



# FCC DFS MASTER TEST REPORT

**FCC ID** : Q3K-5XACULCHG  
**Equipment** : 5 GHz Outdoor PtP/PtMP High Gain Radio Unit  
**Brand Name** : RADWIN 2000, RADWIN 5000  
**Model Name** : Alpha INT, SU-Air INT, SU-Pro INT  
**Applicant** : Radwin Ltd.  
Habarzel 27 Tel Aviv ISRAEL  
**Manufacturer** : Radwin Ltd.  
Habarzel 27 Tel Aviv ISRAEL  
**Standard** : FCC Part 15 Subpart E

The product was received on Oct. 31, 2018 and testing was started from Jan. 21, 2019 and completed on Jan. 24, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in FCC Part 15 Subpart E and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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### History of this test report

Report No.	Version	Description	Issue Date
FZ803134B	01	Initial issue of report	Feb. 13, 2019



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	7.8.1	U-NII Detection Bandwidth	Pass	-
3.3	7.8.2	Channel Availability Check Time	Pass	-
3.4	7.8.3	Channel Move Time	Pass	-
		Channel Closing Transmission Time	Pass	-
		Non-Occupancy Period Test	Pass	-
3.5	7.8.4	Statistical Performance Check	Pass	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang**  
**Report Producer: Fish Liu**



# 1 General Description

## 1.1 Feature of Equipment Under Test

Wireless 2.4GHz and Wireless 5GHz

Product Specification subjective to this standard	
Antenna Type	Wireless 2.4GHz: Printed PCB Antenna Wireless 5GHz: Integrated FP Xpole Antenna

## 1.2 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.3 Testing Site

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	<b>Sporton Site No.</b>
	DFS02-HY

## 1.4 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

**1.5 Support Unit used in test configuration and system**

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	Edge E335	PPD-AR5B95	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	Lenovo	Edge E335	PPD-AR5B95	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Notebook	Lenovo	Edge E335	PPD-AR5B95	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	5 GHz Outdoor PtP/PtMP High Gain Radio Unit	RADWIN 2000, RADWIN 5000	Alpha INT, SU-Air INT, SU-Pro INT	Q3K-5XACULCHG	N/A	Unshielded, 1.5 m



## 2 Requirements and Parameters for DFS Test

### 2.1 Summary of Dynamic Frequency Selection Test

UNII	Description	Limit
U-NII Band 2-C 5470-5725 MHz	Channel Availability Check Time	> 60sec
	U-NII Detection Bandwidth	> 100% of the U-NII 99% transmission power bandwidth
	Statistical Performance Check	Type 1,2,3,4 >= 60% Type 1~4 and 5 >= 80% Type 6 >= 70%
	Channel Move Time	< 10 sec
	Channel Closing Transmission Time	< 200 ms + aggregate of 60 ms over remaining 10 s period
	Non-Occupancy Period Test	> 30 minutes

### 2.2 Applicability of DFS Requirements

EUT is considered as a master device.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes



Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required	Yes
Client Beacon Test	N/A	Yes	Yes

Additional requirements for devices with multiple bandwidth modes	Operational Mode	
	Master or Client With Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
<p><b>Note</b></p> <p>Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.</p>		





### 2.3 DFS Detection Thresholds

Table 3 below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

**Table 3: DFS Detection Thresholds for Master Devices**

Maximum Transmit Power	Value (see notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

**Note 1:** This is the level at the input of the receiver assuming a 0 dBi receive antenna.  
**Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.  
**Note 3:** EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

The radar *Detection Threshold*, lowest antenna gain is the parameter of Interference radar DFS detection threshold, The Interference Detection Threshold is the (-64dBm) + (22) [dBi]+ 1 dB= -41 dBm.



## 2.4 DFS Response requirement values

Table 4 provides the response requirements for Master and Client Devices incorporating DFS.

Table 4: DFS Response Requirement Values

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



## 2.5 Short Pulse Radar Test Waveforms

Radar Type 0 was used in the evaluation of the Client device for the purpose of measuring the Channel Move Time and the Channel Closing Transmission Time.

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1.	See Note 1.
1	1	Test A Test B	Roundup $\left\{ \begin{matrix} \left( \frac{1}{360} \right) \cdot \\ \left( \frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \end{matrix} \right\}$	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
<b>Note 1:</b> Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a  
 Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

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

The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.



Table 5a - Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355.0	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.5	858
19	1139.0	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066



## 2.6 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

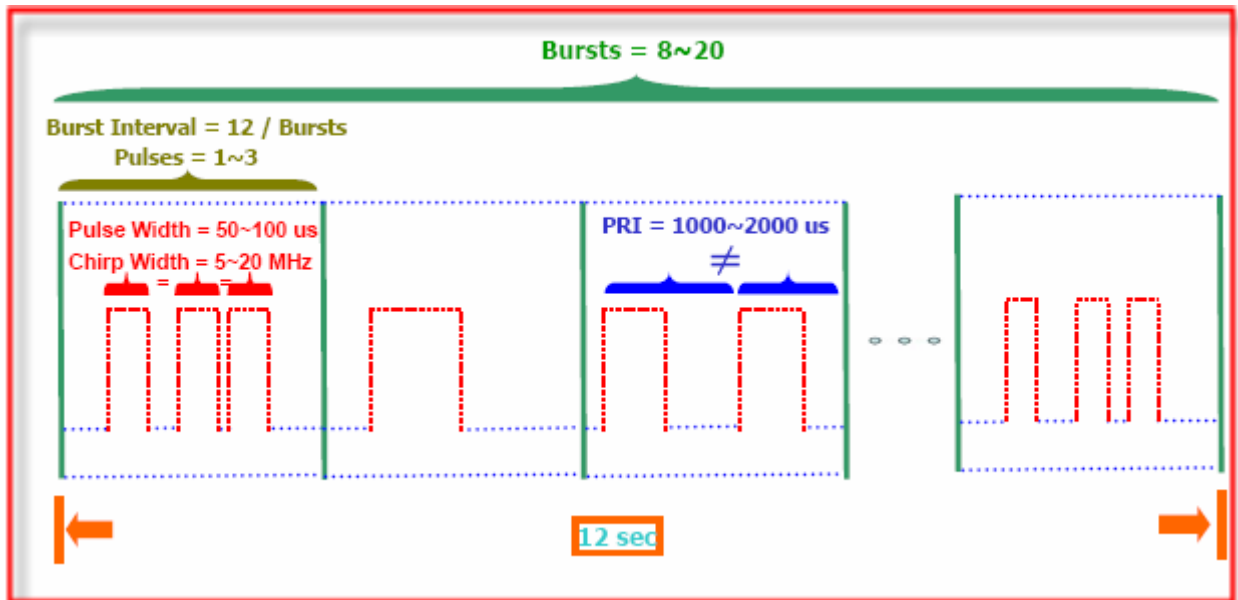
The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms. Each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

Note: The center frequency for each of the 30 trials of the Bin 5 radar shall be randomly selected within 80% of the Occupied Bandwidth.

- (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 frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a **transmission period** will have the same chirp width. 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).

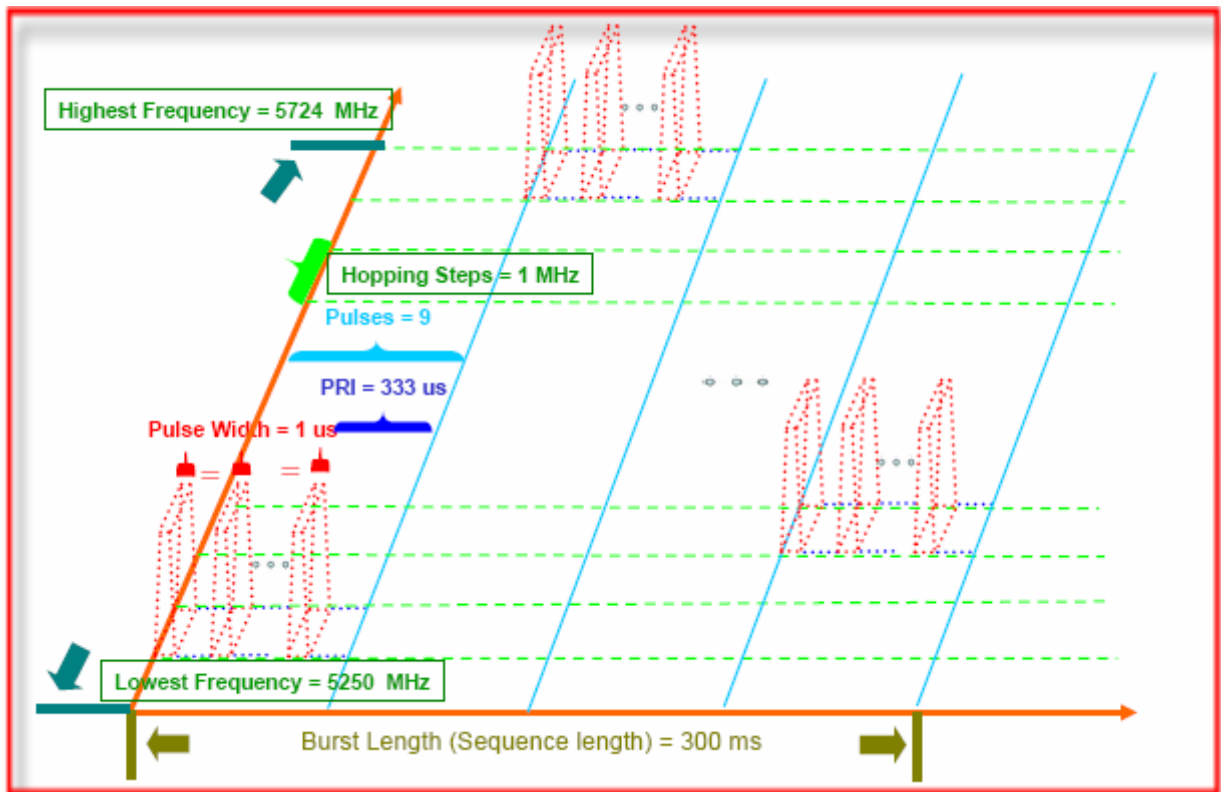


## 2.7 Frequency Hopping Radar Test Waveform

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	0.333	300	70%	30

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected 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.



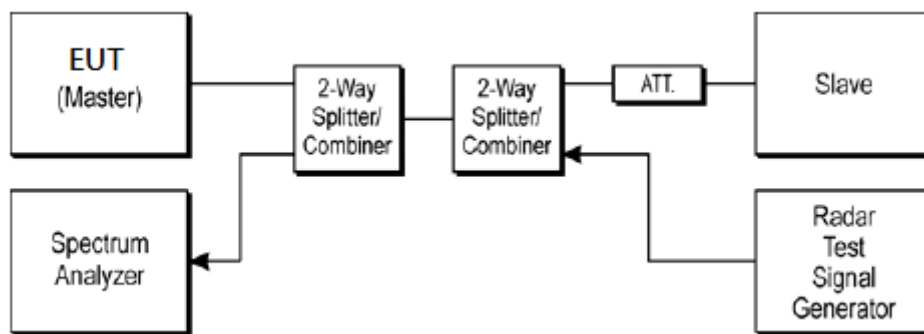
### 3 Calibration Setup and DFS Test Results

#### 3.1 Calibration of Radar Waveform

##### 3.1.1 Radar Waveform Calibration Procedure

The Interference Radar Detection Threshold Level is  $(-64) + (22) \text{ [dBi]} + 1\text{dB} = -41 \text{ dBm}$  that had been taken into account the output power range and antenna gain. The following equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for radar type 0~6. 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) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz to measure the radar waveform. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was  $(-64) + (22) \text{ [dBi]} + 1\text{dB} = -41 \text{ dBm}$ . Capture the spectrum analyzer plots on radar waveform.

##### 3.1.2 Conducted Calibration Setup



##### 3.1.3 Calibration Deviation

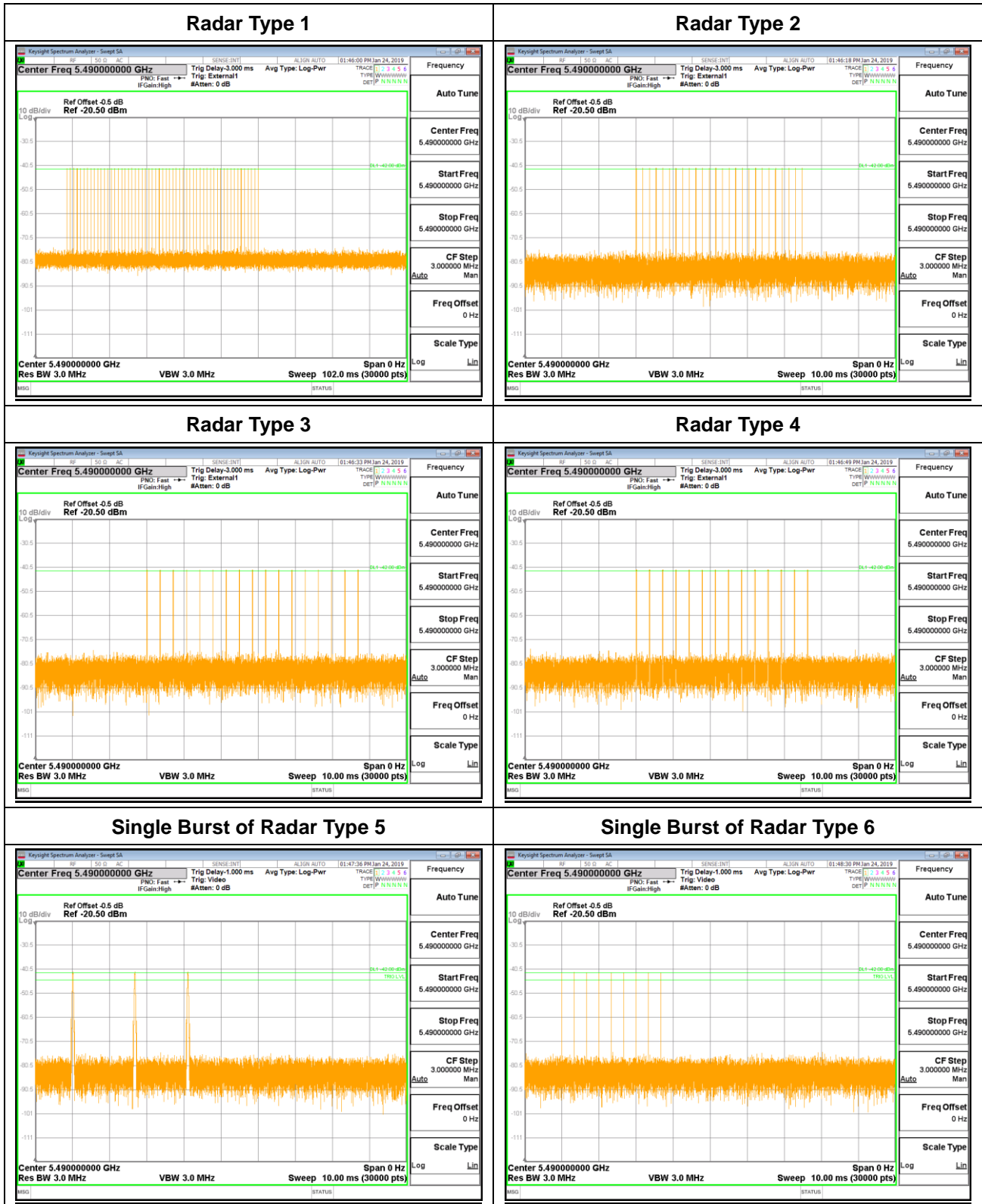
There is no deviation with the original standard.





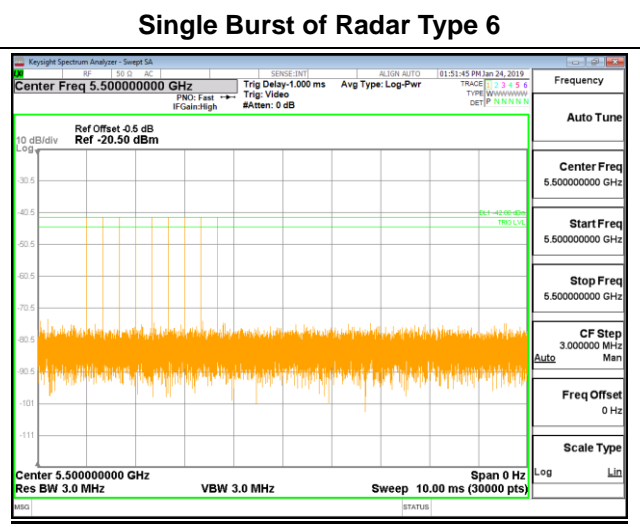
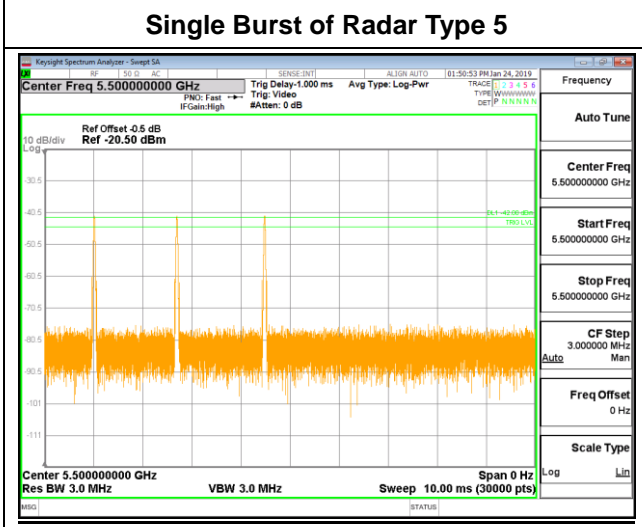
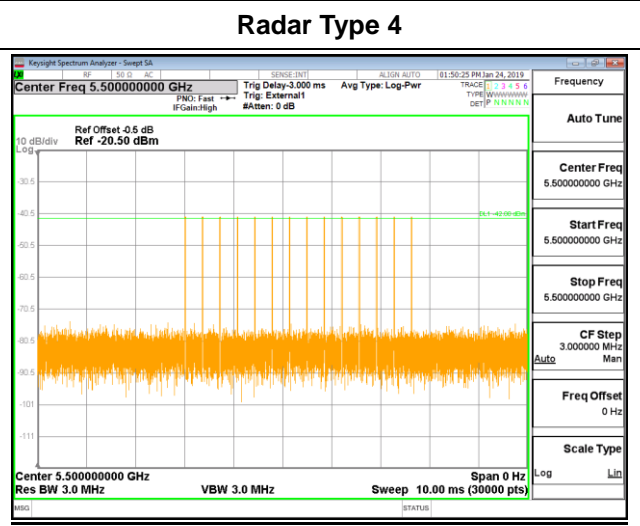
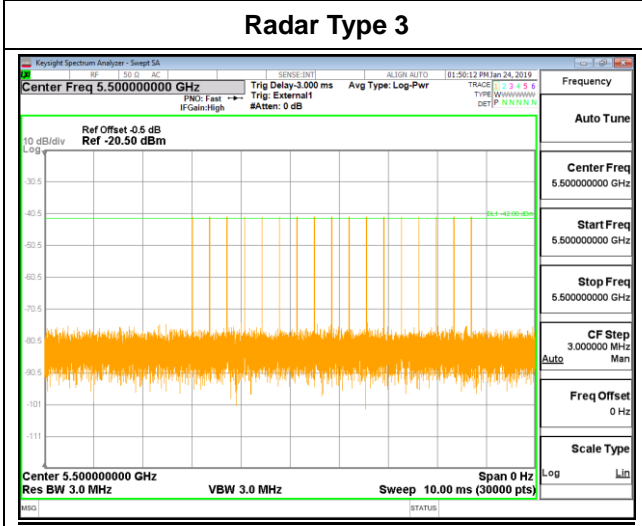
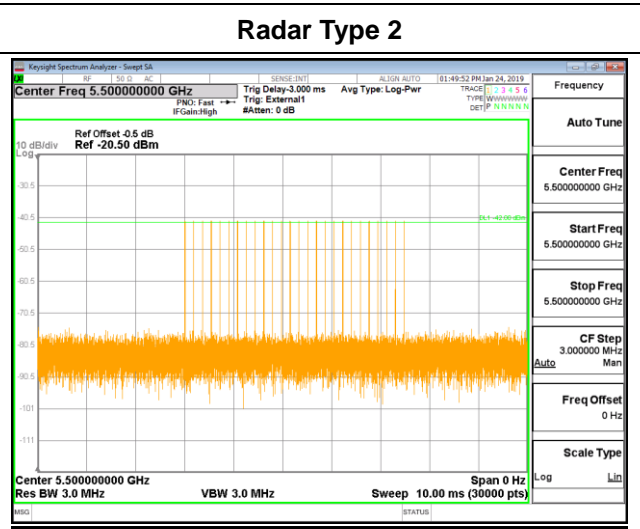
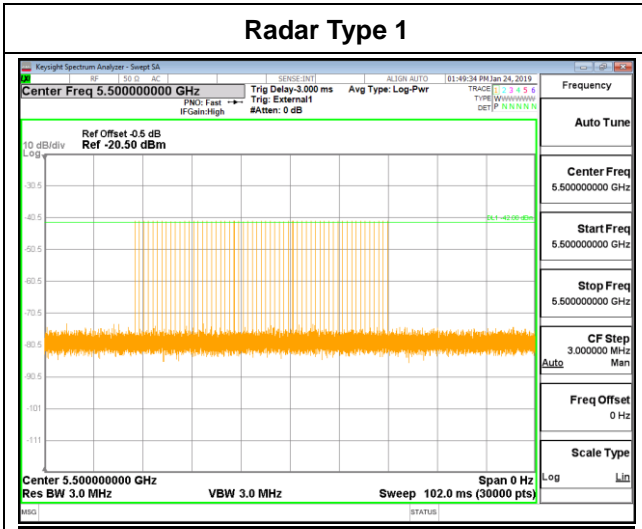
### 3.1.5 Radar Waveform Calibration Result

<20MHz / 5490MHz>



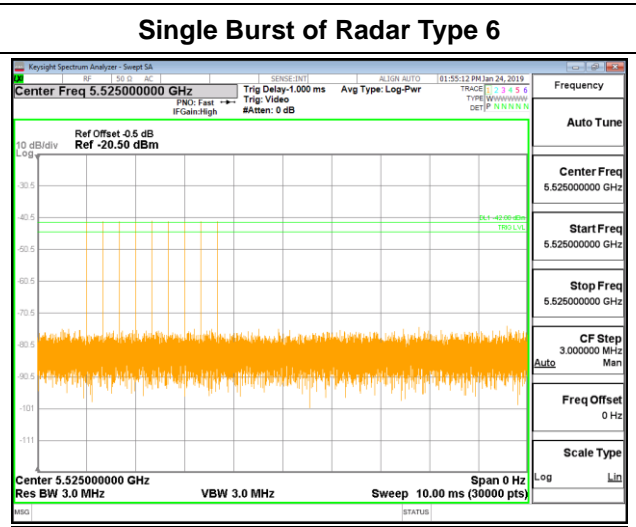
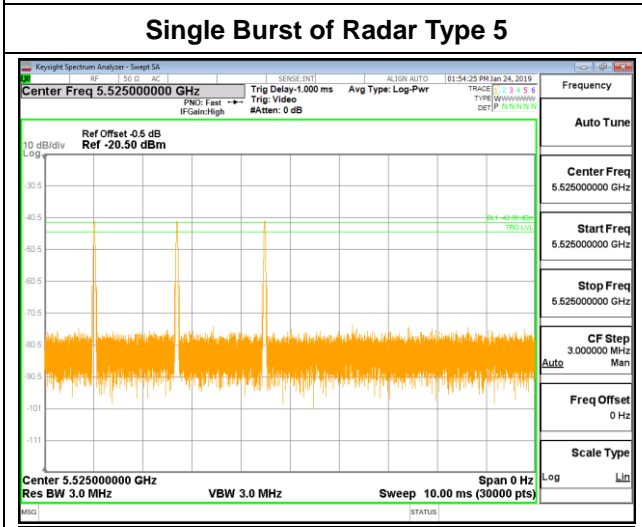
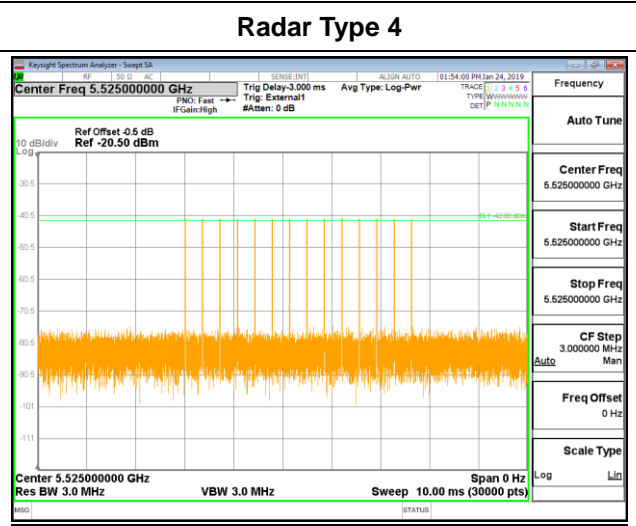
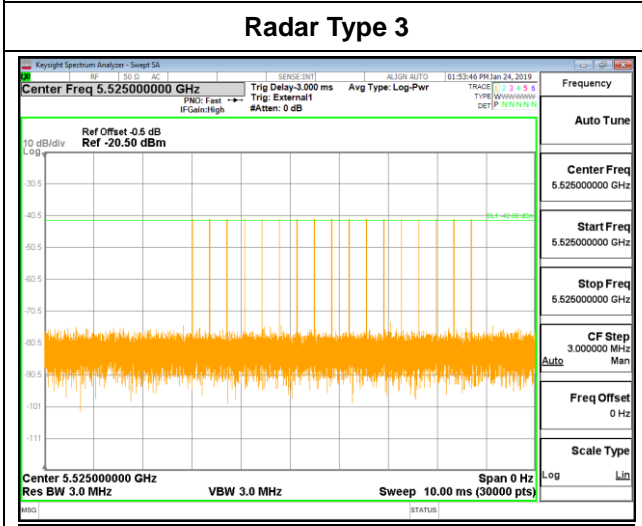
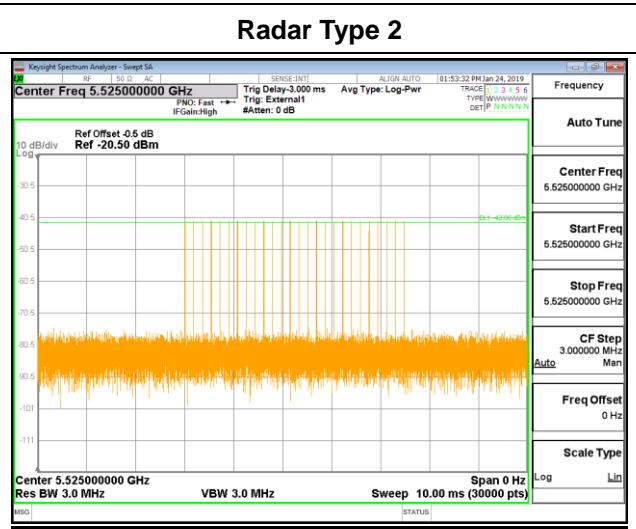
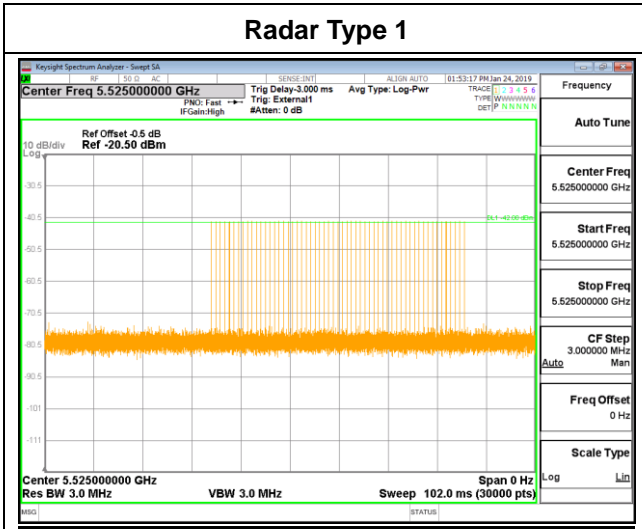


<40MHz / 5500MHz>





<80MHz / 5525MHz>



### 3.2 U-NII Detection Bandwidth

#### 3.2.1 Limit of U-NII Detection Bandwidth

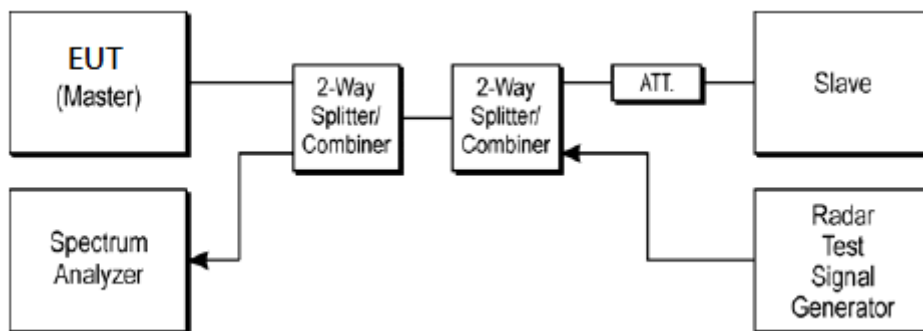
The U-NII Detection Bandwidth shall contain minimum 100% of the 99% power bandwidth. During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

#### 3.2.2 Test Procedures

- (1) Adjust the equipment to produce a single burst of the Short Pulse Radar Type 0 at the center frequency of the EUT Operating Channel at the specified DFS Detection Threshold level.
- (2) Set the EUT up as a standalone device (no associated Client or Master, as appropriate) and no traffic. Frame based systems will be set to a talk/listen ratio of 0%/100% during this test.
- (3) Generate a single radar burst, and note the response of the EUT. Repeat for a minimum of 10 trials. The EUT must detect the Radar Waveform using the specified U-NII Detection Bandwidth criterion.
- (4) Starting at the center frequency of the EUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in report clause 2.3. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as  $F_H$ ) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above  $F_H$  is not required to demonstrate compliance.
- (5) Starting at the center frequency of the EUT operating Channel, decrease the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in report clause 2.3. Repeat this measurement in 1MHz steps at frequencies 5 MHz above where the detection rate begins to fall. Record the lowest frequency (denote as  $F_L$ ) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below  $F_L$  is not required to demonstrate compliance.
- (6) The U-NII Detection Bandwidth is calculated as follows:  

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

#### 3.2.3 Test Setup



#### 3.2.4 Test Deviation

There is no deviation with the original standard.



3.2.5 Result of U-NII Detection Bandwidth

<20MHz / 5490MHz>

Frequency (MHz)	Fc	Trial Number (Detection = V, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5479	-11	N	N	N	N	N	N	N	N	N	N	0	
5480	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>L</sub>
5481	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5482	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5483	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5484	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5485	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5490	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5495	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5496	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5497	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5498	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5499	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5500	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>H</sub>
5501	+11	N	N	N	N	N	N	N	N	N	N	0	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5500 – 5480 = 20 MHz  
 EUT 99% Bandwidth = 18.566 MHz



<40MHz / 5500MHz>

Frequency (MHz)	Fc	Trial Number (Detection = V, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5479	-21	N	N	N	N	N	N	N	N	N	N	0	
5480	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>L</sub>
5481	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5482	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5483	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5484	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5485	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5490	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5495	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5500	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5505	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5510	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5515	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5516	+16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5517	+17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5518	+18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5519	+19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5520	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>H</sub>
5521	+21	N	N	N	N	N	N	N	N	N	N	0	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5520 – 5480 = 40 MHz  
EUT 99% Bandwidth = 36.452 MHz



<80MHz / 5525MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5484	-41	N	N	N	N	N	N	N	N	N	N	0	
5485	-40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>L</sub>
5486	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5487	-38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5488	-37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5489	-36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5490	-35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5495	-30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5500	-25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5505	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5510	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5515	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5520	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5525	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5530	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5535	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5540	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5545	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5550	+25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5555	+30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5560	+35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5561	+36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5562	+37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5563	+38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5564	+39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	
5565	+40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100	F <sub>H</sub>
5566	+41	N	N	N	N	N	N	N	N	N	N	0	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5565 – 5485 = 80 MHz  
EUT 99% Bandwidth = 76.43 MHz



### **3.3 Channel Availability Check**

#### **3.3.1 Limit of Channel Availability Check**

The Initial Channel Availability Check Time tests that the EUT 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.

#### **3.3.2 Test Procedures of Initial Channel Availability Check Time**

This test does not use any radar waveforms and only needs to be performed one time.

- (1) The U-NII devices will be powered on and be instructed to operate on the appropriate U-NII Channel that must incorporate DFS functions. At the same time the EUT is powered on, the spectrum analyzer will be set to zero span mode with a 3 MHz RBW and 3 MHz VBW on the Channel occupied by the radar (Chr) with a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.
- (2) The EUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.



### 3.3.3 Radar Burst at the Beginning of the Channel Availability Check Time

The steps below define the procedure to verify successful radar detection on the test 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 occurs at the beginning of the Channel Availability Check Time. This is illustrated in Figure 15.

- (1) The Radar Waveform generator and EUT are connected using the applicable test setup and the power of the EUT is switched off.
- (2) The EUT is powered on at  $T_0$ .  $T_1$  denotes the instant when the EUT has completed its power-up sequence ( $T_{power\_up}$ ). The Channel Availability Check Time commences on Chr at instant  $T_1$  and will end no sooner than  $T_1 + T_{ch\_avail\_check}$ .
- (3) A single Burst of one of the Short Pulse Radar Types 1-4 will commence within a 6 second window starting at  $T_1$ . An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.
- (4) Visual indication or measured results on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of Chr for EUT emissions will continue for 2.5 minutes after the radar Burst has been generated.
- (5) Verify that during the 2.5 minute measurement window no EUT transmissions occurred on Chr. The Channel Availability Check results will be recorded.

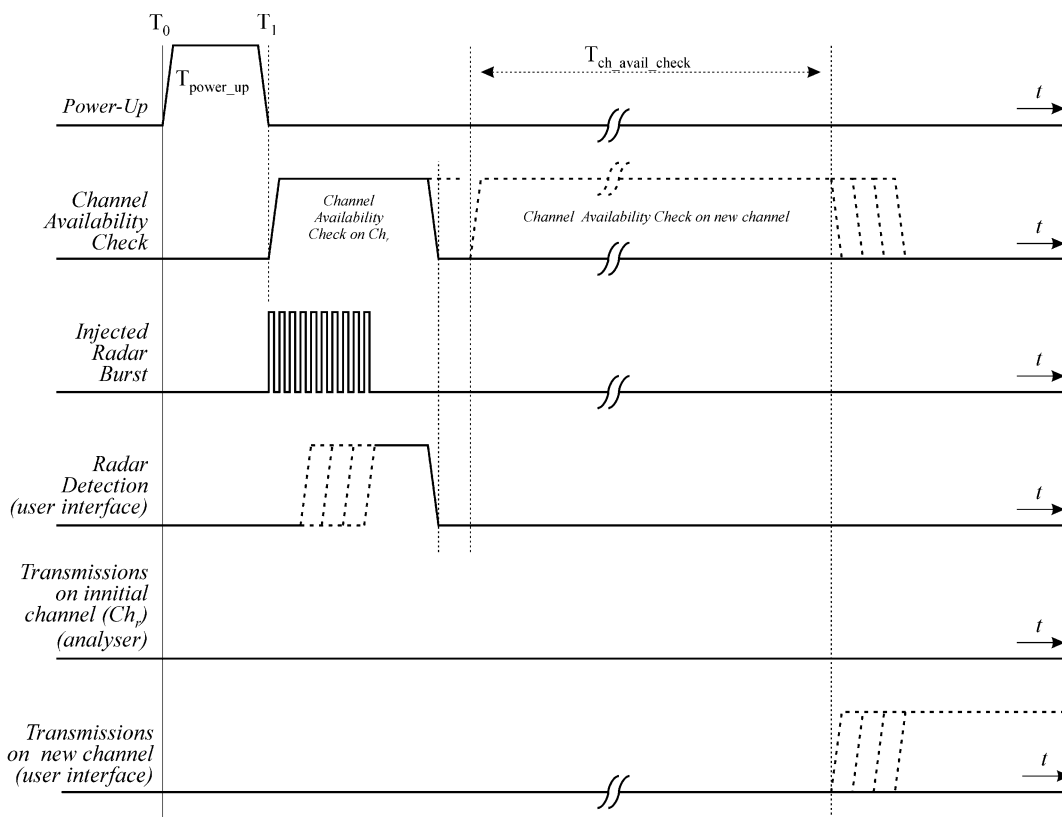


Figure 15: Example of timing for radar testing at the beginning of the Channel Availability Check Time

### 3.3.4 Radar Burst at the End of the Channel Availability Check Time

The steps below define the procedure to verify successful radar detection on the test 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 + 1dB occurs at the end of the Channel Availability Check Time. This is illustrated in Figure 16.

- (1) The Radar Waveform generator and EUT are connected using the applicable test setup and the power of the EUT is switched off.
- (2) The EUT is powered on at  $T_0$ .  $T_1$  denotes the instant when the EUT has completed its power-up sequence ( $T_{power\_up}$ ). The Channel Availability Check Time commences on Chr at instant  $T_1$  and will end no sooner than  $T_1 + T_{ch\_avail\_check}$ .
- (3) A single Burst of one of the Short Pulse Radar Types 1-4 will commence within a 6 second window starting at  $T_1 + 54$  seconds. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.
- (4) Visual indication or measured results on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of Chr for EUT emissions will continue for 2.5 minutes after the radar Burst has been generated.
- (5) Verify that during the 2.5 minute measurement window no EUT transmissions occurred on Chr. The Channel Availability Check results will be recorded.

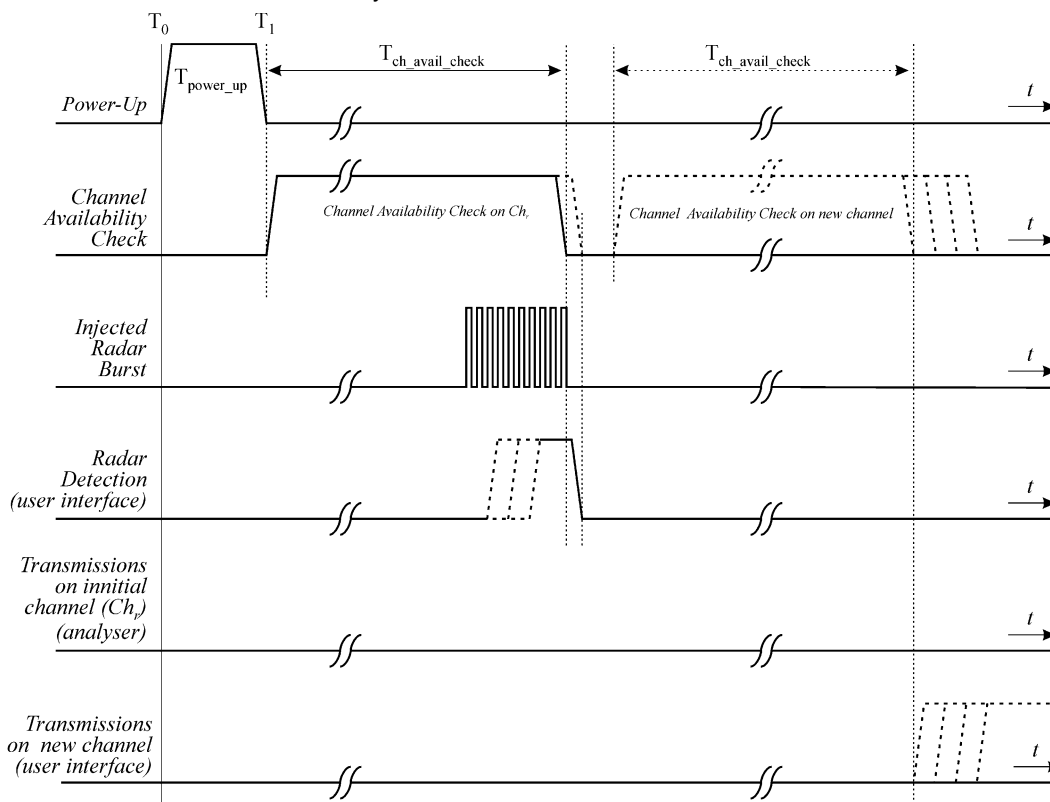
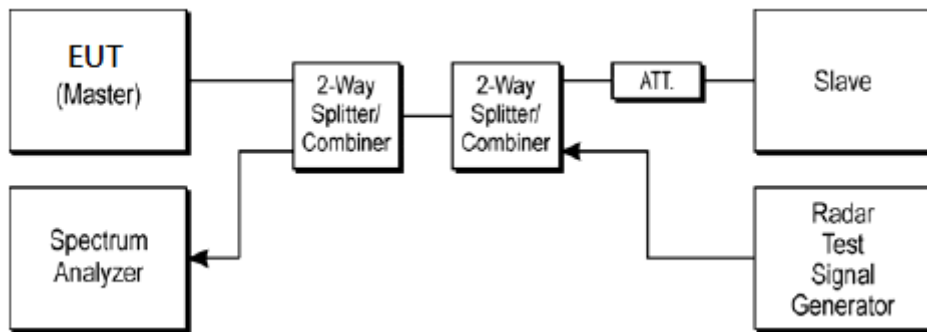


Figure 16: Example of timing for radar testing towards the end of the Channel Availability Check Time

### 3.3.5 Test Setup



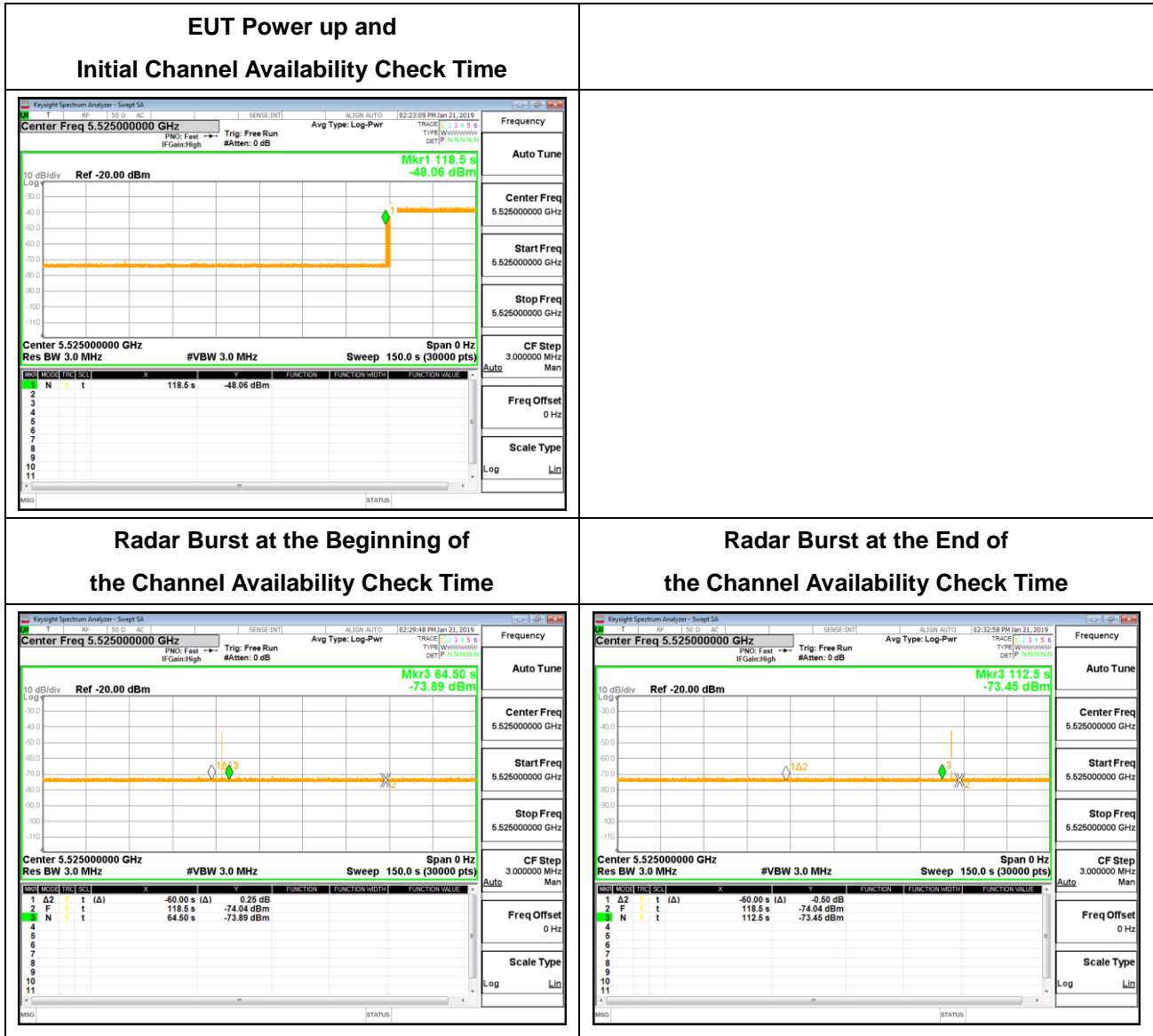
### 3.3.6 Test Deviation

There is no deviation with the original standard.



### 3.3.7 Result of Channel Availability Check Time

<80MHz / 5525MHz>





## 3.4 In-Service Monitoring: Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

### 3.4.1 Limit of In-Service Monitoring

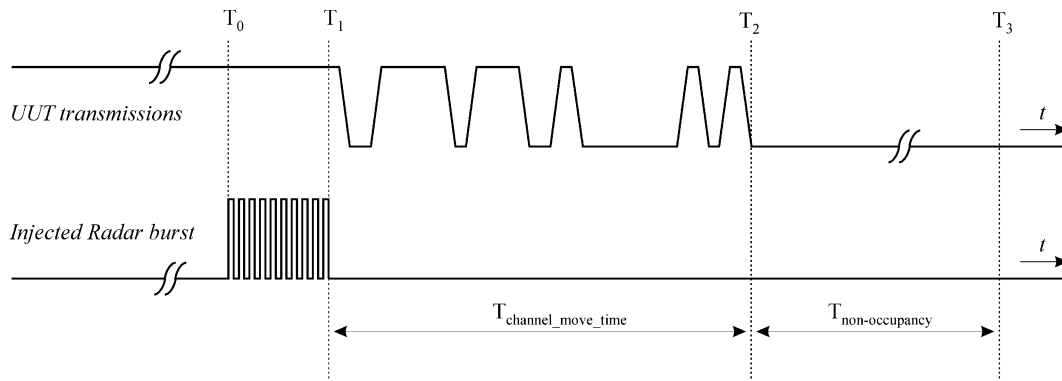
The EUT has In-Service Monitoring function to continuously monitor the radar signals, If radar is detected, it must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current Channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. The total duration of Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate Channel 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.

Non-Occupancy Period time is 30 minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel.

### 3.4.2 Test Procedures

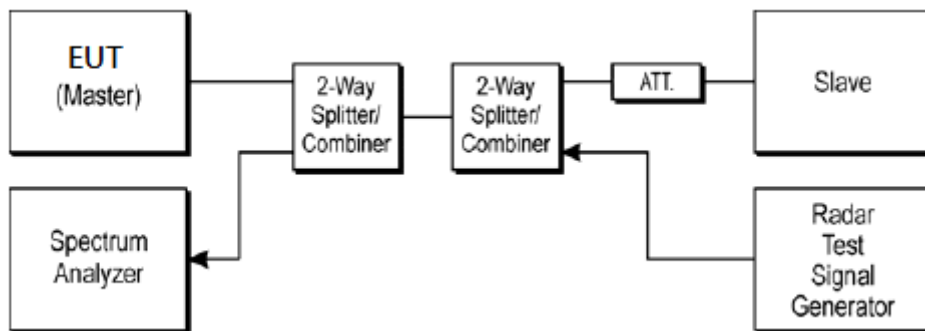
- (1) One frequency will be chosen from the Operating Channels of the EUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals are detected, another frequency must be selected within the emission bandwidth where control signals are detected.
- (2) In case the EUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will associate with the EUT (Master). For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.
- (3) The TCP protocol unicast data stream was generated by the iperf software command line with at least 17% activity ratio over any 100ms period.
- (4) Timing plots are reported with calculations demonstrating a minimum channel loading of approximately 17% or greater. For example, channel loading can be estimated by setting the spectrum analyzer for zero span and approximate the Time On/ (Time On + Off Time).
- (5) At time T0 the Radar Waveform generator sends a Burst of pulses for one of the Short Pulse Radar Types 1-4 at DFS Detection Threshold levels on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.
- (6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Measure and record the Channel Move Time and Channel Closing Transmission Time if radar detection occurs.

- (7) When operating as a Master Device, monitor the EUT for more than 30 minutes following instant T2 to verify that the EUT does not resume any transmissions on this Channel. Perform this test once and record the measurement result.



- (8) One 12 seconds plot is reported for the Short Pulse Radar Type 0.
- (9) Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by:  $Dwell (0.4ms) = S (12000ms) / B (30000)$ ; where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C (ms) = N \times Dwell (0.4 ms)$ ; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

### 3.4.3 Test Setup



### 3.4.4 Test Deviation

There is no deviation with the original standard.



**3.4.5 Result of Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test**

<b>Test Mode :</b>	Master	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	PH Yang	<b>Relative Humidity :</b>	45~50%

Ch. BW / Frequency	Test Item	Test Result	Limit	Pass/Fail
80MHz / 5525MHz	Channel Move Time	0.1096 s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 0 ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass

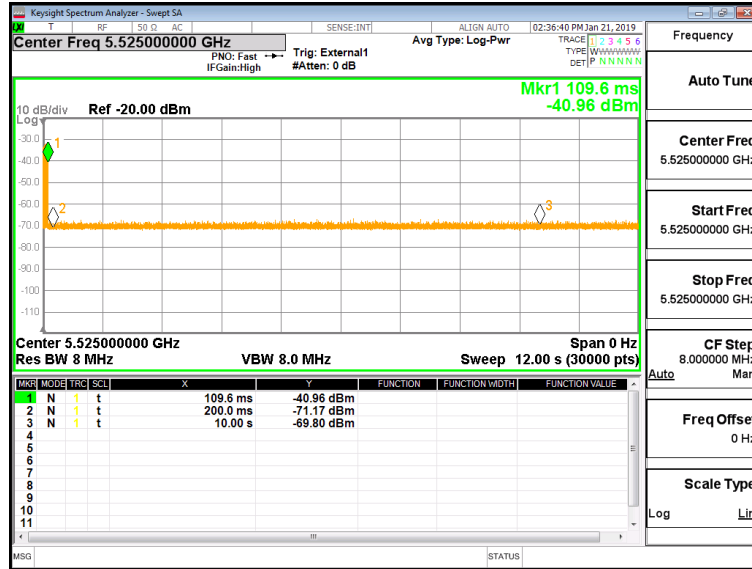
**Note:** The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.



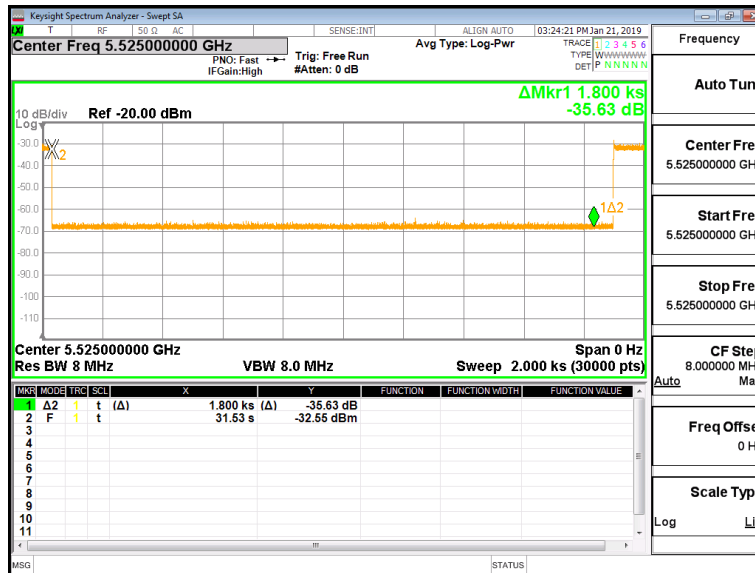
### 3.4.6 Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Test Plots

#### <80MHz / 5525MHz> In-Service Monitoring

#### Channel Move Time & Channel Closing Transmission Time



#### Non-Occupancy Period



**Note:**

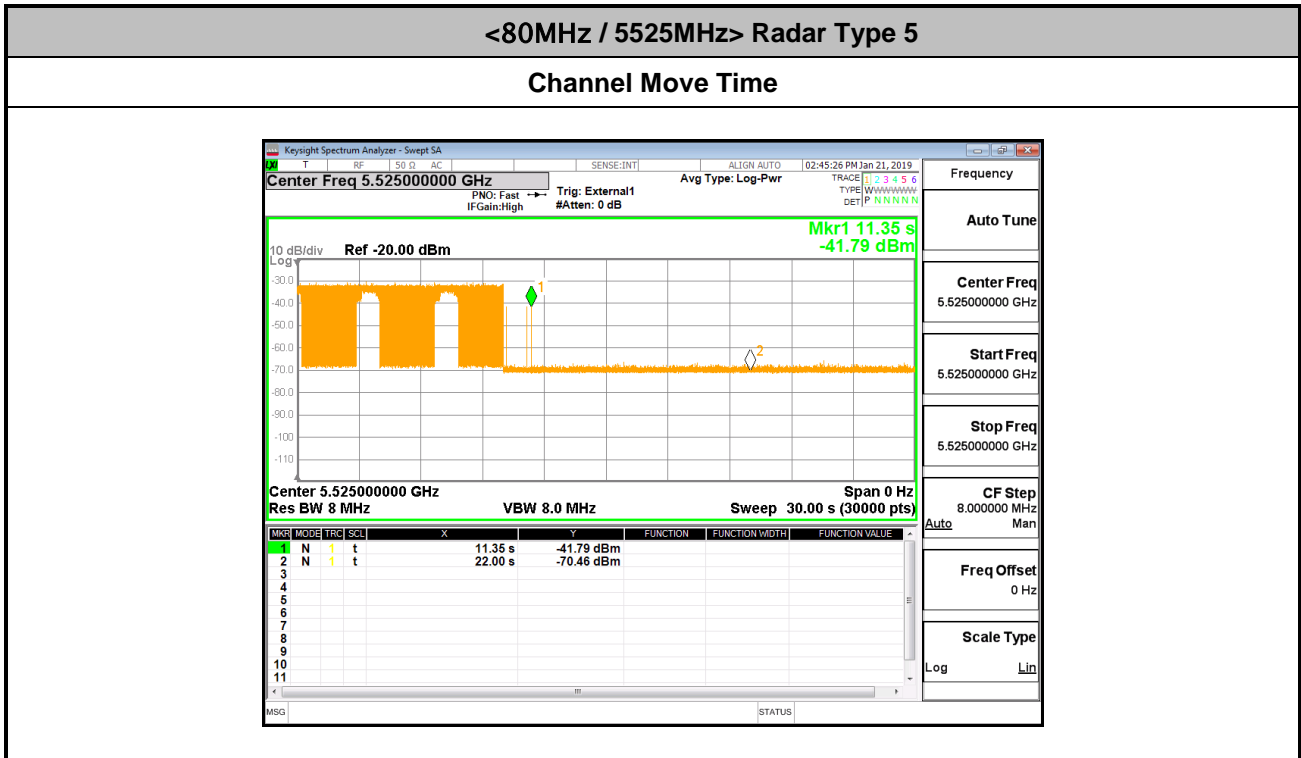
Dwell (0.4 ms)= Sweep Time (12000 ms) / Sweep Point Bins (30000)

Channel Closing Transmission Time ( 200 + 0 ms) = 200 + Number (0) X Dwell (0.4 ms) < 260ms



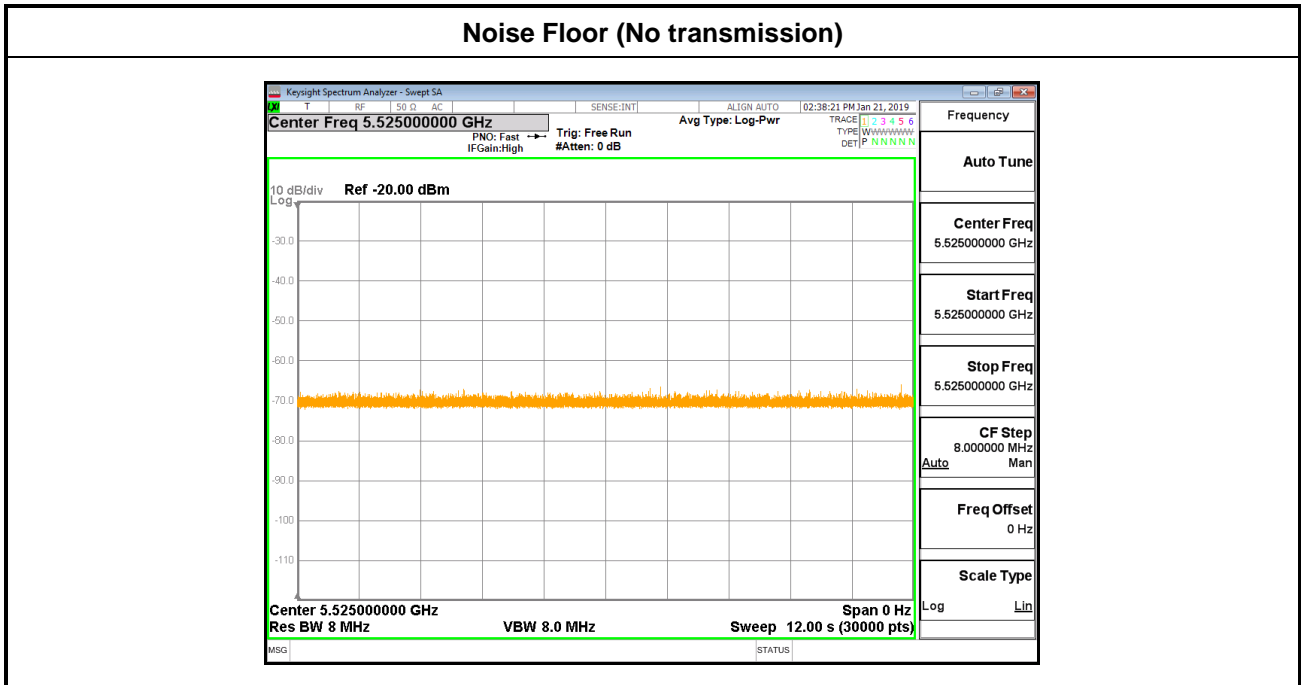
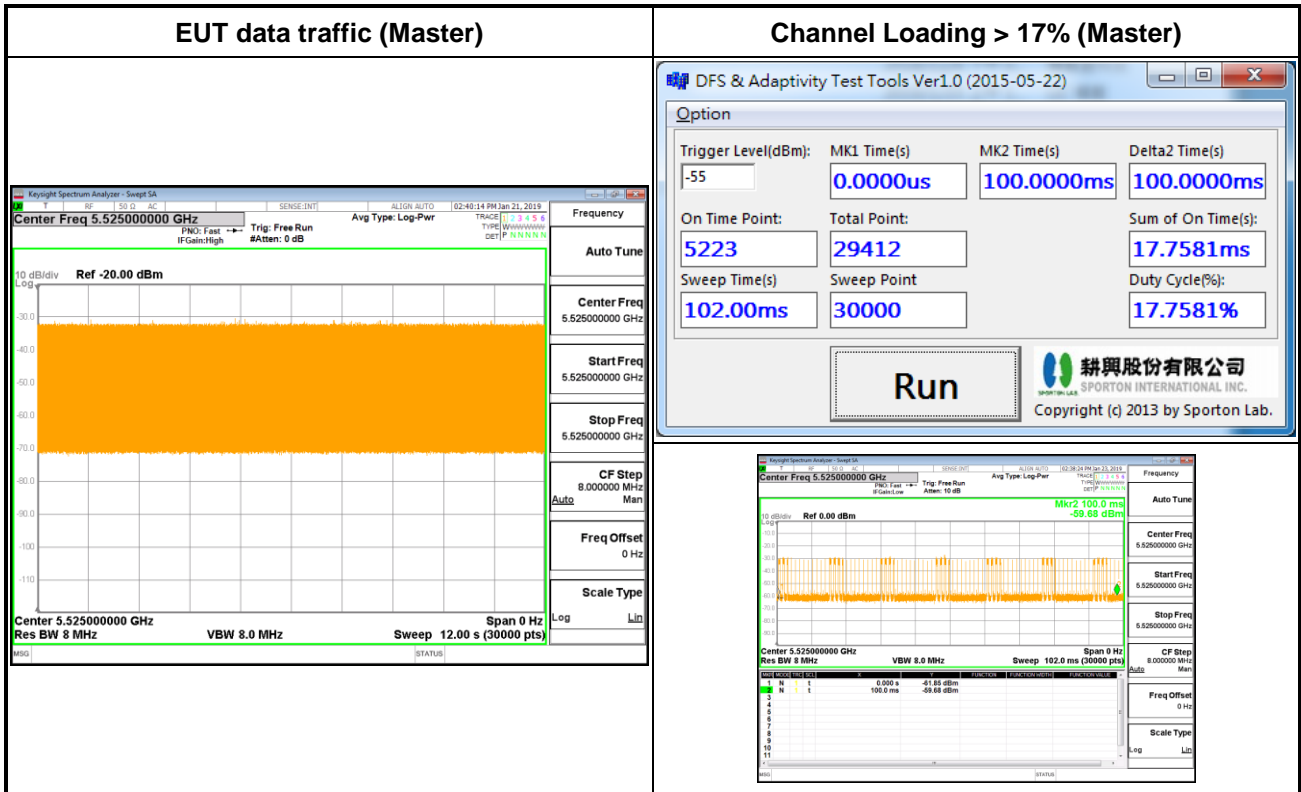


### 3.4.7 Long Pulsed Radar Type Channel Move Time Test Plots (22second)





### 3.4.8 Data Traffic Channel Loading and Noise Floor Plots





### 3.5 Statistical Performance Check

#### 3.5.1 Limit of Statistical Performance Check

##### Short Pulse Radar Test

Once the performance requirements check is complete, statistical data will be gathered, to determine the ability of the device to detect the radar test waveforms (Short Pulse Radar Types 1-4) found in **Table 5**. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trials. The percentage of successful detection is calculated by:

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100 = \text{Percentage of Successful Detection Radar Waveform } N = P_d N$$

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4}$$

The minimum number of trails, minimum percentage of successful detection and the aggregate minimum percentage of successful detection are found in **Table 5**.

**Table 5 – Short Pulse Radar Test Waveforms**

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of 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 1 through 4. For Short Pulse Radar Type 0, the same waveform is used a minimum of 30 times. If more than 30 waveforms are used for Short Pulse Radar Types 1 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

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



**Long Pulse Radar Test**

Statistical data will be gathered to determine the ability of the device to detect the Long Pulse Radar Type 5 found in **Table 6**. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trials.

**Table 6 – 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 Number of 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 Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type waveforms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Three subsets of trials will be performed with a minimum of ten trials per subset.

The subset of trials differs in where the Long Pulse Type 5 Signal is tuned in frequency:

- a) The Channel center frequency (subset case 1).
- b) Tuned frequencies such that 90% of the Long Pulse Type 5 frequency modulation is within the low edge of the UUT Occupied Bandwidth (subset case 2).
- c) Tuned frequencies such that 90% of the Long Pulse Type 5 frequency modulation is within the high edge of the UUT Occupied Bandwidth (subset case 3).

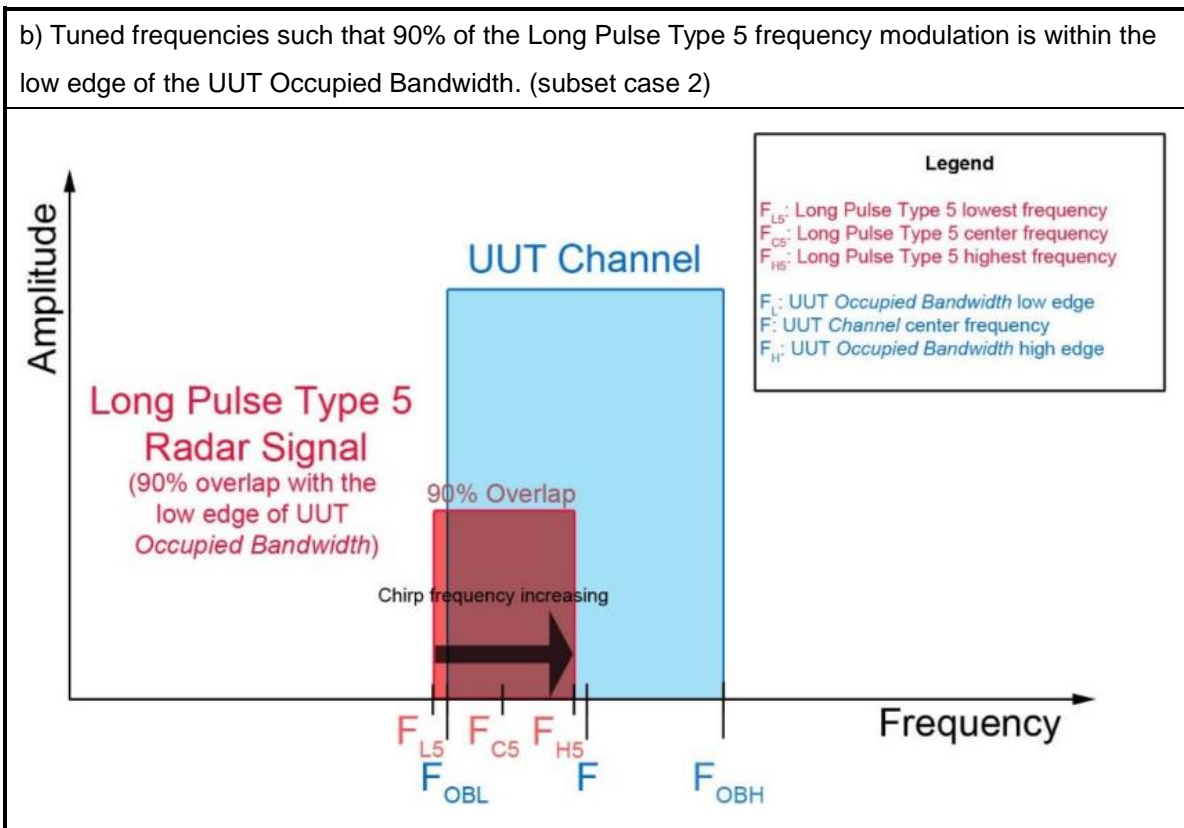
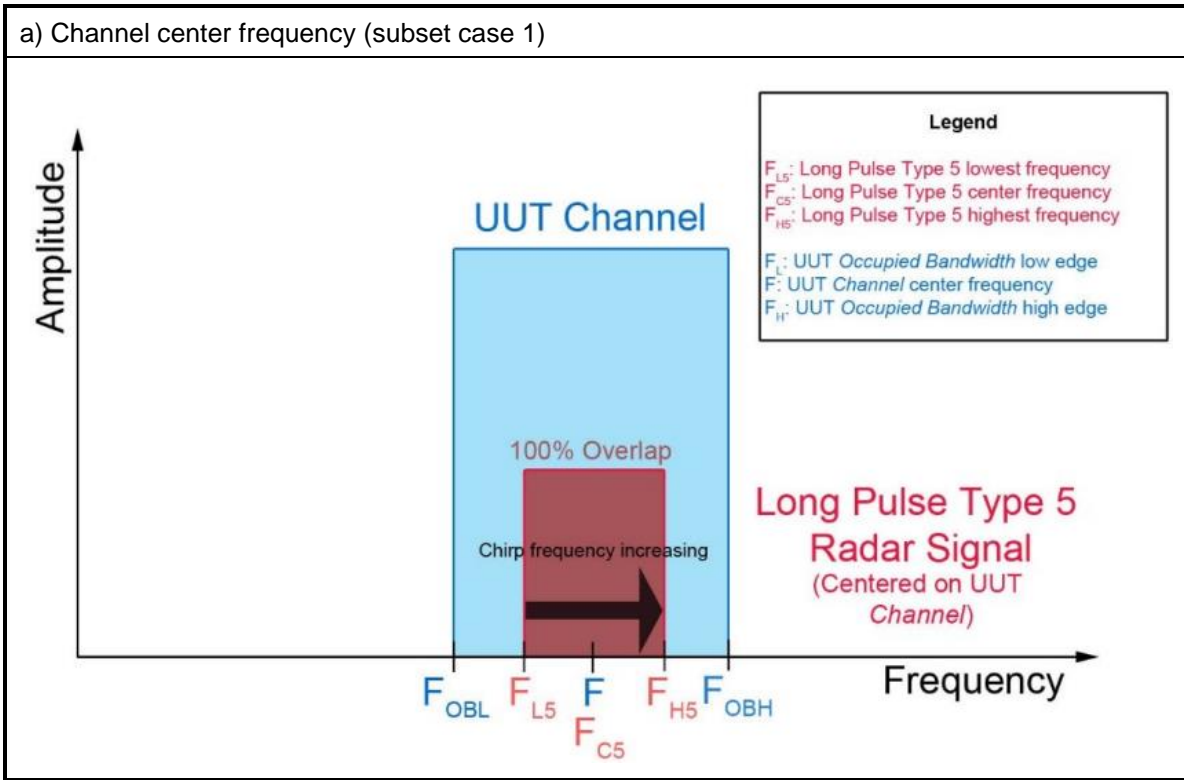
For subset case 1: the center frequency of the signal generator will remain fixed at the center of the UUT Channel.

For subset case 2: to retain 90% frequency overlap between the radar signal and the UUT Occupied Bandwidth, the center frequency of the signal generator will vary for each of the ten trials in subset case 2.

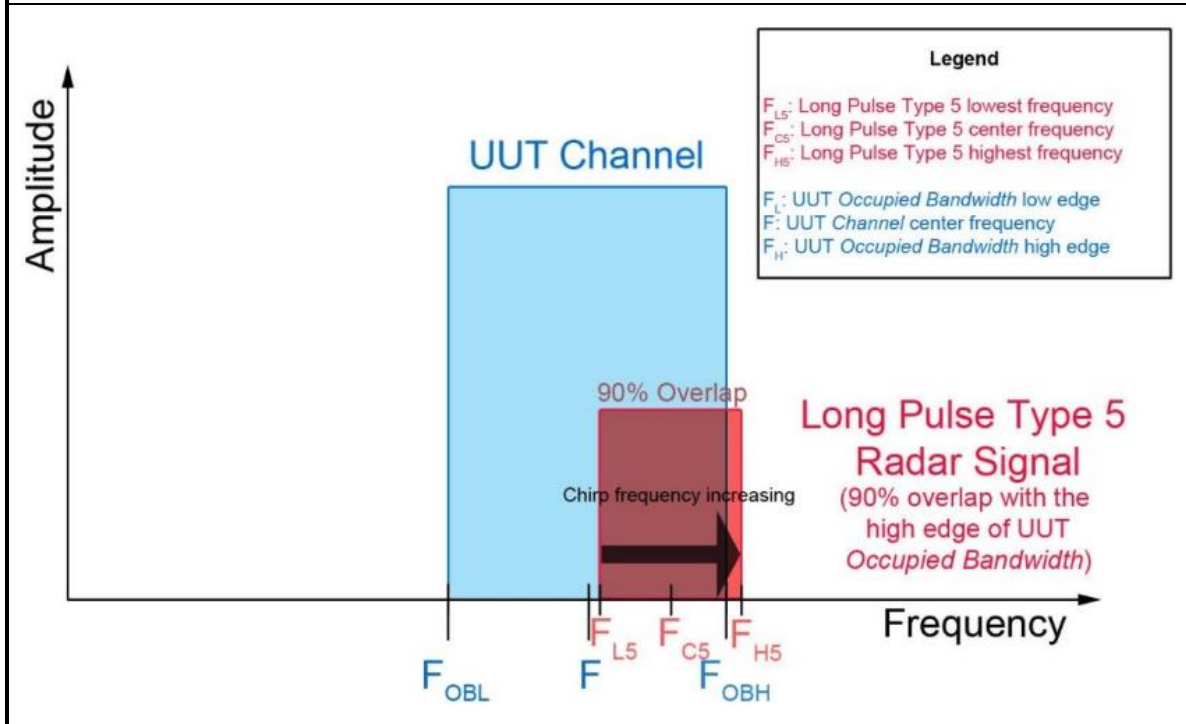
The center frequency of the signal generator for each trial is calculated by:  $FL + (0.4 * Chirp\ Width\ [in\ MHz])$

For subset case 3: to retain 90% frequency overlap between the radar signal and the UUT Occupied Bandwidth, the center frequency of the signal generator will vary for each of the ten trials in subset case 3.

The center frequency of the signal generator for each trial is calculated by:  $FH - (0.4 * Chirp\ Width\ [in\ MHz])$



c) Tuned frequencies such that 90% of the Long Pulse Type 5 frequency modulation is within the high edge of the UUT Occupied Bandwidth. (subset case 3)



The percentage of successful detection is calculated by:

$$\frac{\text{TotalWaveformDetections}}{\text{TotalWaveformTrials}} \times 100$$



**Frequency Hopping Radar Test**

Statistical data will be gathered to determine the ability of the device to detect the Frequency Hopping radar test signal (radar type 6) found in **Table 7**. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs. The probability of successful detection is calculated by:

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100$$

**Table 7 – 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 Number of Trials
6	1	333	9	0.333	300	70%	30

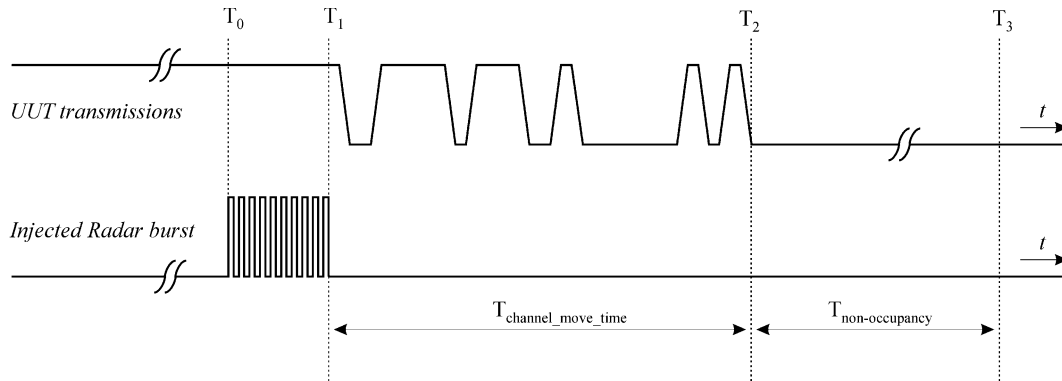
For the Frequency Hopping Radar Type, the same *Burst* parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

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.

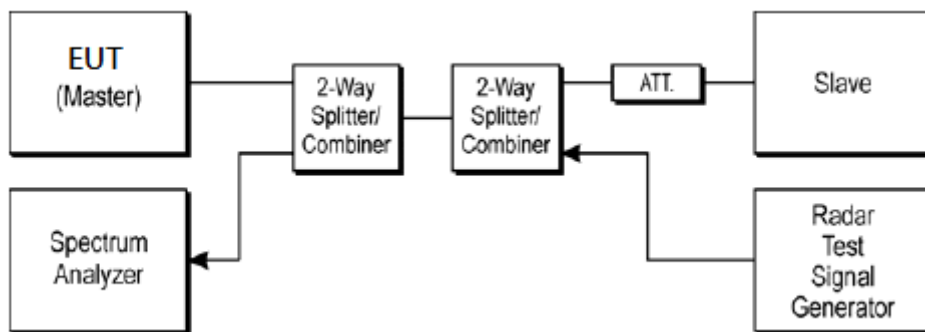


### 3.5.2 Test Procedures

- (1) One frequency will be chosen from the Operating Channels of the EUT within the 5250-5350 MHz or 5470-5725 MHz bands.
- (2) In case the EUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will associate with the EUT (Master). If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.
- (3) The TCP protocol unicast data stream was generated by the iperf software command line with at least 17% activity ratio over any 100ms period.
- (4) At time  $T_0$  the Radar Waveform generator sends a Burst of pulses for each of the Radar Types 1-6 at DFS Detection Threshold levels on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.
- (5) Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 1-4 and 6 to ensure detection occurs.
- (6) Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.



### 3.5.3 Test Setup



### 3.5.4 Test Deviation

There is no deviation with the original standard.



3.5.5 Result of Statistical Performance Check

<20MHz / 5490MHz>

(Detection = Y, No Detection = N)						
Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	N	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>29/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>97%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>	<b>99% ( &gt;=80% )</b>					



<40MHz / 5500MHz>

<b>(Detection = Y, No Detection = N)</b>						
<b>Trial Number</b>	<b>Type 1</b>	<b>Type 2</b>	<b>Type 3</b>	<b>Type 4</b>	<b>Type 5</b>	<b>Type 6</b>
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	N	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>29/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>97%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>99% ( &gt;=80% )</b>		



<80MHz / 5525MHz>

(Detection = Y, No Detection = N)						
Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	N	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>29/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>97%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>99% ( &gt;=80% )</b>		



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Signal Generator	Keysight	N5182B	MY562003 77	9kHz~6GHz	Apr. 16, 2018	Jan. 21, 2019 ~ Jan. 24, 2019	Apr. 15, 2019	DFS (DFS02-HY)
Spectrum Analyzer	Keysight	N9010A	MY560704 12	10Hz~7GHz	Aug. 16, 2018	Jan. 21, 2019 ~ Jan. 24, 2019	Aug. 15, 2019	DFS (DFS02-HY)
Power Divider	Woken	3Way SMA Power Divider	ST108-001 0 (#4)	2G~8GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
Power Divider	Woken	SMA 2Way Power Divider	ST108-001 1	2GHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
Power Divider	Woken	4Way SMA Power Divider	0120A020 56002D	0.5G~6GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	Woken	S05(100cm)	161202-04	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	Woken	S05(100cm)	161202-05	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	Woken	S05(100cm)	161202-06	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	Woken	S05(100cm)	161202-07	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	Woken	S05(100cm)	161202-08	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	MTJ Cooperstion	SBF405-105F LEX	MTJ-30cm -01	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	MTJ Cooperstion	SBF405-105F LEX	MTJ-30cm -02	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)
RF Cable	MTJ Cooperstion	SBF405-105F LEX	MTJ-30cm -03	30 kHz~18GHz	Calibration from System	Jan. 21, 2019 ~ Jan. 24, 2019	Calibration from System	DFS (DFS02-HY)

## Appendix B. Radar Test Waveform

Report Number : FZ8O3134B

**DFS Radar Parameters**  
**FCC Radar Type 1**  
**Channel Bandwidth 20MHz 5490MHz**

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	22	1066.10	938	1
2	10	1432.66	698	1
3	6	1618.12	618	1
4	2	1858.74	538	1
5	19	1138.95	878	1
6	12	326.16	3066	1
7	7	1567.40	638	1
8	21	1089.32	918	1
9	17	1193.32	838	1
10	18	1165.50	858	1
11	15	1253.13	798	1
12	11	1392.76	718	1
13	4	1730.10	578	1
14	5	1672.24	598	1
15	3	1792.11	558	1
16		394.32	2536	1
17		1035.20	966	1
18		1209.19	827	1
19		399.84	2501	0
20		385.36	2595	1
21		897.67	1114	1
22		768.05	1302	1
23		328.41	3045	1
24		615.76	1624	1
25		347.46	2878	1
26		973.71	1027	1
27		402.41	2485	1
28		625.00	1600	1
29		853.24	1172	1
30		849.62	1177	1

**DFS Radar Parameters**  
**FCC Radar Type 2**  
**Channel Bandwidth 20MHz 5490MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	26	3.20	179	1
2	23	1.10	207	1
3	24	2.10	230	1
4	29	4.80	200	1
5	28	3.90	214	1
6	26	2.90	222	1
7	26	3.20	204	1
8	25	2.50	192	1
9	26	3.10	164	1
10	23	1.20	156	1
11	27	3.90	210	1
12	29	4.60	201	1
13	26	3.20	162	1
14	25	2.20	197	1
15	29	4.50	163	1
16	26	3.00	203	1
17	29	5.00	168	1
18	25	2.40	217	1
19	26	2.90	191	1
20	25	2.30	166	1
21	27	3.70	150	1
22	25	2.20	176	1
23	29	4.90	195	1
24	26	2.90	202	1
25	25	2.50	178	1
26	23	1.10	206	1
27	27	3.80	155	1
28	29	4.70	157	1
29	25	2.40	224	1
30	28	4.20	159	1

**DFS Radar Parameters**  
**FCC Radar Type 3**  
**Channel Bandwidth 20MHz 5490MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	17	8.20	355	1
2	16	6.10	487	1
3	16	7.10	344	1
4	18	9.80	288	1
5	18	8.90	230	1
6	17	7.90	432	1
7	17	8.20	207	1
8	17	7.50	443	1
9	17	8.10	439	1
10	16	6.20	223	1
11	18	8.90	208	1
12	18	9.60	463	1
13	17	8.20	441	1
14	16	7.20	323	1
15	18	9.50	297	1
16	17	8.00	412	1
17	18	10.00	324	1
18	17	7.40	271	1
19	17	7.90	349	1
20	16	7.30	409	1
21	18	8.70	373	1
22	16	7.20	254	1
23	18	9.90	274	1
24	17	7.90	278	1
25	17	7.50	317	1
26	16	6.10	260	1
27	18	8.80	211	1
28	18	9.70	272	1
29	17	7.40	264	1
30	18	9.20	284	1



**DFS Radar Parameters**  
**FCC Radar Type 4**  
**Channel Bandwidth 20MHz 5490MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	14	16.00	355	1
2	12	11.30	487	1
3	13	13.50	344	1
4	16	19.40	288	1
5	15	17.50	230	1
6	14	15.30	432	1
7	14	15.90	207	1
8	13	14.30	443	1
9	14	15.80	439	1
10	12	11.50	223	1
11	15	17.40	208	1
12	16	19.00	463	1
13	14	16.00	441	1
14	13	13.80	323	1
15	16	18.90	297	1
16	14	15.50	412	1
17	16	19.90	324	1
18	13	14.10	271	1
19	14	15.20	349	1
20	13	13.80	409	1
21	15	17.10	373	1
22	13	13.80	254	1
23	16	19.80	274	1
24	14	15.30	278	1
25	13	14.50	317	1
26	12	11.30	260	1
27	15	17.30	211	1
28	16	19.20	272	1
29	13	14.20	264	1
30	15	18.20	284	1

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		1				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77.8	13	1477	1665	636185
2	1	51.9	13	-	1074	32674
3	1	63.8	13	-	1584	226294
4	3	96.6	13	1786	1682	417976
5	3	85.9	13	1215	1795	611152
6	2	73.7	13	1549	1198	8789
7	2	77.2	13	1819	1837	201917
8	2	68.4	13	1114	1587	395530
9	2	76.7	13	1155	2000	588564
10	1	53.2	13	-	1147	783794
11	3	85.7	13	1695	1433	177933
12	3	94.3	13	1426	1670	370624
13	2	77.6	13	1671	1294	564893
14	1	65.7	13	-	1512	759583
15	3	93.5	13	1130	1444	154262
16						
17						
18						
19						
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Trial Number:		2				Detection (Yes/No)
Number of Bursts in Trial:		8				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75	5	1527	1880	653020
2	3	99.4	5	1262	1401	1015643
3	2	67.4	5	1403	1531	1379398
4	2	73.6	5	1041	1449	245489
5	1	65.9	5	-	1432	609113
6	3	83.8	5	1292	1356	970852
7	1	65.5	5	-	1543	1335913
8	3	98.6	5	1796	1548	200406
9						
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5490			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.8	9	1538	1806	409565
2	2	69.5	9	1649	1117	673692
3	1	51.9	9	-	1651	938562
4	3	84.6	9	1032	1976	113209
5	3	95.4	9	1903	1060	376726
6	2	68	9	1351	1368	641212
7	3	89.6	9	1514	1338	903714
8	2	81.9	9	1689	1022	80863
9	3	88.3	9	1330	1810	344067
10	1	53.7	9	-	1597	609331
11	3	91.3	9	1106	1961	871542
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Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5490			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.1	19	1355	1339	26541
2	1	58.7	19	-	1251	171821
3	2	75.3	19	1640	1136	316229
4	1	56.4	19	-	1753	461864
5	3	99.7	19	1708	1196	8677
6	1	57.7	19	-	1013	153995
7	1	59.5	19	-	1072	299238
8	2	80	19	1369	1482	443177
9	2	82	19	1197	1993	587671
10	2	82.8	19	1005	1883	135674
11	3	88	19	1928	1061	279928
12	3	93.2	19	1907	1207	424279
13	2	70.4	19	1360	1526	570132
14	3	95.3	19	1955	1171	117439
15	2	81.9	19	1545	1690	262502
16	3	98.5	19	1169	1975	406573
17	1	65	19	-	1767	553328
18	3	85.4	19	1637	1011	99799
19	3	91.6	19	1445	1878	244095
20	2	67.3	19	1218	1091	390012

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		5				Detection (Yes/No)
Number of Bursts in Trial:		17				Yes
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	67.9	16	1133	1320	629614
2	1	62.3	16	-	1957	96856
3	1	53.3	16	-	1592	267719
4	3	90	16	1153	1900	436784
5	2	77.1	16	1646	1166	608289
6	3	83.9	16	1232	1278	75610
7	3	89.1	16	1384	1240	245638
8	2	81.8	16	1676	1833	416355
9	1	50.3	16	-	1075	588736
10	3	87.1	16	1996	1116	54571
11	2	71.3	16	1815	1225	225175
12	3	97.5	16	1465	1884	394825
13	3	90.6	16	1040	1561	565361
14	3	86.3	16	1183	1596	33643
15	3	97.6	16	1073	1365	203957
16	3	84.7	16	1718	1021	373812
17	3	99.7	16	1244	1150	544060
18						
19						
20						

Trial Number:		6				Detection (Yes/No)
Number of Bursts in Trial:		14				Yes
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	92.9	12	1564	1085	15438
2	2	67.7	12	1747	1744	222486
3	1	65.8	12	-	1092	430731
4	1	56.3	12	-	1851	637784
5	1	53.7	12	-	1727	845342
6	3	83.5	12	1930	1679	196720
7	1	65.8	12	-	1519	404955
8	3	85.9	12	1034	1134	610711
9	2	76.3	12	1926	1606	818057
10	2	81.5	12	1714	1891	171459
11	3	89.4	12	1594	1310	377969
12	1	63.4	12	-	1568	586875
13	2	69.6	12	1925	1307	792834
14	2	74.5	12	1846	1264	146044
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		7				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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Trial Number:		8				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		9				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	54.1	13	-	1415	823112
2	1	50.7	13	-	1221	174965
3	1	52.3	13	-	1974	382216
4	3	99.8	13	1696	1558	587395
5	2	68.4	13	1099	1014	796897
6	2	80.8	13	1505	1736	149042
7	1	62.5	13	-	1778	356750
8	2	74.8	13	1204	1149	563824
9	1	50.8	13	-	1049	772314
10	1	54	13	-	1417	123796
11	1	63	13	-	1730	331215
12	3	91.8	13	1270	1143	537402
13	2	79.3	13	1992	1274	744805
14	1	64.3	13	-	1937	98172
15						
16						
17						
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Trial Number:		10				Detection (Yes/No)
Number of Bursts in Trial:		8				
Chirp Center Frequency:		5490				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	63.4	6	-	1043	535615
2	1	52	6	-	1863	898668
3	3	97.2	6	1605	1973	1259235
4	2	78.7	6	1743	1466	127106
5	2	74.2	6	1219	1280	490358
6	3	88.7	6	1934	1293	852409
7	1	54.3	6	-	1991	1217152
8	3	95.4	6	1555	1580	82296
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:			11			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5493.9			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.7	16	1497	1208	209249
2	3	97.4	16	1754	1942	378386
3	3	91.7	16	1702	1999	548411
4	1	66.2	16	-	1393	17733
5	2	70.8	16	1821	1968	187952
6	1	52.3	16	-	1740	359277
7	2	78.9	16	1984	1308	528886
8	2	70.9	16	1358	1050	700166
9	2	75.6	16	1430	1437	167197
10	1	59.1	16	-	1697	338262
11	2	77	16	1304	1397	508324
12	2	67.9	16	1083	1803	678689
13	2	81.2	16	1932	1720	146031
14	2	78.7	16	1121	1247	316923
15	1	63.3	16	-	1634	488056
16	2	68.9	16	1423	1849	657326
17	1	59.3	16	-	1093	125509
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Trial Number:			12			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5495.1			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	98.9	19	1680	1381	263736
2	2	82.3	19	1855	1716	416459
3	3	86.7	19	1400	1211	567902
4	3	89.7	19	1068	1861	92979
5	3	98.6	19	1194	1507	245155
6	2	71.1	19	1789	1921	397609
7	1	55.9	19	-	1947	551431
8	2	67.9	19	1372	1350	74413
9	3	84.4	19	1107	1203	226559
10	1	58.8	19	-	1715	380056
11	1	65.6	19	-	1017	533408
12	2	78.5	19	1704	1911	55547
13	2	82.3	19	1686	1845	207876
14	3	90.1	19	1071	1938	359771
15	3	90.2	19	1089	1989	511297
16	2	83.1	19	1406	1943	36803
17	1	58.8	19	-	1742	189652
18	2	77	19	1657	1187	341809
19	1	55	19	-	1012	495737
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		13				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5492.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	58.1	13	-	1929	22911
2	1	52.1	13	-	1910	216473
3	1	59.9	13	-	1971	410004
4	1	60.2	13	-	1812	603671
5	3	95.9	13	1906	1399	794160
6	2	79.9	13	1859	1626	192251
7	2	78.5	13	1917	1238	385590
8	1	53.8	13	-	1763	579862
9	1	64.7	13	-	1800	773423
10	1	61.4	13	-	1390	168898
11	2	83.2	13	1858	1692	361606
12	3	84.7	13	1677	1533	553866
13	3	88.7	13	1528	1703	747241
14	2	78.3	13	1951	1258	144710
15	2	69.3	13	1717	1731	337856
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Trial Number:		14				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5491.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75.3	10	1612	1994	664275
2	1	56.3	10	-	1456	907886
3	2	67.7	10	1185	1617	151316
4	1	55.6	10	-	1337	393746
5	2	75.2	10	1267	1421	635093
6	2	76.3	10	1305	1359	876993
7	3	85.7	10	1362	1547	121278
8	3	98.4	10	1550	1873	362696
9	3	86.4	10	1439	1779	604342
10	3	93.6	10	1031	1059	846453
11	1	63.3	10	-	1328	91871
12	3	92.4	10	1673	1412	333050
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		15				Detection (Yes/No)
Number of Bursts in Trial:		19				Yes
Chirp Center Frequency:		5494.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	93.3	18	1912	1983	361323
2	2	69.1	18	1794	1102	515261
3	3	86.9	18	1152	1044	39025
4	3	84.9	18	1948	1894	190900
5	2	72.3	18	1916	1094	343941
6	1	51.7	18	-	1447	497624
7	1	58.3	18	-	1429	20319
8	1	60.8	18	-	1979	172999
9	1	57.1	18	-	1641	325872
10	3	88.9	18	1964	1886	475841
11	2	72	18	1297	1909	1489
12	3	90.9	18	1566	1261	153647
13	1	59.8	18	-	1552	307096
14	2	70	18	1291	1759	458804
15	2	67.2	18	1881	1625	610798
16	3	91.2	18	1832	1382	134759
17	1	56.5	18	-	1483	288306
18	1	51.2	18	-	1237	441296
19	2	74.1	18	1245	1471	592780
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Trial Number:		16				Detection (Yes/No)
Number of Bursts in Trial:		14				Yes
Chirp Center Frequency:		5492.3				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	76.9	12	1140	1110	158286
2	1	50.2	12	-	1316	366024
3	1	62.9	12	-	1520	573452
4	1	64.7	12	-	1902	780619
5	3	83.8	12	1097	1410	132455
6	1	65.4	12	-	1944	340207
7	1	53.2	12	-	1024	548208
8	1	51.7	12	-	1603	755333
9	2	78.7	12	1168	1804	107117
10	2	72.4	12	1343	1030	314500
11	1	53.8	12	-	1327	522447
12	2	73.6	12	1553	1524	728517
13	2	66.7	12	1122	1722	81611
14	2	82.5	12	1019	1404	288948
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		17				Detection (Yes/No)
Number of Bursts in Trial:		20				Yes
Chirp Center Frequency:		5495.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	87.6	20	1055	1565	345766
2	3	85.2	20	1541	1735	490019
3	3	84.8	20	1889	1534	39073
4	2	77.9	20	1460	1749	183923
5	2	76.5	20	1485	1518	328777
6	1	60.9	20	-	1540	474728
7	2	83	20	1010	1080	21394
8	2	80.4	20	1752	1824	165992
9	2	67.5	20	1181	1764	310973
10	1	62.1	20	-	1495	456884
11	3	86.4	20	1966	1773	3515
12	3	84.3	20	1188	1593	147928
13	2	76.9	20	1537	1226	293225
14	3	95.8	20	1298	1192	436922
15	1	55.2	20	-	1644	584015
16	1	59	20	-	1402	130832
17	3	94.5	20	1700	1296	274684
18	3	91.9	20	1978	1970	418579
19	3	85.2	20	1551	1732	563464
20	2	69.5	20	1224	1038	112787

Trial Number:		18				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5491.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	86.4	10	1918	1259	429224
2	3	92.2	10	1719	1598	670241
3	2	80.4	10	1899	1816	912880
4	1	54.3	10	-	1335	158603
5	1	53.1	10	-	1303	400824
6	2	69.4	10	1546	1503	641915
7	2	69.1	10	1639	1279	883823
8	3	100	10	1438	1375	128373
9	2	79.6	10	1705	1239	370379
10	3	88.4	10	1579	1374	611194
11	1	53.3	10	-	1016	855665
12	1	65.3	10	-	1709	98897
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		19				Detection (Yes/No)
Number of Bursts in Trial:		14				Yes
Chirp Center Frequency:		5492.3				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	55.3	12	-	1920.000	292143
2	1	58.3	12	-	1797.000	499633
3	2	72.3	12	1039.000	1610.000	706377
4	3	84.8	12	1761.000	1131.000	58989
5	2	82.5	12	1431.000	1875.000	266161
6	1	63.3	12	-	1095.000	474469
7	2	80	12	1913.000	1119.000	680544
8	3	90.3	12	1853.000	1660.000	33519
9	3	91.1	12	1783.000	1539.000	240319
10	3	96.6	12	1036.000	1525.000	447400
11	2	82.7	12	1990.000	1710.000	654516
12	1	50.7	12	-	1234.000	8083
13	2	78.4	12	1109.000	1047.000	215435
14	3	99.5	12	1965.000	1299.000	421325
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Trial Number:		20				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5491.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	88.6	10	1067	1501	733725
2	1	57.4	10	-	1723	977882
3	3	96.6	10	1658	1086	221197
4	2	69.7	10	1945	1751	462915
5	2	77.9	10	1317	1642	705071
6	1	62	10	-	1866	947923
7	3	88.4	10	1077	1997	191373
8	3	97.3	10	1896	1790	432561
9	3	96.2	10	1787	1391	674004
10	3	95.4	10	1892	1020	915842
11	1	54.8	10	-	1084	162176
12	2	80.4	10	1436	1850	403553
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		21				Detection (Yes/No)
Number of Bursts in Trial:		16				Yes
Chirp Center Frequency:		5486.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	74.7	15	1611	1619	483470
2	1	57.1	15	-	1560	666072
3	3	91.9	15	1475	1392	98810
4	2	83.1	15	1772	1809	279914
5	1	50.7	15	-	1003	462536
6	2	79.2	15	1600	1574	642324
7	1	58.7	15	-	1186	76831
8	2	71	15	1567	1521	257785
9	2	79	15	1960	1777	438554
10	2	68.5	15	1428	1284	620397
11	2	73.5	15	1352	1904	54310
12	2	70.5	15	1115	1864	235506
13	2	76.6	15	1300	1045	417036
14	2	81.2	15	1675	1160	597974
15	1	61.8	15	-	1277	32086
16	3	94.9	15	1206	1450	212751
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Trial Number:		22				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5488.9				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	78.5	9	1698	1653	526149
2	3	89.8	9	1962	1174	767135
3	1	59.4	9	-	1982	12955
4	2	79.6	9	1890	1633	254612
5	2	76	9	1811	1112	496588
6	1	53.6	9	-	1144	739728
7	2	80.9	9	1053	1220	980872
8	1	61.6	9	-	1724	225249
9	1	53.4	9	-	1901	467279
10	1	59.9	9	-	1379	709720
11	1	60.4	9	-	1453	951847
12	3	91.4	9	1726	1768	194839
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:			23			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5484.5			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77	20	1363	1191	261858
2	1	58.1	20	-	1248	407646
3	1	62.1	20	-	1836	552319
4	2	76.9	20	1236	1334	99107
5	2	80	20	1852	1914	243514
6	1	52	20	-	1701	389464
7	3	88.6	20	1995	1693	531093
8	2	72.9	20	1387	1922	81159
9	3	98.5	20	1746	1839	225245
10	1	57.9	20	-	1193	371906
11	3	95.9	20	1870	1659	514197
12	1	53.5	20	-	1162	63561
13	3	92	20	1654	1745	207510
14	1	57.3	20	-	1834	353638
15	2	70.5	20	1586	1684	497515
16	2	70	20	1664	1042	45553
17	3	84	20	1630	1765	189821
18	2	76.1	20	1057	1557	335330
19	3	93.2	20	1018	1985	478825
20	3	96.8	20	1614	1760	27594

Trial Number:			24			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5487.7			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.1	12	-	1841	247117
2	3	93.5	12	1081	1590	453362
3	2	68.8	12	1577	1707	660875
4	1	56.3	12	-	1056	14140
5	3	86	12	1108	1953	220734
6	2	75.2	12	1536	1572	428367
7	1	54.4	12	-	1517	636681
8	2	71.1	12	1243	1329	843157
9	2	76.2	12	1770	1940	195585
10	2	80.2	12	1209	1098	403231
11	2	79.7	12	1214	1588	610202
12	3	90.9	12	1862	1615	815229
13	2	68.7	12	1441	1377	170267
14	2	67.4	12	1313	1872	377306
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		25				Detection (Yes/No)
Number of Bursts in Trial:		13				Yes
Chirp Center Frequency:		5488.1				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	94	11	1748	1643	628071
2	2	70.8	11	1201	1177	853391
3	1	56.3	11	-	1006	156223
4	3	96.7	11	1163	1230	378734
5	3	90.6	11	1582	1217	601331
6	2	74.5	11	1281	1569	825462
7	3	92.6	11	1669	1065	128265
8	3	89	11	1135	1493	351161
9	3	96.5	11	1822	1607	573425
10	2	70.5	11	1178	1141	798431
11	3	94	11	1629	1009	100737
12	1	55.8	11	-	1290	324661
13	3	87.7	11	1963	1435	546278
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Trial Number:		26				Detection (Yes/No)
Number of Bursts in Trial:		8				Yes
Chirp Center Frequency:		5490.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.6	5	1161	1306	1253842
2	2	83.1	5	1315	1420	119486
3	1	60.9	5	-	1687	482958
4	2	77.7	5	1158	1776	845641
5	2	77.4	5	1510	1793	1208428
6	2	66.8	5	1323	1576	74748
7	1	63.7	5	-	1333	438300
8	3	91.2	5	1681	1409	800152
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		27				Detection (Yes/No)
Number of Bursts in Trial:		17				Yes
Chirp Center Frequency:		5486.1				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.6	16	1195	1632	545865
2	3	89.4	16	1627	1173	14067
3	1	55.8	16	-	1532	184953
4	3	90.9	16	1554	1981	353759
5	1	54.7	16	-	1825	526388
6	3	97.7	16	1202	1734	694806
7	2	67.5	16	1434	1571	163568
8	3	96.7	16	1469	1589	333410
9	2	68.3	16	1954	1750	504006
10	2	78.3	16	1082	1591	675297
11	1	55	16	-	1427	142890
12	3	84.9	16	1936	1129	312479
13	2	74.6	16	1856	1959	482953
14	1	63.3	16	-	1885	655022
15	3	99.8	16	1515	1035	121457
16	1	63.6	16	-	1647	292606
17	3	87.3	16	1051	1931	461322
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Trial Number:		28				Detection (Yes/No)
Number of Bursts in Trial:		19				Yes
Chirp Center Frequency:		5484.9				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	85.6	19	1078	1946	565136
2	2	68.6	19	1780	1029	89970
3	1	54.2	19	-	1111	243121
4	1	61.2	19	-	1104	396034
5	3	97.1	19	1969	1157	546225
6	3	98.3	19	1699	1142	70998
7	1	62.4	19	-	1655	224093
8	2	80.2	19	1769	1126	376127
9	3	87.5	19	1448	1216	527806
10	3	85.8	19	1348	1847	52247
11	3	88.1	19	1124	1023	204582
12	1	65.3	19	-	1848	357941
13	1	52.5	19	-	1470	510977
14	1	52.3	19	-	1312	33698
15	2	74.1	19	1200	1915	186023
16	1	54.9	19	-	1479	339327
17	2	76.2	19	1502	1376	491053
18	1	60.4	19	-	1758	14858
19	2	81.5	19	1103	1491	167387
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 20MHz 5490MHz**

Trial Number:		29				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5488.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.5	10	-	1857	507709
2	1	55.7	10	-	1246	750249
3	3	85.8	10	1002	1774	989003
4	2	76.9	10	1474	1125	235634
5	2	75.1	10	1052	1254	477675
6	3	92.3	10	1486	1180	718312
7	2	78.1	10	1757	1301	960895
8	3	92.2	10	1252	1898	205370
9	3	89	10	1706	1260	446940
10	2	70.9	10	1620	1578	689225
11	1	63.1	10	-	1782	932305
12	1	55.3	10	-	1522	176231
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Trial Number:		30				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5485.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.4	17	1205	1454	277485
2	3	97.3	17	1826	1319	437880
3	3	90.4	17	1986	1079	598445
4	3	91.8	17	1151	1563	97088
5	3	98.2	17	1977	1876	257251
6	1	59.5	17	-	1952	419893
7	2	80	17	1137	1253	580724
8	3	86.5	17	1128	1054	77366
9	3	91.1	17	1599	1105	238032
10	3	93.5	17	1373	1867	398605
11	1	60.7	17	-	1033	562025
12	2	67.2	17	1405	1288	57684
13	1	61.8	17	-	1585	219083
14	2	79.4	17	1667	1933	379234
15	2	81.4	17	1464	1096	540896
16	1	65.7	17	-	1496	37916
17	2	76	17	1255	1733	198794
18	2	81	17	1668	1326	359754
19						
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**DFS Radar Parameters**  
**FCC Radar Type 1**  
**Channel Bandwidth 40MHz 5500MHz**

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	22	1066.10	938	1
2	10	1432.66	698	1
3	6	1618.12	618	1
4	2	1858.74	538	1
5	19	1138.95	878	1
6	12	326.16	3066	1
7	7	1567.40	638	1
8	21	1089.32	918	1
9	17	1193.32	838	1
10	18	1165.50	858	1
11	15	1253.13	798	1
12	11	1392.76	718	1
13	4	1730.10	578	1
14	5	1672.24	598	1
15	3	1792.11	558	1
16		394.32	2536	1
17		1035.20	966	1
18		1209.19	827	1
19		399.84	2501	0
20		385.36	2595	1
21		897.67	1114	1
22		768.05	1302	1
23		328.41	3045	1
24		615.76	1624	1
25		347.46	2878	1
26		973.71	1027	1
27		402.41	2485	1
28		625.00	1600	1
29		853.24	1172	1
30		849.62	1177	1

**DFS Radar Parameters**  
**FCC Radar Type 2**  
**Channel Bandwidth 40MHz 5500MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	3.2	26.00	179	1
2	1.1	23.00	207	1
3	2.1	24.00	230	1
4	4.8	29.00	200	1
5	3.9	28.00	214	1
6	2.9	26.00	222	1
7	3.2	26.00	204	1
8	2.5	25.00	192	1
9	3.1	26.00	164	1
10	1.2	23.00	156	1
11	3.9	27.00	210	1
12	4.6	29.00	201	1
13	3.2	26.00	162	1
14	2.2	25.00	197	1
15	4.5	29.00	163	1
16	3	26.00	203	1
17	5	29.00	168	1
18	2.4	25.00	217	1
19	2.9	26.00	191	1
20	2.3	25.00	166	1
21	3.7	27.00	150	1
22	2.2	25.00	176	1
23	4.9	29.00	195	1
24	2.9	26.00	202	1
25	2.5	25.00	178	1
26	1.1	23.00	206	1
27	3.8	27.00	155	1
28	4.7	29.00	157	1
29	2.4	25.00	224	1
30	4.2	28.00	159	1

**DFS Radar Parameters**  
**FCC Radar Type 3**  
**Channel Bandwidth 40MHz 5500MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	8.2	17.00	355	1
2	6.1	16.00	487	1
3	7.1	16.00	344	1
4	9.8	18.00	288	1
5	8.9	18.00	230	1
6	7.9	17.00	432	1
7	8.2	17.00	207	1
8	7.5	17.00	443	1
9	8.1	17.00	439	1
10	6.2	16.00	223	1
11	8.9	18.00	208	1
12	9.6	18.00	463	1
13	8.2	17.00	441	1
14	7.2	16.00	323	1
15	9.5	18.00	297	1
16	8	17.00	412	1
17	10	18.00	324	1
18	7.4	17.00	271	1
19	7.9	17.00	349	1
20	7.3	16.00	409	1
21	8.7	18.00	373	1
22	7.2	16.00	254	1
23	9.9	18.00	274	1
24	7.9	17.00	278	1
25	7.5	17.00	317	1
26	6.1	16.00	260	1
27	8.8	18.00	211	1
28	9.7	18.00	272	1
29	7.4	17.00	264	1
30	9.2	18.00	284	1

**DFS Radar Parameters**  
**FCC Radar Type 4**  
**Channel Bandwidth 40MHz 5500MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	16	14.00	355	1
2	11.3	12.00	487	1
3	13.5	13.00	344	1
4	19.4	16.00	288	1
5	17.5	15.00	230	1
6	15.3	14.00	432	1
7	15.9	14.00	207	1
8	14.3	13.00	443	1
9	15.8	14.00	439	1
10	11.5	12.00	223	1
11	17.4	15.00	208	1
12	19	16.00	463	1
13	16	14.00	441	1
14	13.8	13.00	323	1
15	18.9	16.00	297	1
16	15.5	14.00	412	1
17	19.9	16.00	324	1
18	14.1	13.00	271	1
19	15.2	14.00	349	1
20	13.8	13.00	409	1
21	17.1	15.00	373	1
22	13.8	13.00	254	1
23	19.8	16.00	274	1
24	15.3	14.00	278	1
25	14.5	13.00	317	1
26	11.3	12.00	260	1
27	17.3	15.00	211	1
28	19.2	16.00	272	1
29	14.2	13.00	264	1
30	18.2	15.00	284	1

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5500			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77.8	13	1477	1665	636185
2	1	51.9	13	-	1074	32674
3	1	63.8	13	-	1584	226294
4	3	96.6	13	1786	1682	417976
5	3	85.9	13	1215	1795	611152
6	2	73.7	13	1549	1198	8789
7	2	77.2	13	1819	1837	201917
8	2	68.4	13	1114	1587	395530
9	2	76.7	13	1155	2000	588564
10	1	53.2	13	-	1147	783794
11	3	85.7	13	1695	1433	177933
12	3	94.3	13	1426	1670	370624
13	2	77.6	13	1671	1294	564893
14	1	65.7	13	-	1512	759583
15	3	93.5	13	1130	1444	154262
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5500			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75	5	1527	1880	653020
2	3	99.4	5	1262	1401	1015643
3	2	67.4	5	1403	1531	1379398
4	2	73.6	5	1041	1449	245489
5	1	65.9	5	-	1432	609113
6	3	83.8	5	1292	1356	970852
7	1	65.5	5	-	1543	1335913
8	3	98.6	5	1796	1548	200406
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.8	9	1538	1806	409565
2	2	69.5	9	1649	1117	673692
3	1	51.9	9	-	1651	938562
4	3	84.6	9	1032	1976	113209
5	3	95.4	9	1903	1060	376726
6	2	68	9	1351	1368	641212
7	3	89.6	9	1514	1338	903714
8	2	81.9	9	1689	1022	80863
9	3	88.3	9	1330	1810	344067
10	1	53.7	9	-	1597	609331
11	3	91.3	9	1106	1961	871542
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Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.1	19	1355	1339	26541
2	1	58.7	19	-	1251	171821
3	2	75.3	19	1640	1136	316229
4	1	56.4	19	-	1753	461864
5	3	99.7	19	1708	1196	8677
6	1	57.7	19	-	1013	153995
7	1	59.5	19	-	1072	299238
8	2	80	19	1369	1482	443177
9	2	82	19	1197	1993	587671
10	2	82.8	19	1005	1883	135674
11	3	88	19	1928	1061	279928
12	3	93.2	19	1907	1207	424279
13	2	70.4	19	1360	1526	570132
14	3	95.3	19	1955	1171	117439
15	2	81.9	19	1545	1690	262502
16	3	98.5	19	1169	1975	406573
17	1	65	19	-	1767	553328
18	3	85.4	19	1637	1011	99799
19	3	91.6	19	1445	1878	244095
20	2	67.3	19	1218	1091	390012

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		5				Detection (Yes/No)
Number of Bursts in Trial:		17				Yes
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	67.9	16	1133	1320	629614
2	1	62.3	16	-	1957	96856
3	1	53.3	16	-	1592	267719
4	3	90	16	1153	1900	436784
5	2	77.1	16	1646	1166	608289
6	3	83.9	16	1232	1278	75610
7	3	89.1	16	1384	1240	245638
8	2	81.8	16	1676	1833	416355
9	1	50.3	16	-	1075	588736
10	3	87.1	16	1996	1116	54571
11	2	71.3	16	1815	1225	225175
12	3	97.5	16	1465	1884	394825
13	3	90.6	16	1040	1561	565361
14	3	86.3	16	1183	1596	33643
15	3	97.6	16	1073	1365	203957
16	3	84.7	16	1718	1021	373812
17	3	99.7	16	1244	1150	544060
18						
19						
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Trial Number:		6				Detection (Yes/No)
Number of Bursts in Trial:		14				Yes
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	92.9	12	1564	1085	15438
2	2	67.7	12	1747	1744	222486
3	1	65.8	12	-	1092	430731
4	1	56.3	12	-	1851	637784
5	1	53.7	12	-	1727	845342
6	3	83.5	12	1930	1679	196720
7	1	65.8	12	-	1519	404955
8	3	85.9	12	1034	1134	610711
9	2	76.3	12	1926	1606	818057
10	2	81.5	12	1714	1891	171459
11	3	89.4	12	1594	1310	377969
12	1	63.4	12	-	1568	586875
13	2	69.6	12	1925	1307	792834
14	2	74.5	12	1846	1264	146044
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		7				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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Trial Number:		8				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			9			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	54.1	13	-	1415	823112
2	1	50.7	13	-	1221	174965
3	1	52.3	13	-	1974	382216
4	3	99.8	13	1696	1558	587395
5	2	68.4	13	1099	1014	796897
6	2	80.8	13	1505	1736	149042
7	1	62.5	13	-	1778	356750
8	2	74.8	13	1204	1149	563824
9	1	50.8	13	-	1049	772314
10	1	54	13	-	1417	123796
11	1	63	13	-	1730	331215
12	3	91.8	13	1270	1143	537402
13	2	79.3	13	1992	1274	744805
14	1	64.3	13	-	1937	98172
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Trial Number:			10			Detection (Yes/No)
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	63.4	6	-	1043	535615
2	1	52	6	-	1863	898668
3	3	97.2	6	1605	1973	1259235
4	2	78.7	6	1743	1466	127106
5	2	74.2	6	1219	1280	490358
6	3	88.7	6	1934	1293	852409
7	1	54.3	6	-	1991	1217152
8	3	95.4	6	1555	1580	82296
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			11			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5503.9			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.7	16	1497	1208	209249
2	3	97.4	16	1754	1942	378386
3	3	91.7	16	1702	1999	548411
4	1	66.2	16	-	1393	17733
5	2	70.8	16	1821	1968	187952
6	1	52.3	16	-	1740	359277
7	2	78.9	16	1984	1308	528886
8	2	70.9	16	1358	1050	700166
9	2	75.6	16	1430	1437	167197
10	1	59.1	16	-	1697	338262
11	2	77	16	1304	1397	508324
12	2	67.9	16	1083	1803	678689
13	2	81.2	16	1932	1720	146031
14	2	78.7	16	1121	1247	316923
15	1	63.3	16	-	1634	488056
16	2	68.9	16	1423	1849	657326
17	1	59.3	16	-	1093	125509
18						
19						
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Trial Number:			12			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5505.1			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	98.9	19	1680	1381	263736
2	2	82.3	19	1855	1716	416459
3	3	86.7	19	1400	1211	567902
4	3	89.7	19	1068	1861	92979
5	3	98.6	19	1194	1507	245155
6	2	71.1	19	1789	1921	397609
7	1	55.9	19	-	1947	551431
8	2	67.9	19	1372	1350	74413
9	3	84.4	19	1107	1203	226559
10	1	58.8	19	-	1715	380056
11	1	65.6	19	-	1017	533408
12	2	78.5	19	1704	1911	55547
13	2	82.3	19	1686	1845	207876
14	3	90.1	19	1071	1938	359771
15	3	90.2	19	1089	1989	511297
16	2	83.1	19	1406	1943	36803
17	1	58.8	19	-	1742	189652
18	2	77	19	1657	1187	341809
19	1	55	19	-	1012	495737
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		13				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5502.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	58.1	13	-	1929	22911
2	1	52.1	13	-	1910	216473
3	1	59.9	13	-	1971	410004
4	1	60.2	13	-	1812	603671
5	3	95.9	13	1906	1399	794160
6	2	79.9	13	1859	1626	192251
7	2	78.5	13	1917	1238	385590
8	1	53.8	13	-	1763	579862
9	1	64.7	13	-	1800	773423
10	1	61.4	13	-	1390	168898
11	2	83.2	13	1858	1692	361606
12	3	84.7	13	1677	1533	553866
13	3	88.7	13	1528	1703	747241
14	2	78.3	13	1951	1258	144710
15	2	69.3	13	1717	1731	337856
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Trial Number:		14				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5501.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75.3	10	1612	1994	664275
2	1	56.3	10	-	1456	907886
3	2	67.7	10	1185	1617	151316
4	1	55.6	10	-	1337	393746
5	2	75.2	10	1267	1421	635093
6	2	76.3	10	1305	1359	876993
7	3	85.7	10	1362	1547	121278
8	3	98.4	10	1550	1873	362696
9	3	86.4	10	1439	1779	604342
10	3	93.6	10	1031	1059	846453
11	1	63.3	10	-	1328	91871
12	3	92.4	10	1673	1412	333050
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		15				Detection (Yes/No)
Number of Bursts in Trial:		19				
Chirp Center Frequency:		5504.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	93.3	18	1912	1983	361323
2	2	69.1	18	1794	1102	515261
3	3	86.9	18	1152	1044	39025
4	3	84.9	18	1948	1894	190900
5	2	72.3	18	1916	1094	343941
6	1	51.7	18	-	1447	497624
7	1	58.3	18	-	1429	20319
8	1	60.8	18	-	1979	172999
9	1	57.1	18	-	1641	325872
10	3	88.9	18	1964	1886	475841
11	2	72	18	1297	1909	1489
12	3	90.9	18	1566	1261	153647
13	1	59.8	18	-	1552	307096
14	2	70	18	1291	1759	458804
15	2	67.2	18	1881	1625	610798
16	3	91.2	18	1832	1382	134759
17	1	56.5	18	-	1483	288306
18	1	51.2	18	-	1237	441296
19	2	74.1	18	1245	1471	592780
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Trial Number:		16				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5502.3				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	76.9	12	1140	1110	158286
2	1	50.2	12	-	1316	366024
3	1	62.9	12	-	1520	573452
4	1	64.7	12	-	1902	780619
5	3	83.8	12	1097	1410	132455
6	1	65.4	12	-	1944	340207
7	1	53.2	12	-	1024	548208
8	1	51.7	12	-	1603	755333
9	2	78.7	12	1168	1804	107117
10	2	72.4	12	1343	1030	314500
11	1	53.8	12	-	1327	522447
12	2	73.6	12	1553	1524	728517
13	2	66.7	12	1122	1722	81611
14	2	82.5	12	1019	1404	288948
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		17				Detection (Yes/No)
Number of Bursts in Trial:		20				Yes
Chirp Center Frequency:		5505.5				Starting Location Within Interval (µsec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	87.6	20	1055	1565	345766
2	3	85.2	20	1541	1735	490019
3	3	84.8	20	1889	1534	39073
4	2	77.9	20	1460	1749	183923
5	2	76.5	20	1485	1518	328777
6	1	60.9	20	-	1540	474728
7	2	83	20	1010	1080	21394
8	2	80.4	20	1752	1824	165992
9	2	67.5	20	1181	1764	310973
10	1	62.1	20	-	1495	456884
11	3	86.4	20	1966	1773	3515
12	3	84.3	20	1188	1593	147928
13	2	76.9	20	1537	1226	293225
14	3	95.8	20	1298	1192	436922
15	1	55.2	20	-	1644	584015
16	1	59	20	-	1402	130832
17	3	94.5	20	1700	1296	274684
18	3	91.9	20	1978	1970	418579
19	3	85.2	20	1551	1732	563464
20	2	69.5	20	1224	1038	112787

Trial Number:		18				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5501.5				Starting Location Within Interval (µsec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	86.4	10	1918	1259	429224
2	3	92.2	10	1719	1598	670241
3	2	80.4	10	1899	1816	912880
4	1	54.3	10	-	1335	158603
5	1	53.1	10	-	1303	400824
6	2	69.4	10	1546	1503	641915
7	2	69.1	10	1639	1279	883823
8	3	100	10	1438	1375	128373
9	2	79.6	10	1705	1239	370379
10	3	88.4	10	1579	1374	611194
11	1	53.3	10	-	1016	855665
12	1	65.3	10	-	1709	98897
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		19				Detection (Yes/No)
Number of Bursts in Trial:		14				Yes
Chirp Center Frequency:		5502.3				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	55.3	12	-	1920.000	292143
2	1	58.3	12	-	1797.000	499633
3	2	72.3	12	1039.000	1610.000	706377
4	3	84.8	12	1761.000	1131.000	58989
5	2	82.5	12	1431.000	1875.000	266161
6	1	63.3	12	-	1095.000	474469
7	2	80	12	1913.000	1119.000	680544
8	3	90.3	12	1853.000	1660.000	33519
9	3	91.1	12	1783.000	1539.000	240319
10	3	96.6	12	1036.000	1525.000	447400
11	2	82.7	12	1990.000	1710.000	654516
12	1	50.7	12	-	1234.000	8083
13	2	78.4	12	1109.000	1047.000	215435
14	3	99.5	12	1965.000	1299.000	421325
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Trial Number:		20				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5501.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	88.6	10	1067	1501	733725
2	1	57.4	10	-	1723	977882
3	3	96.6	10	1658	1086	221197
4	2	69.7	10	1945	1751	462915
5	2	77.9	10	1317	1642	705071
6	1	62	10	-	1866	947923
7	3	88.4	10	1077	1997	191373
8	3	97.3	10	1896	1790	432561
9	3	96.2	10	1787	1391	674004
10	3	95.4	10	1892	1020	915842
11	1	54.8	10	-	1084	162176
12	2	80.4	10	1436	1850	403553
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		21				Detection (Yes/No)
Number of Bursts in Trial:		16				Yes
Chirp Center Frequency:		5496.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	74.7	15	1611	1619	483470
2	1	57.1	15	-	1560	666072
3	3	91.9	15	1475	1392	98810
4	2	83.1	15	1772	1809	279914
5	1	50.7	15	-	1003	462536
6	2	79.2	15	1600	1574	642324
7	1	58.7	15	-	1186	76831
8	2	71	15	1567	1521	257785
9	2	79	15	1960	1777	438554
10	2	68.5	15	1428	1284	620397
11	2	73.5	15	1352	1904	54310
12	2	70.5	15	1115	1864	235506
13	2	76.6	15	1300	1045	417036
14	2	81.2	15	1675	1160	597974
15	1	61.8	15	-	1277	32086
16	3	94.9	15	1206	1450	212751
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Trial Number:		22				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5498.9				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	78.5	9	1698	1653	526149
2	3	89.8	9	1962	1174	767135
3	1	59.4	9	-	1982	12955
4	2	79.6	9	1890	1633	254612
5	2	76	9	1811	1112	496588
6	1	53.6	9	-	1144	739728
7	2	80.9	9	1053	1220	980872
8	1	61.6	9	-	1724	225249
9	1	53.4	9	-	1901	467279
10	1	59.9	9	-	1379	709720
11	1	60.4	9	-	1453	951847
12	3	91.4	9	1726	1768	194839
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			23			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5494.5			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77	20	1363	1191	261858
2	1	58.1	20	-	1248	407646
3	1	62.1	20	-	1836	552319
4	2	76.9	20	1236	1334	99107
5	2	80	20	1852	1914	243514
6	1	52	20	-	1701	389464
7	3	88.6	20	1995	1693	531093
8	2	72.9	20	1387	1922	81159
9	3	98.5	20	1746	1839	225245
10	1	57.9	20	-	1193	371906
11	3	95.9	20	1870	1659	514197
12	1	53.5	20	-	1162	63561
13	3	92	20	1654	1745	207510
14	1	57.3	20	-	1834	353638
15	2	70.5	20	1586	1684	497515
16	2	70	20	1664	1042	45553
17	3	84	20	1630	1765	189821
18	2	76.1	20	1057	1557	335330
19	3	93.2	20	1018	1985	478825
20	3	96.8	20	1614	1760	27594

Trial Number:			24			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5497.7			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.1	12	-	1841	247117
2	3	93.5	12	1081	1590	453362
3	2	68.8	12	1577	1707	660875
4	1	56.3	12	-	1056	14140
5	3	86	12	1108	1953	220734
6	2	75.2	12	1536	1572	428367
7	1	54.4	12	-	1517	636681
8	2	71.1	12	1243	1329	843157
9	2	76.2	12	1770	1940	195585
10	2	80.2	12	1209	1098	403231
11	2	79.7	12	1214	1588	610202
12	3	90.9	12	1862	1615	815229
13	2	68.7	12	1441	1377	170267
14	2	67.4	12	1313	1872	377306
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		25				Detection (Yes/No)
Number of Bursts in Trial:		13				Yes
Chirp Center Frequency:		5498.1				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	94	11	1748	1643	628071
2	2	70.8	11	1201	1177	853391
3	1	56.3	11	-	1006	156223
4	3	96.7	11	1163	1230	378734
5	3	90.6	11	1582	1217	601331
6	2	74.5	11	1281	1569	825462
7	3	92.6	11	1669	1065	128265
8	3	89	11	1135	1493	351161
9	3	96.5	11	1822	1607	573425
10	2	70.5	11	1178	1141	798431
11	3	94	11	1629	1009	100737
12	1	55.8	11	-	1290	324661
13	3	87.7	11	1963	1435	546278
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Trial Number:		26				Detection (Yes/No)
Number of Bursts in Trial:		8				Yes
Chirp Center Frequency:		5500.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.6	5	1161	1306	1253842
2	2	83.1	5	1315	1420	119486
3	1	60.9	5	-	1687	482958
4	2	77.7	5	1158	1776	845641
5	2	77.4	5	1510	1793	1208428
6	2	66.8	5	1323	1576	74748
7	1	63.7	5	-	1333	438300
8	3	91.2	5	1681	1409	800152
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:			27			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5496.1			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.6	16	1195	1632	545865
2	3	89.4	16	1627	1173	14067
3	1	55.8	16	-	1532	184953
4	3	90.9	16	1554	1981	353759
5	1	54.7	16	-	1825	526388
6	3	97.7	16	1202	1734	694806
7	2	67.5	16	1434	1571	163568
8	3	96.7	16	1469	1589	333410
9	2	68.3	16	1954	1750	504006
10	2	78.3	16	1082	1591	675297
11	1	55	16	-	1427	142890
12	3	84.9	16	1936	1129	312479
13	2	74.6	16	1856	1959	482953
14	1	63.3	16	-	1885	655022
15	3	99.8	16	1515	1035	121457
16	1	63.6	16	-	1647	292606
17	3	87.3	16	1051	1931	461322
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Trial Number:			28			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5494.9			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	85.6	19	1078	1946	565136
2	2	68.6	19	1780	1029	89970
3	1	54.2	19	-	1111	243121
4	1	61.2	19	-	1104	396034
5	3	97.1	19	1969	1157	546225
6	3	98.3	19	1699	1142	70998
7	1	62.4	19	-	1655	224093
8	2	80.2	19	1769	1126	376127
9	3	87.5	19	1448	1216	527806
10	3	85.8	19	1348	1847	52247
11	3	88.1	19	1124	1023	204582
12	1	65.3	19	-	1848	357941
13	1	52.5	19	-	1470	510977
14	1	52.3	19	-	1312	33698
15	2	74.1	19	1200	1915	186023
16	1	54.9	19	-	1479	339327
17	2	76.2	19	1502	1376	491053
18	1	60.4	19	-	1758	14858
19	2	81.5	19	1103	1491	167387
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 40MHz 5500MHz**

Trial Number:		29				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5498.5				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.5	10	-	1857	507709
2	1	55.7	10	-	1246	750249
3	3	85.8	10	1002	1774	989003
4	2	76.9	10	1474	1125	235634
5	2	75.1	10	1052	1254	477675
6	3	92.3	10	1486	1180	718312
7	2	78.1	10	1757	1301	960895
8	3	92.2	10	1252	1898	205370
9	3	89	10	1706	1260	446940
10	2	70.9	10	1620	1578	689225
11	1	63.1	10	-	1782	932305
12	1	55.3	10	-	1522	176231
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Trial Number:		30				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5495.7				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.4	17	1205	1454	277485
2	3	97.3	17	1826	1319	437880
3	3	90.4	17	1986	1079	598445
4	3	91.8	17	1151	1563	97088
5	3	98.2	17	1977	1876	257251
6	1	59.5	17	-	1952	419893
7	2	80	17	1137	1253	580724
8	3	86.5	17	1128	1054	77366
9	3	91.1	17	1599	1105	238032
10	3	93.5	17	1373	1867	398605
11	1	60.7	17	-	1033	562025
12	2	67.2	17	1405	1288	57684
13	1	61.8	17	-	1585	219083
14	2	79.4	17	1667	1933	379234
15	2	81.4	17	1464	1096	540896
16	1	65.7	17	-	1496	37916
17	2	76	17	1255	1733	198794
18	2	81	17	1668	1326	359754
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**DFS Radar Parameters**  
**FCC Radar Type 1**  
**Channel Bandwidth 80MHz 5525MHz**

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	22	1066.10	938	1
2	10	1432.66	698	1
3	6	1618.12	618	1
4	2	1858.74	538	1
5	19	1138.95	878	1
6	12	326.16	3066	1
7	7	1567.40	638	1
8	21	1089.32	918	1
9	17	1193.32	838	1
10	18	1165.50	858	1
11	15	1253.13	798	1
12	11	1392.76	718	1
13	4	1730.10	578	1
14	5	1672.24	598	1
15	3	1792.11	558	1
16		394.32	2536	1
17		1035.20	966	1
18		1209.19	827	1
19		399.84	2501	0
20		385.36	2595	1
21		897.67	1114	1
22		768.05	1302	1
23		328.41	3045	1
24		615.76	1624	1
25		347.46	2878	1
26		973.71	1027	1
27		402.41	2485	1
28		625.00	1600	1
29		853.24	1172	1
30		849.62	1177	1

**DFS Radar Parameters**  
**FCC Radar Type 2**  
**Channel Bandwidth 80MHz 5525MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	3.2	26.00	179	1
2	1.1	23.00	207	1
3	2.1	24.00	230	1
4	4.8	29.00	200	1
5	3.9	28.00	214	1
6	2.9	26.00	222	1
7	3.2	26.00	204	1
8	2.5	25.00	192	1
9	3.1	26.00	164	1
10	1.2	23.00	156	1
11	3.9	27.00	210	1
12	4.6	29.00	201	1
13	3.2	26.00	162	1
14	2.2	25.00	197	1
15	4.5	29.00	163	1
16	3	26.00	203	1
17	5	29.00	168	1
18	2.4	25.00	217	1
19	2.9	26.00	191	1
20	2.3	25.00	166	1
21	3.7	27.00	150	1
22	2.2	25.00	176	1
23	4.9	29.00	195	1
24	2.9	26.00	202	1
25	2.5	25.00	178	1
26	1.1	23.00	206	1
27	3.8	27.00	155	1
28	4.7	29.00	157	1
29	2.4	25.00	224	1
30	4.2	28.00	159	1

**DFS Radar Parameters**  
**FCC Radar Type 3**  
**Channel Bandwidth 80MHz 5525MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	8.2	17.00	355	1
2	6.1	16.00	487	1
3	7.1	16.00	344	1
4	9.8	18.00	288	1
5	8.9	18.00	230	1
6	7.9	17.00	432	1
7	8.2	17.00	207	1
8	7.5	17.00	443	1
9	8.1	17.00	439	1
10	6.2	16.00	223	1
11	8.9	18.00	208	1
12	9.6	18.00	463	1
13	8.2	17.00	441	1
14	7.2	16.00	323	1
15	9.5	18.00	297	1
16	8	17.00	412	1
17	10	18.00	324	1
18	7.4	17.00	271	1
19	7.9	17.00	349	1
20	7.3	16.00	409	1
21	8.7	18.00	373	1
22	7.2	16.00	254	1
23	9.9	18.00	274	1
24	7.9	17.00	278	1
25	7.5	17.00	317	1
26	6.1	16.00	260	1
27	8.8	18.00	211	1
28	9.7	18.00	272	1
29	7.4	17.00	264	1
30	9.2	18.00	284	1

**DFS Radar Parameters**  
**FCC Radar Type 4**  
**Channel Bandwidth 80MHz 5525MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	16	14.00	355	1
2	11.3	12.00	487	1
3	13.5	13.00	344	1
4	19.4	16.00	288	1
5	17.5	15.00	230	1
6	15.3	14.00	432	1
7	15.9	14.00	207	1
8	14.3	13.00	443	1
9	15.8	14.00	439	1
10	11.5	12.00	223	1
11	17.4	15.00	208	1
12	19	16.00	463	1
13	16	14.00	441	1
14	13.8	13.00	323	1
15	18.9	16.00	297	1
16	15.5	14.00	412	1
17	19.9	16.00	324	1
18	14.1	13.00	271	1
19	15.2	14.00	349	1
20	13.8	13.00	409	1
21	17.1	15.00	373	1
22	13.8	13.00	254	1
23	19.8	16.00	274	1
24	15.3	14.00	278	1
25	14.5	13.00	317	1
26	11.3	12.00	260	1
27	17.3	15.00	211	1
28	19.2	16.00	272	1
29	14.2	13.00	264	1
30	18.2	15.00	284	1

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5525			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77.8	13	1477	1665	636185
2	1	51.9	13	-	1074	32674
3	1	63.8	13	-	1584	226294
4	3	96.6	13	1786	1682	417976
5	3	85.9	13	1215	1795	611152
6	2	73.7	13	1549	1198	8789
7	2	77.2	13	1819	1837	201917
8	2	68.4	13	1114	1587	395530
9	2	76.7	13	1155	2000	588564
10	1	53.2	13	-	1147	783794
11	3	85.7	13	1695	1433	177933
12	3	94.3	13	1426	1670	370624
13	2	77.6	13	1671	1294	564893
14	1	65.7	13	-	1512	759583
15	3	93.5	13	1130	1444	154262
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5525			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75	5	1527	1880	653020
2	3	99.4	5	1262	1401	1015643
3	2	67.4	5	1403	1531	1379398
4	2	73.6	5	1041	1449	245489
5	1	65.9	5	-	1432	609113
6	3	83.8	5	1292	1356	970852
7	1	65.5	5	-	1543	1335913
8	3	98.6	5	1796	1548	200406
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5525			No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.8	9	1538	1806	409565
2	2	69.5	9	1649	1117	673692
3	1	51.9	9	-	1651	938562
4	3	84.6	9	1032	1976	113209
5	3	95.4	9	1903	1060	376726
6	2	68	9	1351	1368	641212
7	3	89.6	9	1514	1338	903714
8	2	81.9	9	1689	1022	80863
9	3	88.3	9	1330	1810	344067
10	1	53.7	9	-	1597	609331
11	3	91.3	9	1106	1961	871542
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Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5525			No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.1	19	1355	1339	26541
2	1	58.7	19	-	1251	171821
3	2	75.3	19	1640	1136	316229
4	1	56.4	19	-	1753	461864
5	3	99.7	19	1708	1196	8677
6	1	57.7	19	-	1013	153995
7	1	59.5	19	-	1072	299238
8	2	80	19	1369	1482	443177
9	2	82	19	1197	1993	587671
10	2	82.8	19	1005	1883	135674
11	3	88	19	1928	1061	279928
12	3	93.2	19	1907	1207	424279
13	2	70.4	19	1360	1526	570132
14	3	95.3	19	1955	1171	117439
15	2	81.9	19	1545	1690	262502
16	3	98.5	19	1169	1975	406573
17	1	65	19	-	1767	553328
18	3	85.4	19	1637	1011	99799
19	3	91.6	19	1445	1878	244095
20	2	67.3	19	1218	1091	390012

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		5				Detection (Yes/No)
Number of Bursts in Trial:		17				
Chirp Center Frequency:		5525				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	67.9	16	1133	1320	629614
2	1	62.3	16	-	1957	96856
3	1	53.3	16	-	1592	267719
4	3	90	16	1153	1900	436784
5	2	77.1	16	1646	1166	608289
6	3	83.9	16	1232	1278	75610
7	3	89.1	16	1384	1240	245638
8	2	81.8	16	1676	1833	416355
9	1	50.3	16	-	1075	588736
10	3	87.1	16	1996	1116	54571
11	2	71.3	16	1815	1225	225175
12	3	97.5	16	1465	1884	394825
13	3	90.6	16	1040	1561	565361
14	3	86.3	16	1183	1596	33643
15	3	97.6	16	1073	1365	203957
16	3	84.7	16	1718	1021	373812
17	3	99.7	16	1244	1150	544060
18						
19						
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Trial Number:		6				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5525				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	92.9	12	1564	1085	15438
2	2	67.7	12	1747	1744	222486
3	1	65.8	12	-	1092	430731
4	1	56.3	12	-	1851	637784
5	1	53.7	12	-	1727	845342
6	3	83.5	12	1930	1679	196720
7	1	65.8	12	-	1519	404955
8	3	85.9	12	1034	1134	610711
9	2	76.3	12	1926	1606	818057
10	2	81.5	12	1714	1891	171459
11	3	89.4	12	1594	1310	377969
12	1	63.4	12	-	1568	586875
13	2	69.6	12	1925	1307	792834
14	2	74.5	12	1846	1264	146044
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		7				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5525				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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Trial Number:		8				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5525				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	52.6	10	-	1210	51446
2	3	84.1	10	1725	1314	292696
3	3	97.7	10	1868	1139	533989
4	3	97.3	10	1446	1341	775564
5	3	98.8	10	1386	1544	21542
6	2	72.2	10	1184	1771	263385
7	2	67.6	10	1027	1175	505581
8	2	75.7	10	1871	1026	747058
9	1	60.9	10	-	1798	989976
10	1	64.2	10	-	1138	234024
11	2	78.8	10	1604	1784	475207
12	3	87.5	10	1712	1511	715825
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		9				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5525				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	54.1	13	-	1415	823112
2	1	50.7	13	-	1221	174965
3	1	52.3	13	-	1974	382216
4	3	99.8	13	1696	1558	587395
5	2	68.4	13	1099	1014	796897
6	2	80.8	13	1505	1736	149042
7	1	62.5	13	-	1778	356750
8	2	74.8	13	1204	1149	563824
9	1	50.8	13	-	1049	772314
10	1	54	13	-	1417	123796
11	1	63	13	-	1730	331215
12	3	91.8	13	1270	1143	537402
13	2	79.3	13	1992	1274	744805
14	1	64.3	13	-	1937	98172
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Trial Number:		10				Detection (Yes/No)
Number of Bursts in Trial:		8				
Chirp Center Frequency:		5525				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	63.4	6	-	1043	535615
2	1	52	6	-	1863	898668
3	3	97.2	6	1605	1973	1259235
4	2	78.7	6	1743	1466	127106
5	2	74.2	6	1219	1280	490358
6	3	88.7	6	1934	1293	852409
7	1	54.3	6	-	1991	1217152
8	3	95.4	6	1555	1580	82296
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:			11			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5528.9			No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	73.7	16	1497	1208	209249
2	3	97.4	16	1754	1942	378386
3	3	91.7	16	1702	1999	548411
4	1	66.2	16	-	1393	17733
5	2	70.8	16	1821	1968	187952
6	1	52.3	16	-	1740	359277
7	2	78.9	16	1984	1308	528886
8	2	70.9	16	1358	1050	700166
9	2	75.6	16	1430	1437	167197
10	1	59.1	16	-	1697	338262
11	2	77	16	1304	1397	508324
12	2	67.9	16	1083	1803	678689
13	2	81.2	16	1932	1720	146031
14	2	78.7	16	1121	1247	316923
15	1	63.3	16	-	1634	488056
16	2	68.9	16	1423	1849	657326
17	1	59.3	16	-	1093	125509
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19						
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Trial Number:			12			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5530.1			No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	98.9	19	1680	1381	263736
2	2	82.3	19	1855	1716	416459
3	3	86.7	19	1400	1211	567902
4	3	89.7	19	1068	1861	92979
5	3	98.6	19	1194	1507	245155
6	2	71.1	19	1789	1921	397609
7	1	55.9	19	-	1947	551431
8	2	67.9	19	1372	1350	74413
9	3	84.4	19	1107	1203	226559
10	1	58.8	19	-	1715	380056
11	1	65.6	19	-	1017	533408
12	2	78.5	19	1704	1911	55547
13	2	82.3	19	1686	1845	207876
14	3	90.1	19	1071	1938	359771
15	3	90.2	19	1089	1989	511297
16	2	83.1	19	1406	1943	36803
17	1	58.8	19	-	1742	189652
18	2	77	19	1657	1187	341809
19	1	55	19	-	1012	495737
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		13				Detection (Yes/No)
Number of Bursts in Trial:		15				
Chirp Center Frequency:		5527.7				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	58.1	13	-	1929	22911
2	1	52.1	13	-	1910	216473
3	1	59.9	13	-	1971	410004
4	1	60.2	13	-	1812	603671
5	3	95.9	13	1906	1399	794160
6	2	79.9	13	1859	1626	192251
7	2	78.5	13	1917	1238	385590
8	1	53.8	13	-	1763	579862
9	1	64.7	13	-	1800	773423
10	1	61.4	13	-	1390	168898
11	2	83.2	13	1858	1692	361606
12	3	84.7	13	1677	1533	553866
13	3	88.7	13	1528	1703	747241
14	2	78.3	13	1951	1258	144710
15	2	69.3	13	1717	1731	337856
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Trial Number:		14				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5526.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	75.3	10	1612	1994	664275
2	1	56.3	10	-	1456	907886
3	2	67.7	10	1185	1617	151316
4	1	55.6	10	-	1337	393746
5	2	75.2	10	1267	1421	635093
6	2	76.3	10	1305	1359	876993
7	3	85.7	10	1362	1547	121278
8	3	98.4	10	1550	1873	362696
9	3	86.4	10	1439	1779	604342
10	3	93.6	10	1031	1059	846453
11	1	63.3	10	-	1328	91871
12	3	92.4	10	1673	1412	333050
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		15				Detection (Yes/No)
Number of Bursts in Trial:		19				
Chirp Center Frequency:		5529.7				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	93.3	18	1912	1983	361323
2	2	69.1	18	1794	1102	515261
3	3	86.9	18	1152	1044	39025
4	3	84.9	18	1948	1894	190900
5	2	72.3	18	1916	1094	343941
6	1	51.7	18	-	1447	497624
7	1	58.3	18	-	1429	20319
8	1	60.8	18	-	1979	172999
9	1	57.1	18	-	1641	325872
10	3	88.9	18	1964	1886	475841
11	2	72	18	1297	1909	1489
12	3	90.9	18	1566	1261	153647
13	1	59.8	18	-	1552	307096
14	2	70	18	1291	1759	458804
15	2	67.2	18	1881	1625	610798
16	3	91.2	18	1832	1382	134759
17	1	56.5	18	-	1483	288306
18	1	51.2	18	-	1237	441296
19	2	74.1	18	1245	1471	592780
20						

Trial Number:		16				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5527.3				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	76.9	12	1140	1110	158286
2	1	50.2	12	-	1316	366024
3	1	62.9	12	-	1520	573452
4	1	64.7	12	-	1902	780619
5	3	83.8	12	1097	1410	132455
6	1	65.4	12	-	1944	340207
7	1	53.2	12	-	1024	548208
8	1	51.7	12	-	1603	755333
9	2	78.7	12	1168	1804	107117
10	2	72.4	12	1343	1030	314500
11	1	53.8	12	-	1327	522447
12	2	73.6	12	1553	1524	728517
13	2	66.7	12	1122	1722	81611
14	2	82.5	12	1019	1404	288948
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		17				Detection (Yes/No)
Number of Bursts in Trial:		20				No
Chirp Center Frequency:		5530.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	87.6	20	1055	1565	345766
2	3	85.2	20	1541	1735	490019
3	3	84.8	20	1889	1534	39073
4	2	77.9	20	1460	1749	183923
5	2	76.5	20	1485	1518	328777
6	1	60.9	20	-	1540	474728
7	2	83	20	1010	1080	21394
8	2	80.4	20	1752	1824	165992
9	2	67.5	20	1181	1764	310973
10	1	62.1	20	-	1495	456884
11	3	86.4	20	1966	1773	3515
12	3	84.3	20	1188	1593	147928
13	2	76.9	20	1537	1226	293225
14	3	95.8	20	1298	1192	436922
15	1	55.2	20	-	1644	584015
16	1	59	20	-	1402	130832
17	3	94.5	20	1700	1296	274684
18	3	91.9	20	1978	1970	418579
19	3	85.2	20	1551	1732	563464
20	2	69.5	20	1224	1038	112787

Trial Number:		18				Detection (Yes/No)
Number of Bursts in Trial:		12				No
Chirp Center Frequency:		5526.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	86.4	10	1918	1259	429224
2	3	92.2	10	1719	1598	670241
3	2	80.4	10	1899	1816	912880
4	1	54.3	10	-	1335	158603
5	1	53.1	10	-	1303	400824
6	2	69.4	10	1546	1503	641915
7	2	69.1	10	1639	1279	883823
8	3	100	10	1438	1375	128373
9	2	79.6	10	1705	1239	370379
10	3	88.4	10	1579	1374	611194
11	1	53.3	10	-	1016	855665
12	1	65.3	10	-	1709	98897
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		19				Detection (Yes/No)
Number of Bursts in Trial:		14				
Chirp Center Frequency:		5527.3				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	55.3	12	-	1920.000	292143
2	1	58.3	12	-	1797.000	499633
3	2	72.3	12	1039.000	1610.000	706377
4	3	84.8	12	1761.000	1131.000	58989
5	2	82.5	12	1431.000	1875.000	266161
6	1	63.3	12	-	1095.000	474469
7	2	80	12	1913.000	1119.000	680544
8	3	90.3	12	1853.000	1660.000	33519
9	3	91.1	12	1783.000	1539.000	240319
10	3	96.6	12	1036.000	1525.000	447400
11	2	82.7	12	1990.000	1710.000	654516
12	1	50.7	12	-	1234.000	8083
13	2	78.4	12	1109.000	1047.000	215435
14	3	99.5	12	1965.000	1299.000	421325
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Trial Number:		20				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5526.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	88.6	10	1067	1501	733725
2	1	57.4	10	-	1723	977882
3	3	96.6	10	1658	1086	221197
4	2	69.7	10	1945	1751	462915
5	2	77.9	10	1317	1642	705071
6	1	62	10	-	1866	947923
7	3	88.4	10	1077	1997	191373
8	3	97.3	10	1896	1790	432561
9	3	96.2	10	1787	1391	674004
10	3	95.4	10	1892	1020	915842
11	1	54.8	10	-	1084	162176
12	2	80.4	10	1436	1850	403553
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		21				Detection (Yes/No)
Number of Bursts in Trial:		16				
Chirp Center Frequency:		5521.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	74.7	15	1611	1619	483470
2	1	57.1	15	-	1560	666072
3	3	91.9	15	1475	1392	98810
4	2	83.1	15	1772	1809	279914
5	1	50.7	15	-	1003	462536
6	2	79.2	15	1600	1574	642324
7	1	58.7	15	-	1186	76831
8	2	71	15	1567	1521	257785
9	2	79	15	1960	1777	438554
10	2	68.5	15	1428	1284	620397
11	2	73.5	15	1352	1904	54310
12	2	70.5	15	1115	1864	235506
13	2	76.6	15	1300	1045	417036
14	2	81.2	15	1675	1160	597974
15	1	61.8	15	-	1277	32086
16	3	94.9	15	1206	1450	212751
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Trial Number:		22				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5523.9				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	78.5	9	1698	1653	526149
2	3	89.8	9	1962	1174	767135
3	1	59.4	9	-	1982	12955
4	2	79.6	9	1890	1633	254612
5	2	76	9	1811	1112	496588
6	1	53.6	9	-	1144	739728
7	2	80.9	9	1053	1220	980872
8	1	61.6	9	-	1724	225249
9	1	53.4	9	-	1901	467279
10	1	59.9	9	-	1379	709720
11	1	60.4	9	-	1453	951847
12	3	91.4	9	1726	1768	194839
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		23				Detection (Yes/No)
Number of Bursts in Trial:		20				No
Chirp Center Frequency:		5519.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	77	20	1363	1191	261858
2	1	58.1	20	-	1248	407646
3	1	62.1	20	-	1836	552319
4	2	76.9	20	1236	1334	99107
5	2	80	20	1852	1914	243514
6	1	52	20	-	1701	389464
7	3	88.6	20	1995	1693	531093
8	2	72.9	20	1387	1922	81159
9	3	98.5	20	1746	1839	225245
10	1	57.9	20	-	1193	371906
11	3	95.9	20	1870	1659	514197
12	1	53.5	20	-	1162	63561
13	3	92	20	1654	1745	207510
14	1	57.3	20	-	1834	353638
15	2	70.5	20	1586	1684	497515
16	2	70	20	1664	1042	45553
17	3	84	20	1630	1765	189821
18	2	76.1	20	1057	1557	335330
19	3	93.2	20	1018	1985	478825
20	3	96.8	20	1614	1760	27594

Trial Number:		24				Detection (Yes/No)
Number of Bursts in Trial:		14				No
Chirp Center Frequency:		5522.7				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.1	12	-	1841	247117
2	3	93.5	12	1081	1590	453362
3	2	68.8	12	1577	1707	660875
4	1	56.3	12	-	1056	14140
5	3	86	12	1108	1953	220734
6	2	75.2	12	1536	1572	428367
7	1	54.4	12	-	1517	636681
8	2	71.1	12	1243	1329	843157
9	2	76.2	12	1770	1940	195585
10	2	80.2	12	1209	1098	403231
11	2	79.7	12	1214	1588	610202
12	3	90.9	12	1862	1615	815229
13	2	68.7	12	1441	1377	170267
14	2	67.4	12	1313	1872	377306
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:			25			Detection (Yes/No) No
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5523.1			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	94	11	1748	1643	628071
2	2	70.8	11	1201	1177	853391
3	1	56.3	11	-	1006	156223
4	3	96.7	11	1163	1230	378734
5	3	90.6	11	1582	1217	601331
6	2	74.5	11	1281	1569	825462
7	3	92.6	11	1669	1065	128265
8	3	89	11	1135	1493	351161
9	3	96.5	11	1822	1607	573425
10	2	70.5	11	1178	1141	798431
11	3	94	11	1629	1009	100737
12	1	55.8	11	-	1290	324661
13	3	87.7	11	1963	1435	546278
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Trial Number:			26			Detection (Yes/No) No
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5525.5			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	2	68.6	5	1161	1306	1253842
2	2	83.1	5	1315	1420	119486
3	1	60.9	5	-	1687	482958
4	2	77.7	5	1158	1776	845641
5	2	77.4	5	1510	1793	1208428
6	2	66.8	5	1323	1576	74748
7	1	63.7	5	-	1333	438300
8	3	91.2	5	1681	1409	800152
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:			27			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5521.1			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.6	16	1195	1632	545865
2	3	89.4	16	1627	1173	14067
3	1	55.8	16	-	1532	184953
4	3	90.9	16	1554	1981	353759
5	1	54.7	16	-	1825	526388
6	3	97.7	16	1202	1734	694806
7	2	67.5	16	1434	1571	163568
8	3	96.7	16	1469	1589	333410
9	2	68.3	16	1954	1750	504006
10	2	78.3	16	1082	1591	675297
11	1	55	16	-	1427	142890
12	3	84.9	16	1936	1129	312479
13	2	74.6	16	1856	1959	482953
14	1	63.3	16	-	1885	655022
15	3	99.8	16	1515	1035	121457
16	1	63.6	16	-	1647	292606
17	3	87.3	16	1051	1931	461322
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Trial Number:			28			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5519.9			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	85.6	19	1078	1946	565136
2	2	68.6	19	1780	1029	89970
3	1	54.2	19	-	1111	243121
4	1	61.2	19	-	1104	396034
5	3	97.1	19	1969	1157	546225
6	3	98.3	19	1699	1142	70998
7	1	62.4	19	-	1655	224093
8	2	80.2	19	1769	1126	376127
9	3	87.5	19	1448	1216	527806
10	3	85.8	19	1348	1847	52247
11	3	88.1	19	1124	1023	204582
12	1	65.3	19	-	1848	357941
13	1	52.5	19	-	1470	510977
14	1	52.3	19	-	1312	33698
15	2	74.1	19	1200	1915	186023
16	1	54.9	19	-	1479	339327
17	2	76.2	19	1502	1376	491053
18	1	60.4	19	-	1758	14858
19	2	81.5	19	1103	1491	167387
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel Bandwidth 80MHz 5525MHz**

Trial Number:		29				Detection (Yes/No)
Number of Bursts in Trial:		12				
Chirp Center Frequency:		5523.5				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	1	50.5	10	-	1857	507709
2	1	55.7	10	-	1246	750249
3	3	85.8	10	1002	1774	989003
4	2	76.9	10	1474	1125	235634
5	2	75.1	10	1052	1254	477675
6	3	92.3	10	1486	1180	718312
7	2	78.1	10	1757	1301	960895
8	3	92.2	10	1252	1898	205370
9	3	89	10	1706	1260	446940
10	2	70.9	10	1620	1578	689225
11	1	63.1	10	-	1782	932305
12	1	55.3	10	-	1522	176231
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Trial Number:		30				Detection (Yes/No)
Number of Bursts in Trial:		18				
Chirp Center Frequency:		5520.7				No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (µsec)	Pulse 2-to-3 Spacing (µsec)	Starting Location Within Interval (µsec)
1	3	83.4	17	1205	1454	277485
2	3	97.3	17	1826	1319	437880
3	3	90.4	17	1986	1079	598445
4	3	91.8	17	1151	1563	97088
5	3	98.2	17	1977	1876	257251
6	1	59.5	17	-	1952	419893
7	2	80	17	1137	1253	580724
8	3	86.5	17	1128	1054	77366
9	3	91.1	17	1599	1105	238032
10	3	93.5	17	1373	1867	398605
11	1	60.7	17	-	1033	562025
12	2	67.2	17	1405	1288	57684
13	1	61.8	17	-	1585	219083
14	2	79.4	17	1667	1933	379234
15	2	81.4	17	1464	1096	540896
16	1	65.7	17	-	1496	37916
17	2	76	17	1255	1733	198794
18	2	81	17	1668	1326	359754
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THE END