



Dynamic Frequency Selection (DFS) Test Report

AIR-CAP3702y-A-K9

AIR-SAP3702y-A-K9

Cisco Aironet 802.11ac Dual Band Access Points

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Also covers:

AIR-CAP3702y-T-K9, AIR-SAP3702y-T-K9

AIR-CAP3702y-Z-K9, AIR-SAP3702y-Z-K9

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

5250-5350, 5470-5725 MHz

Against the following Specifications:

CFR47 Part 15.407

RSS210

Cisco Systems

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San Jose, CA 95134



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Dynamic Frequency Selection (DFS) Test Results

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.

1.0 UNII Device Description

1. The 3700 Series Cisco Aironet 802.11ac Access Point operates in the following bands:
 - a. 5150-5250 MHz
 - b. 5250-5350 MHz
 - c. 5470-5725 MHz (excluding 5600-5650 MHz)
 - d. 5725-5850 MHz
2. The maximum EIRP of the 5GHz equipment is 35 dBm, and the minimum possible EIRP is 2 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-ANT2535SDW-R	Dual-resonant "stubby" monopole	3 / 5
	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.

2.0 DFS Detection Thresholds

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

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

2. DFS Response requirement values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 80% of the 99% power bandwidth See Note 3.
Note 1: The instant that the <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> begins is as follows: - For the Short pulse radar Test Signals this instant is the end of the <i>Burst</i>. - For the Frequency Hopping radar Test Signal, this instant is the end of the last radar <i>Burst</i> generated. - For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission. 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 <i>Channel</i> changes (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 1 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.	

3.0 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 Trials
1	1	1428	18	60%	30
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

A minimum of 30 unique waveforms are required for each of the short pulse radar types 2 through 4. For short pulse radar type 1, the same waveform is used a minimum of 30 times. 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. The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.

2. Long Pulse Radar Test Waveform

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

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

Each waveform is defined as follows:

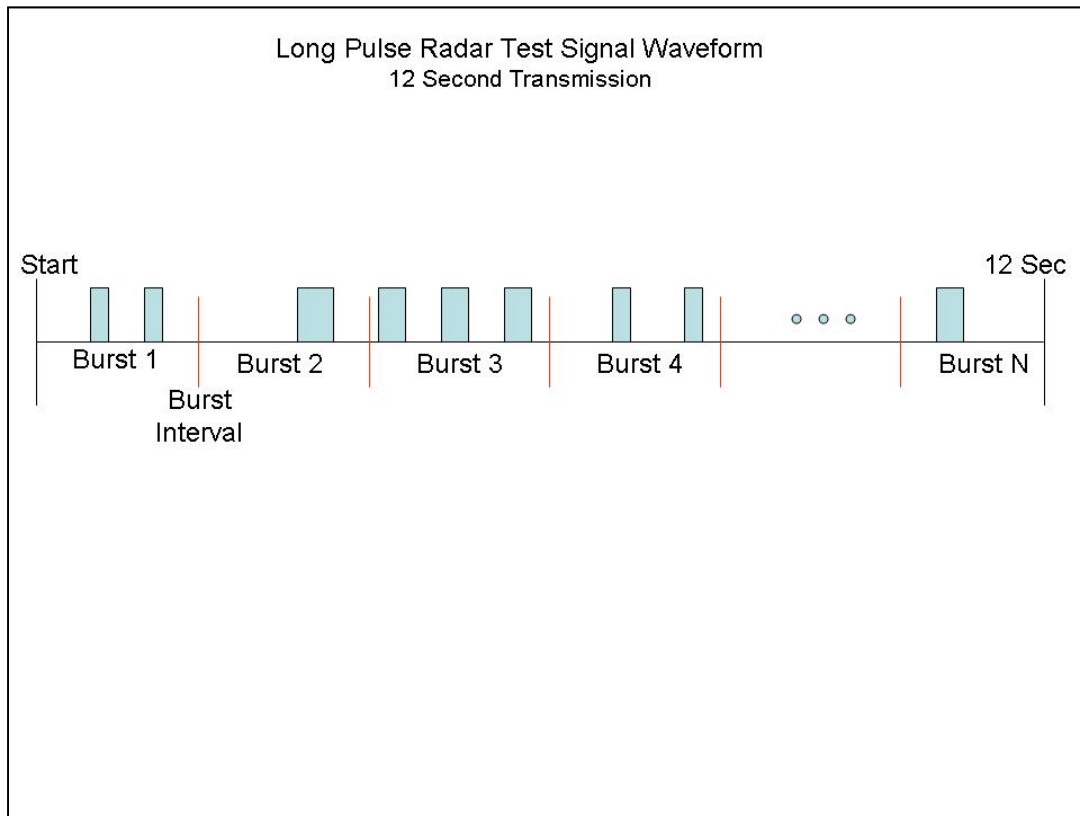
- 1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
- 2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst_Count.
- 3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- 4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.

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

A representative example of a Long Pulse radar test waveform:

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

Graphical Representation of a Long Pulse radar Test Waveform



3.

Frequency Hopping 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

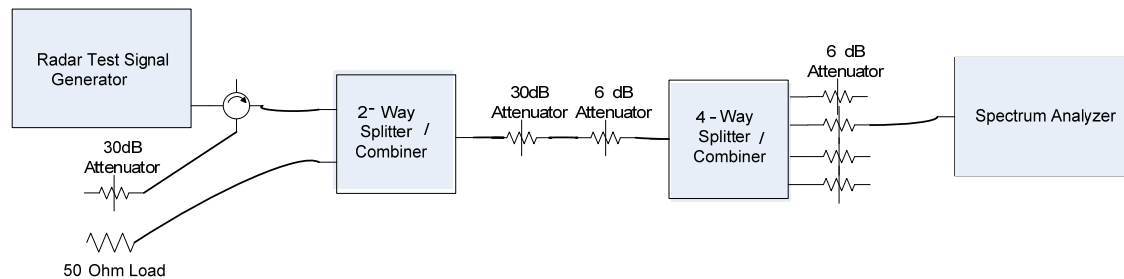
For the Frequency Hopping Radar Type, the same *Burst* parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected¹ from the hopping sequence defined by the following algorithm:

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.

4.0 Radar Waveform Calibration

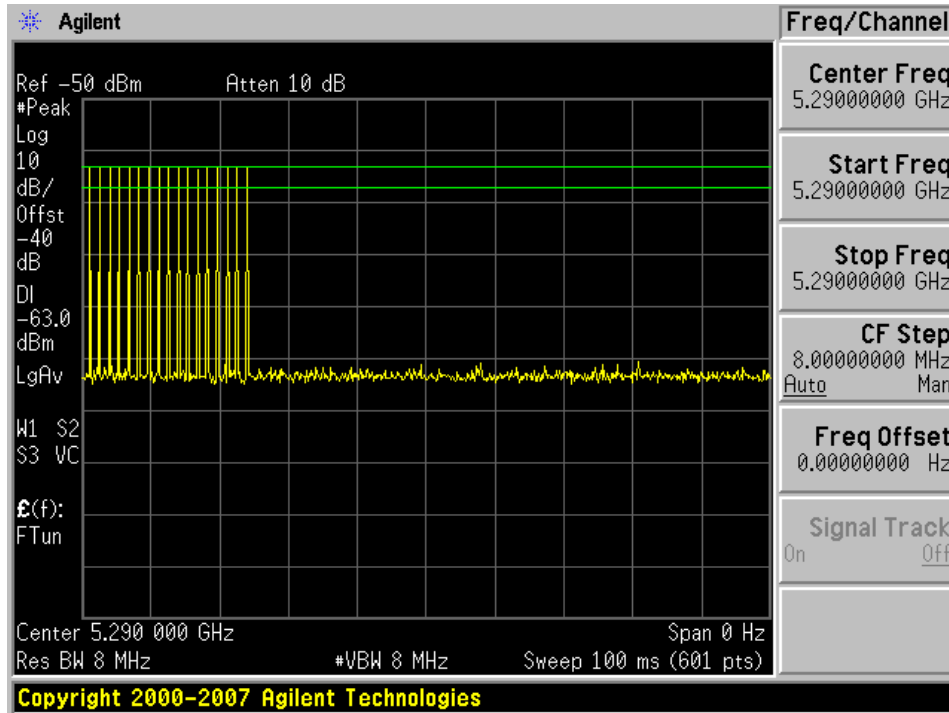
1. The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero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

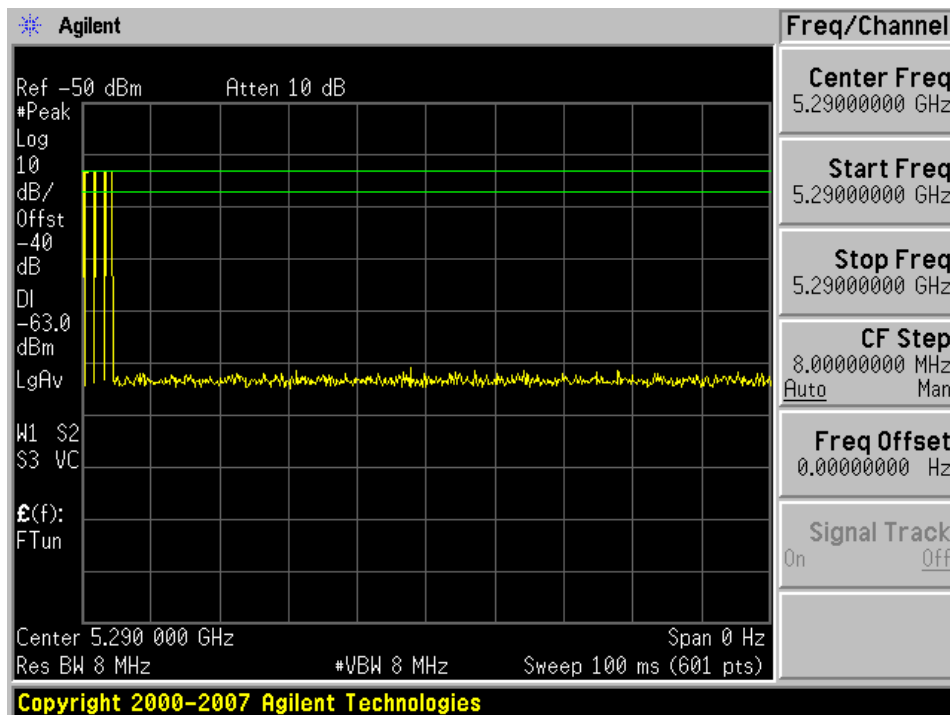


Conducted Calibration Setup

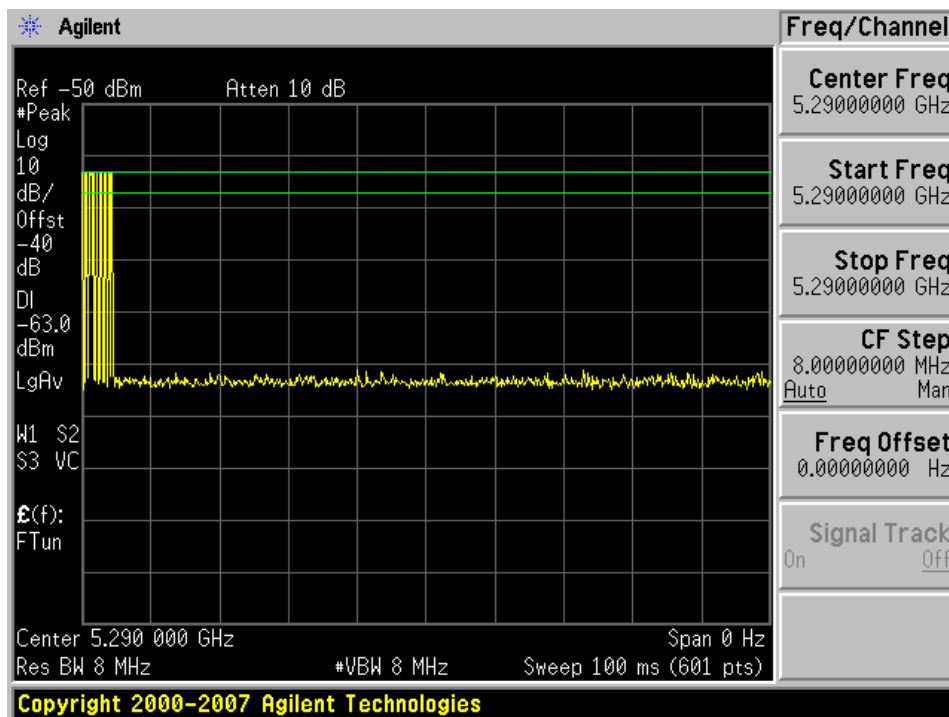
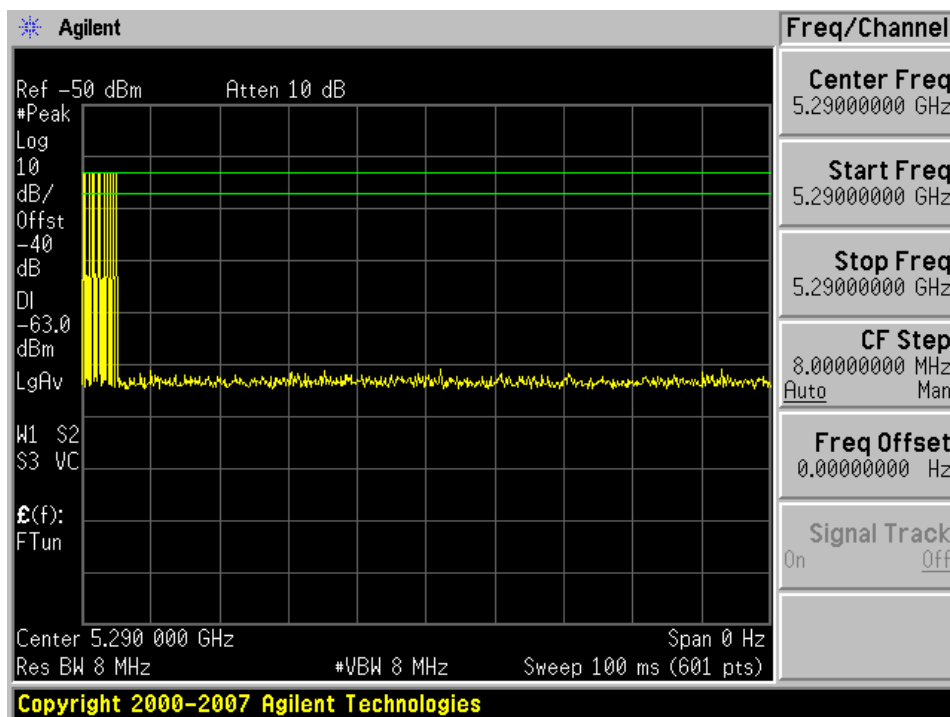
2. Following are the calibration plots for each of the required radar waveforms.

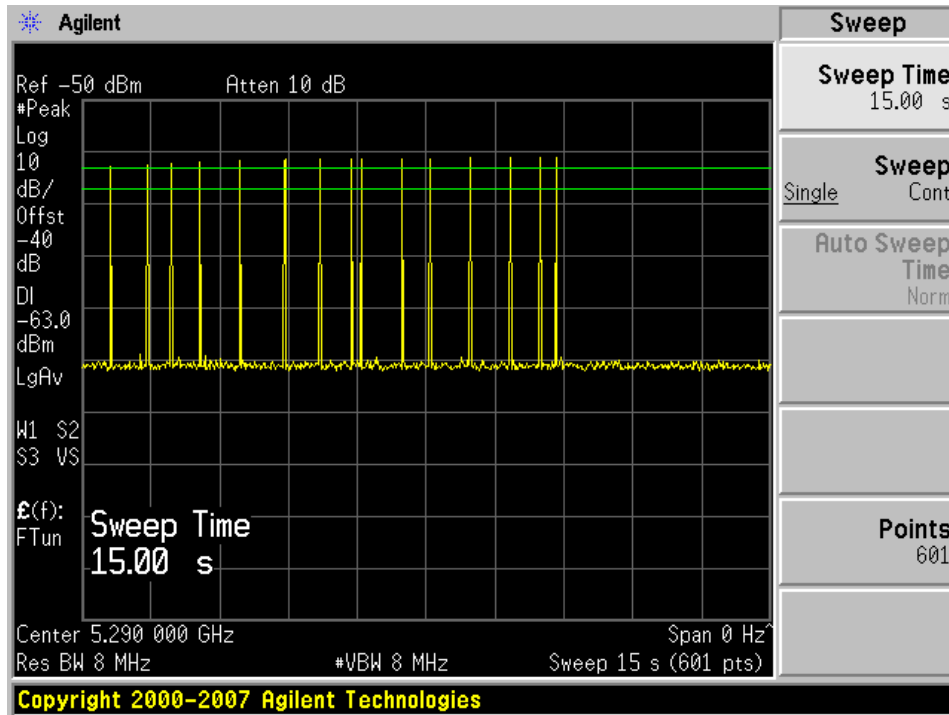
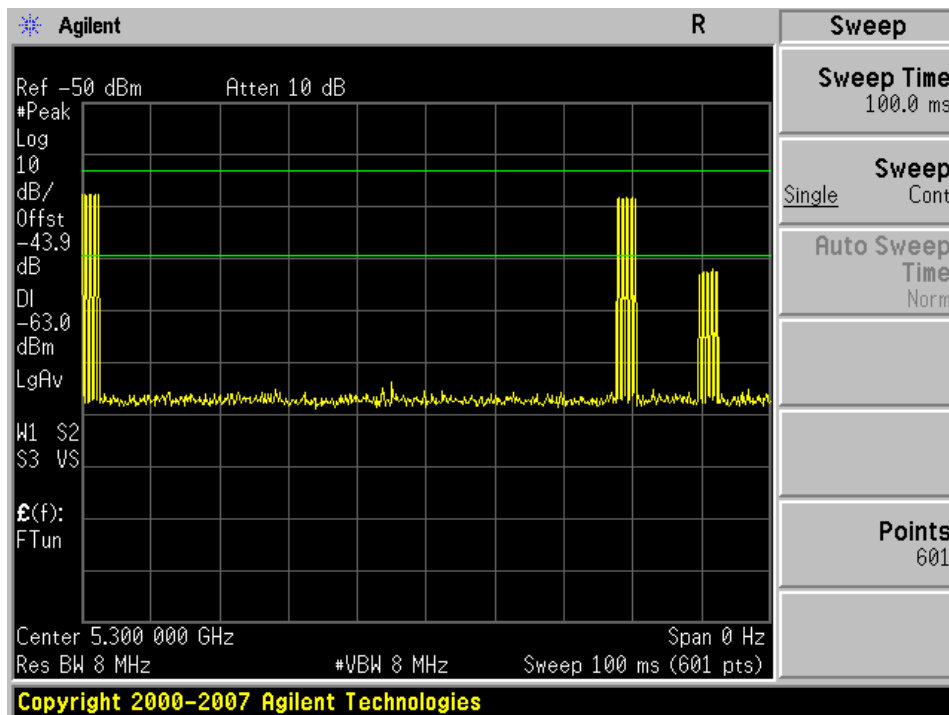


USA Bin 1 Radar Calibration



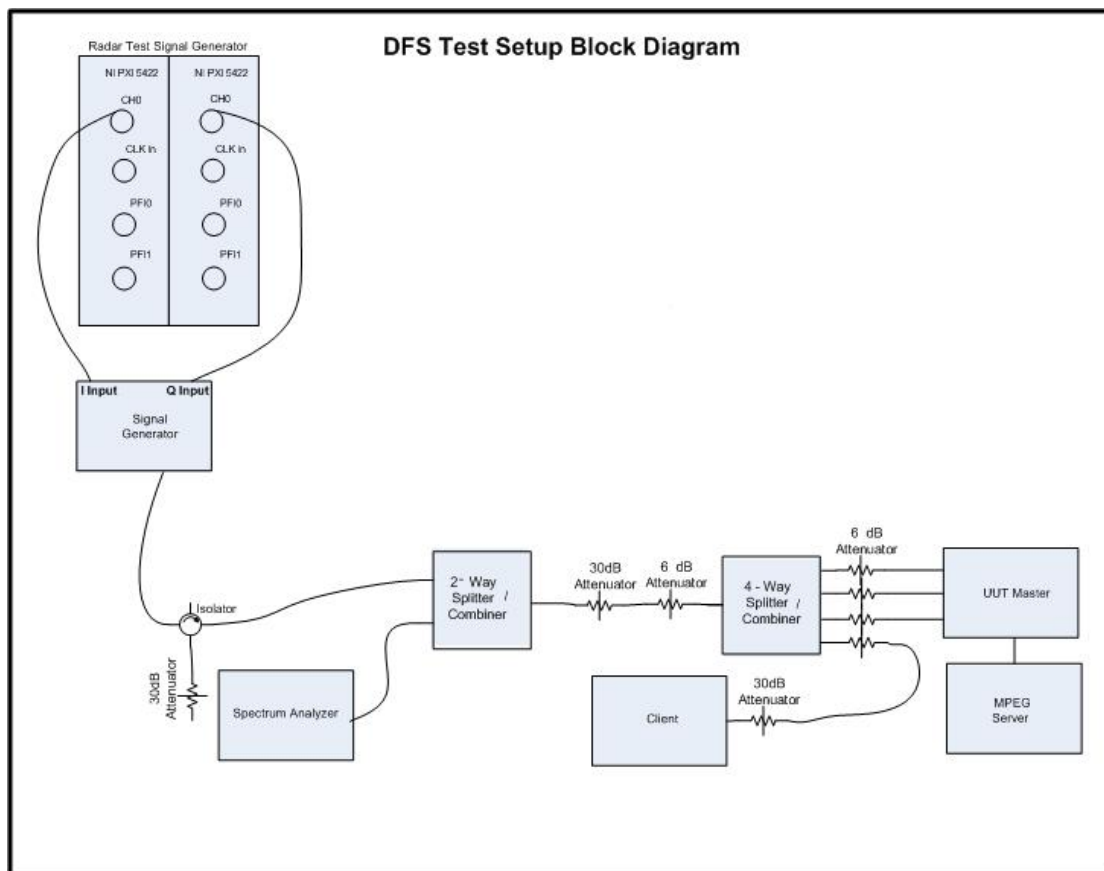
USA Bin 2 Radar Calibration

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

**USA Bin 5 Radar Calibration****USA Frequency Hopping Radar Calibration**

5.0 Test Procedure/Results

1. 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.
2. 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



DFS Setup

The test setup is constructed of the following equipment:

Radar Test Signal Generator

National Instruments NI PXI-1042 8-Slot 3U Chassis

National Instruments NI PXI-5422 16-Bit 200MS/s Arbitrary Waveform Generator (Qty. 2)

Agilent N5182A MXG Signal Generator

Agilent E4448A Spectrum Analyzer

Mini-Circuits ZFSC-2-9G Splitter/Combiner (Qty. 1)

Weinschel 1594 4 to 1 power Splitter/Combiner (Qty. 1)

Ditom Microwave D3C-4080-11 Circulator/Isolator (Qty. 1)

Mini-Circuits BW-S30W2 30dB Attenuator (Qty. 4)



Mini-Circuits BW-S6W2 30dB Attenuator (Qty. 5)
Megaphase SF26 S1S1 36" Coaxial Cable (Qty. 2)
MicroCoax 18" Coaxial Cable (Qty. 3)
Dell 600M Laptop (Qty. 2: 1 for wireless client, 1 for MPEG server)
Cisco-Linksys WPC600N 802.11n NIC card (wireless client)

The waveform parameters from within the bounds of the signal type are selected randomly using uniform distribution.

3. UNII Detection Bandwidth

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 20 MHz signals is 16 MHz, the the 99% channel bandwidth for 40 MHz signals is 38 MHz, and the 99% channel bandwidth for 80 MHz signals is 75 MHz. (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 80% of the UUT transmitter 99% power bandwidth (13 MHz for 20MHz signals, 30 MHz for 40 MHz signals, and 60 MHz for 80 MHz signals), otherwise, the UUT does not comply with DFS requirements.

UNII Detection Bandwidth Results, 20MHz Signal Bandwidth

	DFS Detection Trials (1=Detection, Blank= No Detection)											
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)
5290	0	1	1	1	1	0	0	1	0	0	50	18
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	0	1	1	1	1	1	0	1	0	70	

USA Bin 1 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)
5290	1	1	0	0	1	0	1	1	0	0	50	18
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	0	1	1	1	1	1	1	0	0	0	60	

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)
5290	0	0	0	0	1	1	1	1	0	1	50	18
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	0	0	0	0	1	0	1	50	

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)
5290	0	0	0	0	0	0	0	0	0	0	0	16
5291	0	0	0	0	0	0	0	0	0	0	0	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	0	0	0	0	0	0	0	0	0	0	0	
5310	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)
5290	1	0	1	1	1	1	1	1	1	1	90	20
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	0	1	1	1	1	1	1	1	1	90	

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)
5290	1	1	0	1	1	1	0	1	1	1	80	18
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	0	1	1	90	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	0	90	

USA Frequency Hopping Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5290	0	0	0	0	0	0	0	0	0	0	0	36
5291	1	0	0	0	0	0	0	0	0	1	20	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	1	1	1	1	1	1	100	
5312	1	1	1	1	1	1	1	1	1	1	100	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	1	1	1	1	1	1	1	1	1	1	100	
5329	1	0	0	1	0	0	1	0	1	0	40	
5330	0	0	0	0	0	0	0	0	0	0	0	

USA Bin 1 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5290	0	0	0	0	0	0	0	0	0	0	0	36
5291	0	1	0	0	0	0	1	1	1	0	40	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	0	90	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	0	1	1	1	1	1	90	
5312	1	1	0	1	1	1	1	1	1	1	90	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	1	1	1	1	1	0	1	1	1	1	90	
5329	1	0	0	0	0	0	0	0	0	1	20	
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5290	0	0	0	0	0	0	0	0	0	0	0	34
5291	0	0	0	0	0	0	0	0	0	0	0	
5292	0	1	0	0	0	0	1	0	1	0	30	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	1	1	1	1	1	1	100	
5312	1	1	1	1	1	1	1	1	1	1	100	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	1	1	0	1	0	1	0	1	0	1	60	
5329	0	1	0	1	0	0	0	0	0	0	20	
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5290	0	0	0	0	0	0	0	0	0	0	0	34
5291	0	0	0	0	0	0	0	0	0	0	0	
5292	0	0	0	0	0	0	0	0	0	0	0	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	1	1	1	1	1	1	100	
5312	1	1	1	1	1	1	1	1	1	1	100	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	0	0	0	0	0	0	0	0	0	0	0	
5329	0	0	0	0	0	0	0	0	0	0	0	
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5290	1	1	1	1	1	1	1	1	1	1	100	40
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	1	1	1	1	1	1	100	
5312	1	1	1	1	1	1	1	1	1	1	100	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	1	1	1	1	1	1	1	1	1	1	100	
5329	1	1	1	1	1	1	1	1	1	1	100	
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5290	1	1	1	1	1	1	1	1	1	1	100	40
5291	1	1	1	1	1	1	1	1	1	1	100	
5292	1	1	1	1	1	1	1	1	1	1	100	
5293	1	1	1	1	1	1	1	1	1	1	100	
5294	1	1	1	1	1	1	1	1	1	1	100	
5295	1	1	1	1	1	1	1	1	1	1	100	
5296	1	1	1	1	1	1	1	1	1	1	100	
5297	1	1	1	1	1	1	1	1	1	1	100	
5298	1	1	1	1	1	1	1	1	1	1	100	
5299	1	1	1	1	1	1	1	1	1	1	100	
5300	1	1	1	1	1	1	1	1	1	1	100	
5301	1	1	1	1	1	1	1	1	1	1	100	
5302	1	1	1	1	1	1	1	1	1	1	100	
5303	1	1	1	1	1	1	1	1	1	1	100	
5304	1	1	1	1	1	1	1	1	1	1	100	
5305	1	1	1	1	1	1	1	1	1	1	100	
5306	1	1	1	1	1	1	1	1	1	1	100	
5307	1	1	1	1	1	1	1	1	1	1	100	
5308	1	1	1	1	1	1	1	1	1	1	100	
5309	1	1	1	1	1	1	1	1	1	1	100	
5310	1	1	1	1	1	1	1	1	1	1	100	
5311	1	1	1	1	1	1	1	1	1	1	100	
5312	1	1	1	1	1	1	1	1	1	1	100	
5313	1	1	1	1	1	1	1	1	1	1	100	
5314	1	1	1	1	1	1	1	1	1	1	100	
5315	1	1	1	1	1	1	1	1	1	1	100	
5316	1	1	1	1	1	1	1	1	1	1	100	
5317	1	1	1	1	1	1	1	1	1	1	100	
5318	1	1	1	1	1	1	1	1	1	1	100	
5319	1	1	1	1	1	1	1	1	1	1	100	
5320	1	1	1	1	1	1	1	1	1	1	100	
5321	1	1	1	1	1	1	1	1	1	1	100	
5322	1	1	1	1	1	1	1	1	1	1	100	
5323	1	1	1	1	1	1	1	1	1	1	100	
5324	1	1	1	1	1	1	1	1	1	1	100	
5325	1	1	1	1	1	1	1	1	1	1	100	
5326	1	1	1	1	1	1	1	1	1	1	100	
5327	1	1	1	1	1	1	1	1	1	1	100	
5328	1	1	1	1	1	1	1	1	1	1	100	
5329	1	1	1	1	1	1	1	1	1	1	100	
5330	1	1	1	1	1	1	1	1	1	1	100	

USA Frequency Hopping Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5250	0	0	0	0	0	0	0	0	0	0	0	62
5251	0	0	0	0	0	0	0	0	0	0	0	
5252	0	0	0	0	0	0	0	0	0	0	0	
5253	0	0	0	0	0	0	0	0	0	0	0	
5254	0	0	0	0	0	0	0	0	0	0	0	
5255	0	0	0	0	0	0	0	0	0	0	0	
5256	0	0	0	0	0	0	0	0	0	0	0	
5257	0	0	0	0	0	0	1	0	0	0	10	
5258	0	1	1	1	0	0	1	1	0	0	50	
5259	1	1	1	1	1	1	1	1	1	1	100	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	1	1	1	1	1	1	1	100	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	1	1	1	1	100	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	1	1	1	1	1	1	100	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	

5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	1	1	1	1	1	1	1	1	1	100
5321	1	0	1	1	1	1	1	1	1	1	90
5322	1	0	1	1	1	0	0	1	1	1	70
5323	0	0	0	1	1	0	0	0	0	0	20
5324	0	0	0	0	0	0	0	0	0	0	0
5325	0	0	0	0	0	0	0	0	0	0	0
5326	0	0	0	0	0	0	0	0	0	0	0
5327	0	0	0	0	0	0	0	0	0	0	0
5328	0	0	0	0	0	0	0	0	0	0	0
5329	0	0	0	0	0	0	0	0	0	0	0
5330	0	0	0	0	0	0	0	0	0	0	0

USA Bin 1 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5250	0	0	0	0	0	0	0	0	0	0	0	60
5251	0	0	0	0	0	0	0	0	0	0	0	
5252	0	0	0	0	0	0	0	0	0	0	0	
5253	0	0	0	0	0	0	0	0	0	0	0	
5254	0	0	0	0	0	0	0	0	0	0	0	
5255	0	0	0	0	0	0	0	0	0	0	0	
5256	0	0	0	0	0	0	0	0	0	0	0	
5257	0	0	0	0	0	0	0	0	0	0	0	
5258	0	0	0	0	0	0	0	1	1	0	20	
5259	1	1	1	1	1	1	1	1	1	1	100	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	0	1	1	1	1	1	1	90	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	0	1	1	1	90	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	1	1	1	1	1	1	100	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	

5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	1	1	1	1	1	1	1	1	1	100
5321	1	1	1	1	0	1	0	1	1	1	80
5322	0	0	0	1	1	0	1	0	0	0	30
5323	0	0	0	1	0	0	0	0	0	0	10
5324	0	0	0	0	0	0	0	0	0	0	0
5325	0	0	0	0	0	0	0	0	0	0	0
5326	0	0	0	0	0	0	0	0	0	0	0
5327	0	0	0	0	0	0	0	0	0	0	0
5328	0	0	0	0	0	0	0	0	0	0	0
5329	0	0	0	0	0	0	0	0	0	0	0
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5250	0	0	0	0	0	0	0	0	0	0	0	62
5251	0	0	0	0	0	0	0	0	0	0	0	
5252	0	0	0	0	0	0	0	0	0	0	0	
5253	0	0	0	0	0	0	0	0	0	0	0	
5254	0	0	0	0	0	0	0	0	0	0	0	
5255	0	0	0	0	0	0	0	0	0	0	0	
5256	0	0	0	0	0	0	0	0	0	0	0	
5257	0	0	0	0	0	0	0	0	0	1	10	
5258	1	0	0	1	0	1	1	1	0	1	60	
5259	1	0	1	1	1	1	1	1	1	1	90	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	1	1	1	1	1	1	1	100	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	1	1	1	1	100	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	1	1	1	1	1	1	100	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	



5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	1	1	1	1	1	1	1	1	1	100
5321	1	1	1	1	1	1	0	1	1	1	90
5322	1	0	0	1	1	1	0	1	1	1	70
5323	0	1	0	0	1	0	0	0	0	0	20
5324	0	1	0	0	0	0	0	0	1	0	20
5325	0	0	0	0	0	0	0	0	0	0	0
5326	0	0	0	0	0	0	0	0	0	0	0
5327	0	0	0	0	0	0	0	0	0	0	0
5328	0	0	0	0	0	0	0	0	0	0	0
5329	0	0	0	0	0	0	0	0	0	0	0
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5250	0	0	0	0	0	0	0	0	0	0	0	64
5251	0	0	0	0	0	0	0	0	0	0	0	
5252	0	0	0	0	0	0	0	0	0	0	0	
5253	0	0	0	0	0	0	0	0	0	0	0	
5254	0	0	0	0	0	0	0	0	0	0	0	
5255	0	0	0	0	0	0	0	0	0	0	0	
5256	0	1	1	1	1	1	1	1	1	1	90	
5257	1	1	1	1	1	0	1	1	1	0	80	
5258	1	1	1	1	1	1	1	1	1	1	100	
5259	1	1	1	1	1	1	1	1	1	1	100	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	1	1	1	1	1	1	1	100	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	1	1	1	1	100	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	0	1	1	1	1	1	90	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	

5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	0	1	1	1	1	1	1	1	1	90
5321	1	1	1	1	1	1	1	1	1	1	100
5322	1	1	0	1	1	1	1	1	1	1	90
5323	1	1	1	0	1	1	1	1	1	1	90
5324	1	1	1	1	1	1	1	1	1	0	90
5325	0	0	0	0	0	0	0	0	0	0	0
5326	0	0	0	0	0	0	0	0	0	0	0
5327	0	0	0	0	0	0	0	0	0	0	0
5328	0	0	0	0	0	0	0	0	0	0	0
5329	0	0	0	0	0	0	0	0	0	0	0
5330	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)
	1	2	3	4	5	6	7	8	9	10		
5250	1	0	0	0	0	0	0	0	1	1	30	78
5251	1	1	1	1	1	1	1	1	1	1	100	
5252	1	1	1	1	1	1	1	1	1	1	100	
5253	1	1	1	1	1	1	1	1	1	1	100	
5254	1	1	1	1	1	1	1	1	1	1	100	
5255	1	1	1	1	1	1	1	1	1	1	100	
5256	1	1	1	1	1	1	1	1	1	1	100	
5257	1	1	1	1	1	1	1	1	1	1	100	
5258	1	1	1	1	1	1	1	1	1	1	100	
5259	1	1	1	1	1	1	1	1	1	1	100	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	1	1	1	1	1	1	1	100	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	1	1	1	1	100	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	1	1	1	1	1	1	100	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	

5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	1	1	1	1	1	1	1	1	1	100
5321	1	1	1	1	1	1	1	1	1	1	100
5322	1	1	1	1	1	1	1	1	1	1	100
5323	1	1	1	1	1	1	1	1	1	1	100
5324	1	1	1	1	1	1	1	1	1	1	100
5325	1	1	1	1	1	1	1	1	1	1	100
5326	1	1	1	1	1	1	1	1	1	1	100
5327	1	1	1	1	1	1	1	1	1	1	100
5328	1	1	1	1	1	1	1	1	1	1	100
5329	1	1	1	1	1	1	1	1	1	1	100
5330	1	1	1	1	1	0	1	1	1	1	90

USA Bin 5 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5250	1	1	1	1	1	1	1	1	1	1	100	80
5251	1	1	1	1	1	1	1	1	1	1	100	
5252	1	1	1	1	1	1	1	1	1	1	100	
5253	1	1	1	1	1	1	1	1	1	1	100	
5254	1	1	1	1	1	1	1	1	1	1	100	
5255	1	1	1	1	1	1	1	1	1	1	100	
5256	1	1	1	1	1	1	1	1	1	1	100	
5257	1	1	1	1	1	1	1	1	1	1	100	
5258	1	1	1	1	1	1	1	1	1	1	100	
5259	1	1	1	1	1	1	1	1	1	1	100	
5260	1	1	1	1	1	1	1	1	1	1	100	
5261	1	1	1	1	1	1	1	1	1	1	100	
5262	1	1	1	1	1	1	1	1	1	1	100	
5263	1	1	1	1	1	1	1	1	1	1	100	
5264	1	1	1	1	1	1	1	1	1	1	100	
5265	1	1	1	1	1	1	1	1	1	1	100	
5266	1	1	1	1	1	1	1	1	1	1	100	
5267	1	1	1	1	1	1	1	1	1	1	100	
5268	1	1	1	1	1	1	1	1	1	1	100	
5269	1	1	1	1	1	1	1	1	1	1	100	
5270	1	1	1	1	1	1	1	1	1	1	100	
5271	1	1	1	1	1	1	1	1	1	1	100	
5272	1	1	1	1	1	1	1	1	1	1	100	
5273	1	1	1	1	1	1	1	1	1	1	100	
5274	1	1	1	1	1	1	1	1	1	1	100	
5275	1	1	1	1	1	1	1	1	1	1	100	
5276	1	1	1	1	1	1	1	1	1	1	100	
5277	1	1	1	1	1	1	1	1	1	1	100	
5278	1	1	1	1	1	1	1	1	1	1	100	
5279	1	1	1	1	1	1	1	1	1	1	100	
5280	1	1	1	1	1	1	1	1	1	1	100	
5281	1	1	1	1	1	1	1	1	1	1	100	
5282	1	1	1	1	1	1	1	1	1	1	100	
5283	1	1	1	1	1	1	1	1	1	1	100	
5284	1	1	1	1	1	1	1	1	1	1	100	
5285	1	1	1	1	1	1	1	1	1	1	100	
5286	1	1	1	1	1	1	1	1	1	1	100	
5287	1	1	1	1	1	1	1	1	1	1	100	
5288	1	1	1	1	1	1	1	1	1	1	100	
5289	1	1	1	1	1	1	1	1	1	1	100	
5290	1	1	1	1	1	1	1	1	1	1	100	
5291	1	1	1	1	1	1	1	1	1	1	100	

5292	1	1	1	1	1	1	1	1	1	1	100
5293	1	1	1	1	1	1	1	1	1	1	100
5294	1	1	1	1	1	1	1	1	1	1	100
5295	1	1	1	1	1	1	1	1	1	1	100
5296	1	1	1	1	1	1	1	1	1	1	100
5297	1	1	1	1	1	1	1	1	1	1	100
5298	1	1	1	1	1	1	1	1	1	1	100
5299	1	1	1	1	1	1	1	1	1	1	100
5300	1	1	1	1	1	1	1	1	1	1	100
5301	1	1	1	1	1	1	1	1	1	1	100
5302	1	1	1	1	1	1	1	1	1	1	100
5303	1	1	1	1	1	1	1	1	1	1	100
5304	1	1	1	1	1	1	1	1	1	1	100
5305	1	1	1	1	1	1	1	1	1	1	100
5306	1	1	1	1	1	1	1	1	1	1	100
5307	1	1	1	1	1	1	1	1	1	1	100
5308	1	1	1	1	1	1	1	1	1	1	100
5309	1	1	1	1	1	1	1	1	1	1	100
5310	1	1	1	1	1	1	1	1	1	1	100
5311	1	1	1	1	1	1	1	1	1	1	100
5312	1	1	1	1	1	1	1	1	1	1	100
5313	1	1	1	1	1	1	1	1	1	1	100
5314	1	1	1	1	1	1	1	1	1	1	100
5315	1	1	1	1	1	1	1	1	1	1	100
5316	1	1	1	1	1	1	1	1	1	1	100
5317	1	1	1	1	1	1	1	1	1	1	100
5318	1	1	1	1	1	1	1	1	1	1	100
5319	1	1	1	1	1	1	1	1	1	1	100
5320	1	1	1	1	1	1	1	1	1	1	100
5321	1	1	1	1	1	1	1	1	1	1	100
5322	1	1	1	1	1	1	1	1	1	1	100
5323	1	1	1	1	1	1	1	1	1	1	100
5324	1	1	1	1	1	1	1	1	1	1	100
5325	1	1	1	1	1	1	1	1	1	1	100
5326	1	1	1	1	1	1	1	1	1	1	100
5327	1	1	1	1	1	1	1	1	1	1	100
5328	1	1	1	1	1	1	1	1	1	1	100
5329	1	1	1	1	1	1	1	1	1	1	100
5330	1	1	1	1	1	1	1	1	1	1	100

USA Frequency Hopping Radar

4. Initial Channel Availability Check Time

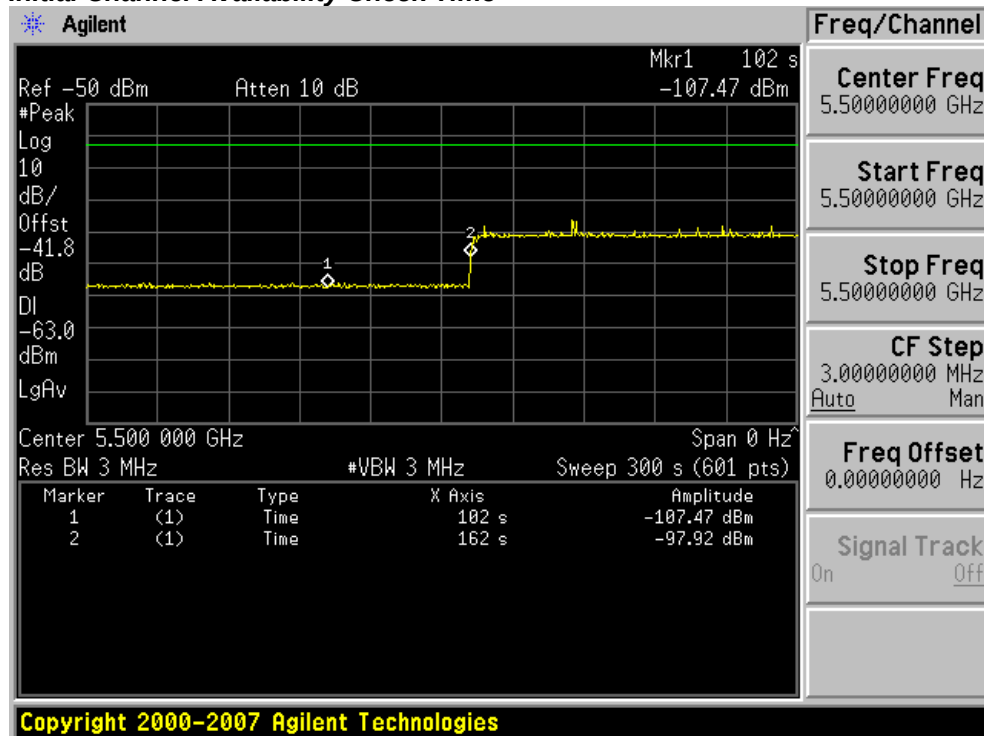
The tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

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

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

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

Initial Channel Availability Check Time



5. 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.

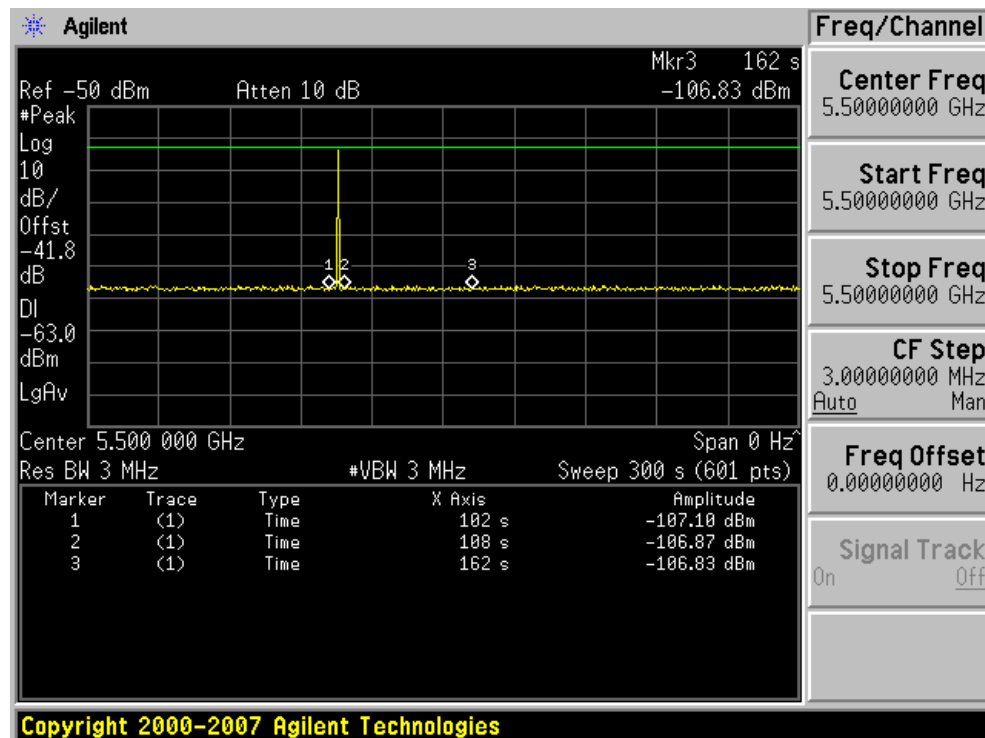
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

A single Burst of short pulse of radar type 1 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



6. 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.

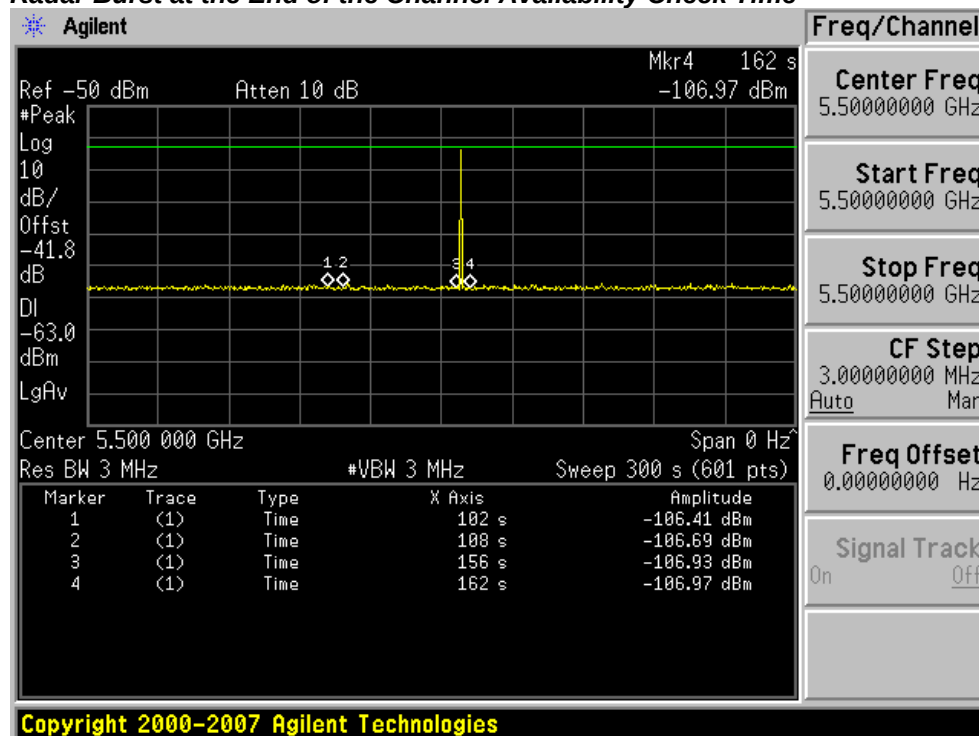
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

A single Burst of short pulse of radar type 1 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



7. 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.

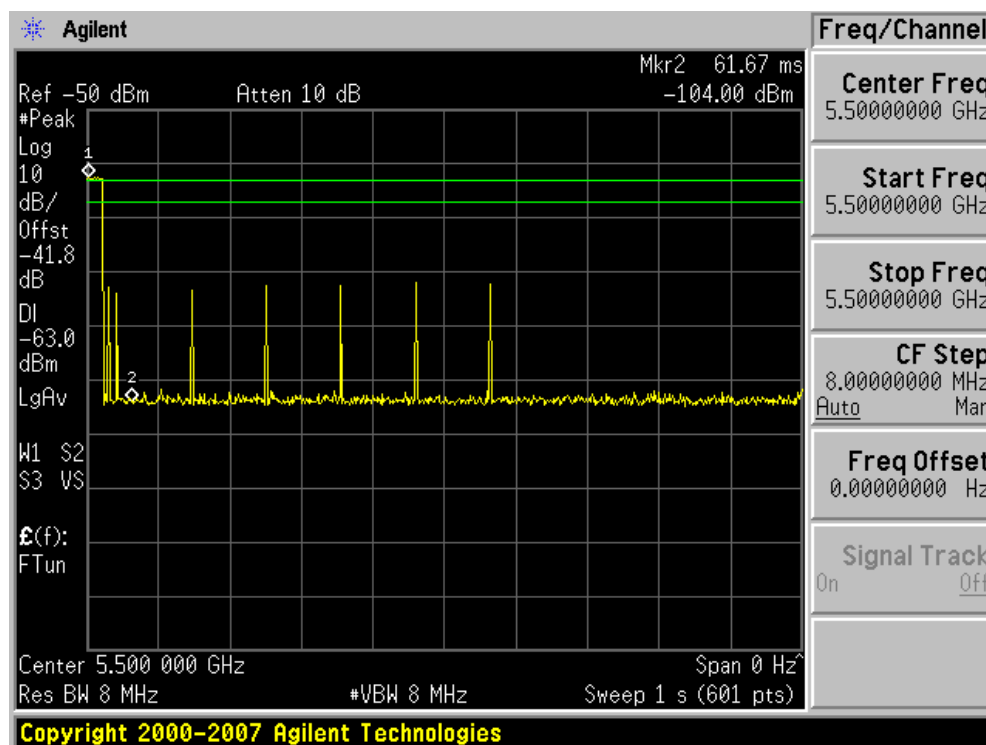
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

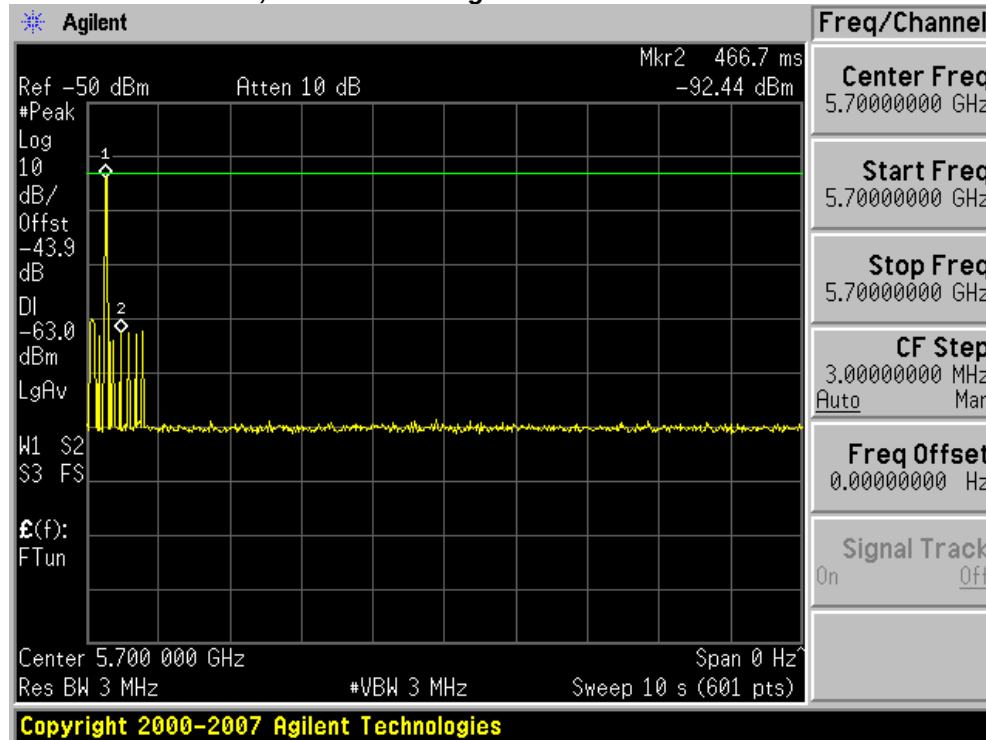
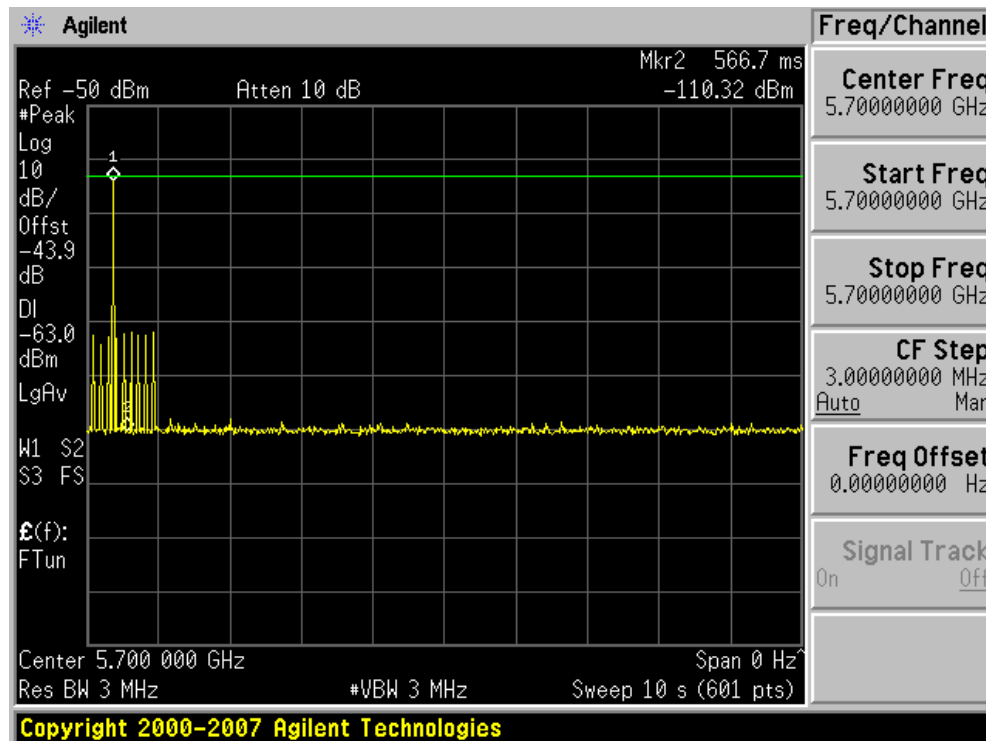
A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

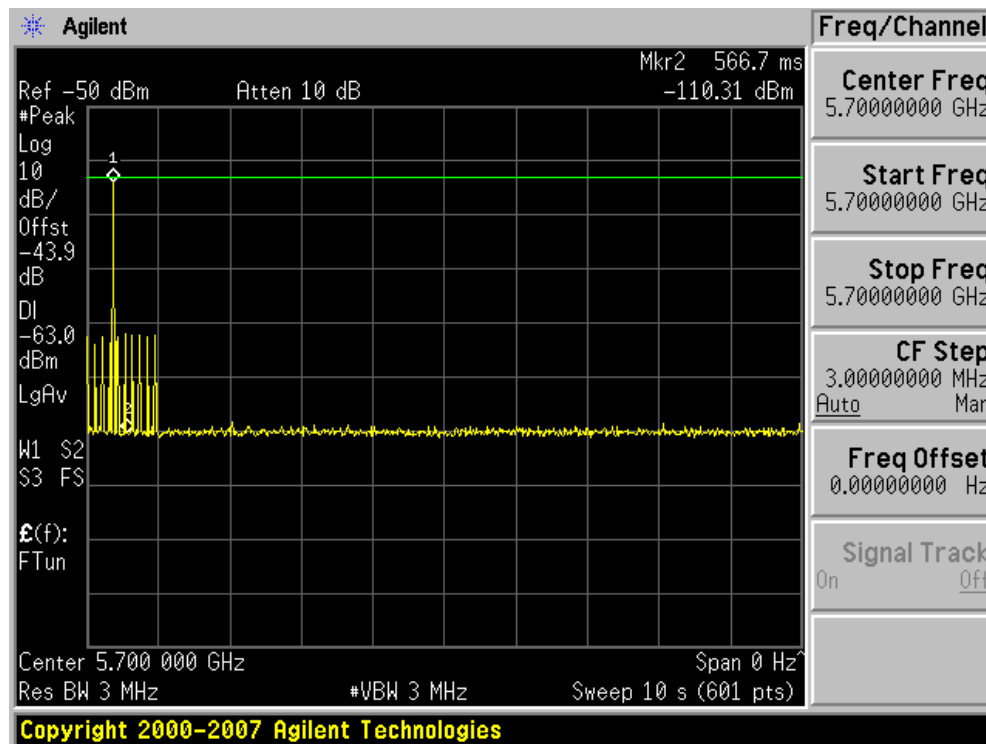
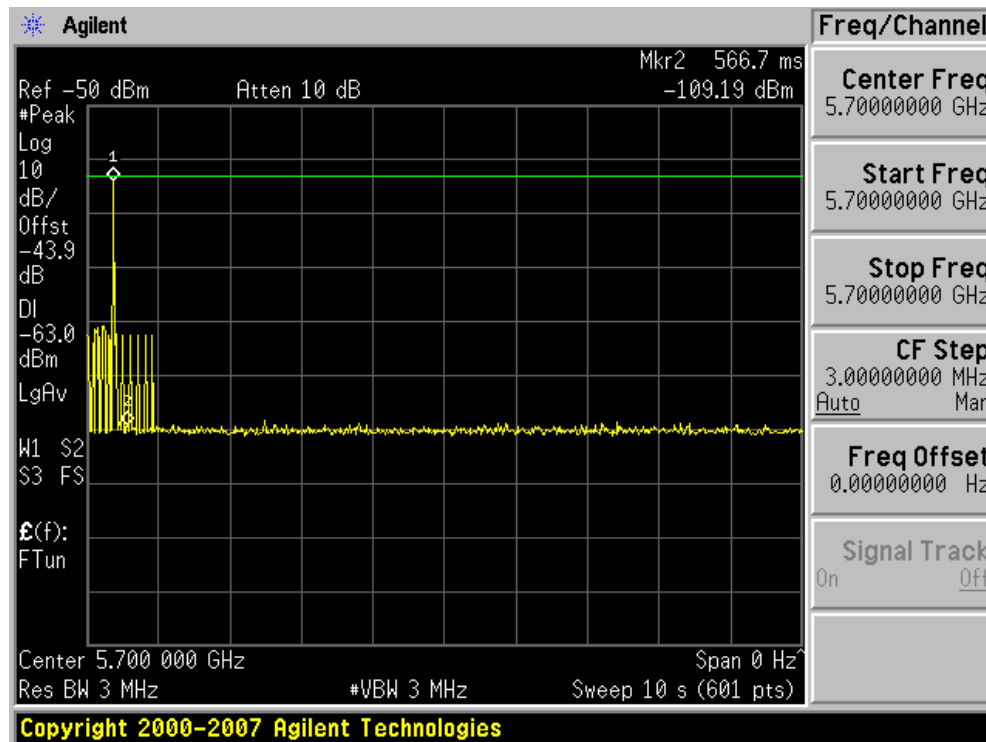
At time T_0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -63dBm.

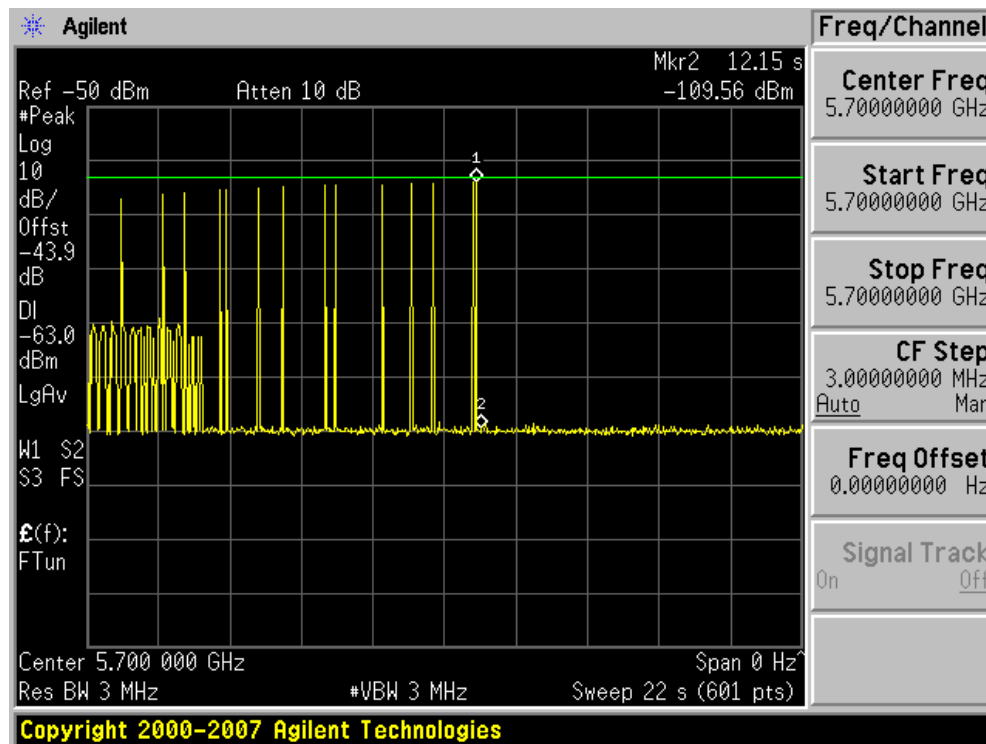
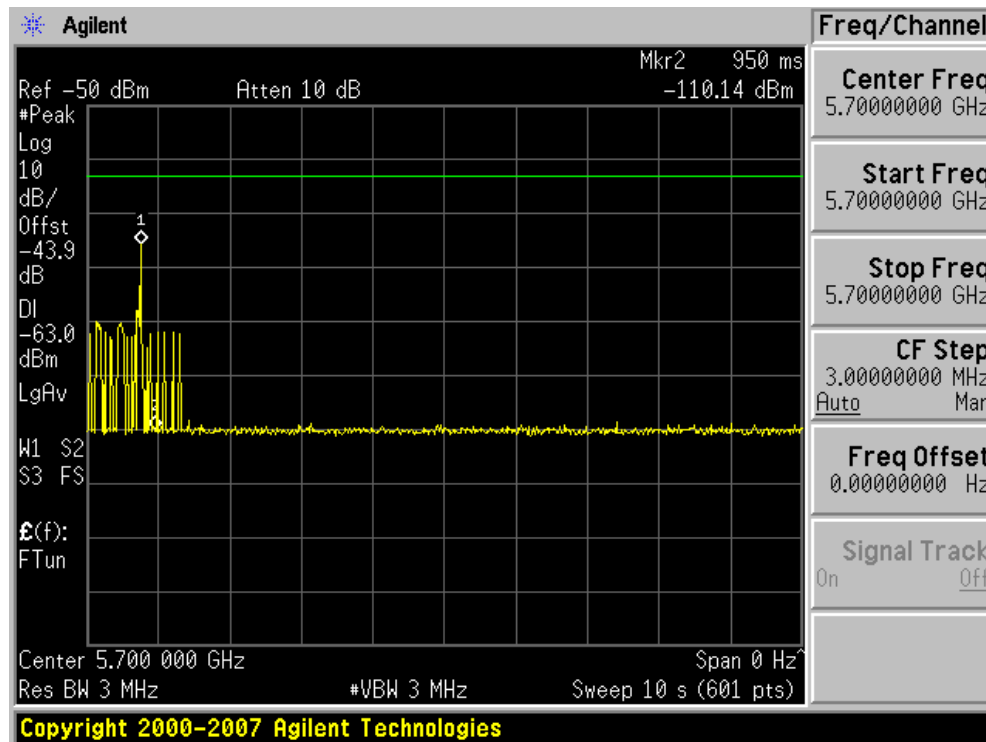
Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results 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 1 radar was used for this data.



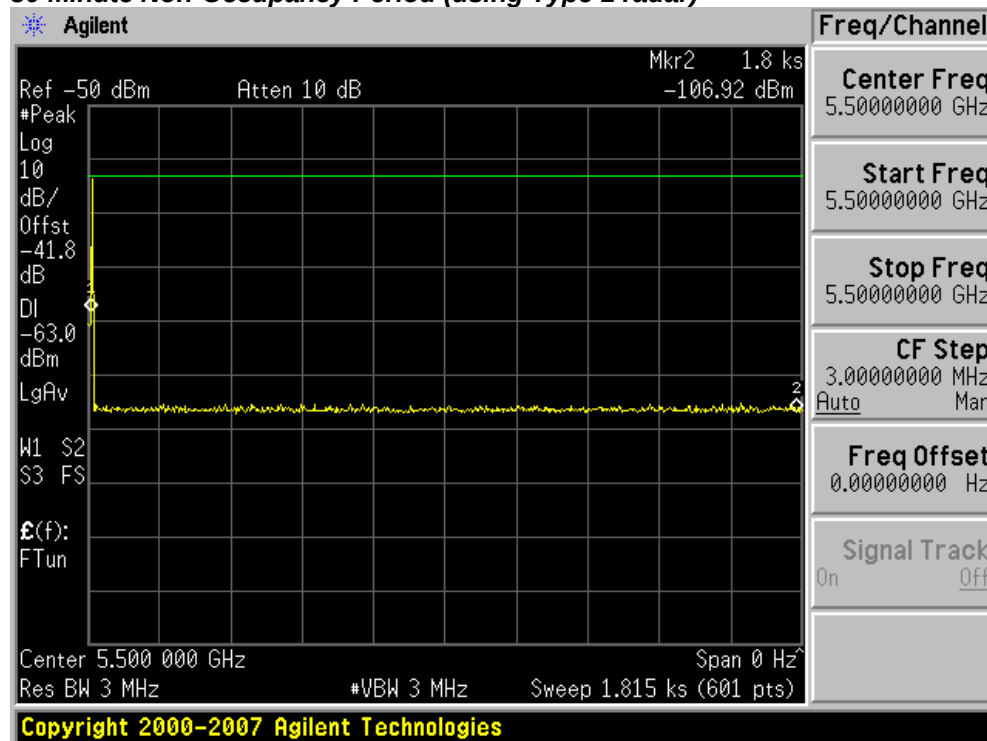
Channel Move Time, Channel Closing Transmission Time for USA Bin 1**Channel Move Time, Channel Closing Transmission Time for USA Bin 2**

Channel Move Time, Channel Closing Transmission Time for USA Bin 3**Channel Move Time, Channel Closing Transmission Time for USA Bin 4**

Channel Move Time, Channel Closing Transmission Time for USA Bin 5**Channel Move Time, Channel Closing Transmission Time for USA Frequency Hopping**

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 1 radar)



8. **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 1 Radar Statistical Performance**

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	18	1	1428	1	96.7%	60.0%
2	18	1	1428	1		
3	18	1	1428	1		
4	18	1	1428	1		
5	18	1	1428	1		
6	18	1	1428	1		
7	18	1	1428	1		
8	18	1	1428	1		
9	18	1	1428	1		
10	18	1	1428	1		
11	18	1	1428	1		
12	18	1	1428	1		
13	18	1	1428	1		
14	18	1	1428	1		
15	18	1	1428	1		
16	18	1	1428	1		
17	18	1	1428	1		
18	18	1	1428	1		
19	18	1	1428	1		
20	18	1	1428	0		
21	18	1	1428	1		
22	18	1	1428	1		
23	18	1	1428	1		
24	18	1	1428	1		
25	18	1	1428	1		
26	18	1	1428	1		
27	18	1	1428	1		
28	18	1	1428	1		
29	18	1	1428	1		
30	18	1	1428	1		

USA Bin 2 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	27	4.4	227	1	86.7%	60.0%
2	25	2.2	152	0		
3	27	3.3	207	1		
4	27	3.9	175	1		
5	28	3.7	192	1		
6	23	3.2	208	1		
7	27	1.1	184	0		
8	24	4.5	178	1		
9	27	1.4	182	0		
10	24	2.4	201	1		
11	28	4.5	216	1		
12	29	1.7	151	1		
13	29	2.6	182	1		
14	29	3.1	214	1		
15	27	2.5	195	1		
16	27	4.8	207	1		
17	27	4.2	210	1		
18	27	2.3	215	1		
19	27	3.7	161	1		
20	29	4.5	224	1		
21	29	1.4	188	1		
22	29	2.5	224	1		
23	26	3.3	161	1		
24	29	2.7	158	1		
25	24	2.9	222	0		
26	24	2.3	159	1		
27	29	2.8	210	1		
28	23	4.8	230	1		
29	26	2.6	189	1		
30	28	2.4	183	1		

USA Bin 3 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	16	9.4	219	0	83.3%	60.0%
2	16	9.9	241	1		
3	17	8.3	325	0		
4	18	7.7	345	1		
5	17	7.5	325	0		
6	16	8.3	258	1		
7	16	6.2	377	1		
8	18	7.3	205	1		
9	16	8.6	391	1		
10	17	7.3	376	1		
11	16	9.6	276	0		
12	17	9.8	417	1		
13	16	8	472	1		
14	18	7.6	210	1		
15	17	7.5	409	1		
16	18	6.6	264	1		
17	17	9.1	258	1		
18	16	9.7	325	1		
19	17	9.9	442	1		
20	16	7.7	201	1		
21	16	9.4	206	1		
22	16	10	440	1		
23	17	9.9	413	1		
24	16	6.8	489	1		
25	18	6.9	268	1		
26	17	9.1	264	1		
27	16	7.6	430	0		
28	16	6.5	421	1		
29	17	7.5	364	1		
30	17	6.6	487	1		

USA Bin 4 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	12	16.6	246	0	70.0%	60.0%
2	16	13.2	282	1		
3	15	17.1	463	1		
4	13	15.1	204	1		
5	16	12.3	424	1		
6	12	11.3	280	0		
7	12	18.2	443	0		
8	15	13.7	451	0		
9	16	15.1	398	1		
10	16	12.8	470	1		
11	14	13.4	223	0		
12	13	16.9	323	1		
13	16	14.9	271	0		
14	15	19.9	430	1		
15	16	13.9	327	1		
16	13	15.4	457	1		
17	13	11.7	256	1		
18	15	16.6	222	1		
19	15	16.6	454	1		
20	13	14.5	208	1		
21	15	13	449	1		
22	16	18.9	406	1		
23	14	12.3	457	1		
24	13	12	419	0		
25	13	15.2	281	1		
26	15	19.5	370	1		
27	12	17.5	372	0		
28	13	18.3	344	0		
29	13	19.4	284	1		
30	13	16.2	311	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:

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4} = (96.7\% + 86.7\% + 83.3\% + 70.0\%) / 4 = 84.2\% (>80\%)$$

*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		

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

USA Frequency Hopping Radar Statistical Performance

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



USA Bin 5 Trial #1

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	10	75			0.723334
2	3	14	100	1092	1524	2.486675
3	3	20	70	1294	1233	3.650343
4	3	16	60	1965	1538	4.272408
5	3	12	100	1026	1015	5.479046
6	1	16	100			7.241874
7	3	10	55	1579	1806	8.083546
8	2	8	70	1491		9.726706
9	1	9	80			10.897036

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	19	100			0.70081
2	1	8	90			1.319242
3	3	15	90	1164	1770	1.524084
4	2	16	65	1174		2.782063
5	3	18	75	1241	1498	3.243018
6	1	13	85			3.769856
7	3	10	100	1296	1882	4.828001
8	2	15	100	1786		5.133384
9	2	13	55	1313		6.050243
10	1	10	60			6.474817
11	2	7	70	1220		7.516857
12	3	16	65	1079	1627	8.388227
13	1	20	95			9.170893
14	3	16	100	1898	1817	9.240959
15	2	20	85	1512		10.534089
16	1	8	70			10.878215
17	1	15	100			11.540079

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	70	1961	1747	0.480771
2	2	12	90	1967		1.667989
3	2	17	65	1100		3.102406
4	3	10	100	1816	1185	3.53904
5	2	14	80	1907		5.337617
6	3	6	80	1961	1215	5.935366
7	1	19	65			6.6894
8	1	13	55			8.274687
9	2	13	60	1161		9.689352
10	3	6	80	1781	1370	10.511825
11	2	10	65	1870		11.984011

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	95	1721		0.641044
2	1	6	75			1.040591
3	1	16	50			1.717017
4	3	8	60	1436	1661	2.635845



5	2	17	80	1913		3.324957
6	3	9	55	1449	1822	3.801416
7	2	18	70	1348		4.658256
8	3	13	95	1548	1409	5.071468
9	1	19	75			5.800175
10	2	11	100	1927		6.637052
11	2	5	100	1050		6.838459
12	2	18	70	1877		7.357751
13	2	11	65	1153		8.08734
14	3	11	55	1116	1145	9.240774
15	1	9	95			9.669041
16	3	5	75	1491	1122	10.576458
17	2	5	55	1620		11.31416
18	1	5	50			11.573796

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	50			0.083554
2	2	9	90	1315		2.879553
3	2	18	50	1179		3.194644
4	1	20	65			5.714625
5	2	6	60	1307		6.204837
6	2	14	85	1452		8.018409
7	2	14	60	1088		9.432354
8	3	19	80	1604	1436	11.889969

USA Bin 5 Trial #6

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	12	95	1983		0.40242
2	2	10	95	1410		0.72086
3	1	5	55			1.366038
4	3	14	75	1558	1786	2.385049
5	1	11	70			2.705845
6	2	17	65	1511		3.732084
7	1	16	80			3.927858
8	1	13	65			4.528106
9	2	13	65	1665		5.413718
10	2	17	100	1178		5.724628
11	2	9	75	1121		6.403386
12	2	18	90	1010		7.135126
13	1	20	85			7.674479
14	1	10	95			8.330998
15	1	20	85			8.914017
16	1	9	60			9.534703
17	2	12	85	1756		10.631293
18	1	19	75			10.760935
19	2	15	50	1477		11.65248

USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	15	55	1698	1995	0.69153
2	3	17	65	1027	1273	2.232256



3	1	17	90			2.429862
4	2	8	95	1554		4.693283
5	3	16	90	1233	1313	4.92202
6	1	13	60			6.292216
7	1	17	95			7.994352
8	1	7	75			8.998495
9	3	17	95	1233	1941	9.811668
10	3	17	100	1047	1171	11.449411

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	12	75			0.197554
2	1	12	55			1.817726
3	1	7	55			1.901495
4	1	20	90			3.567841
5	2	7	65	1651		4.591922
6	3	19	65	1266	1536	5.350559
7	3	17	55	1764	1564	5.848441
8	2	10	50	1111		6.863694
9	3	9	75	1962	1856	7.636902
10	2	16	90	1862		9.22088
11	2	18	95	1918		9.700932
12	1	15	60			10.388178
13	1	10	90			11.604293

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	100	1222	1259	0.71186
2	3	14	75	1875	1708	1.555241
3	2	14	80	1305		2.629884
4	1	15	55			3.492389
5	1	15	70			3.795272
6	2	9	100	1942		5.280988
7	1	6	70			5.870427
8	1	14	80			7.208177
9	2	7	95	1087		8.158239
10	3	18	65	1757	1547	8.734746
11	2	8	80	1442		9.390189
12	1	12	90			10.582876
13	3	19	85	1822	1966	11.25774

USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	60	1422	1634	0.470471
2	3	8	85	1936	1521	1.059936
3	1	20	90			2.177078
4	1	15	60			2.967815
5	3	6	95	1617	1472	3.385284
6	1	17	70			3.938322
7	3	8	55	1194	1417	5.186379
8	3	19	65	1613	1963	5.773017
9	1	6	90			6.194622



10	2	16	55	1957		6.858905
11	2	7	100	1837		7.599973
12	1	9	90			8.831486
13	2	5	85	1335		9.164065
14	1	14	100			10.431985
15	3	20	55	1922	1377	10.686205
16	1	14	100			11.917547

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	9	65	1433		0.235097
2	1	14	85			1.090095
3	2	8	95	1623		1.330698
4	2	15	65	1798		2.272617
5	3	8	55	1189	1224	2.893124
6	2	20	100	1928		3.078218
7	3	17	85	1238	1005	3.608479
8	3	11	85	1765	1903	4.306685
9	2	14	95	1240		4.913754
10	3	8	60	1673	1913	5.954848
11	1	7	55			6.12613
12	1	10	85			7.07805
13	2	8	50	1307		7.222873
14	1	13	90			8.282038
15	3	12	90	1376	1195	8.669514
16	1	5	75			9.52783
17	1	14	85			9.907446
18	1	11	70			10.615658
19	3	11	80	2000	1329	11.161321
20	1	7	90			11.915844

USA Bin 5 Trial #12

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	5	85	1107		0.305852
2	2	17	55	1916		1.051535
3	2	16	85	1808		1.577417
4	1	10	55			2.337846
5	2	17	100	1773		2.754711
6	2	8	70	1512		3.731137
7	2	17	75	1978		3.853614
8	3	13	70	1961	1931	4.904742
9	2	18	50	1701		5.4187
10	2	14	55	1378		6.05943
11	2	9	85	1491		6.827989
12	1	17	100			7.106754
13	1	11	50			7.587657
14	1	12	55			8.67385
15	3	20	95	1611	1941	9.026442
16	3	13	50	1580	1258	9.782883
17	3	16	95	1767	1399	10.181732
18	3	11	95	1786	1777	11.062327



19	1	19	85			11.897237
USA Bin 5 Trial #13						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	5	55	1843	1168	1.076825
2	1	5	60			2.523051
3	1	10	70			4.274334
4	1	11	85			5.571054
5	3	16	55	1794	1526	6.417615
6	1	15	85			7.51486
7	1	20	75			9.787414
8	1	5	50			11.787912
USA Bin 5 Trial #14						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	95			0.249485
2	3	20	55	1697	1970	1.070338
3	2	18	80	1228		1.761035
4	2	5	65	1312		2.809107
5	1	13	65			3.216474
6	3	14	75	1450	1182	4.325013
7	2	10	95	1188		5.417116
8	3	14	50	1025	1714	6.162072
9	3	9	90	1621	1128	6.662074
10	1	18	70			7.443873
11	1	14	90			8.350139
12	1	12	90			9.321915
13	1	7	60			9.718412
14	2	12	50	1359		10.693222
15	1	16	90			11.254997
USA Bin 5 Trial #15						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	70	1384		1.273146
2	3	5	70	1597	1134	1.845349
3	2	10	100	1041		3.178203
4	1	15	70			4.053918
5	3	14	80	1190	1320	6.306907
6	2	20	50	1627		7.914519
7	2	11	75	1684		8.698146
8	3	18	80	1404	1216	10.275653
9	3	6	70	1207	1388	11.45434
USA Bin 5 Trial #16						
Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	6	100	1337	1369	0.376574
2	2	13	65	1586		1.813836
3	3	17	85	1982	1092	4.161389
4	3	8	100	1278	1591	5.790143
5	2	17	85	1252		7.305803
6	3	13	80	1406	1381	8.175458
7	2	11	55	1265		9.352854
8	3	13	65	1065	1549	10.511444



USA Bin 5 Trial #17

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	65			0.505342
2	2	17	60	1816		1.003619
3	2	5	55	1951		1.838328
4	3	14	90	1020	1443	2.294324
5	1	18	55			3.250074
6	2	17	60	1720		3.858428
7	3	5	80	1034	1536	4.32944
8	2	13	100	1445		5.436587
9	3	18	50	1412	1155	5.976814
10	2	15	90	1319		6.777724
11	1	20	75			7.416019
12	2	8	80	1929		8.289022
13	2	15	60	1868		8.789539
14	2	17	50	1315		9.443367
15	3	12	60	1223	1461	10.47753
16	2	16	90	1271		11.185838
17	2	8	60	1439		11.560786

USA Bin 5 Trial #18

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	9	50	1905		0.645528
2	1	6	55			2.43182
3	1	12	70			3.132137
4	2	9	100	1106		4.433133
5	1	13	80			5.373378
6	1	18	60			6.941446
7	3	16	70	1212	1235	8.753056
8	2	5	95	1266		9.654058
9	3	19	85	1985	1051	11.108185

USA Bin 5 Trial #19

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	18	50			0.101197
2	1	16	60			1.479845
3	1	15	80			1.796841
4	3	8	85	1341	1922	2.364163
5	3	8	100	1451	1582	3.209395
6	1	6	70			4.044912
7	2	7	80	1709		4.965347
8	3	8	55	1736	1397	5.587016
9	2	13	50	1177		6.044308
10	3	10	90	1714	1412	7.425681
11	2	10	50	1956		8.034788
12	2	8	85	1936		8.697902
13	2	18	80	1134		9.387071
14	1	10	65			10.056855
15	3	6	90	1537	1984	11.195777
16	3	11	95	1127	1503	11.675852

USA Bin 5 Trial #20



Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	6	70	1918		0.078988
2	3	19	80	1180	1636	1.38942
3	1	13	55			1.493161
4	3	6	65	1600	1770	2.555323
5	1	18	100			3.527081
6	1	19	55			3.763602
7	2	13	100	1195		4.834453
8	1	12	95			5.241088
9	3	8	50	1689	1966	6.31676
10	2	10	50	1860		6.956373
11	1	7	70			7.656055
12	2	10	60	1221		8.294154
13	2	9	60	1945		8.994277
14	2	14	75	1924		9.2908
15	1	18	100			10.174598
16	3	14	60	1217	1231	10.732877
17	3	20	75	1395	1503	11.74243

USA Bin 5 Trial #21

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	90			0.270154
2	2	18	70	1084		0.923926
3	1	17	60			2.113423
4	3	16	65	1614	1851	2.155245
5	1	11	95			2.941502
6	2	19	75	1473		4.067613
7	3	18	55	1249	1051	4.710195
8	1	9	85			5.3605
9	1	9	70			5.718578
10	3	14	95	1449	1384	6.613267
11	3	13	50	1971	1120	7.595745
12	1	14	55			8.332851
13	1	18	70			9.105477
14	1	6	90			9.532099
15	2	16	100	1472		10.548517
16	2	16	80	1188		11.060613
17	1	15	90			11.572347

USA Bin 5 Trial #22

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	15	90	1241		1.025595
2	3	17	65	1007	1497	1.385342
3	1	6	55			2.554468
4	1	5	100			3.734765
5	1	17	60			5.940562
6	1	17	100			6.779951
7	3	8	70	1070	1262	8.214962
8	3	6	80	1419	1023	8.522681
9	3	19	100	1273	1194	10.762567
10	1	7	65			11.733775



USA Bin 5 Trial #23

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	8	95			0.320636
2	3	5	95	1797	1231	1.081297
3	3	15	100	1685	1546	1.863159
4	2	16	65	1966		2.647152
5	3	19	75	1452	1278	3.024563
6	2	6	85	1801		3.378616
7	3	14	90	1045	1817	4.4674
8	1	17	90			5.09634
9	1	18	65			5.724491
10	2	19	80	1820		6.263717
11	1	13	95			7.139751
12	3	6	50	1796	1909	7.361263
13	2	11	95	1330		8.085342
14	1	12	70			9.045647
15	3	16	80	1889	1268	9.508857
16	1	14	95			10.128298
17	1	16	65			11.038974
18	1	14	90			11.669467

USA Bin 5 Trial #24

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	50	1756		0.369284
2	2	16	90	1233		1.03069
3	2	20	75	1660		1.489112
4	3	5	60	1223	1190	1.858704
5	3	20	100	1785	1231	2.861121
6	2	17	90	1487		3.361376
7	2	12	80	1269		3.673195
8	2	7	75	1312		4.476099
9	1	9	95			4.941824
10	2	20	75	1222		5.865481
11	3	14	80	1665	1371	6.31997
12	1	20	60			7.043679
13	3	16	55	1405	1665	7.292342
14	2	10	90	1409		8.345542
15	1	17	85			8.883817
16	3	18	50	1581	1984	9.234276
17	2	16	90	1697		9.865382
18	1	16	75			10.375604
19	3	9	95	1665	1941	10.994019
20	2	5	70	1965		11.453012

USA Bin 5 Trial #25

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	8	50	1644		0.481919
2	1	9	75			1.069245
3	1	19	75			1.478393
4	3	17	90	1913	1423	2.375802
5	1	17	60			2.774368



6	1	18	80			3.411631
7	2	12	100	1806		4.109579
8	3	10	85	1586	1553	4.428303
9	3	13	95	1131	1025	5.189254
10	2	5	95	1254		5.814273
11	1	7	80			6.389831
12	3	20	50	1897	1349	6.678186
13	3	11	90	1955	1211	7.337999
14	2	18	65	1347		8.241772
15	2	12	55	1000		8.43358
16	3	13	85	1490	1487	9.556262
17	1	12	85			10.181489
18	1	17	90			10.629143
19	3	16	90	1327	1505	11.29208
20	2	12	55	1428		11.808769

USA Bin 5 Trial #26

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	9	50			0.73037
2	3	8	85	1789	1149	1.981648
3	1	20	60			3.530171
4	2	6	80	1456		4.836341
5	2	20	70	1452		7.407037
6	1	10	70			7.874992
7	1	12	90			10.26019
8	3	16	95	1482	1438	11.973388

USA Bin 5 Trial #27

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	7	85	1083	1664	0.856221
2	3	12	65	1948	1184	1.193662
3	1	6	80			2.044027
4	1	7	50			3.092308
5	1	10	50			4.280838
6	3	20	65	1078	1140	5.528997
7	2	13	60	1223		6.280233
8	1	12	100			6.528335
9	3	17	65	1333	1119	7.973314
10	2	18	65	1782		8.921561
11	1	20	60			10.10065
12	2	12	85	1708		10.929809
13	2	14	100	1571		11.530734

USA Bin 5 Trial #28

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	13	70	1923		0.616104
2	1	12	85			1.458003
3	2	16	50	1322		2.036352
4	3	11	75	1456	1669	2.95631
5	3	14	70	1387	1407	3.77573
6	2	13	55	1150		4.349129
7	1	16	60			5.432407



8	3	17	75	1832	1531	5.709897
9	1	7	60			7.011468
10	2	18	85	1710		7.69977
11	1	6	65			8.768379
12	1	7	60			9.162334
13	1	13	80			10.055898
14	3	18	85	1391	1162	10.50637
15	3	9	70	1274	1142	11.291771

USA Bin 5 Trial #29

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	20	70	1285		0.489156
2	1	14	100			0.927386
3	2	9	75	1487		2.490094
4	1	12	55			2.709694
5	1	16	50			4.129258
6	3	8	65	1003	1346	4.761952
7	1	12	70			5.422638
8	3	12	60	1625	1817	6.179525
9	2	19	50	1967		7.311391
10	1	8	100			7.901859
11	3	18	75	1209	1349	8.72543
12	1	8	50			10.226967
13	2	13	80	1306		11.034934
14	3	14	85	1888	1253	11.398367

USA Bin 5 Trial #30

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	15	55			0.645201
2	3	10	80	1291	1422	1.086963
3	3	9	50	1988	1658	1.658773
4	2	17	70	1328		2.452093
5	1	16	55			3.618345
6	3	16	70	1072	1960	4.038458
7	1	12	55			5.010017
8	3	11	65	1906	1974	5.664385
9	1	12	70			7.117963
10	1	8	80			7.666949
11	2	9	70	1084		8.672048
12	1	11	60			9.158438
13	1	18	90			10.184196
14	2	17	100	1657		11.026875
15	2	13	75	1303		11.655856

USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
9	5709	27
21	5694	63
95	5696	285

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
20	5693	60
21	5704	63
30	5705	90
96	5703	288

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
2	5699	6
10	5704	30
30	5702	90
51	5692	153
66	5708	198

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
52	5701	156
70	5692	210
71	5696	213

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
0	5695	0
51	5703	153
81	5704	243
94	5692	282

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
45	5705	135
94	5697	282
96	5701	288

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
63	5692	189

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
7	5709	21
39	5705	117
53	5703	159

USA Frequency Hopping Trial #9

Hop #	Freq (GHz)	Pulse Start (mS)
53	5695	159
72	5706	216

USA Frequency Hopping Trial #10

Hop #	Freq (GHz)	Pulse Start (mS)
9	5694	27

20	5700	60
35	5701	105
51	5692	153
97	5708	291

USA Frequency Hopping Trial #11

Hop #	Freq (GHz)	Pulse Start (mS)
44	5695	132
75	5692	225
81	5705	243

USA Frequency Hopping Trial #12

Hop #	Freq (GHz)	Pulse Start (mS)
36	5707	108
43	5695	129
54	5704	162
64	5693	192
93	5699	279

USA Frequency Hopping Trial #13

Hop #	Freq (GHz)	Pulse Start (mS)
11	5695	33
57	5702	171
61	5700	183
83	5701	249

USA Frequency Hopping Trial #14

Hop #	Freq (GHz)	Pulse Start (mS)
10	5705	30
32	5708	96
94	5700	282

USA Frequency Hopping Trial #15

Hop #	Freq (GHz)	Pulse Start (mS)
36	5692	108
44	5706	132
67	5696	201

USA Frequency Hopping Trial #16

Hop #	Freq (GHz)	Pulse Start (mS)
71	5692	213

USA Frequency Hopping Trial #17

Hop #	Freq (GHz)	Pulse Start (mS)
70	5700	210
81	5703	243
84	5691	252
89	5708	267

USA Frequency Hopping Trial #18

Hop #	Freq (GHz)	Pulse Start (mS)
0	5694	0
18	5697	54
21	5699	63
44	5703	132
47	5696	141
86	5693	258

USA Frequency Hopping Trial #19

Hop #	Freq (GHz)	Pulse Start (mS)
3	5709	9
30	5705	90
41	5692	123
56	5707	168
65	5700	195
76	5693	228
98	5706	294

USA Frequency Hopping Trial #20

Hop #	Freq (GHz)	Pulse Start (mS)
39	5702	117
44	5700	132
74	5693	222
78	5692	234
81	5698	243

USA Frequency Hopping Trial #21

Hop #	Freq (GHz)	Pulse Start (mS)
24	5709	72
35	5699	105
38	5694	114
61	5707	183
64	5700	192
74	5702	222
90	5706	270
96	5695	288

USA Frequency Hopping Trial #22

Hop #	Freq (GHz)	Pulse Start (mS)
3	5695	9
6	5698	18
11	5705	33
36	5707	108
89	5699	267
97	5691	291

USA Frequency Hopping Trial #23

Hop #	Freq (GHz)	Pulse Start (mS)
8	5691	24
24	5692	72
26	5700	78
82	5706	246
89	5705	267

USA Frequency Hopping Trial #24

Hop #	Freq (GHz)	Pulse Start (mS)
12	5708	36

USA Frequency Hopping Trial #25

Hop #	Freq (GHz)	Pulse Start (mS)
42	5703	126
82	5709	246
92	5702	276



USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
7	5694	21
18	5692	54

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
3	5705	9
32	5692	96
58	5702	174

USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
8	5694	24

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
4	5695	12
24	5707	72
34	5700	102
49	5701	147
67	5696	201
88	5698	264

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
1	5705	3
8	5699	24
21	5704	63