



Dynamic Frequency Selection (DFS) Test Report

AIR-RM3000AC-A-K9

Cisco Aironet 802.11ac Module

FCC ID: LDK102086

IC: 2461B-102086

Also covers:

AIR-RM3000AC-T-K9, AIR-RM3000AC-Z-K9

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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DFS DETECTION THRESHOLDS	4
RADAR WAVEFORM CALIBRATION.....	8
TEST PROCEDURE/RESULTS.....	9
UNII DETECTION BANDWIDTH RESULTS, 20MHz SIGNAL BANDWIDTH.....	15
UNII DETECTION BANDWIDTH RESULTS, 40 MHz SIGNAL BANDWIDTH.....	22
INITIAL CHANNEL AVAILABILITY CHECK TIME.....	40
CHANNEL CLOSE TIME	43
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 1 RADAR.	44
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 2 RADAR	44
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 3 RADAR.	45
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 4 RADAR.	45
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 5 RADAR.	46
CHANNEL MOVE TIME, CHANNEL CLOSING TRANSMISSION TIME FOR TYPE 6 RADAR	46
30 MINUTE NON-OCCUPANCY PERIOD (USING TYPE 1 RADAR)	47
STATISTICAL PERFORMANCE CHECK.....	48

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 RM3000 Series Cisco Aironet 802.11ac Module 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 29 dBm, and the minimum possible EIRP is 10 dBm.

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

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

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

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

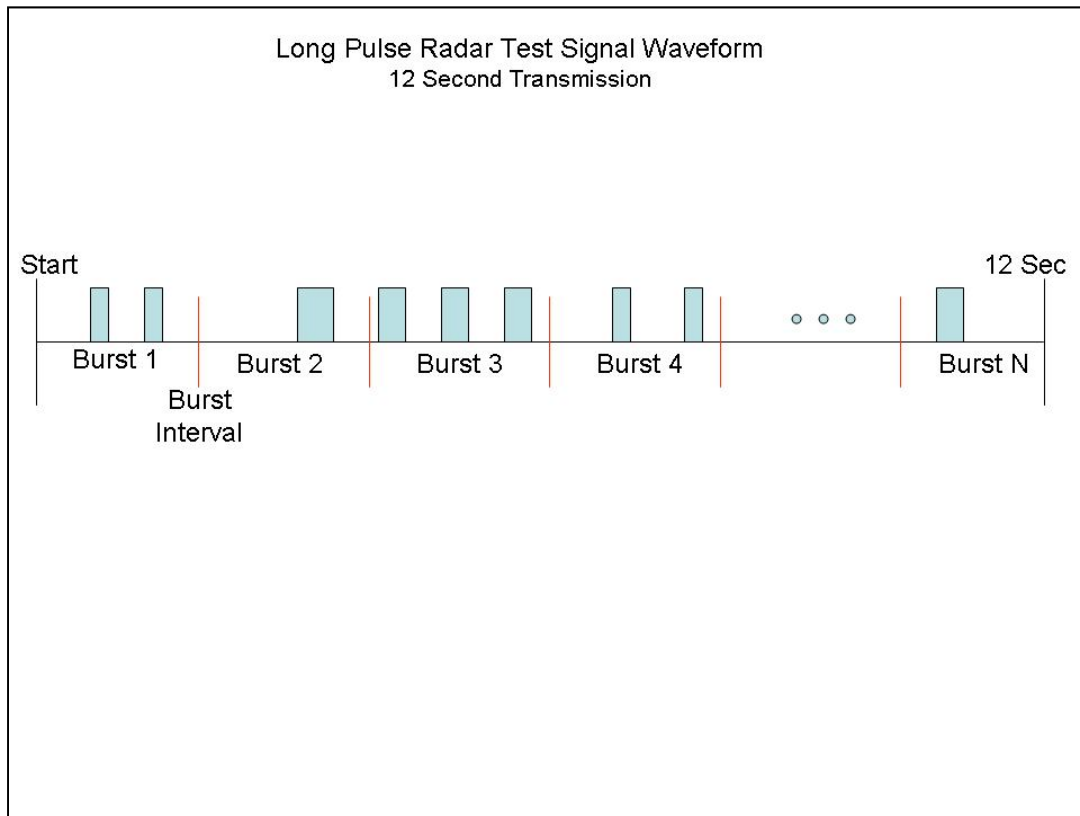
have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.

- 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

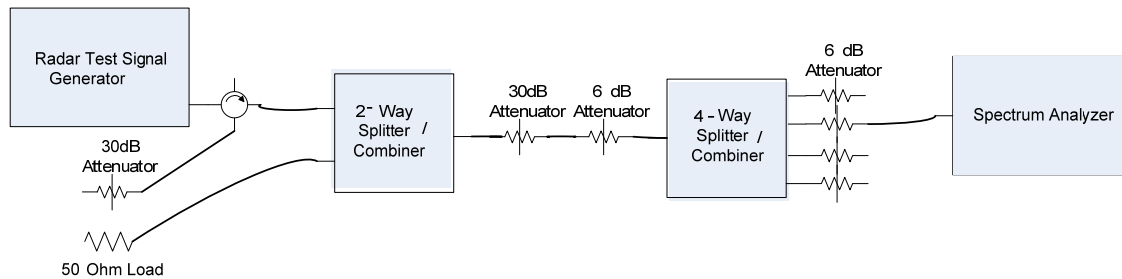
For the Frequency Hopping Radar Type, the same *Burst* parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected¹ from the hopping sequence defined by the following algorithm:

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

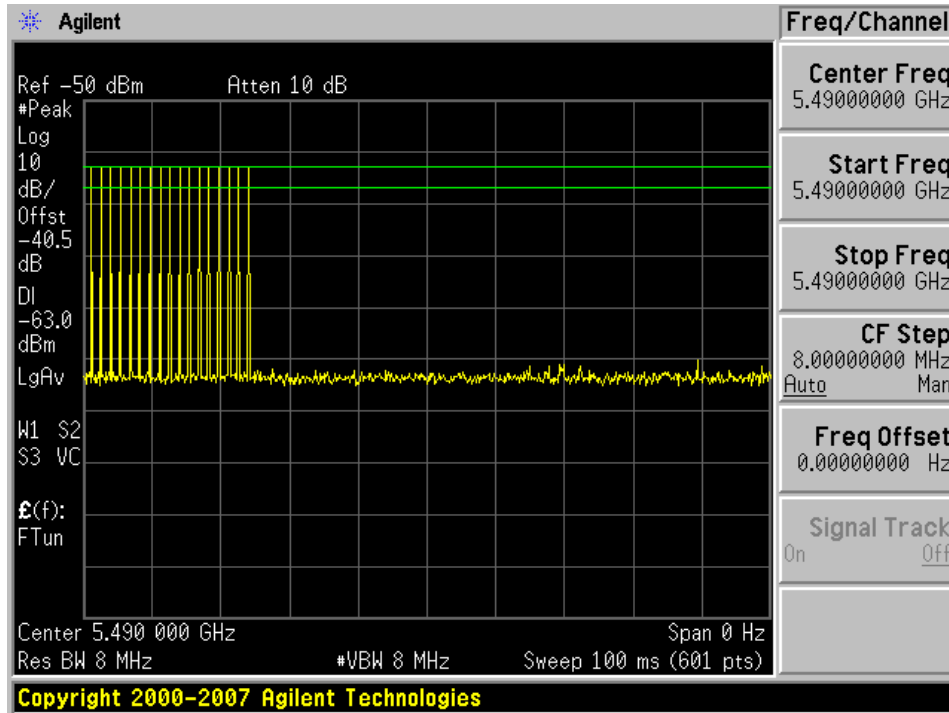
1. The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero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

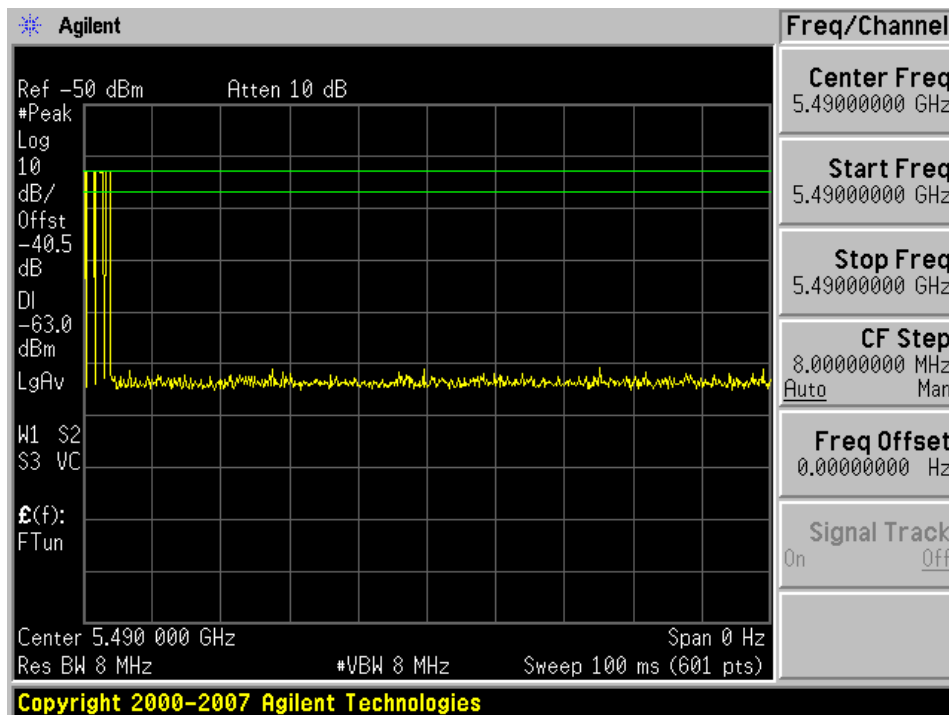


Conducted Calibration Setup

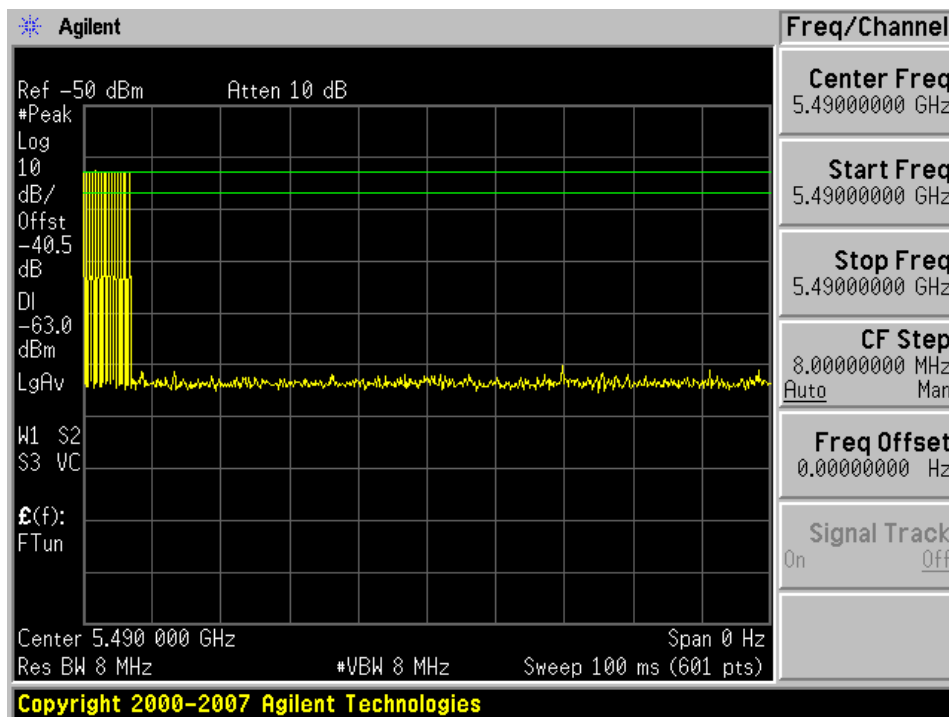
2. Following are the calibration plots for each of the required radar waveforms.



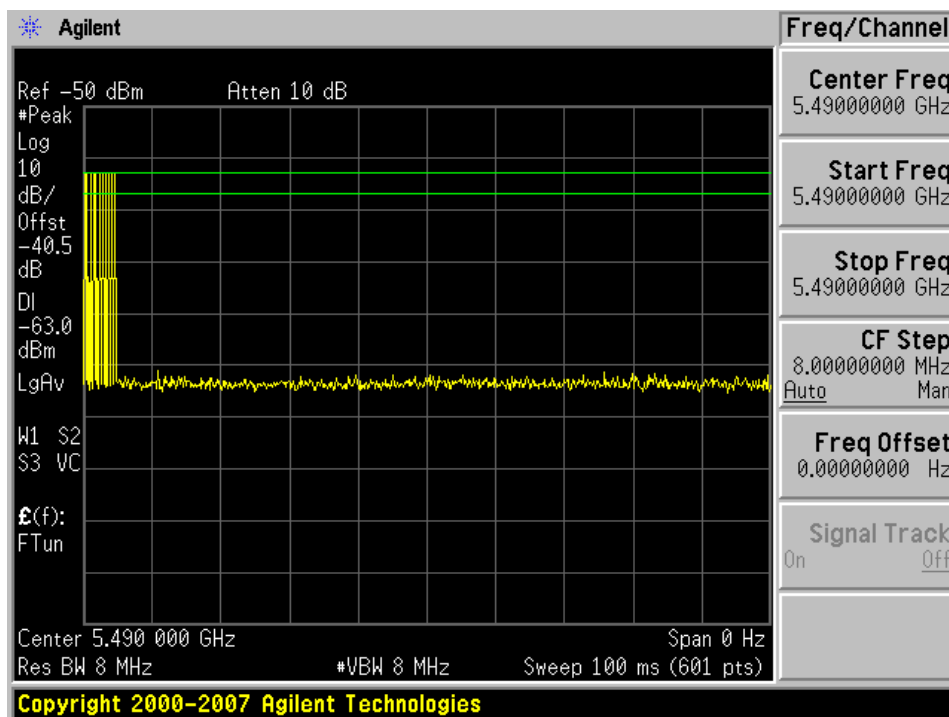
USA Bin 1 Radar Calibration



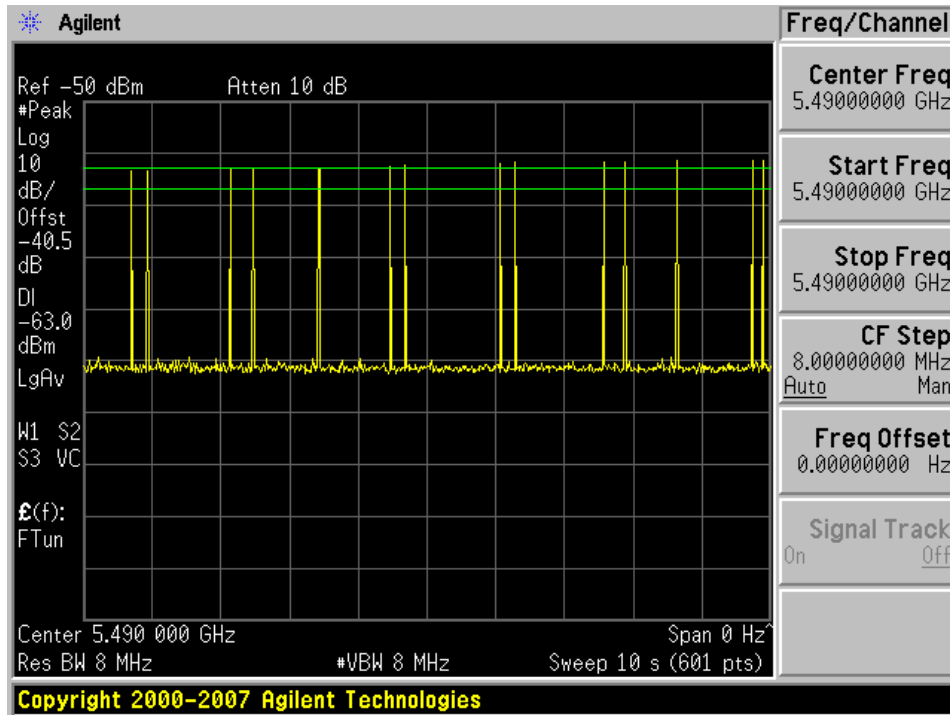
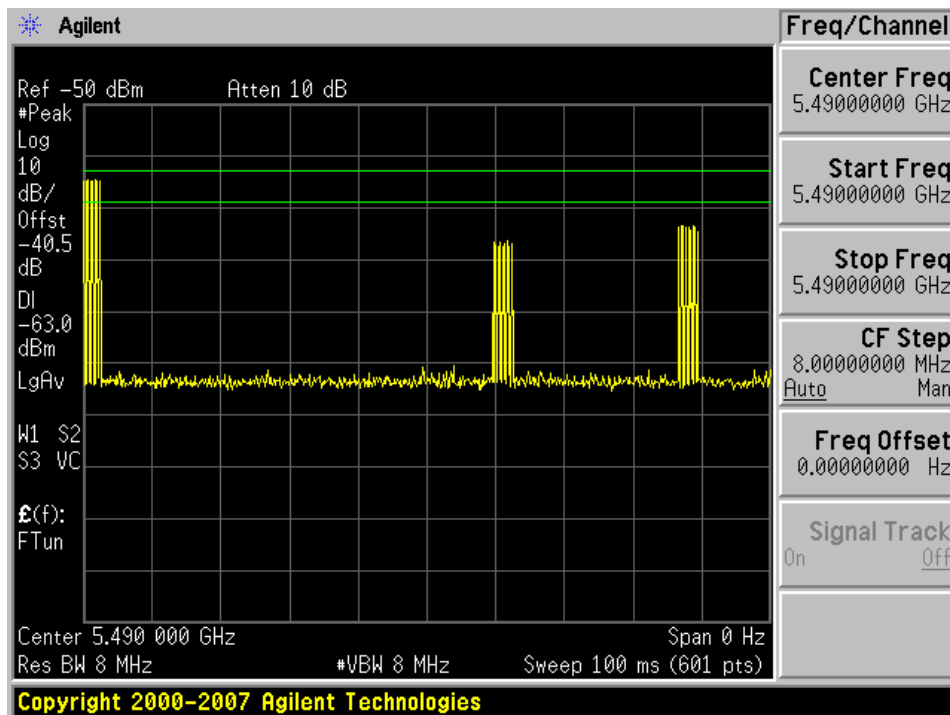
USA Bin 2 Radar Calibration



USA Bin 3 Radar Calibration

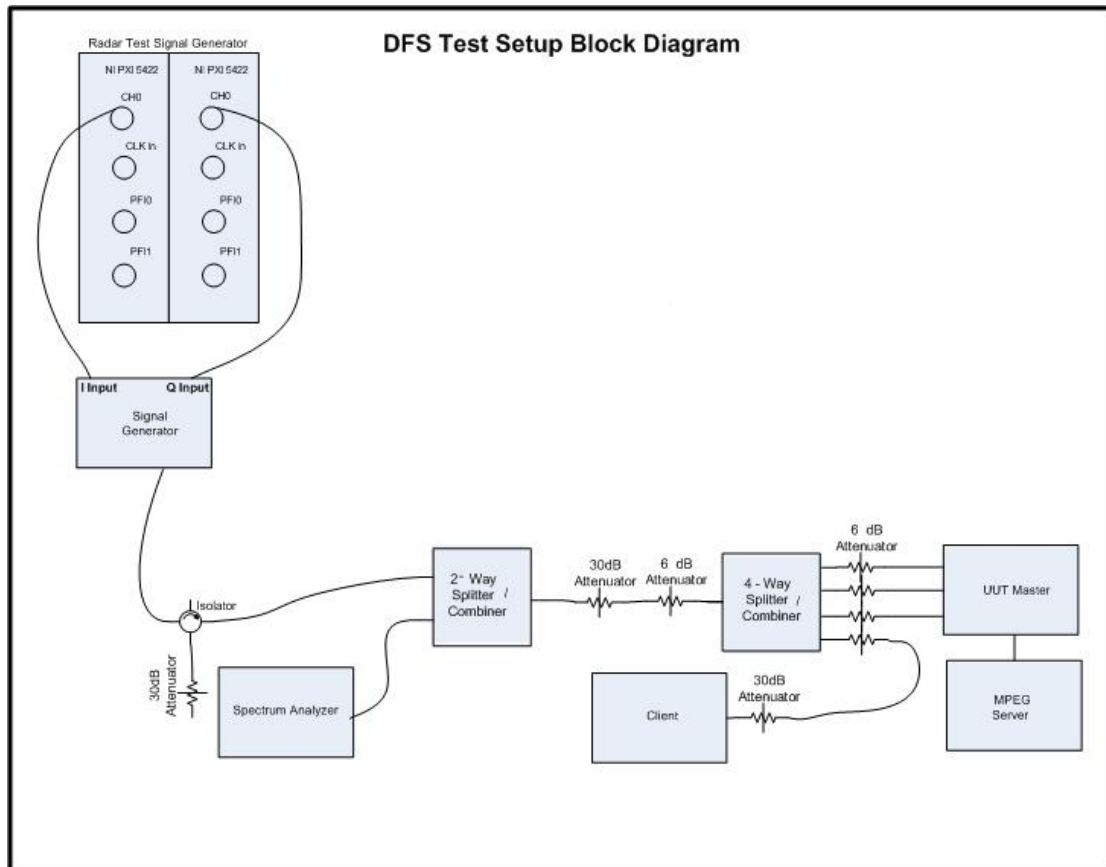


USA Bin 4 Radar Calibration

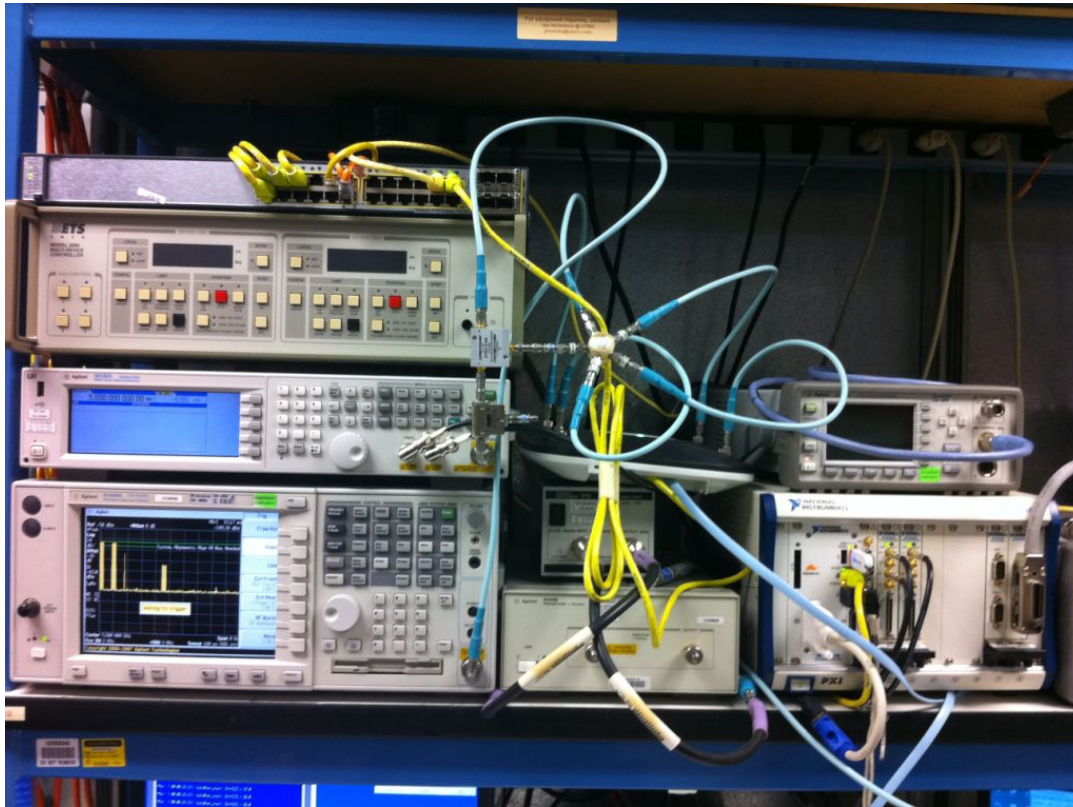
**USA Bin 5 Radar Calibration****USA Frequency Hopping Radar Calibration**

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 40 MHz channels have identical Channel bandwidths. Therefore, all DFS testing was done at 5500 MHz. The 99% channel bandwidth for 20MHz signals is 18 MHz, the the 99% channel bandwidth for 40MHz signals is 36 MHz, and the 99% channel bandwidth for 80MHz signals is 72. (See the 26dB BW section of the RF report for further measurement details).

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

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

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

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

The U-NII Detection Bandwidth is calculated as follows:

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

The U-NII Detection Bandwidth must be at least 80% of the UUT transmitter 99% power bandwidth (14.4 MHz for 20MHz signals, 28.8 MHz for 40 MHz signals, and 57.6 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)
5490	0	0	0	0	0	0	0	0	0	0	0	16
5491	1	1	1	0	1	1	1	1	0	0	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	0	0	0	0	0	0	0	0	0	10	

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)
5490	0	1	0	0	1	1	0	1	1	1	60	18
5491	1	1	1	1	1	0	1	1	1	1	90	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	0	1	0	80	

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)
5490	0	0	0	1	0	1	0	0	0	1	30	16
5491	0	0	0	1	1	0	0	1	0	0	30	
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	0	0	0	0	0	0	0	1	0	20	
5510	0	0	0	1	0	0	1	0	1	1	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)
5490	1	1	0	0	0	0	0	0	0	0	20	16
5491	0	0	0	0	0	0	0	0	0	0	0	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	0	0	0	0	0	0	0	0	0	10	
5510	1	0	0	0	1	0	1	0	0	0	30	

USA Bin 4 Radar

	DFS Detection Trials (1=Detection, Blank= No Detection)											
Radar Frequency	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)	Detection Bandwidth (MHz)
5490	0	0	0	0	0	0	0	0	0	1	10	16
5491	0	1	1	0	1	1	1	1	1	1	80	
5492	1	1	1	1	1	1	1	1	1	0	90	
5493	1	1	1	1	1	1	1	1	1	0	90	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	0	1	1	1	1	1	1	90	
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	0	1	1	90	
5508	1	1	0	1	0	1	1	0	1	1	90	
5509	0	1	0	0	0	1	1	0	0	0	30	
5510	0	0	0	1	0	0	1	0	0	0	20	

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		
5490	0	1	1	1	1	1	1	1	0	1	80	18
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	0	1	90	
5507	1	1	1	1	1	1	0	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)
5490	0	0	0	0	0	0	0	0	0	0	0	38
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	0	0	0	0	0	0	0	0	0	10	

USA Bin 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)
5490	0	0	0	0	0	0	0	0	0	0	0	38
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	0	0	0	0	0	0	0	0	0	10	

USA Bin 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)
5490	0	0	0	0	0	0	0	0	0	0	0	38
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	0	0	0	0	0	0	0	0	0	10	

USA Bin 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)
5490	0	0	0	0	0	0	0	0	0	0	0	38
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	0	0	0	0	0	0	0	0	0	10	

USA Bin 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		
5490	0	0	0	0	0	0	0	0	0	0	0	34
5491	1	1	0	1	1	0	1	0	1	1	70	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	0	1	1	90	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	0	1	1	1	1	1	1	1	90	
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	0	1	1	1	1	1	1	1	1	90	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	0	1	1	1	1	90	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	0	1	90	
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	0	1	90	
5506	1	1	1	1	1	1	0	1	1	1	90	
5507	1	1	1	1	1	1	1	0	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	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	0	1	1	90	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	0	1	1	1	1	1	1	1	1	90	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	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	0	1	1	1	90	
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	0	1	0	0	1	1	1	1	1	70	
5529	1	1	1	1	0	1	1	1	1	0	80	
5530	0	0	0	0	0	0	0	0	0	0	0	

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		
5490	1	1	1	1	1	1	1	1	1	1	100	40
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	

USA Frequency Hopping Radar

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		
5490	1	1	1	1	1	1	1	1	1	1	100	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	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	1	1	1	1	1	1	1	1	1	100
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	1	1	1	1	1	1	1	1	1	1	100
5552	1	1	1	1	1	1	1	1	1	1	100
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5566	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	0	1	1	1	1	1	1	1	90
5569	1	1	1	1	1	1	1	1	1	1	100
5570	1	1	1	1	1	1	1	1	1	1	100

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		
5490	1	1	1	1	1	1	1	1	1	1	100	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	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	1	1	1	1	1	1	1	1	1	100
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	1	1	1	1	1	1	1	1	1	1	100
5552	1	1	1	1	1	1	1	1	1	1	100
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5566	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	1	1	1	1	1	1	1	1	100
5569	1	1	1	1	1	1	1	1	1	1	100
5570	1	1	1	1	1	1	1	1	1	1	100

USA Bin 2 Radar

Radar Frequency	DFS Detection Trials (1=Detection, Blank= No Detection)										Detection Rate (%)	Detection Bandwidth (MHz)
	1	2	3	4	5	6	7	8	9	10		
5490	0	0	0	0	0	0	0	1	0	0	10	78
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	1	1	1	1	1	1	1	1	1	100
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	1	1	1	1	1	1	1	1	1	1	100
5552	1	1	1	1	1	1	1	1	1	1	100
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5566	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	1	1	1	1	1	1	1	1	100
5569	1	1	1	1	1	1	1	1	1	1	100
5570	1	1	0	0	0	1	1	0	0	1	50

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		
5490	0	0	0	0	0	0	0	0	0	0	0	78
5491	1	1	1	1	1	1	1	1	1	1	100	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	1	1	100	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	1	1	1	100	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	1	1	1	1	1	1	1	1	1	100
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	1	1	1	1	1	1	1	1	1	1	100
5552	1	1	1	1	1	1	1	1	1	1	100
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5566	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	1	1	1	1	1	1	1	1	100
5569	1	1	1	1	1	1	1	1	1	1	100
5570	1	0	0	0	0	0	0	0	0	0	10

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		
5490	0	1	0	1	1	1	1	1	1	1	80	34
5491	1	1	1	1	1	0	1	1	1	1	90	
5492	1	1	1	1	1	1	1	1	1	1	100	
5493	1	1	1	1	1	1	1	1	0	1	90	
5494	1	1	1	1	1	1	1	1	1	1	100	
5495	1	1	1	1	1	1	1	1	1	1	100	
5496	1	1	1	1	1	1	1	1	1	1	100	
5497	1	1	1	1	1	1	1	1	1	1	100	
5498	1	1	1	1	1	1	1	1	1	1	100	
5499	1	1	1	1	1	1	1	0	1	1	90	
5500	1	1	1	1	1	1	1	1	1	1	100	
5501	1	1	1	1	1	1	0	1	1	1	90	
5502	1	1	1	1	1	1	1	0	1	1	90	
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	0	1	1	1	1	1	1	0	1	1	80	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	0	1	1	1	1	1	1	90	
5511	1	1	1	1	1	0	1	1	1	1	90	
5512	1	1	1	1	1	1	0	0	1	1	80	
5513	1	1	1	1	1	0	1	1	1	1	90	
5514	1	1	1	1	0	1	1	1	1	1	90	
5515	1	1	1	1	1	1	1	1	1	0	90	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	0	1	1	1	1	1	1	90	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	0	1	1	90	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	0	1	1	1	90	
5524	0	1	1	1	1	1	1	1	1	1	90	
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	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	0	1	1	1	90
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	0	1	1	1	1	1	1	1	90
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	0	1	1	1	1	1	1	1	1	90
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	0	1	1	1	1	1	1	1	90
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	0	1	1	1	1	1	1	1	1	1	90
5552	1	1	1	1	1	1	0	1	1	1	90
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	0	1	1	1	1	90
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	0	1	1	0	80
5565	0	1	1	1	1	1	1	1	1	1	90
5566	1	1	0	0	1	1	1	1	1	1	80
5567	1	1	0	0	1	1	1	1	0	0	60
5568	0	0	0	0	0	0	0	0	0	0	0
5569	0	0	0	0	0	0	0	0	0	0	0
5570	0	0	0	0	0	0	0	0	0	0	0

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		
5490	1	1	1	1	1	1	1	1	1	1	100	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	
5501	1	1	1	1	1	1	1	1	1	1	100	
5502	1	1	1	1	1	1	1	1	1	1	100	
5503	1	1	1	1	1	1	1	1	1	1	100	
5504	1	1	1	1	1	1	1	1	1	1	100	
5505	1	1	1	1	1	1	1	1	1	1	100	
5506	1	1	1	1	1	1	1	1	1	1	100	
5507	1	1	1	1	1	1	1	1	1	1	100	
5508	1	1	1	1	1	1	1	1	1	1	100	
5509	1	1	1	1	1	1	1	1	1	1	100	
5510	1	1	1	1	1	1	1	1	1	1	100	
5511	1	1	1	1	1	1	1	1	1	1	100	
5512	1	1	1	1	1	1	1	1	1	1	100	
5513	1	1	1	1	1	1	1	1	1	1	100	
5514	1	1	1	1	1	1	1	1	1	1	100	
5515	1	1	1	1	1	1	1	1	1	1	100	
5516	1	1	1	1	1	1	1	1	1	1	100	
5517	1	1	1	1	1	1	1	1	1	1	100	
5518	1	1	1	1	1	1	1	1	1	1	100	
5519	1	1	1	1	1	1	1	1	1	1	100	
5520	1	1	1	1	1	1	1	1	1	1	100	
5521	1	1	1	1	1	1	1	1	1	1	100	
5522	1	1	1	1	1	1	1	1	1	1	100	
5523	1	1	1	1	1	1	1	1	1	1	100	
5524	1	1	1	1	1	1	1	1	1	1	100	
5525	1	1	1	1	1	1	1	1	1	1	100	
5526	1	1	1	1	1	1	1	1	1	1	100	
5527	1	1	1	1	1	1	1	1	1	1	100	
5528	1	1	1	1	1	1	1	1	1	1	100	
5529	1	1	1	1	1	1	1	1	1	1	100	
5530	1	1	1	1	1	1	1	1	1	1	100	
5531	1	1	1	1	1	1	1	1	1	1	100	

5532	1	1	1	1	1	1	1	1	1	1	100
5533	1	1	1	1	1	1	1	1	1	1	100
5534	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5536	1	1	1	1	1	1	1	1	1	1	100
5537	1	1	1	1	1	1	1	1	1	1	100
5538	1	1	1	1	1	1	1	1	1	1	100
5539	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5541	1	1	1	1	1	1	1	1	1	1	100
5542	1	1	1	1	1	1	1	1	1	1	100
5543	1	1	1	1	1	1	1	1	1	1	100
5544	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5546	1	1	1	1	1	1	1	1	1	1	100
5547	1	1	1	1	1	1	1	1	1	1	100
5548	1	1	1	1	1	1	1	1	1	1	100
5549	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5551	1	1	1	1	1	1	1	1	1	1	100
5552	1	1	1	1	1	1	1	1	1	1	100
5553	1	1	1	1	1	1	1	1	1	1	100
5554	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5556	1	1	1	1	1	1	1	1	1	1	100
5557	1	1	1	1	1	1	1	1	1	1	100
5558	1	1	1	1	1	1	1	1	1	1	100
5559	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5561	1	1	1	1	1	1	1	1	1	1	100
5562	1	1	1	1	1	1	1	1	1	1	100
5563	1	1	1	1	1	1	1	1	1	1	100
5564	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5566	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	1	1	1	1	1	1	1	1	100
5569	1	1	1	1	1	1	1	1	1	1	100
5570	1	1	1	1	1	1	1	1	1	1	100

USA Frequency Hopping Radar

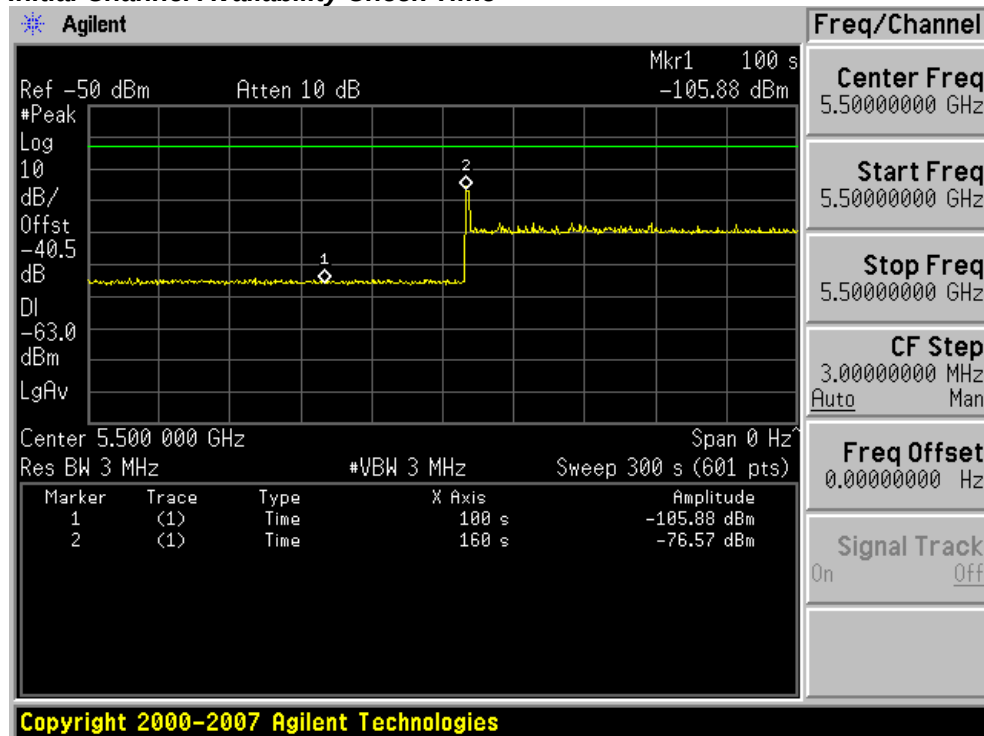
4. The **Initial Channel Availability Check Time** tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar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

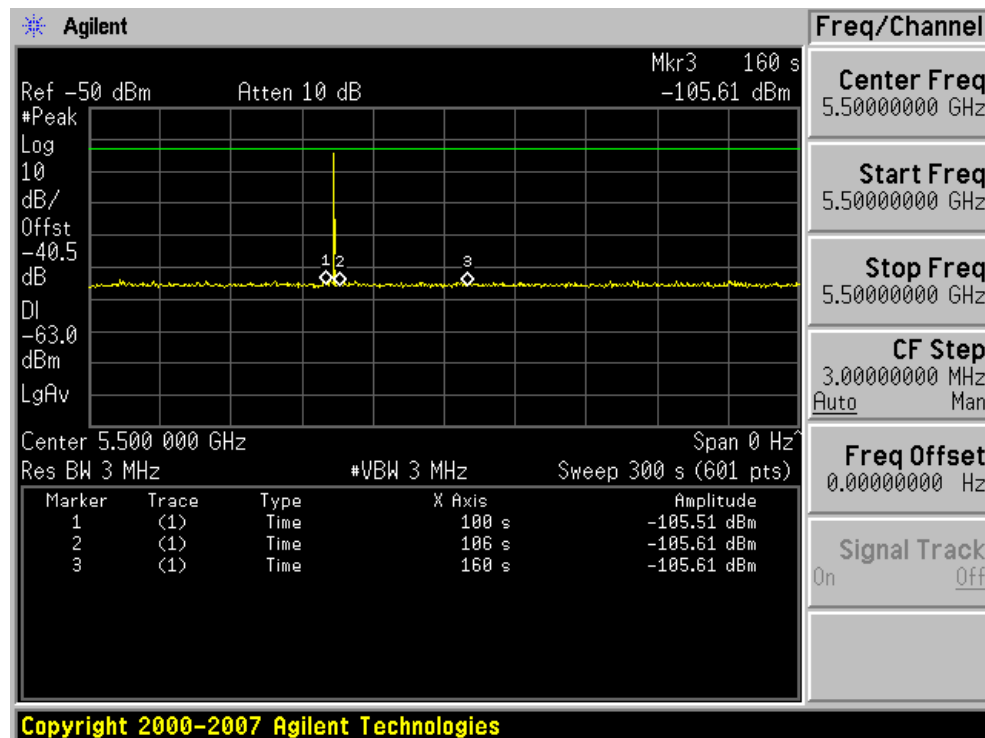
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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.

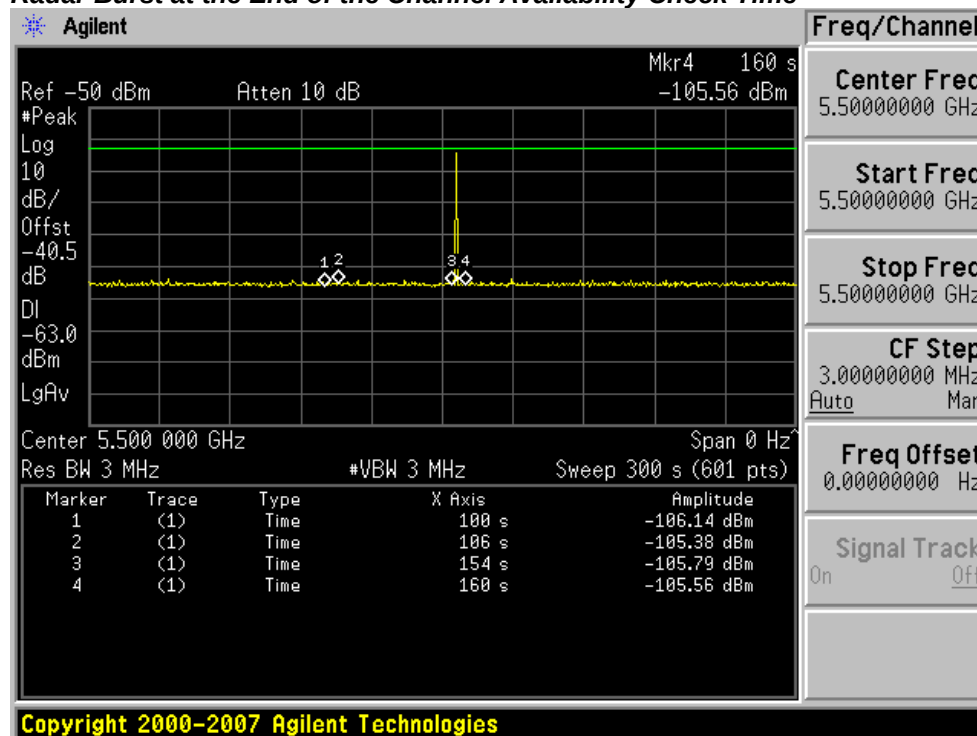
The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T_1 and will end no sooner than $T_1 + 60$ seconds.

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



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.

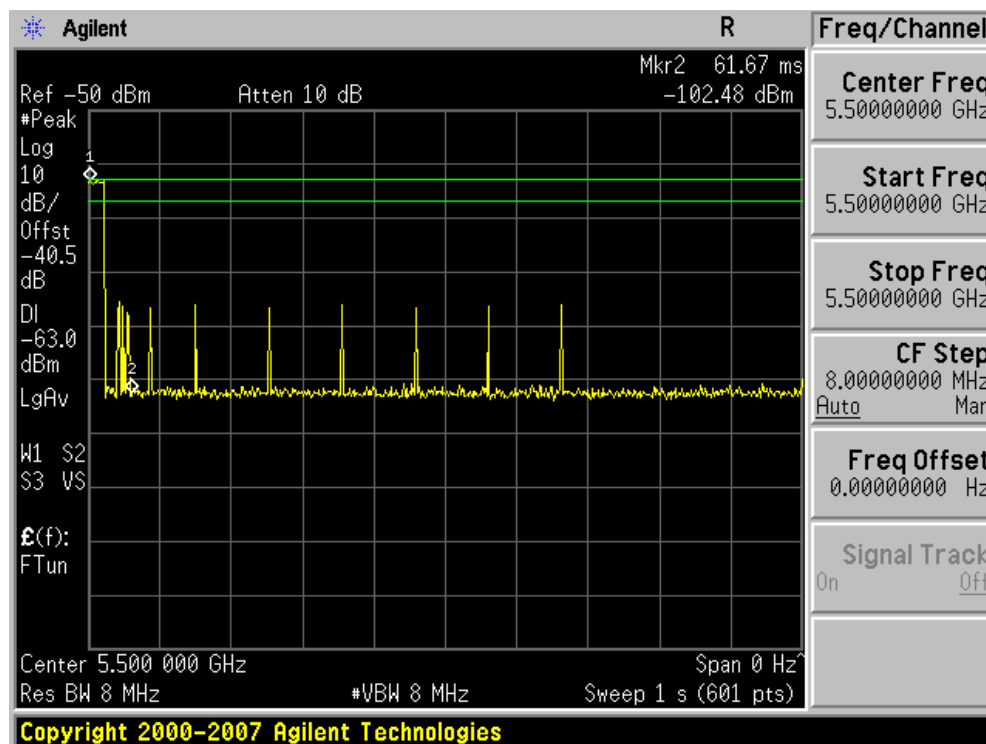
The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63dBm) is generated on the Operating Channel of the U-NII device.

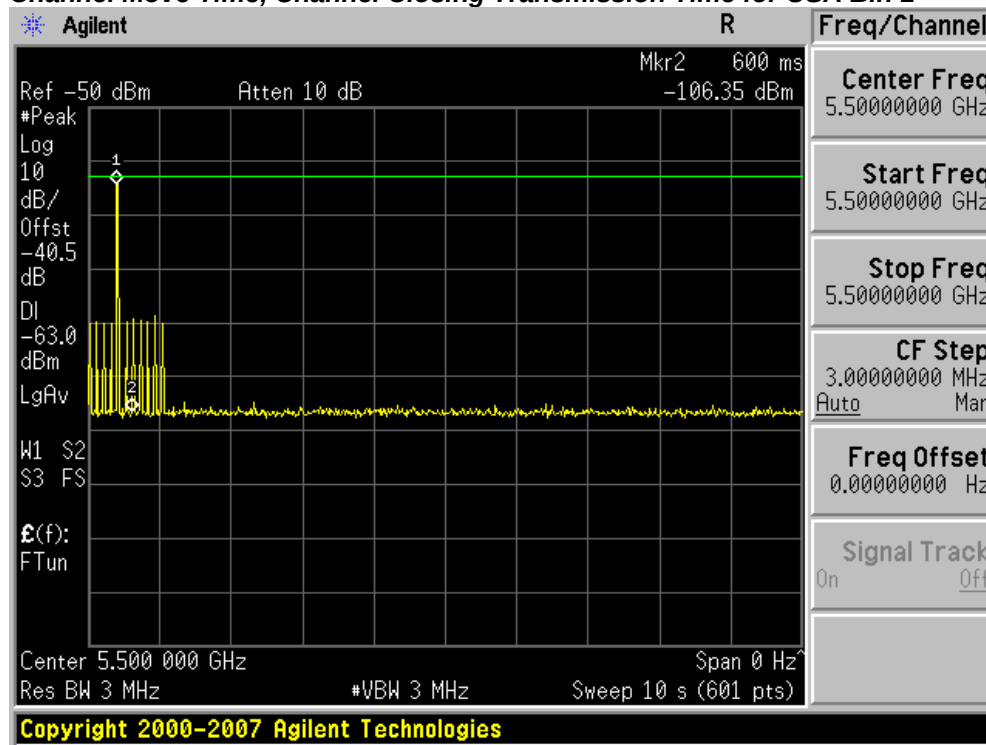
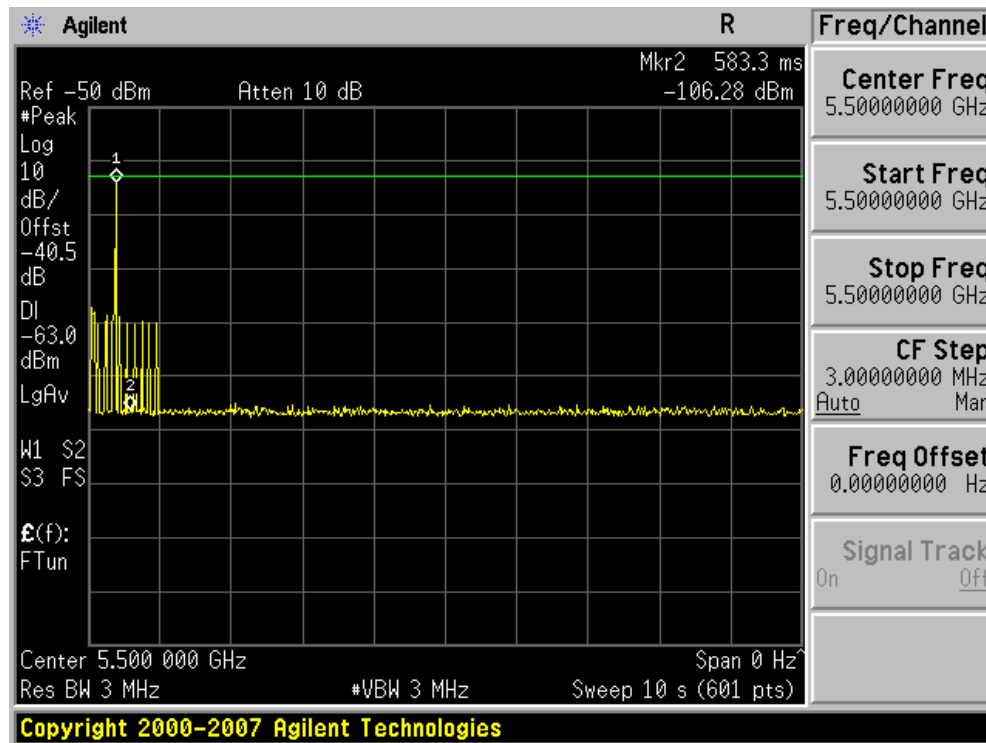
A U-NII device operating as a Client Device will associate with the UUT (Master) at 5500 MHz. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

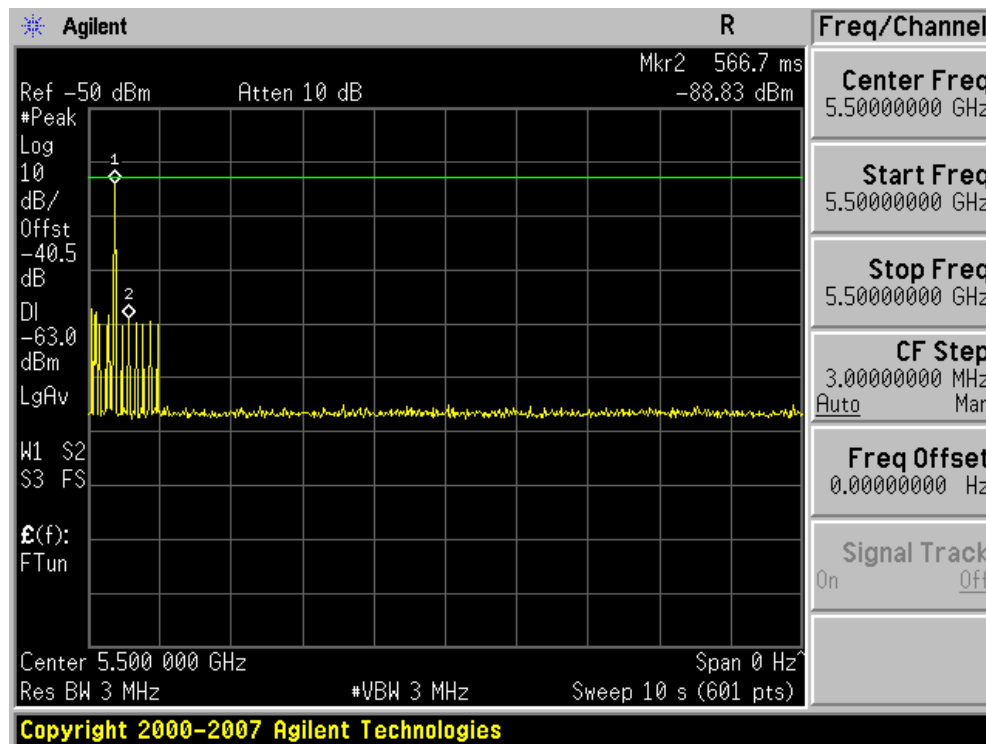
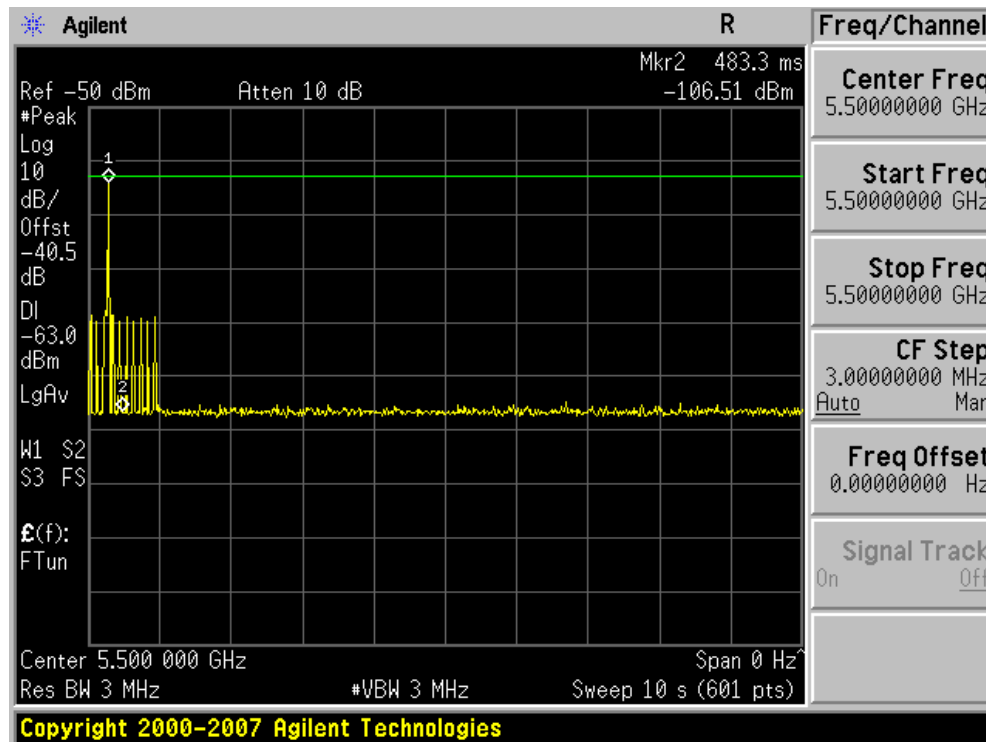
At time T_0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -63dBm.

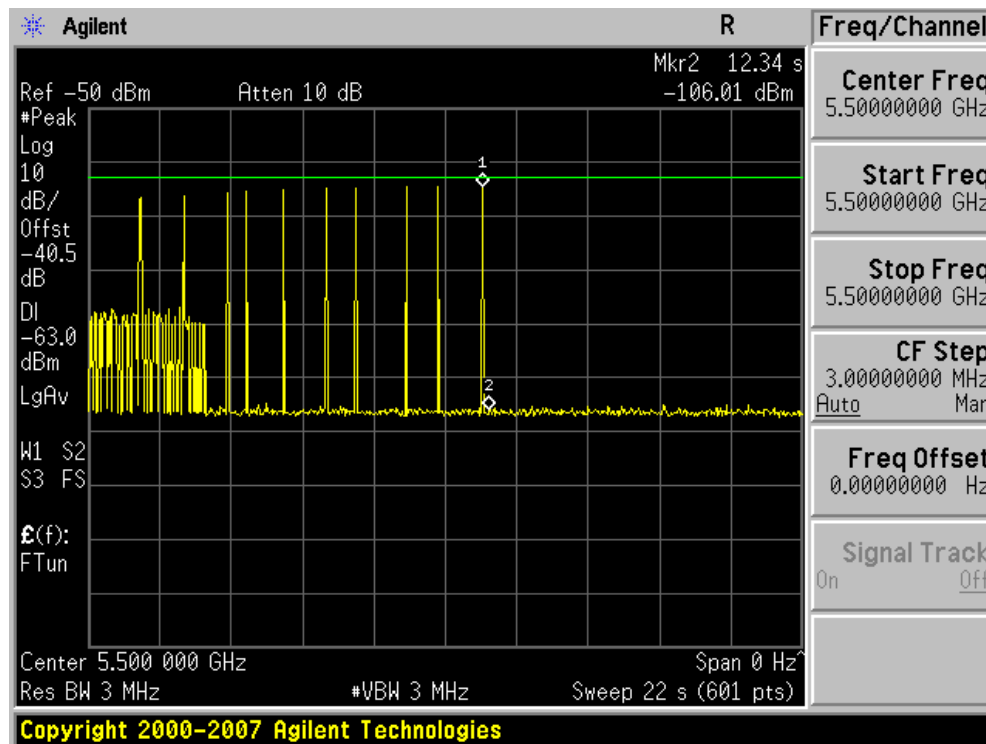
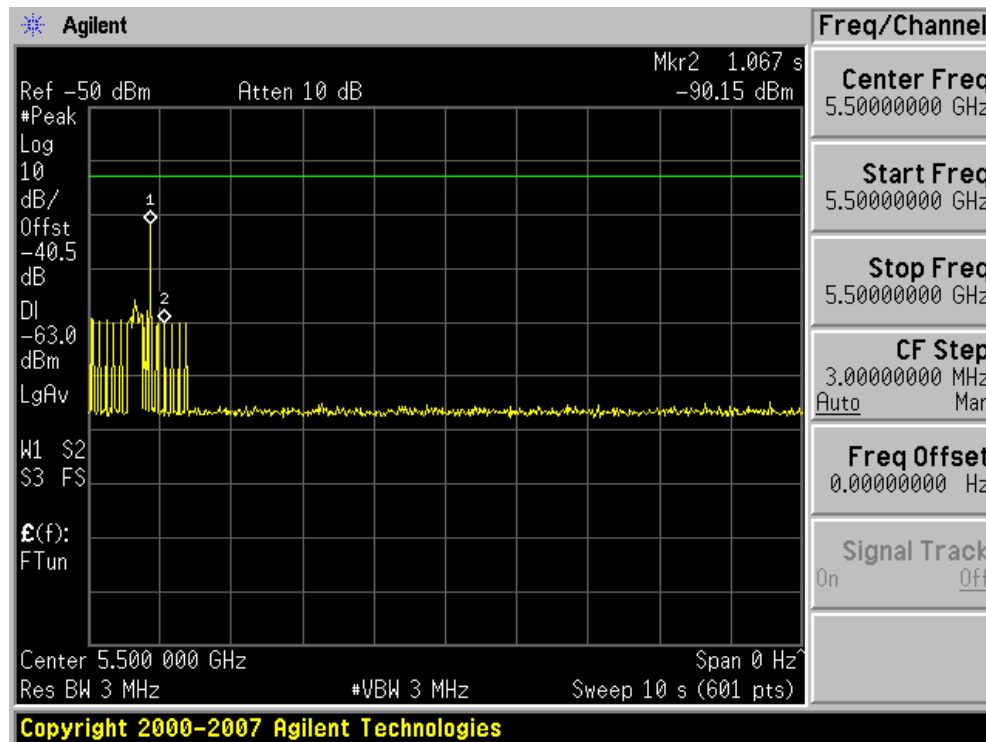
Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results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



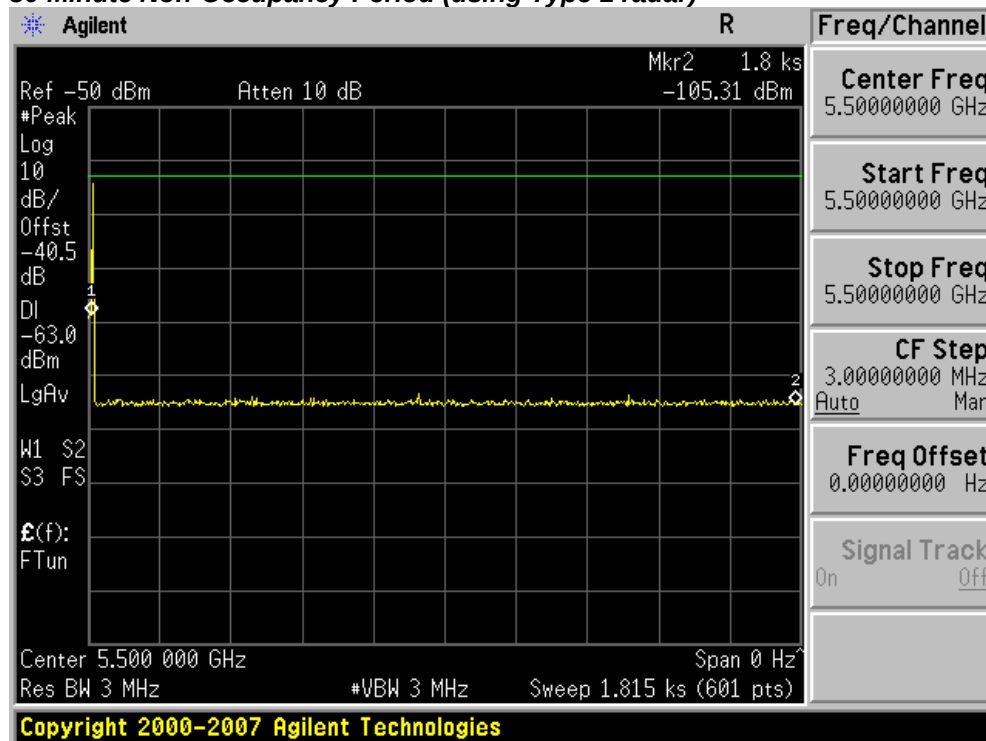
Channel Move Time, Channel Closing Transmission Time for USA Bin 1**Channel Move Time, Channel Closing Transmission Time for USA Bin 2**

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)



7. Statistical Performance Check

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

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

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

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

The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in the *Radar Test Waveforms* section. The data represents the worst case detection for 20 MHz and 40 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	0	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	1		
21	18	1	1428	1		
22	18	1	1428	1		
23	18	1	1428	1		
24	18	1	1428	1		
25	18	1	1428	1		
26	18	1	1428	1		
27	18	1	1428	1		
28	18	1	1428	1		
29	18	1	1428	1		
30	18	1	1428	1		

USA Bin 2 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	28	4.7	211	1	96.7%	60.0%
2	23	2.8	202	1		
3	24	4.5	214	1		
4	27	4.3	221	1		
5	23	1.5	167	0		
6	26	2.6	151	1		
7	28	3.2	224	1		
8	24	3.6	150	1		
9	27	3	198	1		
10	23	2	226	1		
11	26	1.7	229	1		
12	24	5	152	1		
13	25	3.4	205	1		
14	24	4.2	200	1		
15	23	2.8	171	1		
16	23	1.8	229	1		
17	29	1.8	180	1		
18	26	2.2	205	1		
19	26	3.1	151	1		
20	29	4.5	207	1		
21	24	2.1	169	1		
22	25	3.8	224	1		
23	23	3.9	205	1		
24	29	4.9	191	1		
25	25	2.6	210	1		
26	29	2	230	1		
27	23	1.6	191	1		
28	25	2.5	202	1		
29	24	4.8	208	1		
30	25	3.4	202	1		

USA Bin 3 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	17	6.5	315	1	96.7%	60.0%
2	18	7.8	426	1		
3	16	9.8	379	0		
4	16	7.3	345	1		
5	16	8.8	227	1		
6	17	6.5	220	1		
7	17	8.5	427	1		
8	17	8.5	279	1		
9	17	6.2	425	1		
10	18	9.2	342	1		
11	16	7.4	282	1		
12	16	7.8	265	1		
13	17	9.5	389	1		
14	17	7	210	1		
15	17	9.3	411	1		
16	17	9	388	1		
17	16	9.1	340	1		
18	18	9	355	1		
19	16	6.2	252	1		
20	16	9.8	290	1		
21	17	8.7	398	1		
22	16	9.9	485	1		
23	16	7.6	240	1		
24	17	7.8	491	1		
25	18	7.5	376	1		
26	16	8.2	322	1		
27	16	9.7	225	1		
28	18	6.1	329	1		
29	17	7.1	458	1		
30	18	6.4	392	1		

USA Bin 4 Radar Statistical Performance

Trial #	PW	PRI	Pulses	1=Detection 0=No Detection	Detection Percentage	Limit
1	14	14.4	306	1	96.7%	60.0%
2	15	15.5	434	1		
3	14	16.4	212	1		
4	14	15.4	373	1		
5	15	13	215	1		
6	14	15.4	453	1		
7	16	11.1	279	1		
8	14	14.4	453	1		
9	13	15.2	396	1		
10	14	13	487	1		
11	15	13.2	291	1		
12	14	13.8	494	1		
13	13	16.6	237	1		
14	12	16.7	347	1		
15	14	13.5	384	1		
16	13	18.3	366	1		
17	15	13.6	321	1		
18	16	16	472	1		
19	12	14.7	449	1		
20	16	18.8	416	1		
21	13	16.4	317	1		
22	13	19.6	212	1		
23	14	19.4	452	1		
24	16	14.7	234	1		
25	15	15.8	358	0		
26	16	18.5	312	1		
27	13	14.5	379	1		
28	16	14.9	265	1		
29	13	12.3	488	1		
30	13	17.3	331	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:

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

*See the Bin5 Radar Characteristics at the end of this report.

USA Bin 5 Radar Statistical Performance

Trial #	Name	1=Detection 0=No Detection	Detection Percentage	Limit
1	USA Bin 5 Radar Test 1	0	93.3%	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	0		
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	3	6	90	1629	1148	1.018778
2	2	13	85	1033		2.15411
3	2	6	55	1087		4.072641
4	2	18	95	1658		5.812978
5	2	6	50	1707		6.691136
6	1	6	75			8.346068
7	3	7	90	1063	1752	10.489301
8	1	19	100			11.040601

USA Bin 5 Trial #2

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	11	65			0.699071
2	1	12	90			1.769935
3	1	7	85			3.07015
4	1	14	90			3.300548
5	1	10	95			4.732194
6	1	19	80			6.506574
7	1	9	70			7.626821
8	1	11	90			7.651161
9	3	12	95	1264	1031	9.567647
10	3	14	60	1208	1404	10.803901
11	2	8	65	1818		11.118506

USA Bin 5 Trial #3

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	18	75	1939		0.280873
2	2	10	65	1614		1.160657
3	3	12	80	1709	1092	1.656068
4	2	16	75	1774		2.121685
5	2	13	50	1029		2.633023
6	1	19	70			3.758734
7	1	9	95			3.982321
8	3	14	70	1543	1946	4.883017
9	2	17	90	1869		5.628721
10	1	11	70			6.258346
11	1	13	70			6.647704
12	3	5	70	1003	1188	7.352756
13	2	8	55	1562		7.688351
14	1	6	80			8.717024
15	2	19	50	1328		8.843088
16	3	6	100	1058	1163	9.885918
17	3	20	85	1409	1568	10.106485
18	2	8	100	1584		10.78323
19	3	19	80	1772	1157	11.527357

USA Bin 5 Trial #4

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	13	85			0.10373
2	2	8	55	1367		2.265032
3	3	7	70	1888	1523	3.465263



4	3	15	95	1353	1054	3.986318
5	3	8	85	1444	1878	5.539891
6	2	16	50	1994		6.62831
7	1	15	75			8.080719
8	2	12	90	1098		8.910029
9	2	17	85	1214		9.615535
10	2	9	100	1065		11.013279

USA Bin 5 Trial #5

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	75	1189		0.45276
2	1	6	90			2.157583
3	1	20	85			2.795767
4	2	8	70	1545		4.260416
5	2	6	70	1278		4.524072
6	2	20	55	1781		5.701505
7	3	13	65	1181	1123	7.462307
8	1	6	90			8.275283
9	3	13	85	1728	1211	9.304302
10	2	19	75	1453		10.454935
11	1	12	90			11.079307

USA Bin 5 Trial #6

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	75	1804	1859	0.143244
2	3	14	50	1159	1378	1.83997
3	2	17	60	1774		1.85382
4	3	10	55	1932	1012	3.092356
5	2	16	55	1725		4.330123
6	2	15	80	1513		5.086568
7	2	16	60	1780		6.349867
8	2	17	55	1012		7.142527
9	1	10	85			8.034044
10	2	7	80	1437		8.331303
11	2	8	80	1261		9.650739
12	3	12	50	1121	1863	10.306935
13	3	20	50	1027	1525	11.149476

USA Bin 5 Trial #7

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	17	70			0.270157
2	3	8	65	1876	1568	1.037511
3	1	13	70			1.541511
4	3	5	55	1517	1121	2.15706
5	1	16	95			2.436752
6	3	8	85	1974	1609	3.072952
7	1	10	95			3.942454
8	3	16	85	1151	1835	4.471394
9	2	6	55	1610		5.349446
10	2	19	80	1132		5.777193
11	1	8	70			6.446285
12	2	14	95	1205		6.672569



13	3	14	50	1997	1259	7.55666
14	1	18	95			8.042419
15	1	10	100			8.683434
16	2	18	70	1384		9.078239
17	1	8	50			10.063198
18	1	19	85			10.41031
19	3	15	90	1955	1490	10.969201
20	3	19	70	1243	1645	11.764565

USA Bin 5 Trial #8

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	15	90	1488		0.093909
2	1	16	60			1.138212
3	2	16	85	1907		1.841143
4	3	13	50	1848	1912	2.509505
5	2	9	50	1976		2.93482
6	2	6	95	1341		3.188121
7	1	7	100			4.150159
8	1	19	90			4.720337
9	2	5	60	1584		5.109364
10	2	16	100	1065		6.173408
11	1	13	90			6.86809
12	3	18	75	1106	1100	7.385211
13	3	5	95	1958	1296	7.586449
14	3	16	85	1126	1599	8.566745
15	2	6	60	1929		9.298414
16	3	11	60	1794	1637	9.641482
17	2	8	100	1904		10.188693
18	2	12	85	1438		10.880619
19	1	11	85			11.898995

USA Bin 5 Trial #9

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	12	80			0.45607
2	3	10	55	1146	1693	0.860669
3	3	18	50	1008	1860	1.705524
4	1	5	65			2.118106
5	1	14	80			2.795073
6	2	7	60	1055		3.661152
7	2	17	60	1019		4.599763
8	1	6	95			4.977638
9	2	10	50	1764		5.741216
10	2	12	95	1247		6.135236
11	3	12	85	1674	1279	7.009651
12	1	17	50			7.766967
13	3	14	75	1731	1828	8.154791
14	1	10	65			9.300141
15	3	11	75	1788	1027	9.531626
16	1	13	55			10.238411
17	2	12	85	1203		10.855694
18	1	11	60			11.347251



USA Bin 5 Trial #10

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	18	95	1932	1440	0.522576
2	3	19	95	1032	1562	1.62172
3	1	13	50			2.554909
4	1	6	85			2.922985
5	3	12	60	1250	1713	3.593851
6	3	18	50	1394	1022	4.339087
7	3	15	55	1276	1477	5.588568
8	3	12	85	1036	1020	6.210515
9	2	14	75	1664		6.980794
10	2	20	90	1786		8.25573
11	2	13	60	1429		8.968448
12	3	8	80	1075	1444	9.958937
13	1	7	90			10.739407
14	3	6	100	1491	1845	11.499402

USA Bin 5 Trial #11

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	15	50	1106	1407	0.584675
2	3	11	85	1765	1359	1.230439
3	3	7	70	1693	1782	2.517627
4	2	9	90	1172		3.189225
5	2	12	60	1259		4.947614
6	1	17	95			5.531544
7	1	10	100			6.103144
8	2	6	65	1071		7.138526
9	3	19	60	1269	1776	8.56305
10	2	16	70	1669		9.981688
11	1	11	95			10.477904
12	1	8	70			11.818307

USA Bin 5 Trial #12

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	75	1331		0.423123
2	2	7	100	1588		1.345088
3	3	9	80	1277	1230	2.639779
4	3	9	55	1065	1073	3.110259
5	2	12	80	1701		4.101533
6	1	12	85			5.591567
7	3	18	95	1556	1572	6.835311
8	3	14	60	1600	1320	7.166089
9	3	8	65	1246	1520	8.326136
10	2	13	50	1665		9.172944
11	1	9	90			10.365726
12	2	11	85	1063		11.62236

USA Bin 5 Trial #13

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	17	80	1847		0.260376
2	2	12	95	1289		1.517756
3	1	15	50			2.633865



4	1	14	100			3.972663
5	3	8	60	1215	1880	4.881804
6	1	10	55			5.925007
7	2	18	75	1608		6.542266
8	2	19	95	1075		7.849673
9	3	14	65	1991	1847	8.443629
10	1	5	85			9.831172
11	1	7	55			10.89185
12	2	16	80	1252		11.525437

USA Bin 5 Trial #14

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	6	85			0.376807
2	3	19	50	1500	1616	0.986326
3	1	11	55			1.397198
4	2	7	65	1548		2.559865
5	3	7	60	1043	1589	3.081071
6	3	10	95	1459	1097	3.538011
7	1	20	70			4.048219
8	2	20	50	1620		4.975616
9	3	15	100	1690	1885	5.469215
10	1	20	95			6.255007
11	3	14	50	1176	1178	7.032554
12	2	8	75	1456		7.781511
13	1	16	80			8.318989
14	3	15	55	1923	1610	8.891268
15	3	5	100	1794	1591	9.548888
16	1	7	85			10.495827
17	2	18	80	1397		11.192733
18	3	14	55	1187	1729	11.411369

USA Bin 5 Trial #15

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	13	60			0.462083
2	1	13	60			1.574781
3	2	10	65	1535		2.4894
4	1	18	50			3.052295
5	3	6	90	1362	1689	4.54376
6	3	6	80	1987	1110	4.742055
7	2	20	90	1709		6.186316
8	3	12	100	1727	1577	6.518944
9	3	6	80	1734	1795	8.150785
10	1	17	55			8.893574
11	1	13	80			9.882139
12	3	5	100	1232	1073	10.744162
13	3	6	85	1329	1603	11.282712

USA Bin 5 Trial #16

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	18	65	1537	1649	0.67001
2	2	12	85	1245		1.739313
3	1	9	85			3.706408



4	3	6	90	1052	1824	4.186278
5	1	6	75			6.637805
6	1	17	90			7.785375
7	2	15	100	1304		8.941448
8	3	10	70	1497	1429	9.634861
9	3	20	95	1746	1709	11.51621

USA Bin 5 Trial #17

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	13	55	1576	1904	1.026634
2	3	7	55	1745	1340	2.192619
3	2	10	85	1554		2.724727
4	2	20	90	1980		3.813869
5	3	7	100	1059	1755	5.674996
6	2	6	95	1432		6.975892
7	2	14	90	1813		7.811683
8	3	19	100	1190	1493	9.375023
9	3	19	95	1981	1310	10.501704
10	2	11	50	1869		11.707142

USA Bin 5 Trial #18

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	6	95			0.628895
2	2	7	100	1546		1.329203
3	1	15	70			1.711124
4	2	11	65	1780		2.380188
5	3	20	100	1198	1308	3.338693
6	2	11	55	1319		3.930299
7	3	7	65	1353	1378	4.709125
8	3	18	60	1891	1677	5.59013
9	3	19	85	1905	1360	6.012526
10	1	16	90			6.942537
11	1	19	90			8.039599
12	1	20	100			8.785134
13	2	19	80	1035		9.328787
14	1	20	60			9.870926
15	2	8	95	1275		10.581394
16	2	20	95	1140		11.453843

USA Bin 5 Trial #19

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	14	80			0.679416
2	2	6	100	1497		0.900849
3	1	12	60			2.34515
4	1	20	50			2.991066
5	2	13	100	1433		3.305892
6	1	8	95			4.165263
7	2	13	85	1334		5.100196
8	3	11	75	1683	1346	6.051163
9	3	12	65	1471	1674	6.676365
10	3	8	85	1678	1024	7.318903
11	1	15	55			8.717027



12	3	20	95	1824	1389	9.291378
13	3	16	100	1905	1615	9.957676
14	2	16	50	1479		11.004128
15	1	11	60			11.961823

USA Bin 5 Trial #20

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	6	65	1924	1116	0.126561
2	2	9	75	1636		2.137151
3	1	11	70			2.83889
4	2	20	80	1618		4.340152
5	2	15	70	1187		5.127922
6	3	10	50	1268	1675	6.281903
7	3	14	95	1639	1605	7.561321
8	2	17	50	1921		8.359582
9	1	20	80			9.189763
10	1	5	85			10.70462
11	3	8	85	1080	1533	10.992873

USA Bin 5 Trial #21

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	12	60			0.0741
2	2	9	65	1738		1.155225
3	1	20	95			1.862644
4	1	17	55			2.813873
5	2	11	70	1027		2.996455
6	1	6	75			3.922688
7	3	13	95	1959	1689	4.439603
8	3	7	95	1514	1496	5.042362
9	1	14	55			5.92517
10	3	10	60	1781	1235	6.421834
11	1	17	75			7.090461
12	2	20	85	1954		8.398761
13	3	5	95	1218	1701	8.797692
14	2	11	50	1208		9.366221
15	3	17	85	1013	1606	10.427069
16	3	19	75	1798	1768	11.211481
17	2	19	70	1866		11.968251

USA Bin 5 Trial #22

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	11	80	1665		0.195864
2	3	9	65	1172	1684	0.792871
3	1	18	70			1.656406
4	1	7	50			2.652789
5	3	20	65	1042	1196	3.199474
6	1	16	80			3.436707
7	2	8	55	1321		4.138201
8	1	16	70			5.078709
9	1	6	85			5.698828
10	2	8	100	1683		6.261874
11	2	12	55	1045		7.044131



12	3	18	75	1302	1065	7.399524
13	1	11	90			8.566531
14	2	19	50	1198		9.217608
15	1	15	85			9.789621
16	1	17	80			10.301695
17	1	7	50			11.071507
18	2	13	65	1262		11.891844

USA Bin 5 Trial #23

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	19	75	1536		0.3529
2	3	5	100	1510	1428	1.313655
3	3	10	90	1034	1782	2.01871
4	3	9	95	1709	1342	3.431918
5	3	20	100	1939	1739	4.494593
6	2	13	55	1047		5.178692
7	3	14	55	1185	1079	6.20115
8	1	17	55			7.279136
9	1	13	75			8.046583
10	2	11	80	1454		8.406518
11	1	6	85			10.035542
12	3	6	80	1083	1515	10.95663
13	1	17	75			11.348994

USA Bin 5 Trial #24

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	20	65	1504	1116	0.391047
2	1	16	70			1.211171
3	2	17	95	1195		2.903401
4	1	14	50			3.757427
5	1	16	95			4.249531
6	2	13	95	1651		5.176129
7	1	14	100			6.075382
8	1	15	100			7.70927
9	1	7	65			8.403477
10	2	14	70	1409		9.873844
11	1	5	75			10.592616
12	3	19	65	1563	1633	11.102473

USA Bin 5 Trial #25

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	10	55	1637	1341	0.321752
2	3	20	85	1569	1202	1.816526
3	3	19	65	1199	1785	4.052964
4	2	19	95	1907		5.513833
5	3	14	60	1511	1304	6.996539
6	1	18	70			7.97053
7	3	12	75	1764	1559	9.382307
8	1	8	90			11.54603

USA Bin 5 Trial #26

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	5	75			0.592266



2	2	6	75	1394		1.357115
3	2	11	80	1153		1.928491
4	2	18	90	1005		2.588968
5	3	9	90	1865	1530	3.567971
6	2	20	55	1249		4.770986
7	2	19	85	1037		5.75858
8	2	9	65	1852		6.602309
9	1	19	85			7.6241
10	1	13	100			8.522158
11	1	9	65			8.725423
12	1	8	95			10.009015
13	1	13	50			10.648446
14	3	16	80	1063	1913	11.921247

USA Bin 5 Trial #27

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	3	15	55	1352	1848	0.444145
2	2	12	90	1479		1.489249
3	1	5	85			2.184405
4	2	15	100	1295		2.791225
5	3	14	80	1134	1017	3.064503
6	3	10	85	1886	1081	4.396702
7	3	13	55	1459	1252	5.037579
8	2	8	55	1126		5.577295
9	2	9	75	1791		6.043973
10	1	19	55			6.977189
11	3	12	75	1902	1779	7.622921
12	1	16	80			8.697873
13	3	20	100	1836	1285	9.606567
14	3	13	70	1669	1336	10.445542
15	2	8	90	1954		11.104059
16	3	11	65	1351	1267	11.669742

USA Bin 5 Trial #28

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	15	85			0.210083
2	1	17	90			1.260186
3	2	9	50	1184		1.648941
4	3	5	85	1814	1762	2.506356
5	2	5	100	1359		2.723193
6	2	16	60	1552		3.210158
7	3	10	80	1442	1173	4.20328
8	3	19	65	1143	1122	4.786217
9	1	11	75			5.61325
10	1	12	50			6.155953
11	2	9	100	1633		6.318124
12	3	16	55	1676	1206	7.123278
13	3	10	60	1539	1575	8.159617
14	1	15	70			8.831957
15	3	13	65	1736	1415	9.414429
16	3	13	75	1576	1791	9.563594



17	1	19	80		10.394138
18	1	8	55		10.817903
19	2	8	75	1140	11.598672

USA Bin 5 Trial #29

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	1	15	50			0.609939
2	3	11	85	1121	1097	0.928368
3	3	15	95	1840	1620	2.213167
4	2	9	55	1679		2.788314
5	2	8	85	1850		3.145049
6	1	19	100			4.333012
7	1	18	65			4.824727
8	2	5	50	1184		5.922251
9	3	5	65	1979	1184	6.215001
10	1	16	75			7.101932
11	1	18	60			8.207167
12	1	5	85			8.961702
13	2	9	85	1232		9.354815
14	3	15	80	1084	1022	9.884485
15	2	12	95	1499		11.029232
16	2	7	65	1757		11.933751

USA Bin 5 Trial #30

Burst #	Pulses	Chirp (MHz)	PW (uS)	Inter-pulse spacing (uS)	Inter-pulse spacing (uS)	Pulse Start (S)
1	2	10	80	1932		0.228223
2	3	13	60	1140	1478	1.758278
3	2	9	65	1391		2.82762
4	1	10	50			4.143331
5	2	7	85	1928		5.344498
6	3	16	80	1772	1052	6.298506
7	2	16	50	1523		7.625647
8	3	20	85	1973	1523	9.500092
9	2	13	70	1073		10.644595
10	2	19	60	1217		10.863397

USA Frequency Hopping Trial #1

Hop #	Freq (GHz)	Pulse Start (mS)
17	5503	51
35	5498	105
37	5502	111
38	5507	114
66	5496	198
81	5506	243

USA Frequency Hopping Trial #2

Hop #	Freq (GHz)	Pulse Start (mS)
38	5492	114
49	5493	147
90	5499	270

USA Frequency Hopping Trial #3

Hop #	Freq (GHz)	Pulse Start (mS)
27	5494	81
35	5508	105
43	5505	129

USA Frequency Hopping Trial #4

Hop #	Freq (GHz)	Pulse Start (mS)
17	5508	51
23	5497	69
60	5502	180
90	5495	270

USA Frequency Hopping Trial #5

Hop #	Freq (GHz)	Pulse Start (mS)
2	5493	6
26	5502	78
27	5504	81
30	5495	90
58	5500	174
79	5506	237

USA Frequency Hopping Trial #6

Hop #	Freq (GHz)	Pulse Start (mS)
16	5491	48
57	5506	171
90	5499	270

USA Frequency Hopping Trial #7

Hop #	Freq (GHz)	Pulse Start (mS)
26	5501	78
37	5500	111
53	5506	159

USA Frequency Hopping Trial #8

Hop #	Freq (GHz)	Pulse Start (mS)
1	5506	3
3	5509	9
8	5500	24
22	5503	66
80	5507	240

95	5502	285
USA Frequency Hopping Trial #9		
Hop #	Freq (GHz)	Pulse Start (mS)
24	5496	72
29	5509	87
61	5501	183
86	5507	258
91	5492	273
USA Frequency Hopping Trial #10		
Hop #	Freq (GHz)	Pulse Start (mS)
66	5502	198
USA Frequency Hopping Trial #11		
Hop #	Freq (GHz)	Pulse Start (mS)
11	5502	33
50	5497	150
56	5499	168
87	5494	261
94	5504	282
99	5495	297
USA Frequency Hopping Trial #12		
Hop #	Freq (GHz)	Pulse Start (mS)
28	5493	84
40	5505	120
57	5495	171
80	5494	240
91	5491	273
USA Frequency Hopping Trial #13		
Hop #	Freq (GHz)	Pulse Start (mS)
4	5507	12
58	5501	174
66	5506	198
73	5500	219
75	5491	225
78	5499	234
USA Frequency Hopping Trial #14		
Hop #	Freq (GHz)	Pulse Start (mS)
27	5498	81
33	5493	99
57	5508	171
USA Frequency Hopping Trial #15		
Hop #	Freq (GHz)	Pulse Start (mS)
53	5498	159
59	5494	177
60	5504	180
78	5496	234
USA Frequency Hopping Trial #16		
Hop #	Freq (GHz)	Pulse Start (mS)
55	5493	165
70	5503	210

76	5496	228
USA Frequency Hopping Trial #17		
Hop #	Freq (GHz)	Pulse Start (mS)
1	5492	3
18	5496	54
USA Frequency Hopping Trial #18		
Hop #	Freq (GHz)	Pulse Start (mS)
80	5506	240
94	5498	282
USA Frequency Hopping Trial #19		
Hop #	Freq (GHz)	Pulse Start (mS)
14	5492	42
46	5495	138
57	5491	171
60	5508	180
64	5503	192
74	5494	222
93	5499	279
USA Frequency Hopping Trial #20		
Hop #	Freq (GHz)	Pulse Start (mS)
13	5496	39
28	5508	84
43	5507	129
96	5498	288
USA Frequency Hopping Trial #21		
Hop #	Freq (GHz)	Pulse Start (mS)
15	5495	45
38	5505	114
69	5504	207
80	5492	240
USA Frequency Hopping Trial #22		
Hop #	Freq (GHz)	Pulse Start (mS)
17	5506	51
76	5508	228
USA Frequency Hopping Trial #23		
Hop #	Freq (GHz)	Pulse Start (mS)
20	5500	60
22	5508	66
51	5493	153
56	5499	168
92	5495	276
USA Frequency Hopping Trial #24		
Hop #	Freq (GHz)	Pulse Start (mS)
72	5508	216
83	5491	249
USA Frequency Hopping Trial #25		
Hop #	Freq (GHz)	Pulse Start (mS)
51	5501	153
58	5496	174



71	5504	213
75	5498	225
95	5506	285

USA Frequency Hopping Trial #26

Hop #	Freq (GHz)	Pulse Start (mS)
80	5501	240
92	5497	276

USA Frequency Hopping Trial #27

Hop #	Freq (GHz)	Pulse Start (mS)
21	5508	63
72	5500	216
94	5497	282

USA Frequency Hopping Trial #28

Hop #	Freq (GHz)	Pulse Start (mS)
13	5492	39
32	5507	96
40	5505	120
92	5497	276

USA Frequency Hopping Trial #29

Hop #	Freq (GHz)	Pulse Start (mS)
17	5491	51
52	5495	156
68	5507	204
92	5505	276
96	5506	288

USA Frequency Hopping Trial #30

Hop #	Freq (GHz)	Pulse Start (mS)
64	5507	192
97	5501	291