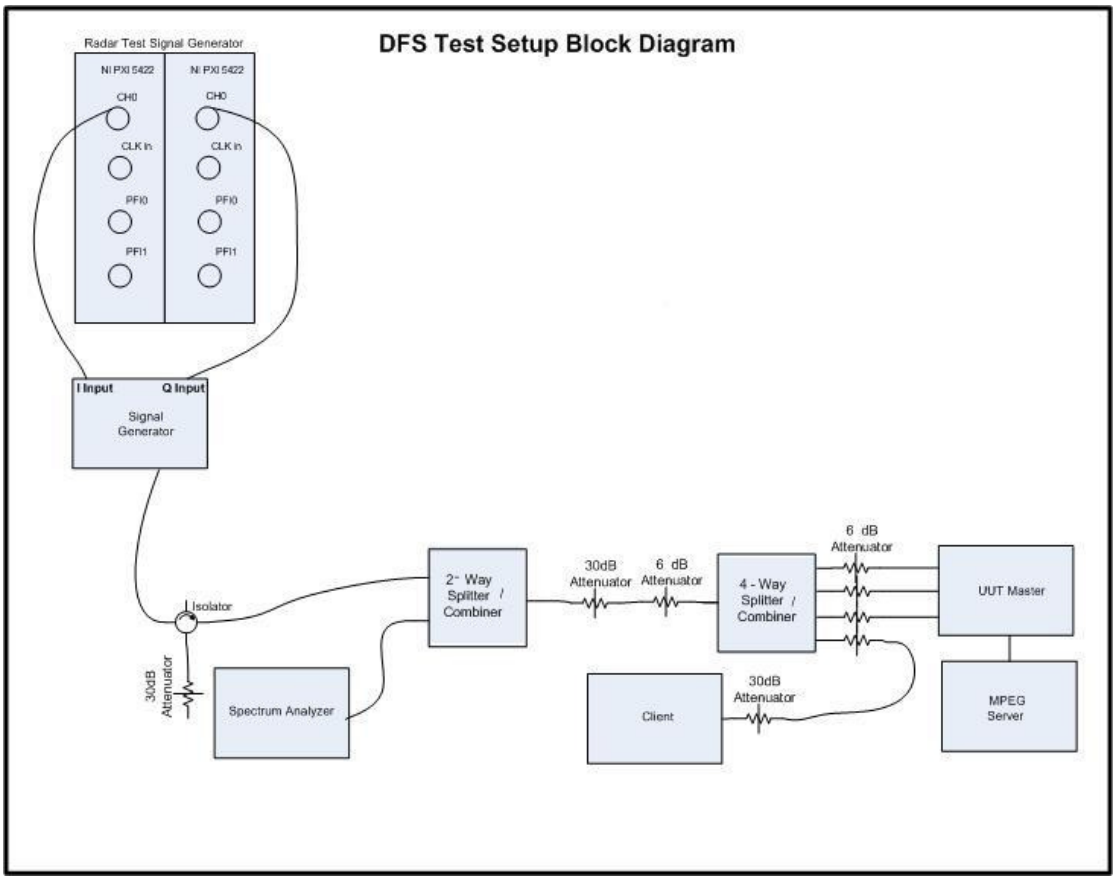
USA Frequency Hopping Radar Calibration

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 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 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 (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	1	0	0	1	1	1	1	1	60		
5491	1	1	1	1	1	1	1	1	0	1	90		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100	18	17
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	1	0	0	1	1	1	1	60		

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	0	0	1	1	1	80		
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	18	17
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	0	1	1	1	1	1	1	1	90		
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	17
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	0	90		

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	0	1	90		
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	18	17
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	1	1	1	1	1	1	0	1	70		

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	0	1	1	1	0	80		
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	18	17
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	1	1	0	1	0	1	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	0	0	0	0	0	0	0	0	0	0	0		
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	18	17
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		
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	17
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	0	1	1	1	1	1	1	1	1	1	90		
5494	1	1	0	1	1	1	1	1	1	1	90		
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	17
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	0	1	1	1	1	1	1	1	1	1	90		
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	0	1	0	0	0	0	0	0	1	1	30		
5491	0	0	1	1	1	1	1	0	0	1	60		
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	36	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	0	90		
5530	0	1	0	1	0	0	0	0	0	0	20		

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	1	1	0	0	1	1	1	0	50		
5491	1	1	1	0	1	1	1	1	0	1	80		
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	36	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	0	0	0	1	1	1	70		
5530	1	0	0	0	0	1	1	0	1	1	50		

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	0	1	1	1	1	1	1	0	0	70		
5491	0	1	1	0	0	1	1	1	1	1	70		
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	36	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	0	1	1	1	1	90		
5530	0	0	0	0	0	1	0	1	0	0	20		

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	1	0	0	0	1	0	1	1	40		
5491	0	0	1	1	0	1	1	1	1	1	70		
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	36	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	0	1	1	0	0	0	1	60		
5530	0	0	0	0	0	0	0	1	0	0	10		

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		
5491	1	1	1	1	1	1	1	0	1	1	90		
5492	1	1	1	1	1	1	1	1	1	1	100		
5493	1	1	1	1	1	1	1	1	1	1	100		
5494	1	1	1	1	1	1	1	1	1	1	100		
5495	1	1	1	1	1	1	1	1	1	1	100		
5496	1	1	1	1	1	1	1	1	1	1	100		
5497	1	1	1	1	1	1	1	1	1	1	100		
5498	1	1	1	1	1	1	1	1	1	1	100		
5499	1	1	1	1	1	1	1	1	1	1	100		
5500	1	1	1	1	1	1	1	1	1	1	100		
5501	1	1	1	1	1	1	1	1	1	1	100		
5502	1	1	1	1	1	1	1	1	1	1	100		
5503	1	1	1	1	1	1	1	1	1	1	100		
5504	1	1	1	1	1	1	1	1	1	1	100		
5505	1	1	1	1	1	1	1	1	1	1	100		
5506	1	1	1	1	1	1	1	1	1	1	100		
5507	1	1	1	1	1	1	1	1	1	1	100		
5508	1	1	1	1	1	1	1	1	1	1	100		
5509	1	1	1	1	1	1	1	1	1	1	100		
5510	1	1	1	1	1	1	1	1	1	1	100	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	0	90		
5530	0	1	0	0	0	0	0	0	0	0	10		

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		
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	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

	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 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

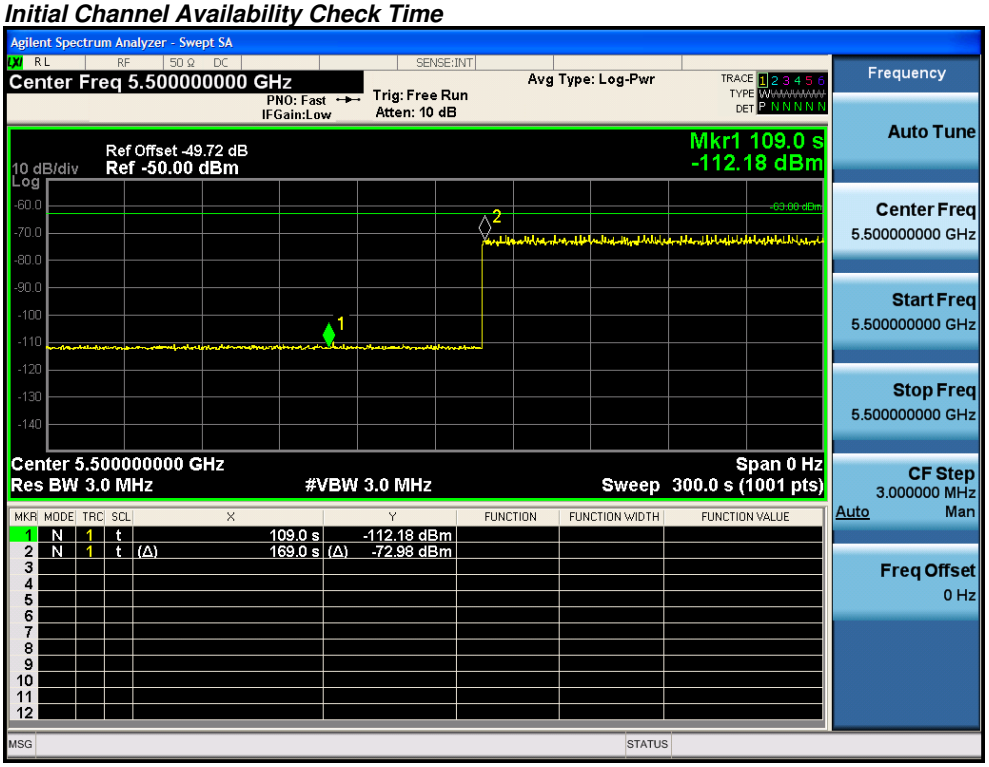
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

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 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.

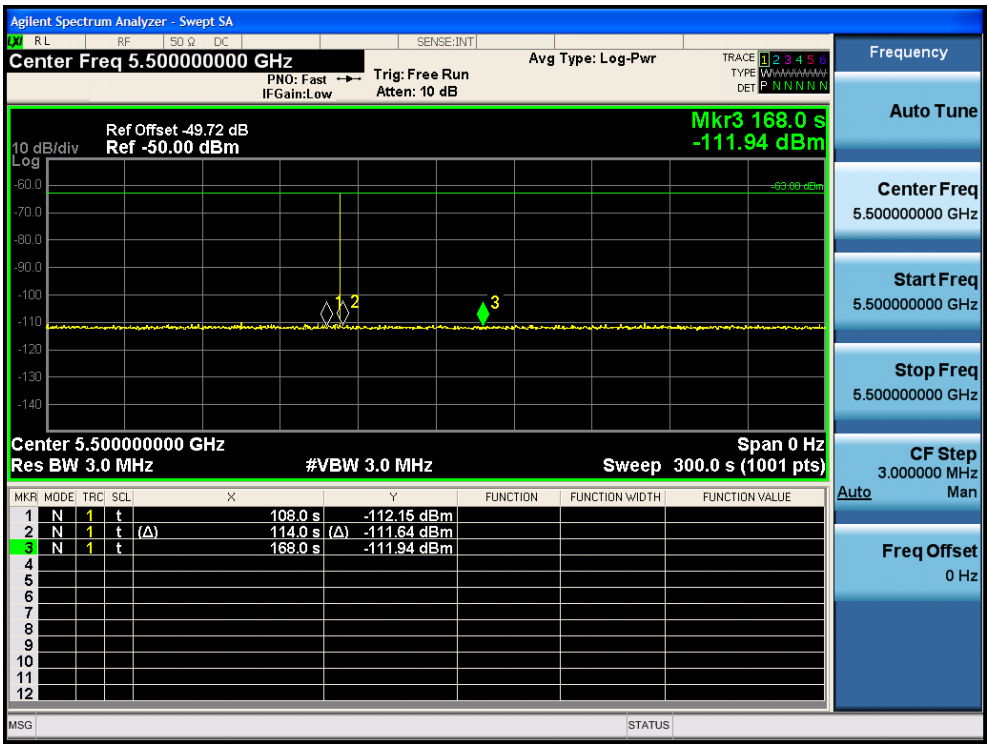
The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than T_1 + 60 seconds.

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.

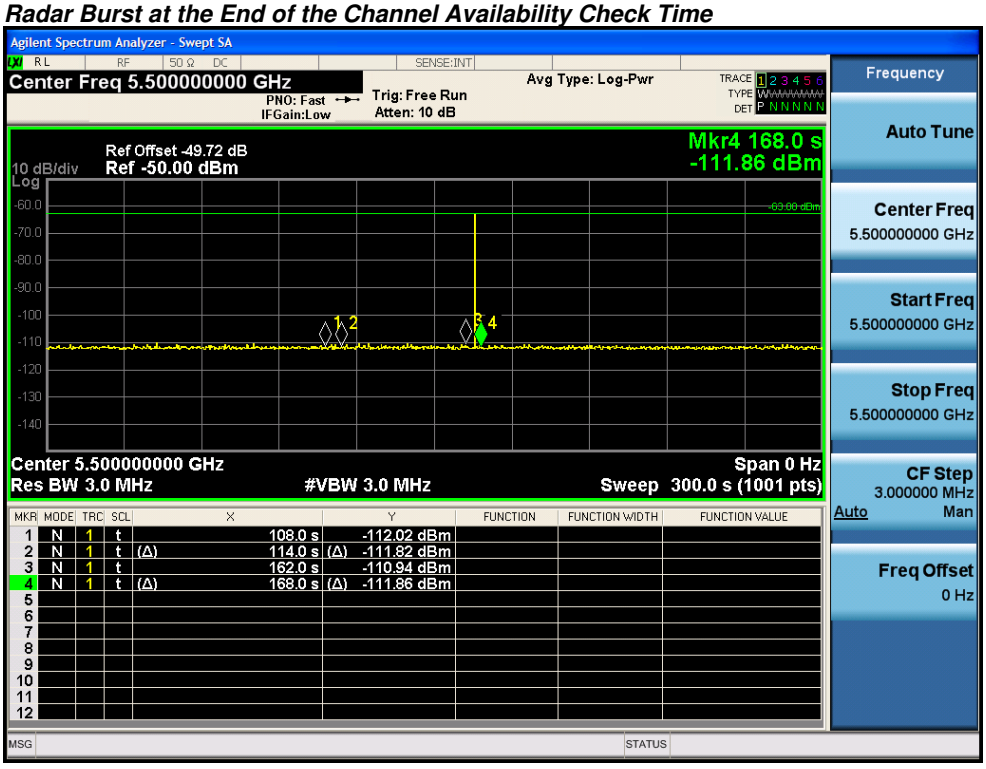
The UUT is powered on at T_0. T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than T_1 + 60 seconds.

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.

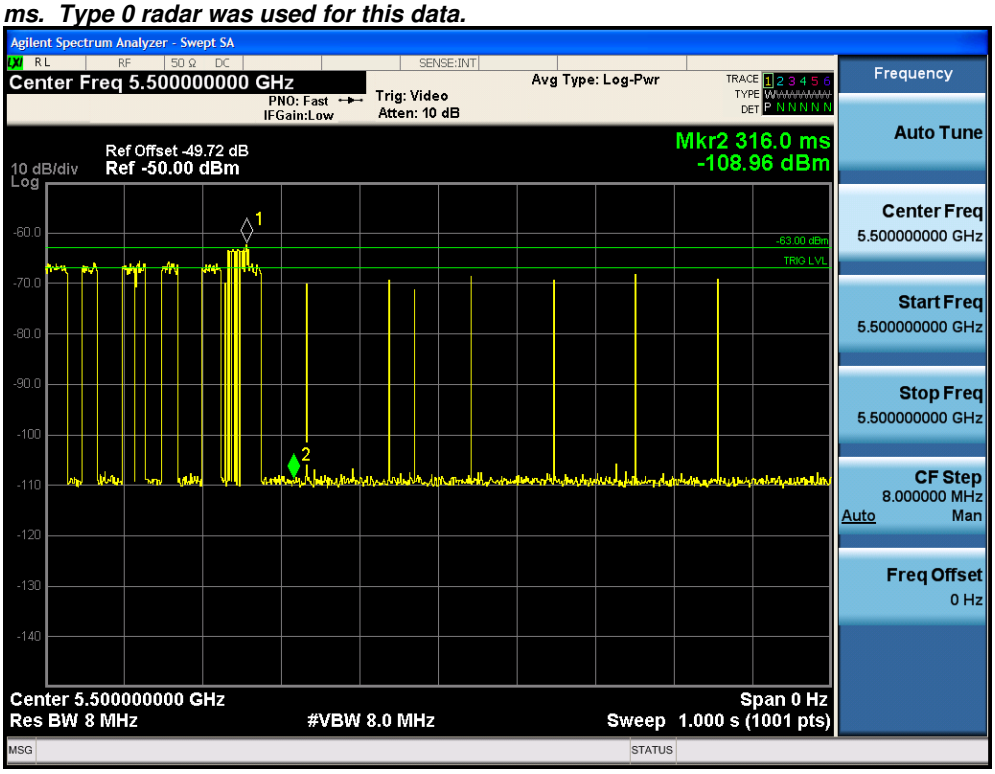
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

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.

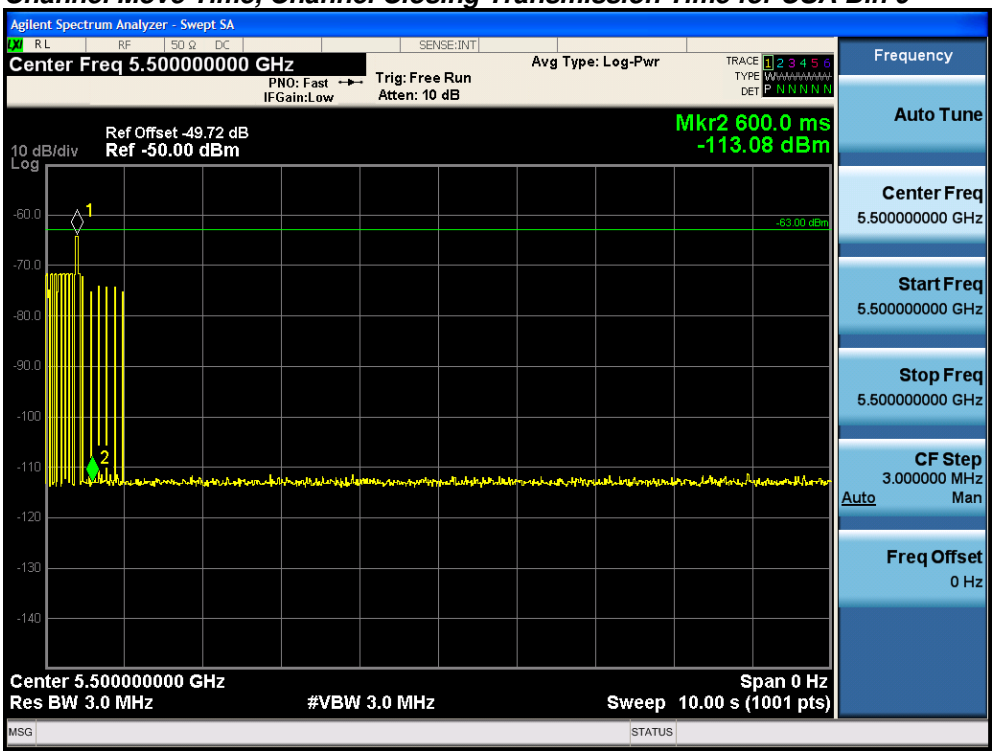
At time T_0 the Radar Waveform generator sends a Burst of pulses for radar type 0 at -63dBm.

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.

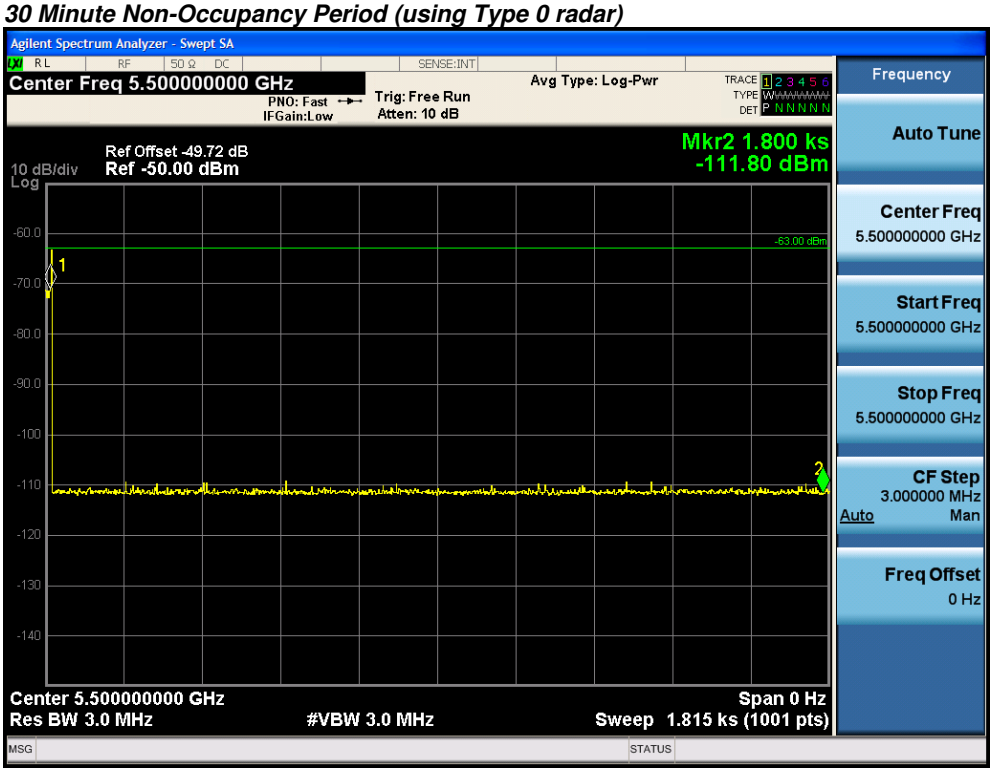


Channel Move Time, Channel Closing Transmission Time for USA Bin 0



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:

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100$$ = 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	81	1	658	1	100.0%	60.0%
2	67	1	798	1		
3	68	1	778	1		
4	70	1	758	1		
5	57	1	938	1		
6	62	1	858	1		
7	57	1	938	1		
8	67	1	798	1		
9	68	1	778	1		
10	74	1	718	1		
11	99	1	538	1		
12	67	1	798	1		
13	78	1	678	1		
14	65	1	818	1		
15	70	1	758	1		
16	49	1	1082	1		
17	22	1	2430	1		
18	19	1	2922	1		
19	22	1	2474	1		
20	34	1	1566	1		
21	34	1	1583	1		
22	20	1	2657	1		
23	24	1	2226	1		
24	52	1	1025	1		
25	22	1	2403	1		
26	64	1	835	1		
27	27	1	1957	1		
28	49	1	1094	1		
29	45	1	1197	1		
30	18	1	2937	1		

USA Bin 1A/1B Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	57	1	938	1	100.0%	60.0%
2	86	1	618	1		
3	99	1	538	1		
4	65	1	818	1		
5	67	1	798	1		
6	70	1	758	1		
7	81	1	658	1		
8	68	1	778	1		
9	63	1	838	1		
10	58	1	918	1		
11	102	1	518	1		
12	59	1	898	1		
13	74	1	718	1		
14	86	1	618	1		
15	70	1	758	1		
16	63	1	843	1		
17	18	1	3004	1		
18	59	1	903	1		
19	21	1	2579	1		
20	21	1	2581	1		
21	19	1	2893	1		
22	25	1	2135	1		
23	25	1	2174	1		
24	37	1	1450	1		
25	28	1	1908	1		
26	54	1	995	1		
27	19	1	2907	1		
28	29	1	1829	1		
29	25	1	2169	1		
30	51	1	1037	1		

USA Bin 2 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	23	3.6	180	1		
2	27	2.5	208	1		
3	25	4.6	175	1		
4	25	2.2	163	1		
5	25	3.7	164	1		
6	28	2.2	168	1		
7	24	3.3	165	1		
8	25	3.8	167	0		
9	25	3.1	151	1		
10	29	2.4	177	1		
11	26	2.5	152	1		
12	27	1	184	1		
13	27	4	225	1		
14	23	2.6	176	1		
15	26	4.1	225	1		
16	26	3.4	178	1	83.3%	60.0%
17	28	4.1	225	1		
18	28	5	219	1		
19	28	3.1	181	1		
20	25	3	208	1		
21	25	1.2	183	0		
22	26	2.8	188	0		
23	27	3.4	168	0		
24	25	3.7	186	1		
25	23	1.9	151	1		
26	27	4.4	162	0		
27	28	1.3	228	1		
28	29	1.5	164	1		
29	25	1.5	181	1		
30	27	1.4	212	1		

USA Bin 3 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	17	9	380	1	63.3%	60.0%
2	16	6.5	420	1		
3	17	9.1	323	1		
4	17	8.3	440	1		
5	16	8.9	386	1		
6	18	9.1	372	0		
7	17	6.4	440	0		
8	18	7.9	308	1		
9	18	10	296	1		
10	17	6.7	200	1		
11	17	7.9	225	1		
12	16	6.8	370	0		
13	17	6	316	0		
14	16	9	204	0		
15	18	7.8	452	1		
16	16	9.5	419	0		
17	18	7.7	305	1		
18	16	9.7	403	0		
19	17	9.4	244	1		
20	17	6.4	211	0		
21	18	9.7	352	1		
22	16	9	227	1		
23	17	6.2	469	1		
24	17	8.2	248	0		
25	18	9	409	1		
26	18	8.3	454	0		
27	16	6.5	321	1		
28	18	9.4	468	0		
29	17	8	247	1		
30	16	6.3	368	1		

USA Bin 4 Radar Statistical Performance

Trial #	Pulses	PW	PRI	1=Detection 0=No Detection	Detection Percentage	Limit
1	16	17.1	258	1	63.3%	60.0%
2	16	19.1	240	1		
3	15	12.7	306	1		
4	15	14.7	260	1		
5	15	17	401	1		
6	14	19.9	430	1		
7	14	13.3	438	1		
8	16	16.4	452	1		
9	15	19.8	290	1		
10	13	18.4	263	1		
11	14	14.1	379	1		
12	14	17.1	492	1		
13	12	17	422	0		
14	13	15.8	404	0		
15	15	13.3	407	0		
16	15	17.1	379	0		
17	14	16.9	371	0		
18	16	14.6	460	0		
19	14	19.9	399	1		
20	12	14.3	486	1		
21	14	19.8	395	1		
22	16	13.8	421	1		
23	15	17.6	316	1		
24	13	16.8	278	0		
25	12	18.2	365	1		
26	12	13.6	422	0		
27	16	19.9	398	0		
28	15	17.7	407	0		
29	12	13.6	364	0		
30	14	18.7	337	1		

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

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4}$$ = (100.0%+100.0%+83.3%+63.3%+63.3)/5 = 82.0% (>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	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5498.7	18	85	1230		0.172632
2	2	5498.7	18	100	1024		1.100593
3	1	5498.7	18	80			1.444853
4	2	5498.7	18	80	1063		2.421128
5	2	5498.7	18	60	1682		3.501435
6	2	5498.7	18	85	1541		3.908539
7	1	5498.7	18	75			4.380378
8	2	5498.7	18	50	1709		5.19498
9	1	5498.7	18	100			6.344657
10	1	5498.7	18	60			6.880782
11	1	5498.7	18	65			7.301422
12	1	5498.7	18	100			8.184213
13	3	5498.7	18	90	1178	1887	8.609292
14	3	5498.7	18	70	1025	1306	9.74112
15	2	5498.7	18	50	1902		10.245315
16	2	5498.7	18	70	1267		11.074228
17	3	5498.7	18	100	1917	1040	11.424624

USA Bin 5 Trial #2

Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5498.3	17	95			0.1565
2	1	5498.3	17	70			0.637528
3	2	5498.3	17	100	1592		1.369523
4	2	5498.3	17	80	1902		2.075785
5	1	5498.3	17	100			2.688171
6	3	5498.3	17	85	1698	1627	3.450978
7	2	5498.3	17	60	1339		3.958511
8	3	5498.3	17	75	1189	1404	4.863443
9	2	5498.3	17	100	1331		5.377745
10	3	5498.3	17	90	1797	1163	6.033301
11	3	5498.3	17	70	1176	1659	6.623493
12	2	5498.3	17	80	1409		7.039596
13	3	5498.3	17	75	1424	1079	7.678107
14	2	5498.3	17	100	1657		8.836642
15	2	5498.3	17	75	1543		8.980891
16	2	5498.3	17	70	1911		9.771228
17	1	5498.3	17	100			10.662579
18	2	5498.3	17	95	1295		10.768597
19	3	5498.3	17	80	1034	1592	11.928129

USA Bin 5 Trial #3

Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5497.9	16	80			0.397593
2	3	5497.9	16	90	1166	1323	0.882166
3	1	5497.9	16	55			1.84273
4	2	5497.9	16	90	1936		2.300591
5	2	5497.9	16	75	1165		3.109715
6	2	5497.9	16	90	1852		3.541453
7	3	5497.9	16	50	1811	1574	4.178655
8	1	5497.9	16	95			4.741635
9	2	5497.9	16	60	1046		5.315666
10	3	5497.9	16	90	1478	1192	5.689372
11	2	5497.9	16	75	1146		6.693695
12	3	5497.9	16	55	1454	1402	7.148238
13	1	5497.9	16	55			7.696247
14	1	5497.9	16	60			8.692332
15	3	5497.9	16	65	1947	1666	9.385401
16	2	5497.9	16	70	1868		10.027743
17	1	5497.9	16	65			10.383153
18	1	5497.9	16	90			10.865557
19	3	5497.9	16	95	1052	1430	11.51648

USA Bin 5 Trial #4

Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5498.7	18	50	1707		0.035057
2	3	5498.7	18	65	1135	1760	0.853991
3	3	5498.7	18	60	1955	1247	1.325481
4	3	5498.7	18	65	1782	1101	2.209838
5	3	5498.7	18	60	1161	1354	2.873308
6	3	5498.7	18	65	1109	1119	3.38847
7	2	5498.7	18	75	1822		3.815663
8	1	5498.7	18	90			4.309002
9	2	5498.7	18	55	1102		5.088471
10	1	5498.7	18	90			5.823984
11	3	5498.7	18	55	1983	1182	6.080809

12	2	5498.7	18	95	1988		7.076403
13	3	5498.7	18	75	1712	1386	7.762891
14	3	5498.7	18	50	1784	1312	7.949882
15	1	5498.7	18	75			8.570329
16	1	5498.7	18	100			9.371355
17	3	5498.7	18	75	1082	1668	10.105578
18	3	5498.7	18	85	1035	1804	10.311203
19	1	5498.7	18	65			11.070457
20	3	5498.7	18	65	1935	1626	11.953696

USA Bin 5 Trial #5

Burst #	Pulses	Frequency (MHz)	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5498.3	17	75	1215	1175	0.373559
2	1	5498.3	17	70			1.415041
3	3	5498.3	17	100	1881	1607	1.537005
4	3	5498.3	17	95	1801	1587	2.832353
5	2	5498.3	17	75	1163		3.715176
6	1	5498.3	17	95			3.79173
7	1	5498.3	17	75			5.235076
8	3	5498.3	17	60	1914	1353	5.379983
9	2	5498.3	17	90	1017		6.420375
10	3	5498.3	17	75	1025	1283	7.454634
11	3	5498.3	17	80	1040	1012	7.697853
12	1	5498.3	17	60			8.767245
13	1	5498.3	17	90			9.11991
14	2	5498.3	17	95	1243		9.884744
15	2	5498.3	17	100	1258		10.792361
16	1	5498.3	17	80			11.411107

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	2	5496.3	12	55	1650		1.072966
2	3	5496.3	12	65	1277	1606	1.741711
3	1	5496.3	12	55			2.881799
4	3	5496.3	12	75	1692	1056	4.226208
5	1	5496.3	12	75			4.691572
6	3	5496.3	12	80	1581	1796	5.465649
7	2	5496.3	12	80	1530		7.634162
8	3	5496.3	12	90	1754	1889	7.791708
9	2	5496.3	12	85	1015		8.991061
10	2	5496.3	12	80	1400		10.466221
11	2	5496.3	12	65	1025		11.260033

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	90	1413	1217	0.417645
2	2	5495.9	11	90	1224		2.110991
3	3	5495.9	11	50	1396	1628	3.050957
4	2	5495.9	11	55	1921		3.390197
5	3	5495.9	11	85	1432	1391	4.400879
6	3	5495.9	11	55	1912	1833	6.026383
7	3	5495.9	11	95	1624	1015	7.300299
8	1	5495.9	11	70			7.662021
9	3	5495.9	11	95	1453	1176	9.070539
10	1	5495.9	11	50			10.205025
11	3	5495.9	11	95	1507	1746	11.263481

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	5499.5	20	55	1662		0.335356
2	2	5499.5	20	100	1310		2.212617
3	1	5499.5	20	65			2.856616
4	2	5499.5	20	80	1559		4.371214
5	2	5499.5	20	60	1851		6.178021
6	2	5499.5	20	90	1138		7.107574
7	2	5499.5	20	60	1228		8.280958
8	1	5499.5	20	100			9.476591
9	3	5499.5	20	75	1788	1789	11.028241

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	3	5498.7	18	65	1445	1061	0.301928
2	2	5498.7	18	100	1490		1.103692
3	2	5498.7	18	95	1648		1.722313
4	1	5498.7	18	95			2.597445
5	3	5498.7	18	85	1562	1232	3.732352
6	3	5498.7	18	60	1584	1786	3.762633
7	2	5498.7	18	85	1746		4.518354
8	1	5498.7	18	50			5.363927

9	3	5498.7	18	75	1889	1429	6.087448
10	1	5498.7	18	60			6.870034
11	3	5498.7	18	75	1815	1236	8.036533
12	2	5498.7	18	55	1932		8.566314
13	2	5498.7	18	85	1934		9.299162
14	1	5498.7	18	60			10.480498
15	3	5498.7	18	50	1889	1107	11.171151
16	1	5498.7	18	85			11.796304

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	3	5500	13	95	1449	1373	0.453115
2	3	5500	13	55	1137	1693	1.113115
3	1	5500	13	65			1.628481
4	1	5500	13	70			1.9262
5	2	5500	13	70	1960		2.958971
6	1	5500	13	85			3.333123
7	2	5500	13	65	1752		4.097265
8	1	5500	13	50			4.348701
9	3	5500	13	85	1064	1082	5.3552
10	2	5500	13	65	1871		5.774113
11	3	5500	13	70	1643	1204	6.111584
12	1	5500	13	50			6.778304
13	2	5500	13	55	1792		7.767966
14	2	5500	13	60	1338		7.898894
15	1	5500	13	100			8.567945
16	1	5500	13	100			9.330605
17	3	5500	13	65	1295	1472	9.668024
18	1	5500	13	65			10.203732
19	2	5500	13	60	1710		11.31215
20	3	5500	13	75	1622	1442	11.801621

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	2	5500	11	65	1637		0.511008
2	3	5500	11	70	1335	1040	1.476087
3	3	5500	11	80	1644	1618	1.957742
4	1	5500	11	50			3.509158
5	2	5500	11	85	1939		4.167586
6	1	5500	11	85			5.335617
7	3	5500	11	50	1597	1789	5.94129
8	1	5500	11	90			6.484714
9	3	5500	11	55	1657	1414	8.193914
10	2	5500	11	50	1272		8.943798
11	2	5500	11	95	1214		9.758873
12	2	5500	11	100	1639		10.222891
13	3	5500	11	55	1585	1194	11.806509

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	3	5500	9	90	1079	1923	0.597625
2	1	5500	9	75			1.408126
3	1	5500	9	60			2.914404
4	1	5500	9	85			3.7783
5	1	5500	9	55			5.437275
6	2	5500	9	55	1082		6.996378
7	2	5500	9	55	1405		8.137038
8	1	5500	9	50			9.116588
9	2	5500	9	55	1496		9.871777
10	1	5500	9	55			11.282196

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	10	75			0.060768
2	2	5500	10	100	1036		0.813638
3	1	5500	10	70			1.532277
4	3	5500	10	75	1331	1197	2.657523
5	3	5500	10	70	1054	1238	3.303037
6	3	5500	10	90	1329	1821	3.91224
7	2	5500	10	80	1369		4.551835
8	1	5500	10	90			5.742853
9	1	5500	10	55			6.313139
10	1	5500	10	75			6.851317
11	3	5500	10	85	1664	1964	7.738597
12	1	5500	10	70			8.749101
13	1	5500	10	70			9.265278
14	2	5500	10	100	1206		10.418919
15	1	5500	10	80			11.096815
16	3	5500	10	50	1907	1499	11.341495

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	3	5500	20	85	1499	1002	0.537652
2	1	5500	20	70			1.273394
3	1	5500	20	60			1.368291
4	3	5500	20	100	1837	1466	2.246374
5	3	5500	20	100	1645	1398	3.261225
6	3	5500	20	100	1459	1152	3.78415
7	3	5500	20	85	1728	1317	4.635488
8	3	5500	20	65	1866	1137	5.167465
9	3	5500	20	90	1867	1375	5.405801
10	3	5500	20	60	1627	1856	6.447022
11	1	5500	20	75			7.149779
12	2	5500	20	50	1363		7.701796
13	3	5500	20	60	1330	1861	8.476389
14	2	5500	20	100	1350		8.843629
15	2	5500	20	75	1579		9.889575
16	3	5500	20	95	1645	1343	10.574148
17	1	5500	20	85			11.208453
18	1	5500	20	95			11.412617

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	1	5500	15	55			0.367883
2	1	5500	15	95			0.718276
3	3	5500	15	70	1468	1197	1.987277
4	3	5500	15	80	1581	1229	2.117514
5	1	5500	15	80			3.059252
6	2	5500	15	90	1828		3.76667
7	2	5500	15	100	1773		4.654078
8	1	5500	15	50			5.174487
9	2	5500	15	65	1111		5.432936
10	1	5500	15	100			6.542817
11	2	5500	15	55	1141		6.91609
12	3	5500	15	95	1241	1785	7.366682
13	1	5500	15	100			8.422237
14	1	5500	15	75			8.886019
15	3	5500	15	85	1125	1683	9.456687
16	2	5500	15	65	1243		10.625947
17	2	5500	15	80	1763		11.329858
18	1	5500	15	60			11.937662

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	1	5500	6	95			0.148554
2	3	5500	6	90	1042	1920	1.284652
3	1	5500	6	70			1.561649
4	3	5500	6	85	1196	1467	2.005626
5	3	5500	6	90	1848	1517	2.846624
6	3	5500	6	75	1924	1878	3.33665
7	1	5500	6	55			4.422462
8	1	5500	6	50			5.232824
9	2	5500	6	85	1200		5.89543
10	1	5500	6	75			6.3328
11	2	5500	6	55	1509		6.893143
12	1	5500	6	90			7.342673
13	2	5500	6	70	1952		8.455027
14	3	5500	6	95	1212	1997	9.018608
15	3	5500	6	60	1670	1900	9.462825
16	1	5500	6	50			10.230441
17	1	5500	6	85			11.112009
18	1	5500	6	55			11.879189

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	13	60	1266		0.440348
2	2	5500	13	55	1675		1.18411
3	3	5500	13	50	1593	1170	1.514174
4	3	5500	13	55	1636	1360	1.881857
5	1	5500	13	80			2.716347
6	2	5500	13	70	1273		3.487488
7	2	5500	13	60	1899		4.139817
8	3	5500	13	80	1490	1411	4.451364
9	1	5500	13	70			4.880183
10	3	5500	13	90	1774	1881	5.917069
11	1	5500	13	50			6.206899
12	2	5500	13	50	1872		7.193369
13	3	5500	13	100	1475	1186	7.590208

14	1	5500	13	50			8.068817
15	1	5500	13	75			8.512171
16	3	5500	13	75	1769	1442	9.225761
17	3	5500	13	90	1831	1171	9.79357
18	2	5500	13	85	1569		10.337907
19	1	5500	13	100			11.129768
20	3	5500	13	95	1407	1357	11.944895

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	3	5500	7	50	1714	1561	0.286872
2	3	5500	7	80	1932	1974	0.632561
3	1	5500	7	65			1.730062
4	1	5500	7	95			2.394722
5	2	5500	7	50	1435		2.414755
6	2	5500	7	55	1176		3.255578
7	1	5500	7	95			3.965205
8	2	5500	7	80	1475		4.471921
9	2	5500	7	55	1560		5.293526
10	2	5500	7	60	1392		5.659641
11	3	5500	7	70	1967	1328	6.588484
12	1	5500	7	85			6.823457
13	1	5500	7	95			7.58117
14	1	5500	7	100			8.011424
15	1	5500	7	95			8.699773
16	3	5500	7	50	1376	1224	9.206549
17	2	5500	7	60	1538		9.623299
18	2	5500	7	80	1931		10.44226
19	1	5500	7	90			11.020416
20	1	5500	7	50			11.954977

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	1	5500	15	95			0.899943
2	3	5500	15	90	1558	1636	2.406718
3	3	5500	15	65	1937	1164	3.793098
4	1	5500	15	75			4.252088
5	1	5500	15	50			5.783746
6	2	5500	15	50	1859		7.84586
7	3	5500	15	75	1494	1882	8.571759
8	2	5500	15	65	1195		9.871159
9	1	5500	15	80			11.702852

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	2	5504.5	10	75	1300		0.549096
2	2	5504.5	10	65	1554		1.105876
3	2	5504.5	10	90	1708		2.391436
4	2	5504.5	10	85	1607		3.332659
5	3	5504.5	10	100	1686	1981	3.936062
6	2	5504.5	10	50	1020		5.237727
7	2	5504.5	10	85	1215		6.357832
8	1	5504.5	10	100			7.276608
9	3	5504.5	10	85	1274	1705	8.077412
10	3	5504.5	10	85	1928	1552	8.788227
11	3	5504.5	10	55	1533	1515	9.357457
12	2	5504.5	10	65	1747		11.006148
13	3	5504.5	10	70	1379	1035	11.140996

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	3	5504.1	11	100	1798	1850	0.492319
2	3	5504.1	11	70	1508	1700	1.100709
3	3	5504.1	11	90	1297	1429	2.979714
4	3	5504.1	11	60	1165	1233	3.938737
5	3	5504.1	11	90	1402	1800	4.313035
6	1	5504.1	11	65			5.991869
7	3	5504.1	11	85	1867	1282	6.510117
8	2	5504.1	11	55	1331		7.012399
9	1	5504.1	11	75			8.256297
10	1	5504.1	11	60			9.855612
11	1	5504.1	11	75			10.874566
12	3	5504.1	11	70	1260	1361	11.472443

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	5506.5	5	55	1129	1131	0.709288
2	1	5506.5	5	90			1.54208
3	2	5506.5	5	65	1178		2.29947

4	2	5506.5	5	100	1785		2.949153
5	2	5506.5	5	60	1053		3.931733
6	1	5506.5	5	85			4.123538
7	3	5506.5	5	95	1778	1840	4.999483
8	1	5506.5	5	75			6.085549
9	3	5506.5	5	95	1472	1245	6.85775
10	2	5506.5	5	60	1695		7.886414
11	3	5506.5	5	55	1212	1667	8.116539
12	3	5506.5	5	65	1844	1186	9.550585
13	2	5506.5	5	100	1206		10.107795
14	2	5506.5	5	50	1914		10.735685
15	1	5506.5	5	95			11.626854

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	3	5503.3	13	50	1723	1523	0.088832
2	2	5503.3	13	85	1425		0.998875
3	1	5503.3	13	55			1.952364
4	1	5503.3	13	95			2.924781
5	1	5503.3	13	55			3.680378
6	1	5503.3	13	100			4.273186
7	3	5503.3	13	55	1321	1845	5.157084
8	1	5503.3	13	90			5.889757
9	3	5503.3	13	75	1512	1457	6.353641
10	1	5503.3	13	65			7.125123
11	3	5503.3	13	100	1527	1250	7.587394
12	1	5503.3	13	95			8.965188
13	2	5503.3	13	55	1406		9.583379
14	1	5503.3	13	100			10.260264
15	3	5503.3	13	100	1352	1518	11.089822
16	3	5503.3	13	70	1244	1797	11.424069

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	1	5506.5	5	85			1.187631
2	1	5506.5	5	70			2.05332
3	2	5506.5	5	55	1875		3.494159
4	3	5506.5	5	80	1172	1108	4.723907
5	3	5506.5	5	75	1242	1239	6.532724
6	1	5506.5	5	70			8.826522
7	2	5506.5	5	75	1941		9.680194
8	2	5506.5	5	90	1823		11.035104

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	3	5503.3	13	55	1201	1842	0.390433
2	1	5503.3	13	100			1.114746
3	1	5503.3	13	55			1.375878
4	3	5503.3	13	95	1897	1560	2.153573
5	1	5503.3	13	75			2.961083
6	3	5503.3	13	70	1567	1741	3.309007
7	1	5503.3	13	50			3.695415
8	2	5503.3	13	60	1691		4.400658
9	3	5503.3	13	80	1409	1680	4.905227
10	3	5503.3	13	50	1267	1743	5.633425
11	1	5503.3	13	60			6.334592
12	1	5503.3	13	70			7.00356
13	2	5503.3	13	65	1993		7.2465
14	2	5503.3	13	100	1476		7.883291
15	3	5503.3	13	90	1183	1697	8.800671
16	3	5503.3	13	85	1578	1176	9.40967
17	3	5503.3	13	80	1014	1939	9.876606
18	2	5503.3	13	90	1268		10.428178
19	3	5503.3	13	80	1912	1344	11.027918
20	1	5503.3	13	95			11.716031

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	1	5502.1	16	65			1.152725
2	3	5502.1	16	95	1772	1437	1.344047
3	1	5502.1	16	70			2.984626
4	2	5502.1	16	55	1311		4.604931
5	1	5502.1	16	80			5.095201
6	1	5502.1	16	90			6.74595
7	1	5502.1	16	75			7.692744
8	3	5502.1	16	60	1681	1808	9.527381
9	2	5502.1	16	60	1109		10.47385
10	3	5502.1	16	55	1857	1804	10.835335

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	5505.3	8	100			0.738676
2	2	5505.3	8	80	1211		1.229506
3	1	5505.3	8	95			1.508047
4	2	5505.3	8	55	1574		2.454328
5	1	5505.3	8	50			3.601535
6	3	5505.3	8	70	1495	1473	4.352667
7	3	5505.3	8	70	1530	1999	4.937701
8	1	5505.3	8	85			5.440281
9	1	5505.3	8	50			6.021179
10	2	5505.3	8	90	1144		6.772965
11	2	5505.3	8	55	1732		7.650341
12	1	5505.3	8	70			8.751115
13	2	5505.3	8	50	1058		9.673333
14	1	5505.3	8	80			9.906689
15	3	5505.3	8	85	1154	1442	10.545803
16	1	5505.3	8	100			11.304338

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	1	5504.5	10	85			0.098302
2	3	5504.5	10	55	1437	1917	1.092428
3	2	5504.5	10	60	1363		1.275641
4	2	5504.5	10	60	1518		2.214342
5	1	5504.5	10	100			2.614023
6	2	5504.5	10	90	1523		3.23306
7	3	5504.5	10	95	1181	1657	3.644244
8	3	5504.5	10	75	1769	1658	4.381012
9	2	5504.5	10	65	1177		5.283275
10	2	5504.5	10	60	1171		5.973234
11	1	5504.5	10	60			6.305863
12	2	5504.5	10	55	1047		6.830757
13	3	5504.5	10	50	1786	1868	7.277912
14	2	5504.5	10	75	1014		8.104018
15	1	5504.5	10	75			8.482251
16	2	5504.5	10	55	1878		9.009822
17	1	5504.5	10	85			9.699349
18	2	5504.5	10	75	1036		10.466399
19	1	5504.5	10	70			10.922695
20	2	5504.5	10	75	1006		11.692041

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	5504.1	11	75	1523		0.038941
2	3	5504.1	11	50	1225	1644	0.868552
3	2	5504.1	11	85	1033		1.563633
4	3	5504.1	11	65	1665	1153	1.974746
5	2	5504.1	11	95	1912		2.820703
6	1	5504.1	11	60			3.196269
7	3	5504.1	11	55	1092	1697	4.320182
8	1	5504.1	11	65			4.951158
9	2	5504.1	11	80	1938		5.197073
10	1	5504.1	11	80			6.220797
11	2	5504.1	11	95	1529		6.821491
12	2	5504.1	11	65	1176		7.098151
13	1	5504.1	11	80			8.094125
14	3	5504.1	11	60	1678	1778	8.463656
15	2	5504.1	11	60	1722		8.991307
16	2	5504.1	11	100	1816		9.589689
17	3	5504.1	11	95	1849	1293	10.551351
18	1	5504.1	11	70			10.862826
19	3	5504.1	11	85	1800	1866	11.939956

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	3	5494.7	8	80	1784	1570	1.48186
2	3	5494.7	8	55	1535	1865	1.642403
3	3	5494.7	8	100	1680	1111	3.463646
4	2	5494.7	8	60	1585		5.017284
5	1	5494.7	8	55			6.302458
6	2	5494.7	8	70	1264		7.764356
7	3	5494.7	8	60	1415	1803	10.313458
8	3	5494.7	8	75	1541	1742	11.865002

*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	90.0%	70.0%
2	USA Bin 6 Radar Test 2	0		
3	USA Bin 6 Radar Test 3	0		
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	0		
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)
5	5492	15
20	5495	60
35	5496	105
73	5501	219

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
44	5495	132

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
84	5499	252

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
3	5503	9
6	5492	18
33	5495	99
52	5496	156
56	5505	168
81	5508	243
87	5497	261
96	5504	288

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
5	5496	15
9	5492	27
37	5502	111

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
13	5502	39
15	5505	45
56	5497	168
97	5504	291

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
42	5501	126
76	5495	228
91	5496	273

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
42	5496	126
68	5494	204
86	5497	258
89	5492	267

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
0	5499	0
15	5507	45
21	5508	63
74	5502	222
95	5495	285

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
22	5502	66
65	5504	195
81	5498	243

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
10	5499	30
34	5494	102
64	5498	192

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
8	5506	24

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
0	5503	0
41	5497	123

94	5508	282

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
3	5507	9
44	5500	132
53	5498	159

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
18	5494	54
97	5504	291

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
4	5494	12
5	5492	15
38	5498	114
70	5507	210
76	5496	228

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
37	5505	111
40	5503	120
71	5501	213
96	5500	288

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
35	5492	105
53	5496	159
78	5506	234
79	5498	237
89	5504	267

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
47	5507	141
96	5492	288

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
10	5502	30
43	5500	129
73	5506	219
96	5507	288
98	5501	294

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
2	5498	6
61	5501	183
85	5508	255
97	5499	291

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
59	5493	177

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
21	5496	63
59	5505	177

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
34	5503	102
71	5506	213
90	5507	270

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
44	5500	132
95	5506	285

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
10	5492	30
85	5497	255

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)

61	5500	183
67	5493	201
82	5494	246
86	5508	258

USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
4	5496	12
52	5504	156
94	5495	282
98	5505	294

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
0	5502	0
25	5501	75
31	5498	93
39	5492	117
90	5503	270
95	5495	285

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
12	5500	36
37	5493	111
93	5502	279

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