



FCC DFS TEST REPORT

FCC ID : TVE-240201
Equipment : Network Security Gateway
Brand Name : FORTINET
Model Name : FWF-30Gxxxxxxxxxx, FortiWiFi 30GXXXXXXXXXX,
FORTIWIFI-30Gxxxxxxxxxx, FWF-31Gxxxxxxxxxx,
FortiWiFi 31GXXXXXXXXXX, FORTIWIFI-31Gxxxxxxxxxx
(Where "x" can be used as "A-Z", or "0-9", or "-", or blank
for software changes or marketing purposes only)
Applicant : Fortinet, Inc.
909 Kifer Road, Sunnyvale, CA 94086, USA
Manufacturer : Fortinet, Inc.
909 Kifer Road, Sunnyvale CA 94086, USA
Standard : FCC Part 15 Subpart E

The product was received on Jun. 04, 2024 and testing was performed from Jun. 10, 2024 to Jun. 14, 2024. We, Sporton International (USA) Inc., 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 test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (USA) Inc., the test report shall not be reproduced except in full.

Approved by: Neil Kao

Sporton International (USA) Inc.
1175 Montague Expressway, Milpitas, CA 95035

Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Feature of Equipment Under Test	5
1.2 Product Specification of Equipment Under Test.....	5
1.3 Testing Facility	6
1.4 Modification of EUT	6
1.5 Applied Standards	6
1.6 Support Unit used in test configuration and system	6
2 Requirements and Parameters for DFS Test.....	7
2.1 Summary of Dynamic Frequency Selection Test	7
2.2 Applicability of DFS Requirements	8
2.3 DFS Detection Thresholds.....	10
2.4 DFS Response requirement values.....	11
2.5 Short Pulse Radar Test Waveforms	12
2.6 Long Pulse Radar Test Waveform	14
2.7 Frequency Hopping Radar Test Waveform	16
3 Calibration Setup and DFS Test Results	17
3.1 Calibration of Radar Waveform	17
3.2 U-NII Detection Bandwidth	30
3.3 Channel Availability Check	42
3.4 In-Service Monitoring: Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	48
3.5 Statistical Performance Check	57
4 List of Measuring Equipment.....	71
Appendix A. DFS Radar Parameters	



History of this test report

Report No.	Version	Description	Issue Date
FZ240603003	01	Initial issue of report	Aug. 01, 2024

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	-

Conformity Assessment Condition:

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Feature of Equipment Under Test

Product Feature	
Equipment	Network Security Gateway
Model Name	FWF-30Gxxxxxxxxxx, FortiWiFi 30GXXXXXXXXXX, FORTIWIFI-30Gxxxxxxxxxx, FWF-31Gxxxxxxxxxx, FortiWiFi 31GXXXXXXXXXX, FORTIWIFI-31Gxxxxxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Remark: The above EUT's information was declared by manufacturer.

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
DFS Function	Master
Tx/Rx Channel Frequency Range	5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
EUT support WLAN function	802.11 a/n HT20/HT40 802.11 ac VHT20/VHT40/VHT80 802.11 ax HE20/HE40/HE80
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11 ax : OFDMA (BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)

Remark:

- For other wireless features of this EUT, test report will be issued separately.
- The EUT's information mentioned above is declared by the manufacturer.

Antenna Information						
Ant.	Port.	Brand	Model Name	Antenna Type	Connector	Support
1	1	WIESON	ARY118-0047-001-00	Dipole Antenna	SMA	2.4G+5G
2	2	WIESON	ARY118-0047-001-00	Dipole Antenna	SMA	2.4G+5G
3	3	WIESON	ARY118-0047-001-00	Dipole Antenna	SMA	5G

Gain (dBi)				Remark
Ant.	Port.	Band 2	Band 3	
1	1	2.60	2.01	2.4G+5G Tx/Rx
2	2	2.60	2.01	2.4G+5G Tx/Rx
3	3	2.60	2.01	RX only

1.3 Testing Facility

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL : 408 9043300
Test Site No.	Sporton Site No.
	DFS01-CA

FCC Designation No.: US1250

1.4 Modification of EUT

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

1.5 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
- ♦ FCC KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02

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

1.6 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	HW / FW Version	Power Cord
1.	Notebook	MSI	MS-16J5	PD93165NG	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	HP ENVY	13-ba1063cl	PD9AX201D2	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2 Requirements and Parameters for DFS Test

2.1 Summary of Dynamic Frequency Selection Test

UNII	Description	Limit
U-NII Band 2-A 5250-5350 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
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

Note

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.

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 $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. 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.

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
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the 99% power bandwidth See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate 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. Note 3: 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.	

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 $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \right\}$	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
Note 1: 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

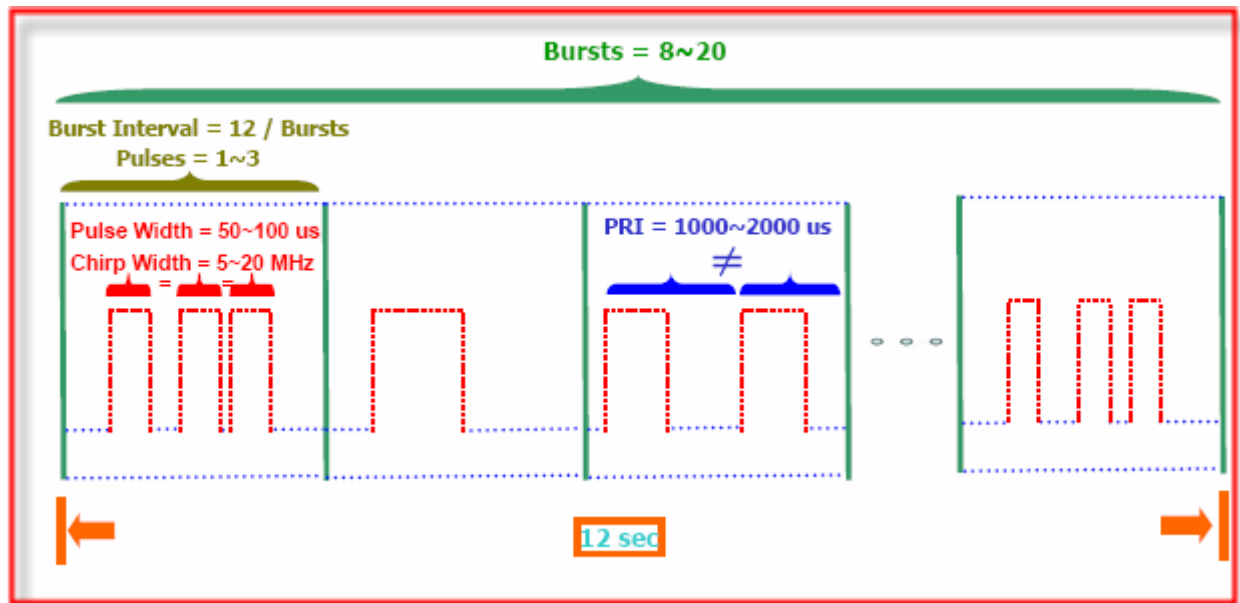
The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms. Each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

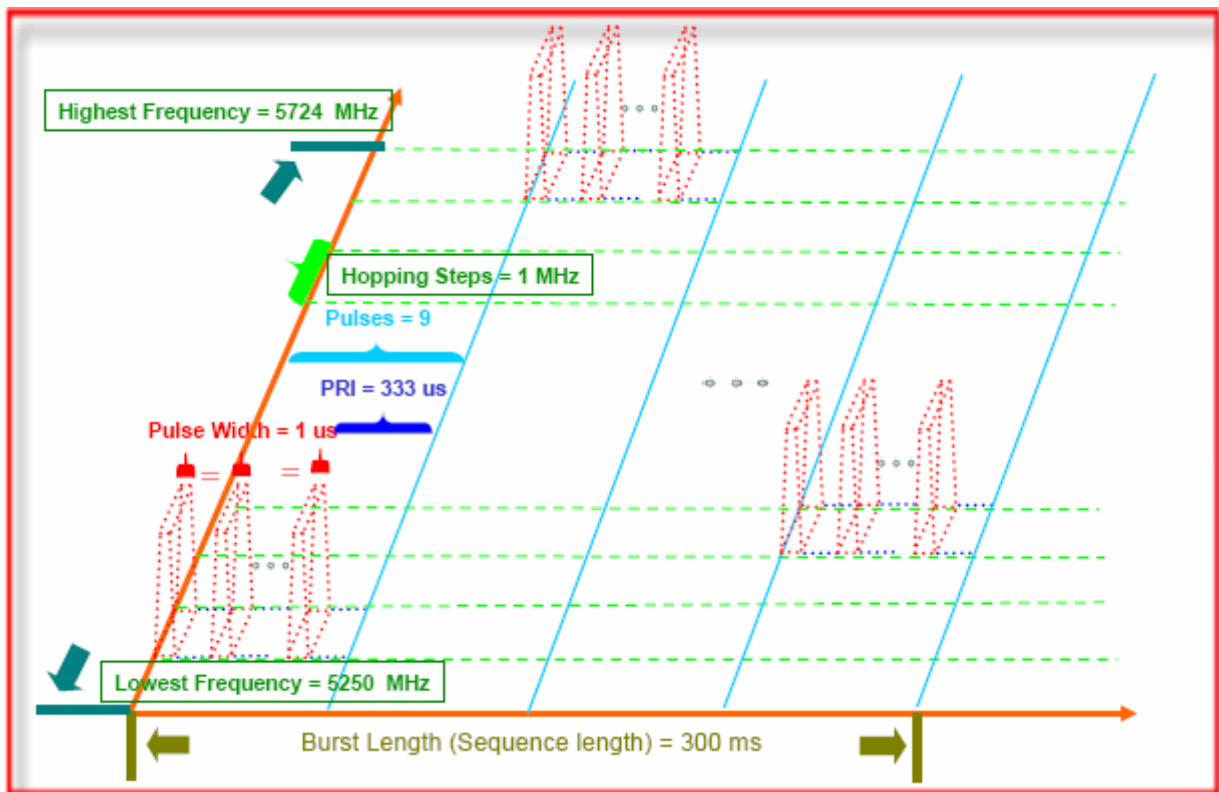


2.7 Frequency Hopping Radar Test Waveform

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.



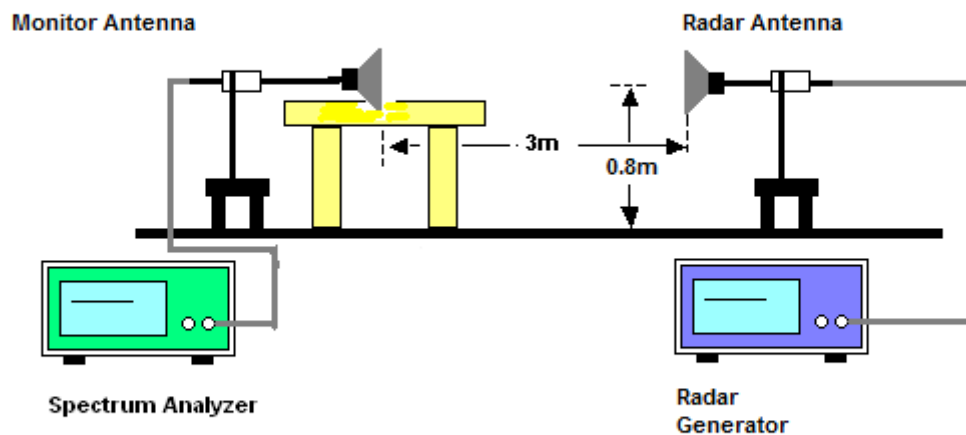
3 Calibration Setup and DFS Test Results

3.1 Calibration of Radar Waveform

3.1.1 Radar Waveform Calibration Procedure

The Interference Radar Detection Threshold Level is -64dBm 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 -64dBm. Capture the spectrum analyzer plots on radar waveform.

3.1.2 Calibration Setup

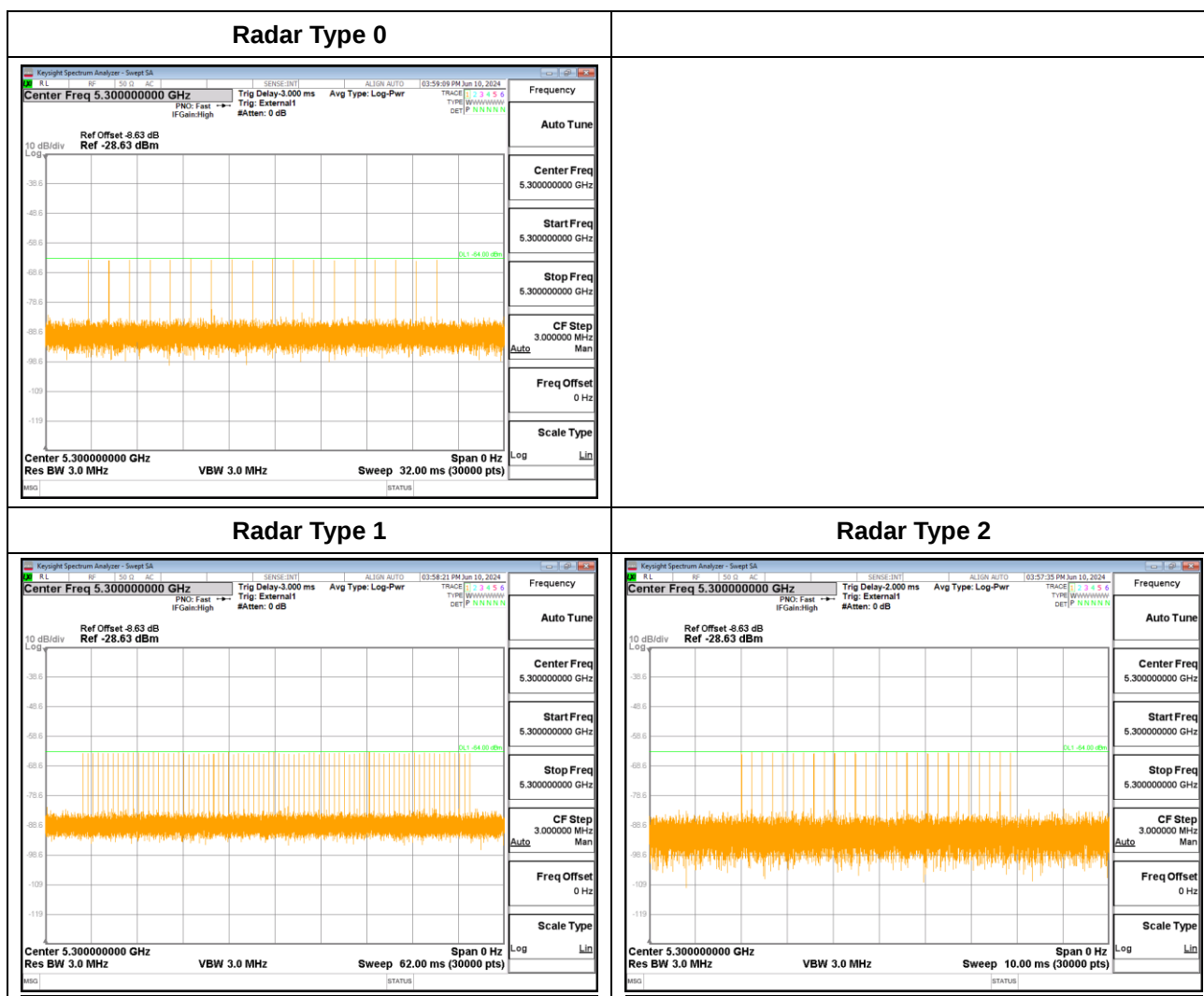


3.1.3 Calibration Deviation

There is no deviation with the original standard.

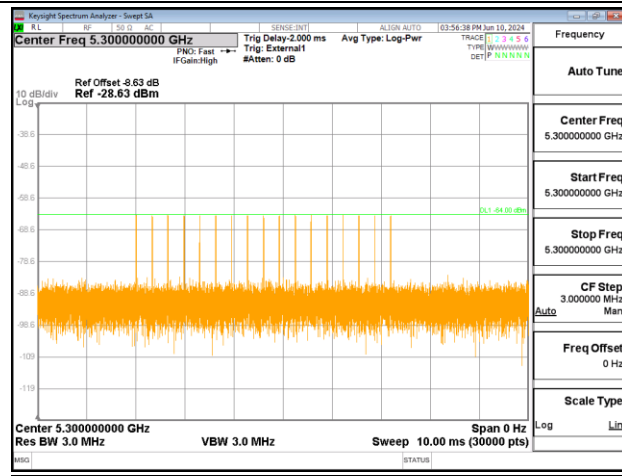
3.1.4 Radar Waveform Calibration Result

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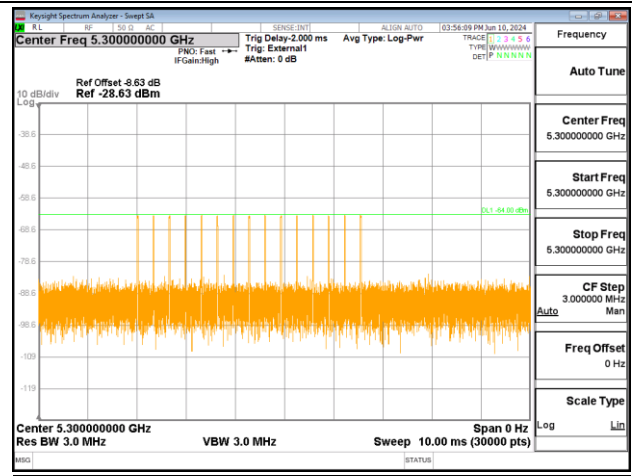




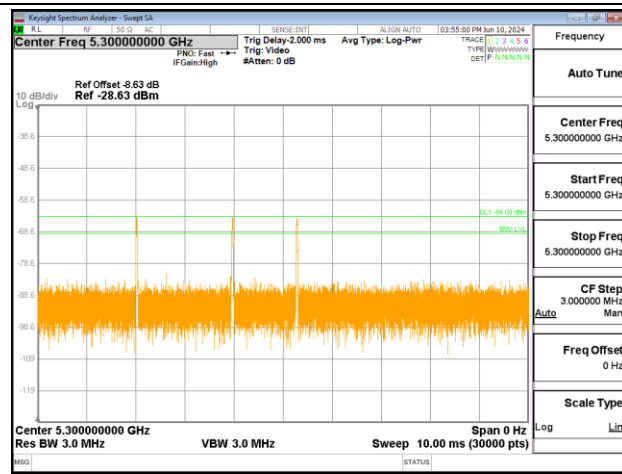
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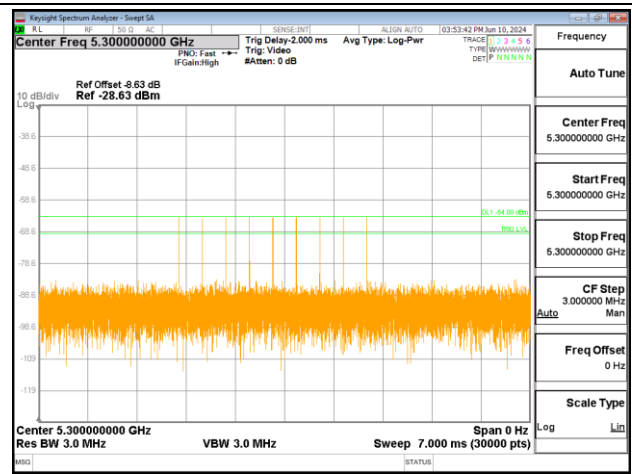
Radar Type 4



Single Burst of Radar Type 5



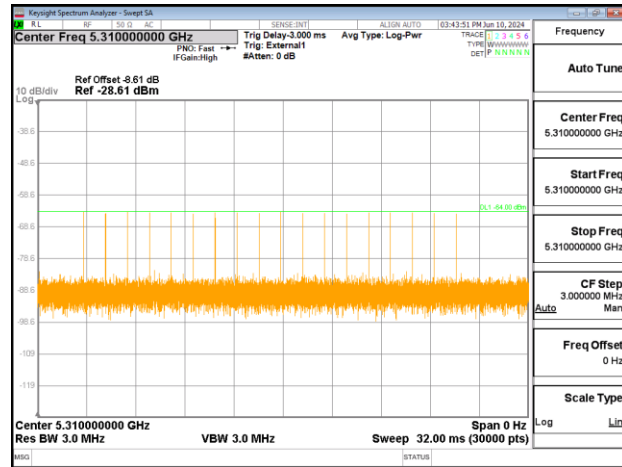
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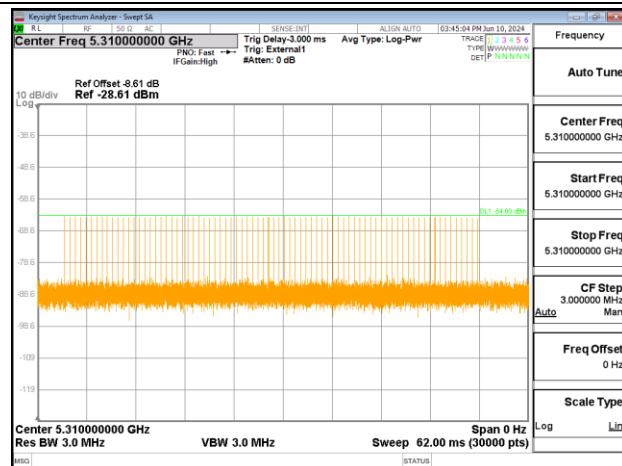


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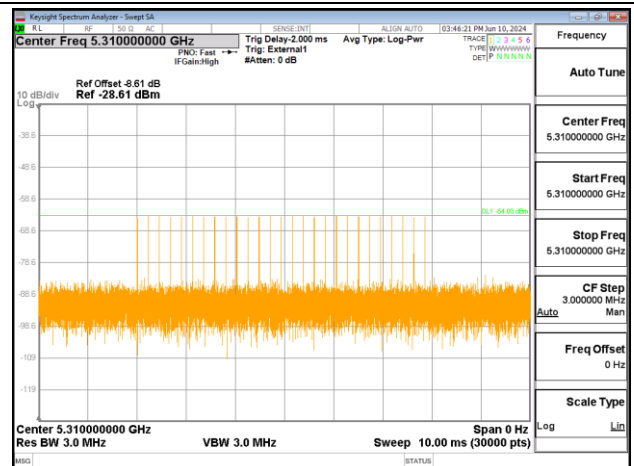
Radar Type 0



Radar Type 1

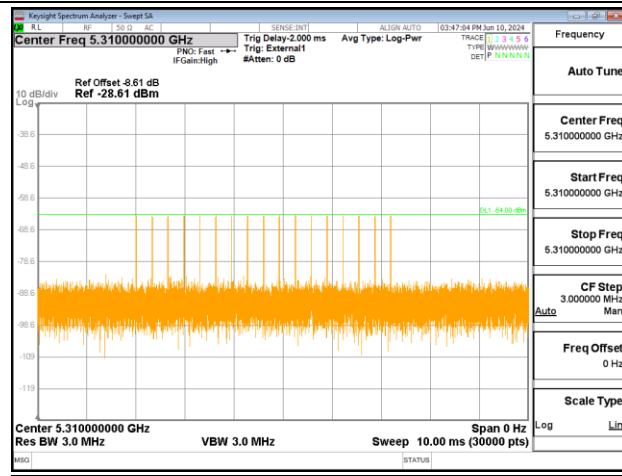


Radar Type 2

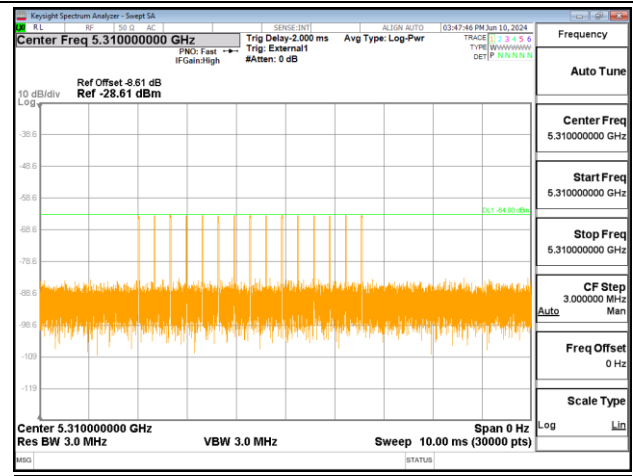




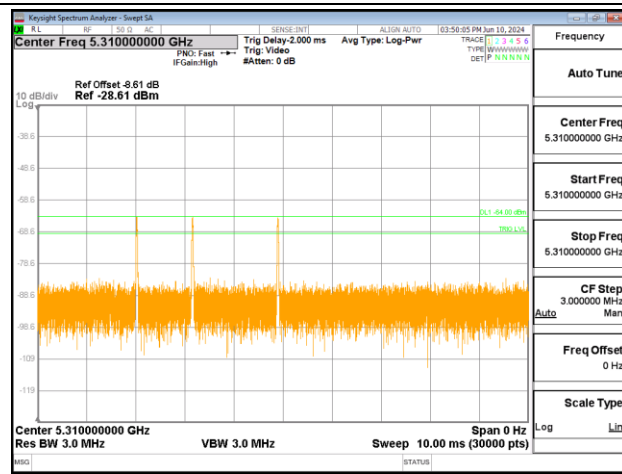
Radar Type 3



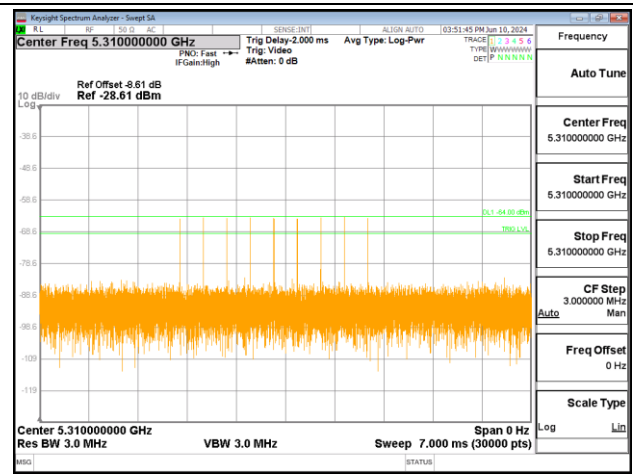
Radar Type 4



Single Burst of Radar Type 5



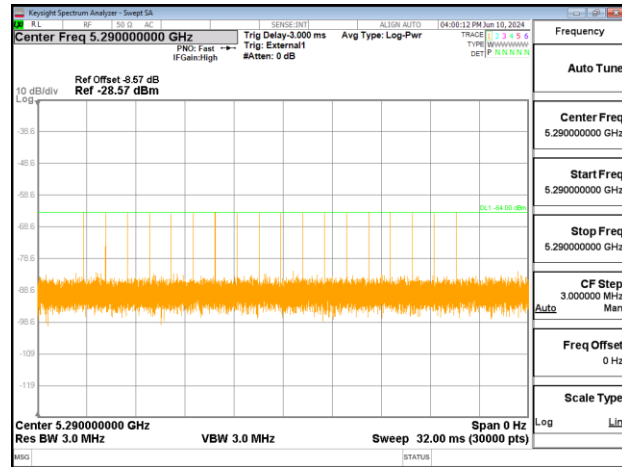
Single Burst of Radar Type 6



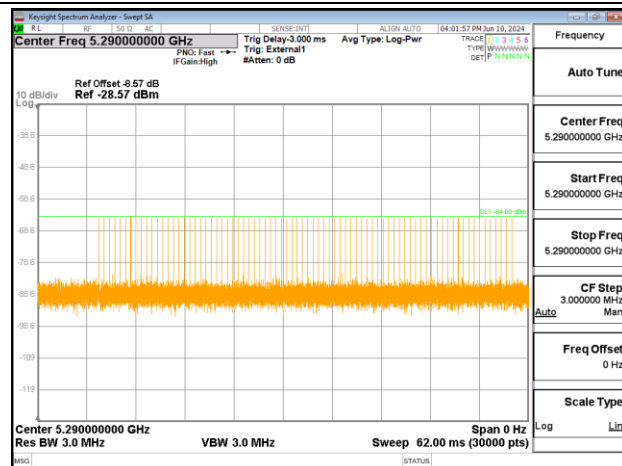


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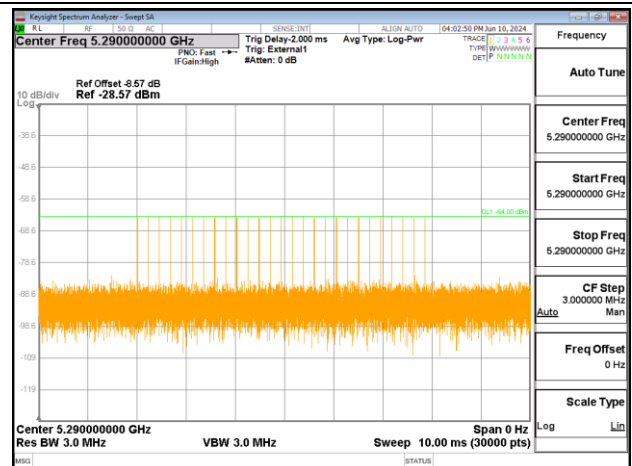
Radar Type 0



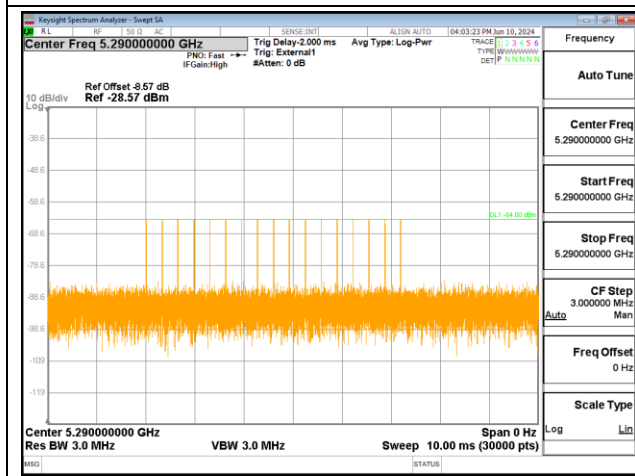
Radar Type 1



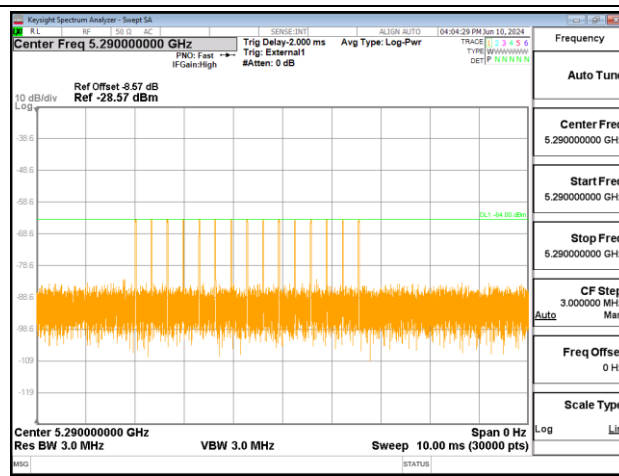
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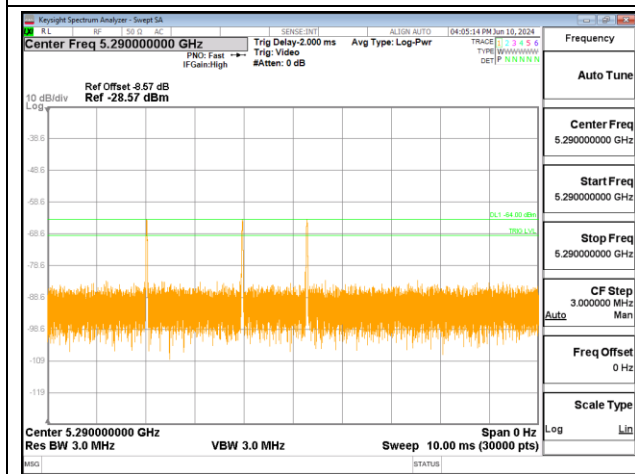
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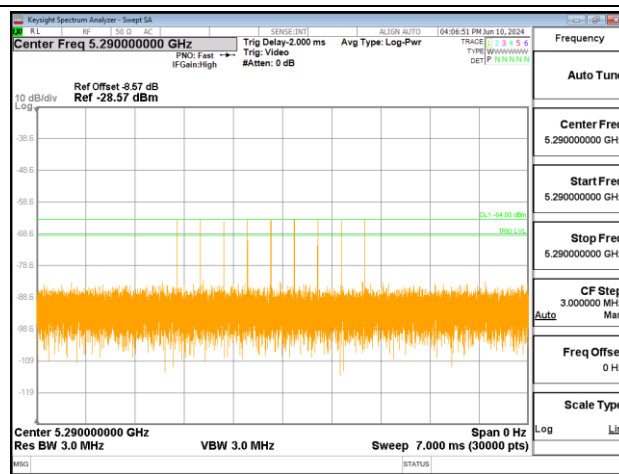
Radar Type 4



Single Burst of Radar Type 5



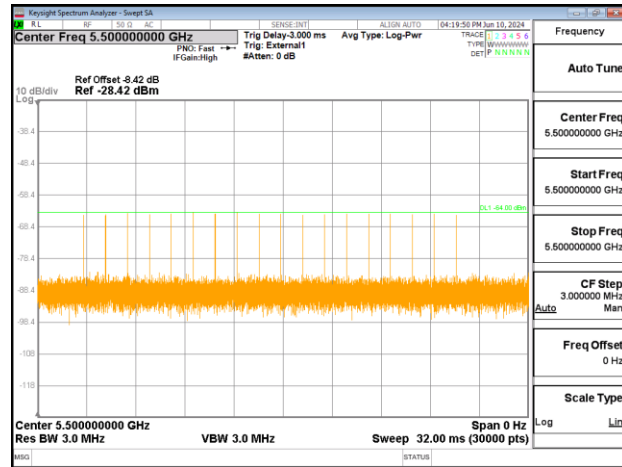
Single Burst of Radar Type 6



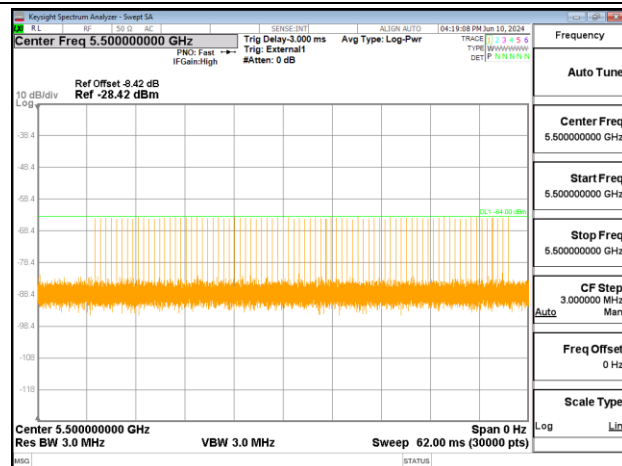


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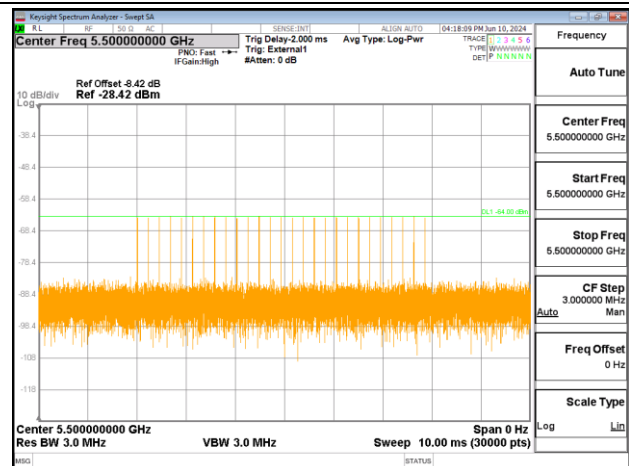
Radar Type 0



Radar Type 1

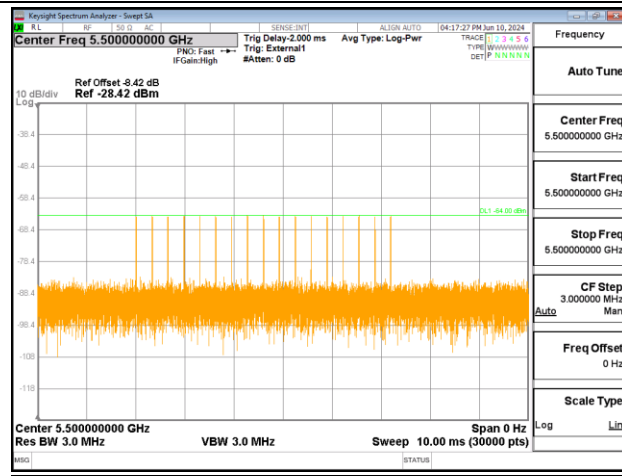


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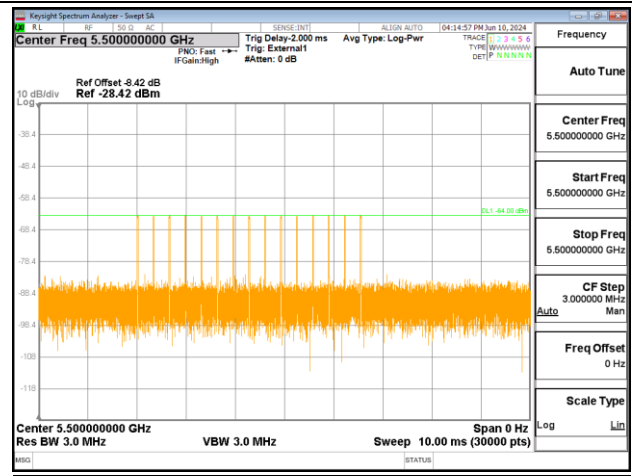




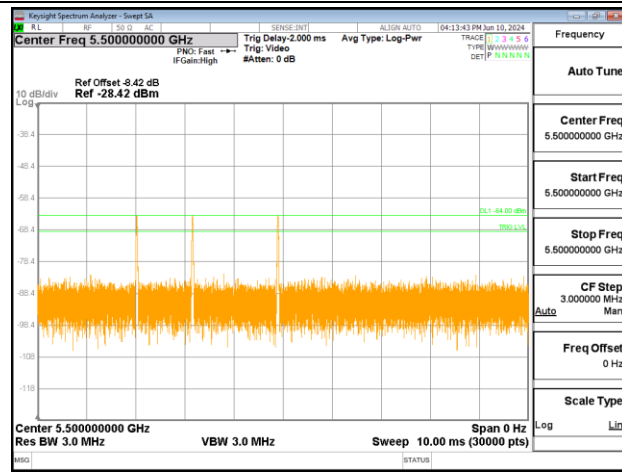
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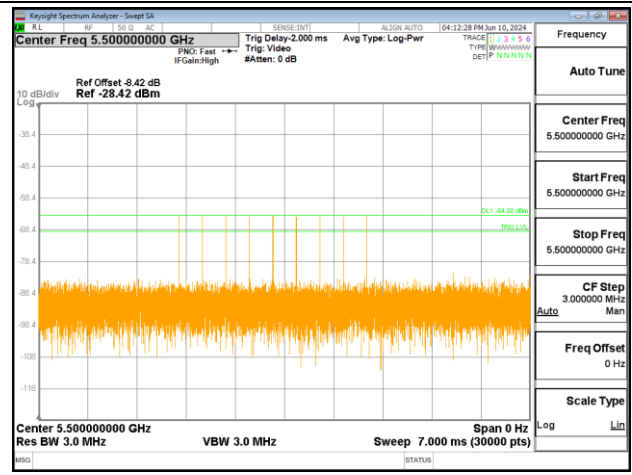
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Single Burst of Radar Type 5



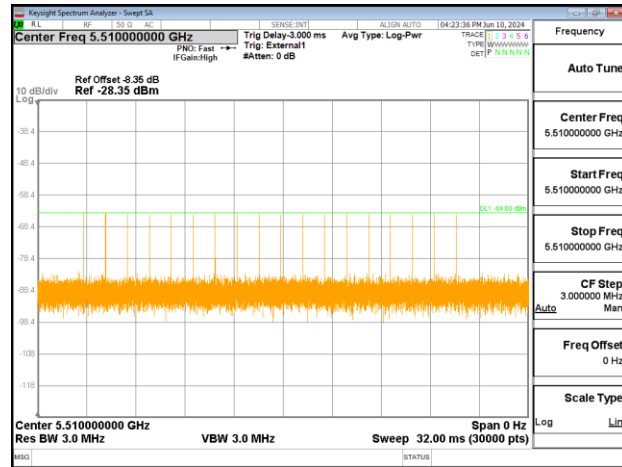
Single Burst of Radar Type 6



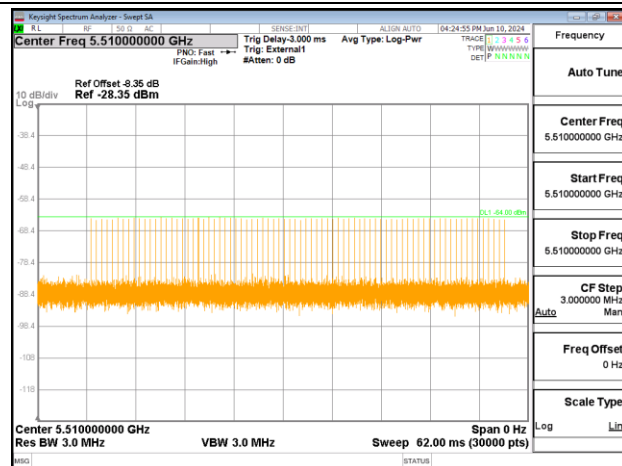


<40MHz / 5510MHz>

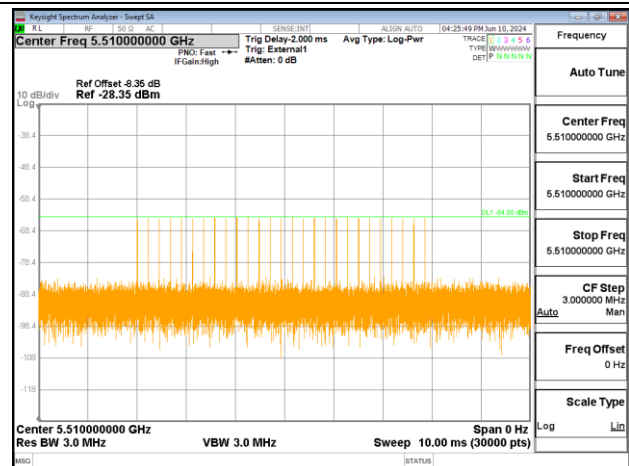
Radar Type 0



Radar Type 1

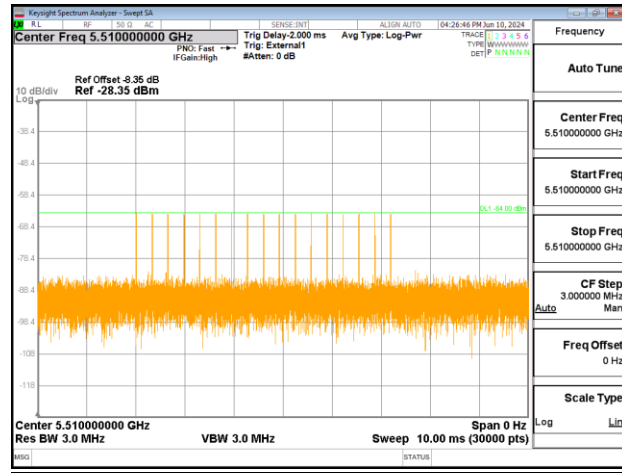


Radar Type 2

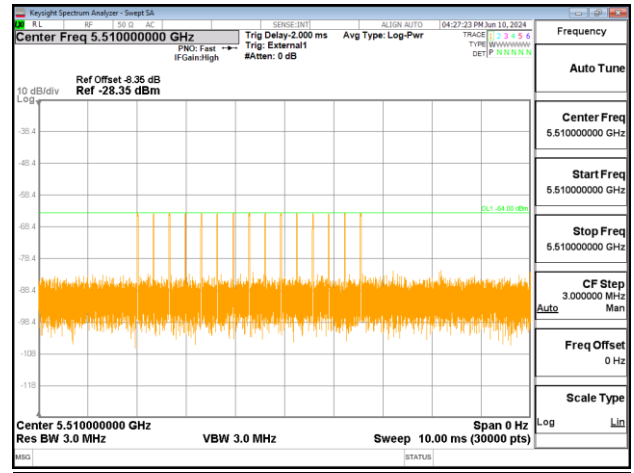




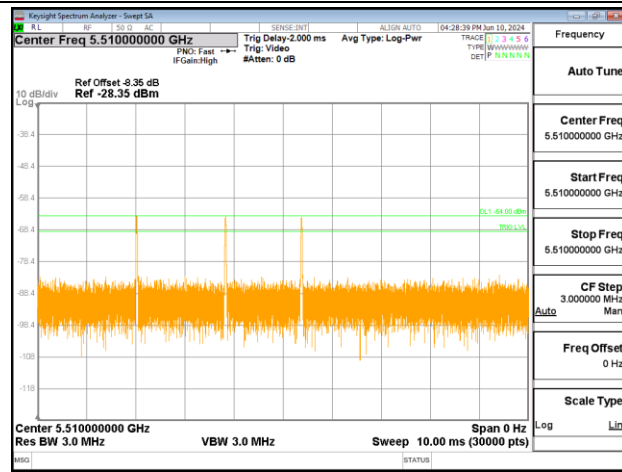
Radar Type 3



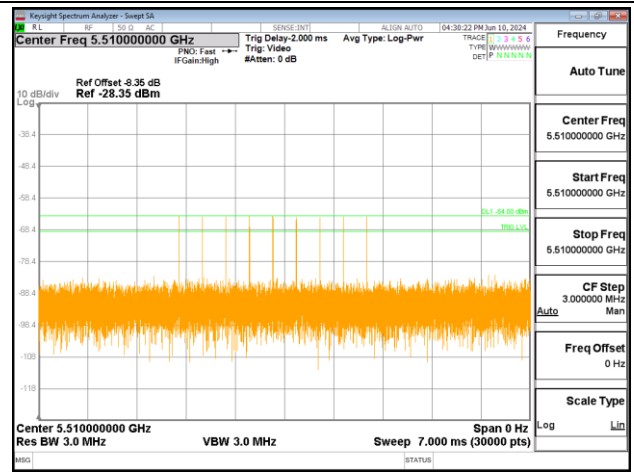
Radar Type 4



Single Burst of Radar Type 5



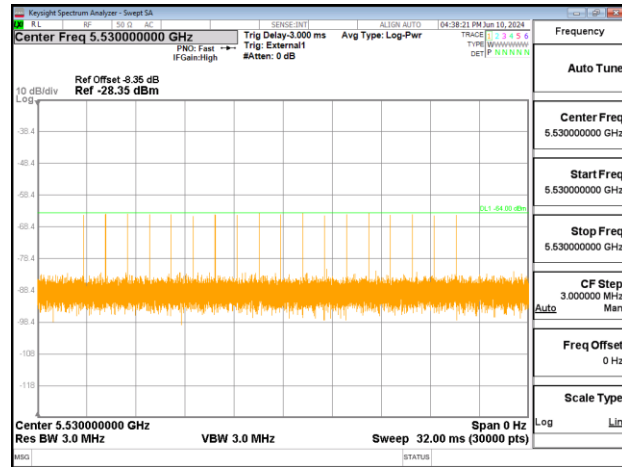
Single Burst of Radar Type 6



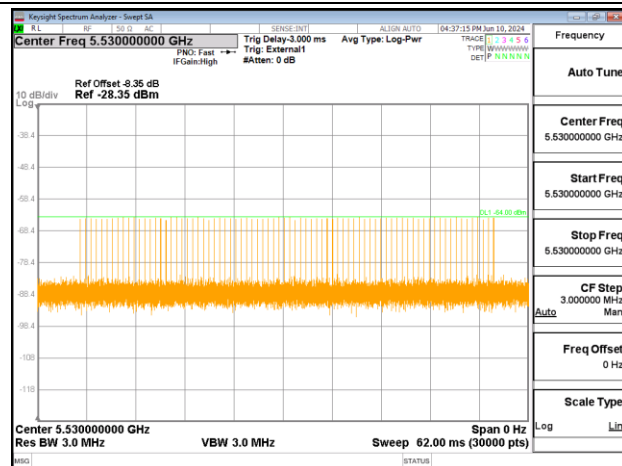


<80MHz / 5530MHz>

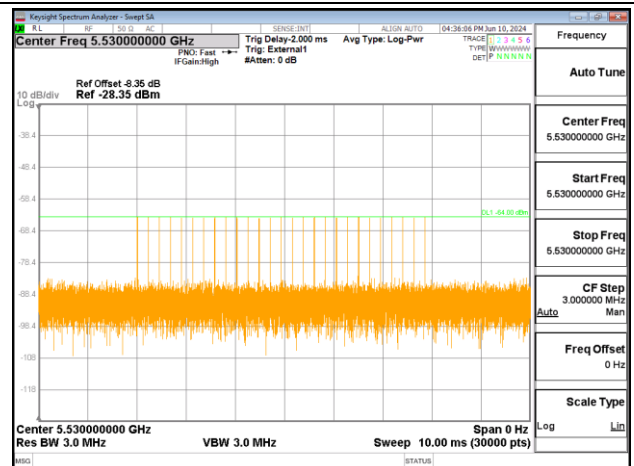
Radar Type 0



Radar Type 1

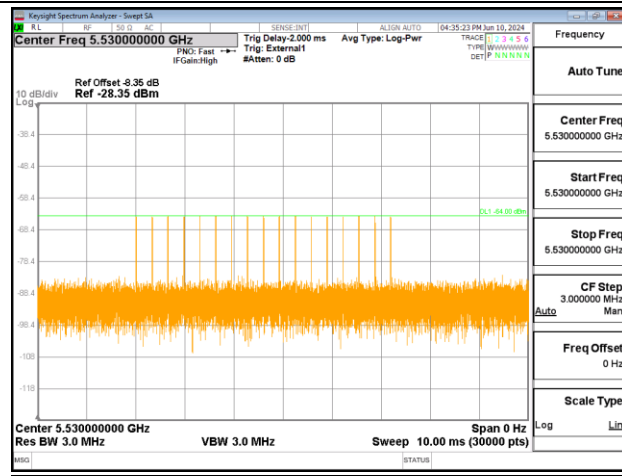


Radar Type 2

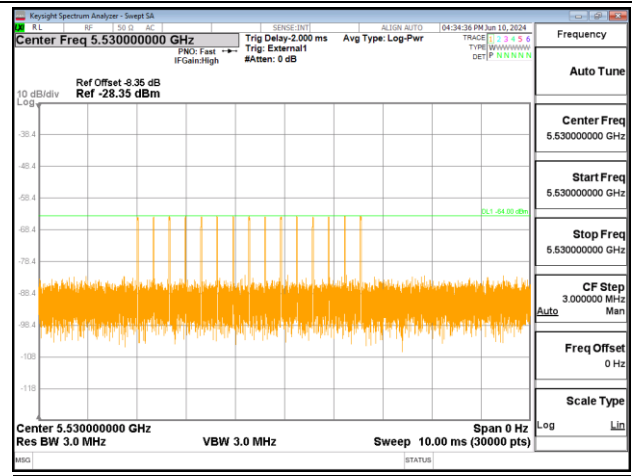




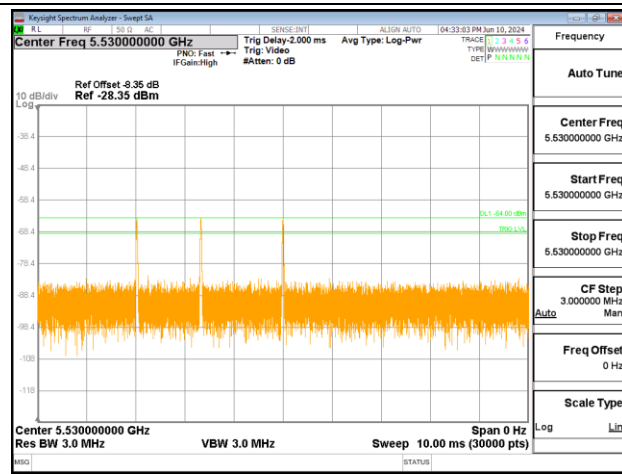
Radar Type 3



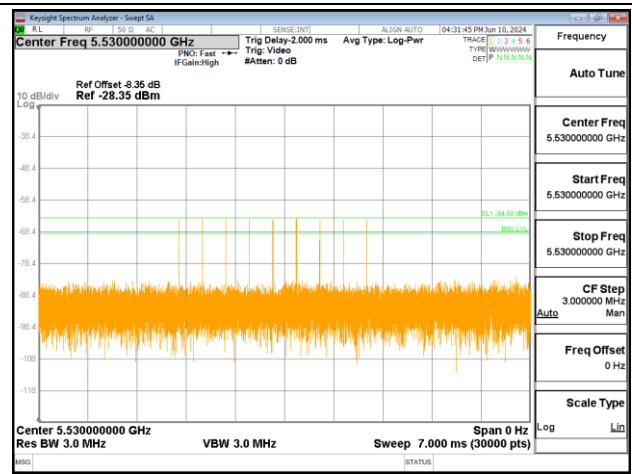
Radar Type 4



Single Burst of Radar Type 5



Single Burst of Radar Type 6



3.2 U-NII Detection Bandwidth

3.2.1 Limit of U-NII Detection Bandwidth

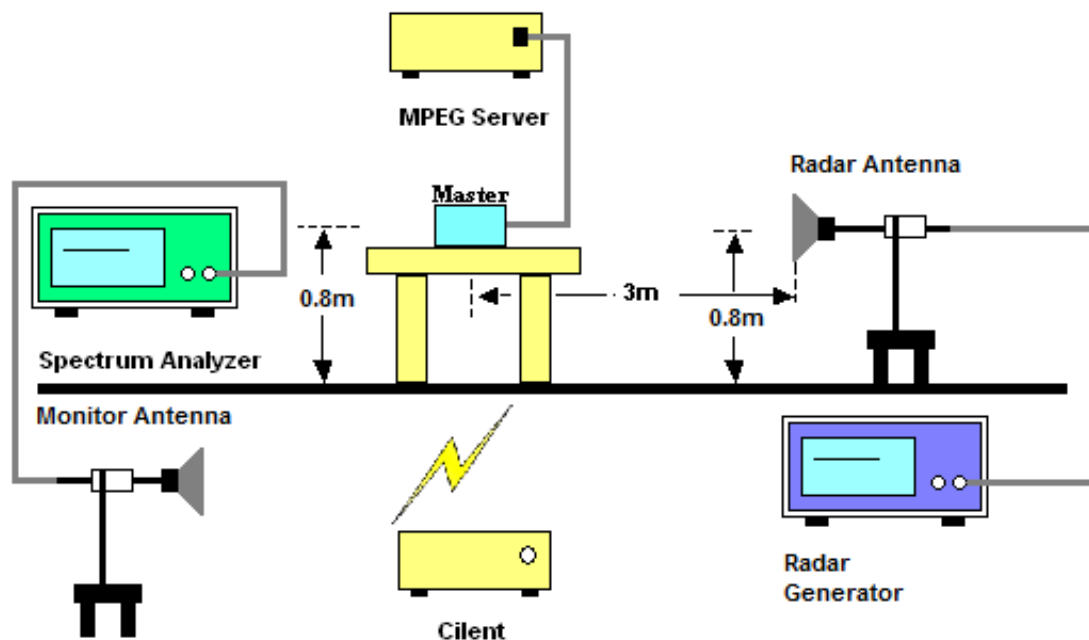
The U-NII Detection Bandwidth shall contain minimum 100% of the 99% power bandwidth.

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-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 / 5300MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5285	-15	N	N	N	N	N	N	N	N	N	N	0	
5286	-14	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5287	-13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5288	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5289	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5290	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5291	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5292	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5293	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5294	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5295	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5300	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5305	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5306	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5307	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5308	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5309	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5310	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5311	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5312	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5313	+13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5314	+14	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5315	+15	N	N	N	N	N	N	N	N	N	N	0	
Detection Bandwidth = F _H – F _L = 5314 – 5286 = 28 MHz													
EUT 99% Bandwidth = 19.182 MHz (Refer to channel 60)													



<40MHz / 5310MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5281	-29	N	N	N	N	N	N	N	N	N	N	0%	
5282	-28	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5283	-27	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5284	-26	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5285	-25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5286	-24	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5287	-23	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5288	-22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5289	-21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5290	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5291	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5292	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5293	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5294	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5295	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5300	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5305	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5310	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5315	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5320	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5325	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5326	+16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5327	+17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5328	+18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5329	+19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5330	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5331	+21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5332	+22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5333	+23	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	



Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5334	+24	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5335	+25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5336	+26	N	N	N	N	N	N	N	N	N	N	0%	
Detection Bandwidth = F _H – F _L = 5336 – 5282 = 54 MHz													
EUT 99% Bandwidth = 37.884 MHz (Refer to channel 62)													



<80MHz / 5290MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5230	-60	Y	N	N	N	N	N	N	N	N	N	10%	
5231	-59	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5232	-58	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5233	-57	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5234	-56	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5235	-55	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5236	-54	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5237	-53	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5238	-52	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5239	-51	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5240	-50	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5241	-49	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5242	-48	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5243	-47	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5244	-46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5245	-45	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5246	-44	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5247	-43	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5248	-42	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5249	-41	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5250	-40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5251	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5252	-38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5253	-37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5254	-36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5255	-35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5260	-30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5265	-25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5270	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	



Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5275	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5280	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5285	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5290	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5295	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5300	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5305	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5310	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5315	+25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5320	+30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5325	+35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5326	+36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5327	+37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5328	+38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5329	+39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5330	+40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5331	+41	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5332	+42	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5333	+43	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5334	+44	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5335	+45	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5336	+46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5337	+47	N	N	N	N	N	N	N	N	N	N	0%	
Detection Bandwidth = F _H – F _L = 5336 – 5231 = 105 MHz													
EUT 99% Bandwidth = 76.389 MHz (Refer to channel 58)													



<20MHz / 5500MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5485	-15	Y	N	Y	N	Y	N	Y	Y	N	N	50%	
5486	-14	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5487	-13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5488	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5489	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5490	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5491	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5492	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5493	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5494	-6	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%	
5506	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5507	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5508	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5509	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5510	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5511	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5512	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5513	+13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5514	+14	Y	Y	N	Y	N	Y	N	Y	N	N	50%	
Detection Bandwidth = F _H – F _L = 5513 – 5486 = 27 MHz													
EUT 99% Bandwidth = 19.357 MHz (Refer to channel 100)													



<40MHz / 5510MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5479	-31	N	Y	N	N	N	N	N	N	N	N	10%	
5480	-30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5481	-29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5482	-28	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5483	-27	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5484	-26	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5485	-25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5486	-24	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5487	-23	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5488	-22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5489	-21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5490	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5491	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5492	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5493	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5494	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5495	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5500	-10	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	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5515	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5520	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5525	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5526	+16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5527	+17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5528	+18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5529	+19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5530	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5531	+21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5532	+22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5533	+23	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5534	+24	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5535	+25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5536	+26	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5537	+27	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5538	+28	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5539	+29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5540	+30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5541	+31	N	N	N	N	N	N	N	N	N	N	0%	
Detection Bandwidth = F _H – F _L = 5540 – 5480 = 60 MHz EUT 99% Bandwidth = 37.619 MHz (Refer to channel 102)													



<80MHz / 5530MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5477	-53	Y	N	N	N	N	N	N	N	N	Y	20%	
5478	-52	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _L
5479	-51	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5480	-50	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5481	-49	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5482	-48	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5483	-47	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5484	-46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5485	-45	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5486	-44	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5487	-43	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5488	-42	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5489	-41	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5490	-40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5491	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5492	-38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5493	-37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5494	-36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5495	-35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5500	-30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5505	-25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5510	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5515	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5520	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5525	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5530	0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5535	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5540	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5545	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	



Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F _H /F _L
		1	2	3	4	5	6	7	8	9	10		
5550	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5555	+25	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5560	+30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5565	+35	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5566	+36	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5567	+37	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5568	+38	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5569	+39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5570	+40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5571	+41	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5572	+42	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5573	+43	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5574	+44	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5575	+45	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5576	+46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5577	+47	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5578	+48	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5579	+49	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5580	+50	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5581	+51	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5582	+52	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5583	+53	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5584	+54	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5585	+55	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5586	+56	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5587	+57	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5588	+58	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F _H
5589	+59	N	N	N	N	N	N	N	N	N	N	0%	
Detection Bandwidth = F _H – F _L = 5588 – 5478 = 110 MHz													
EUT 99% Bandwidth = 76.714 MHz (Refer to channel 106)													

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 at least 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 ($T_{\text{power_up}}$). The Channel Availability Check Time commences on Chr at instant T_1 and will end no sooner than $T_1 + T_{\text{ch_avail_check}}$.
- (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.

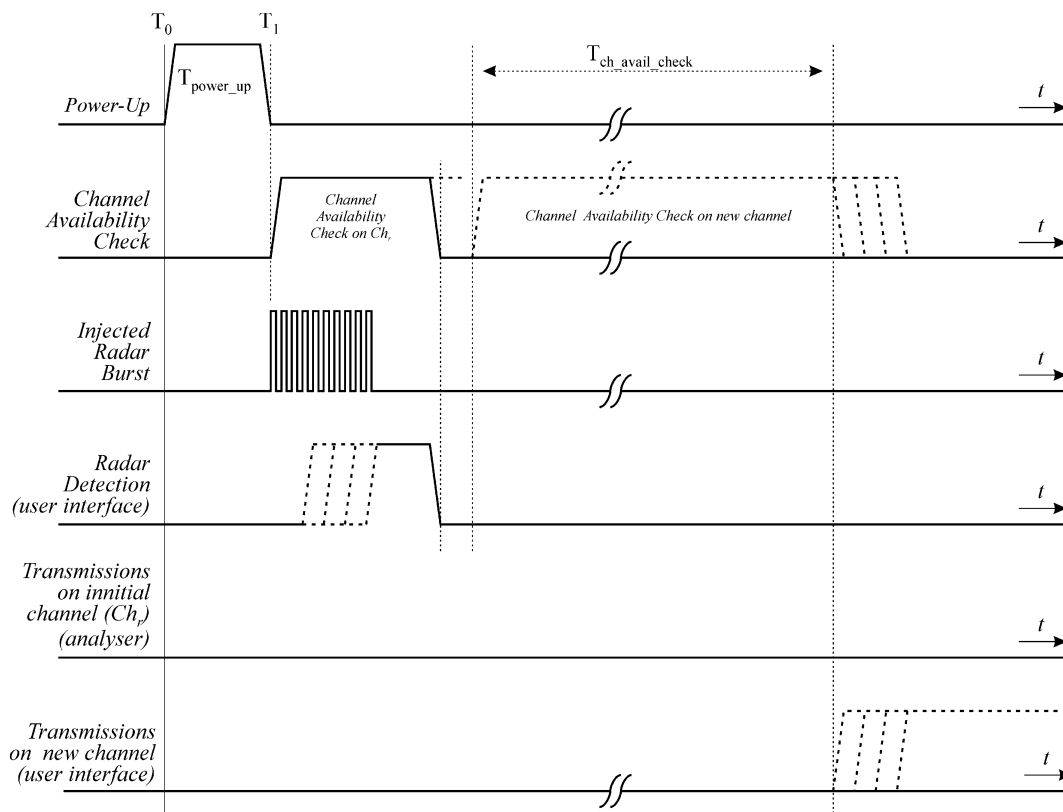


Figure 15: Example of timing for radar testing at the beginning of the Channel Availability Check
Time

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 ($T_{\text{power_up}}$). The Channel Availability Check Time commences on Chr at instant T_1 and will end no sooner than $T_1 + T_{\text{ch_avail_check}}$.
- (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.

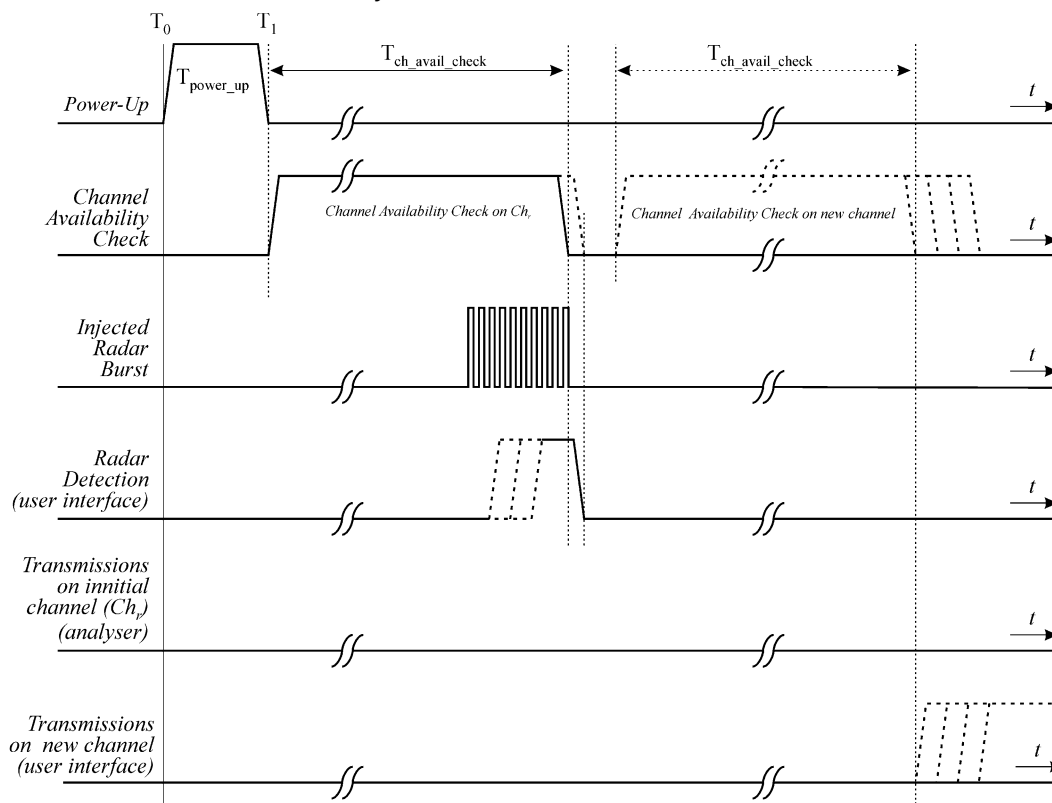
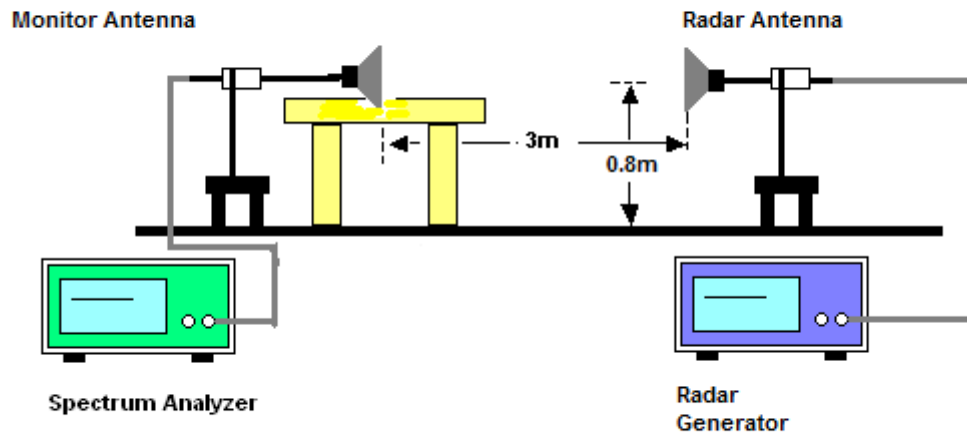


Figure 16: Example of timing for radar testing towards the end of the Channel Availability Check
Time

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 / 5290MHz>



Marker 1(Delta 2): 60 seconds before End of Channel Availability Check

Marker 2: End of Channel Availability Check

Marker 3: 54 seconds or 6 seconds before End of Channel Availability Check



<80MHz / 5530MHz>

**EUT Power up and
Initial Channel Availability Check Time****Radar Burst at the Beginning of
the Channel Availability Check Time****Radar Burst at the End of
the Channel Availability Check Time**

Marker 1(Delta 2): 60 seconds before End of Channel Availability Check

Marker 2: End of Channel Availability Check

Marker 3: 54 seconds or 6 seconds before End of Channel Availability Check

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

3.4.1 Limit of In-Service Monitoring

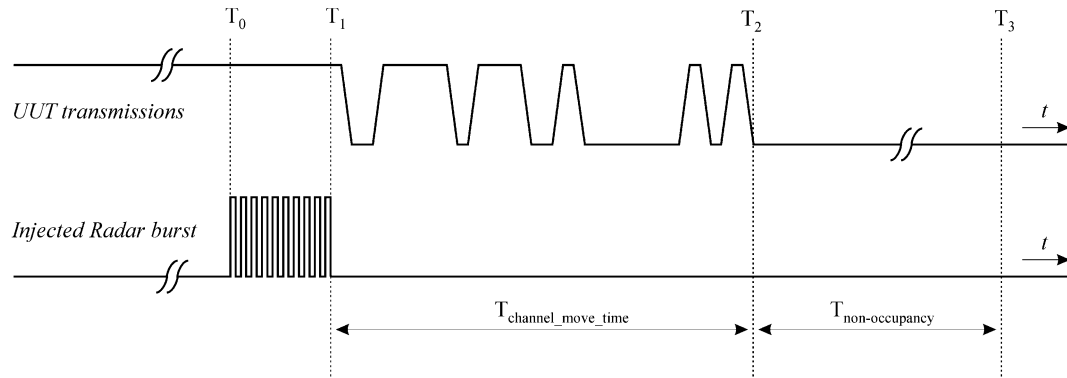
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If radar is detected, it must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current Channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. 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

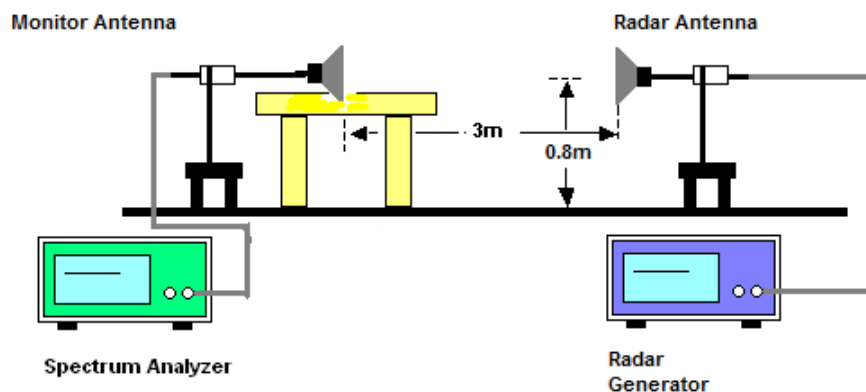
- (1) One frequency will be chosen from the Operating Channels of the EUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals 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.

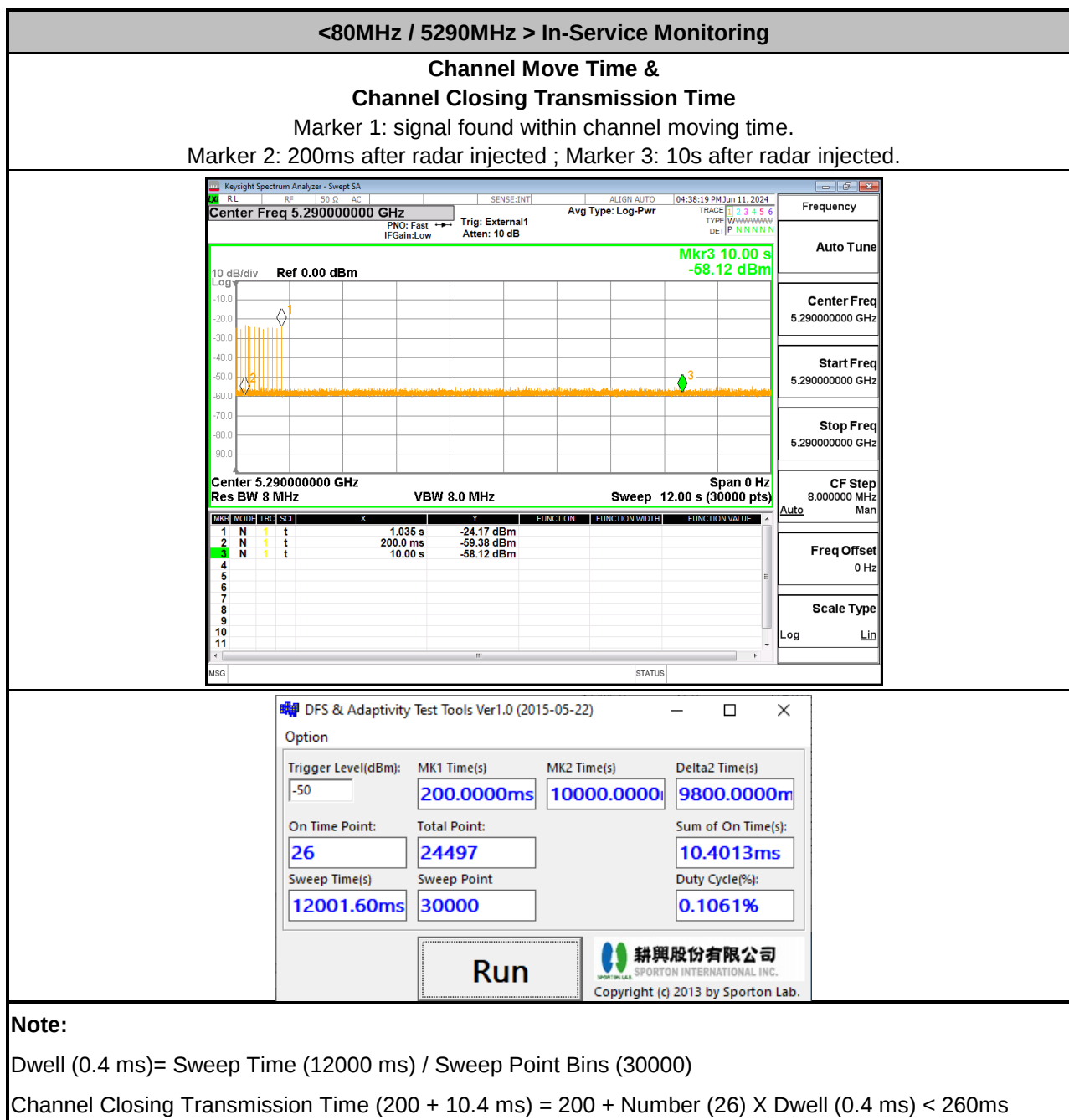
3.4.5 Result of Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test

Test Mode :	Master	Temperature :	20.3~24.4℃
Test Engineer :	Liliana Gonzalez	Relative Humidity :	48.6~58.6%

BW / Channel	Test Item	Test Result	Limit	Pass/Fail
80MHz / 5290MHz	Channel Move Time	1.035 s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 10.4013 ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass
80MHz / 5530MHz	Channel Move Time	0.9577 s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 2.0002 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





Non-Occupancy Period

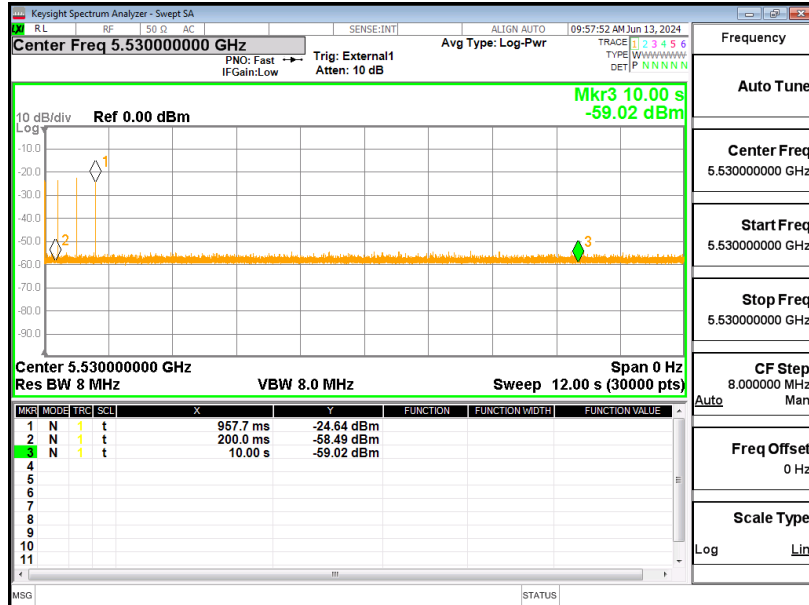
Marker 2: radar injected ; Delta 1: 30 minutes after radar injected



<80MHz / 5530MHz > In-Service Monitoring
**Channel Move Time &
Channel Closing Transmission Time**

Marker 1: signal found within channel moving time.

Marker 2: 200ms after radar injected ; Marker 3: 10s after radar injected.



DFS & Adaptivity Test Tools Ver1.0 (2015-05-22)

Option

Trigger Level(dBm):	MK1 Time(s)	MK2 Time(s)	Delta2 Time(s)
-50	200.0000ms	10000.0000s	9800.0000ms
On Time Point:	Total Point:	Sum of On Time(s):	
5	24497	2.0002ms	
Sweep Time(s)	Sweep Point	Duty Cycle(%):	
12001.60ms	30000	0.0204%	

Run

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Note:

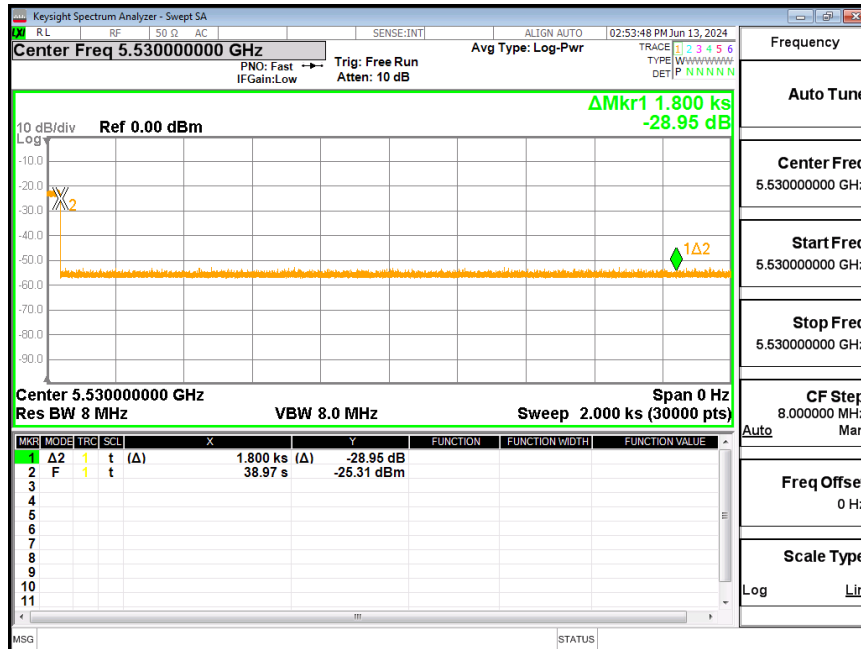
Dwell (0.4 ms)= Sweep Time (12000 ms) / Sweep Point Bins (30000)

Channel Closing Transmission Time (200 + 2.0 ms) = 200 + Number (5) X Dwell (0.4 ms) < 260ms



Non-Occupancy Period

Marker 2: radar injected ; Delta 1: 30 minutes after radar injected

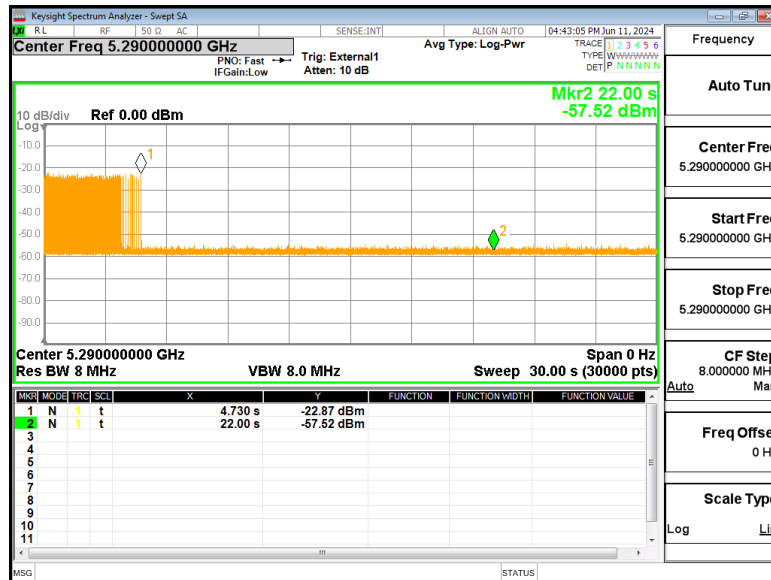


3.4.7 Long Pulsed Radar Type Channel Move Time Test Plots (22seconds)

<80MHz / 5290MHz > Radar Type 5

Channel Move Time

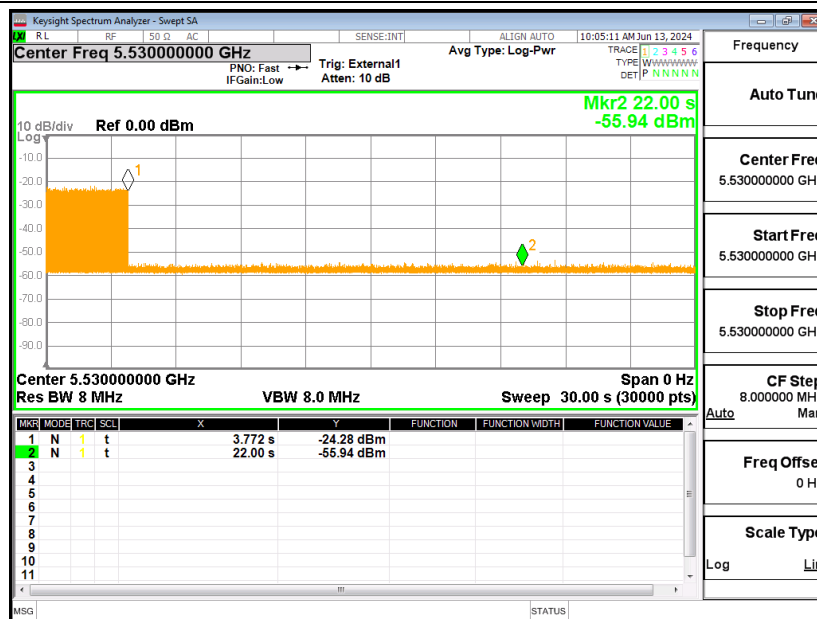
Marker 1: End of transmission time ; Marker 2: 22seconds after radar injected



<80MHz / 5530MHz > Radar Type 5

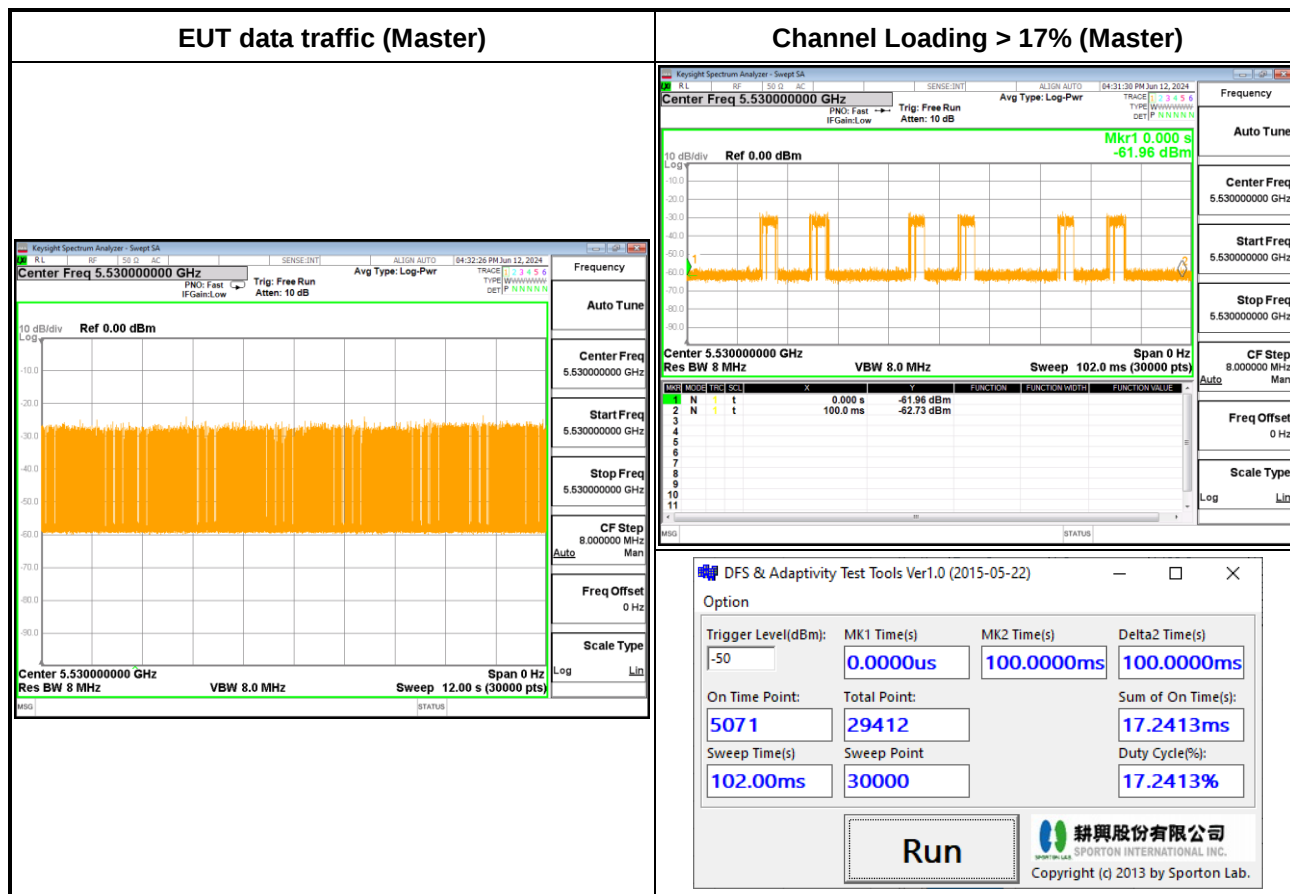
Channel Move Time

Marker 1: End of transmission time ; Marker 2: 22seconds after radar injected

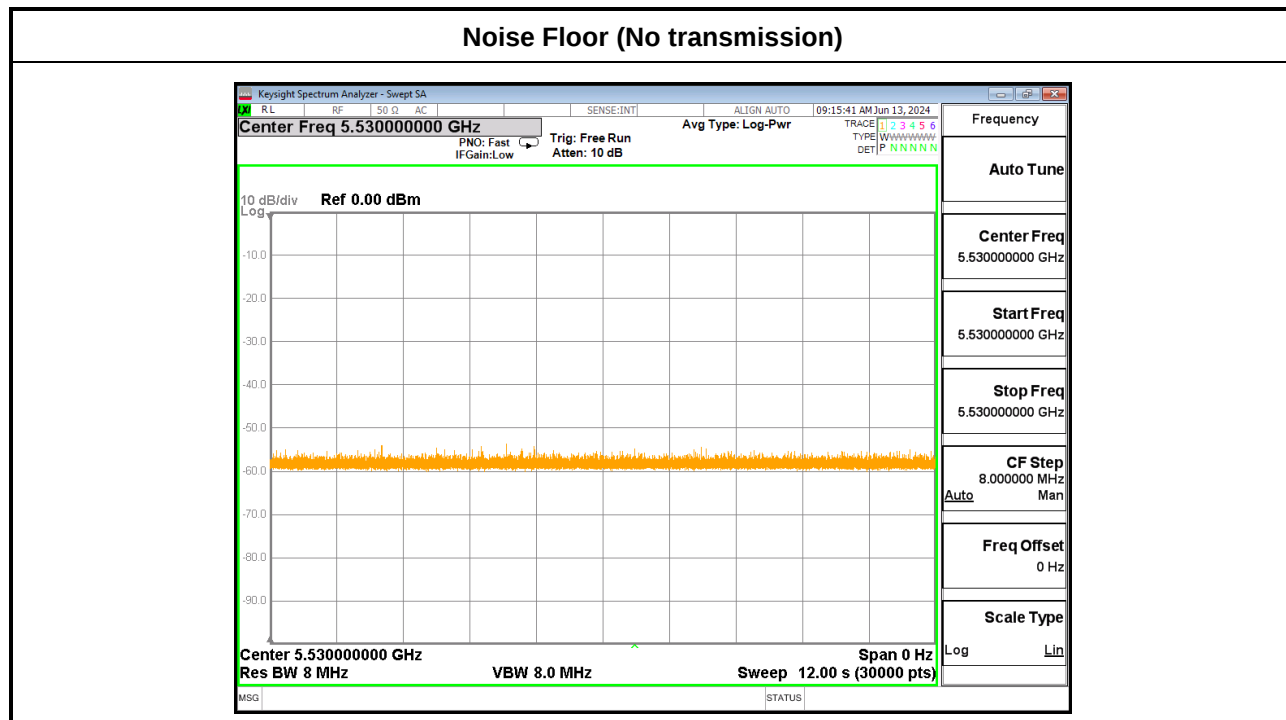




3.4.8 Data Traffic Channel Loading and Noise Floor Plots



Noise Floor (No transmission)



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:

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

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.

An example of aggregate detection probability calculation is listed in following table:

Radar Type	Number of Trials	Number of Successful Detections	Percentage of Successful Detection
1	30	29	96.7%
2	30	18	60%
3	30	27	90%
4	30	30	100%
Aggregate $(96.7\% + 60\% + 90\% + 100\%)/4 = 86.67\%$			

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:

- The Channel center frequency (subset case 1).
- 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).
- 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: $FL + (0.4 * Chirp Width [in MHz])$

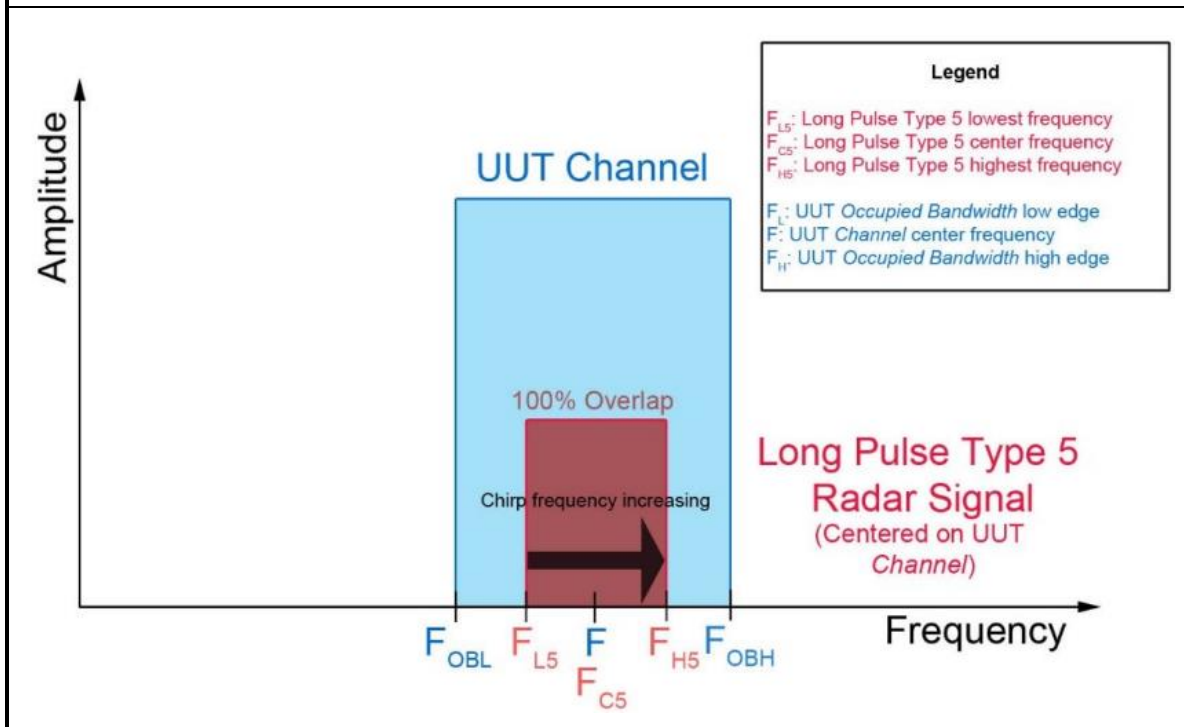
For subset case 3: to retain 90% frequency overlap between the radar signal and the UUT Occupied Bandwidth, the center frequency of the signal generator will vary for each of the ten trials in subset case 3.

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

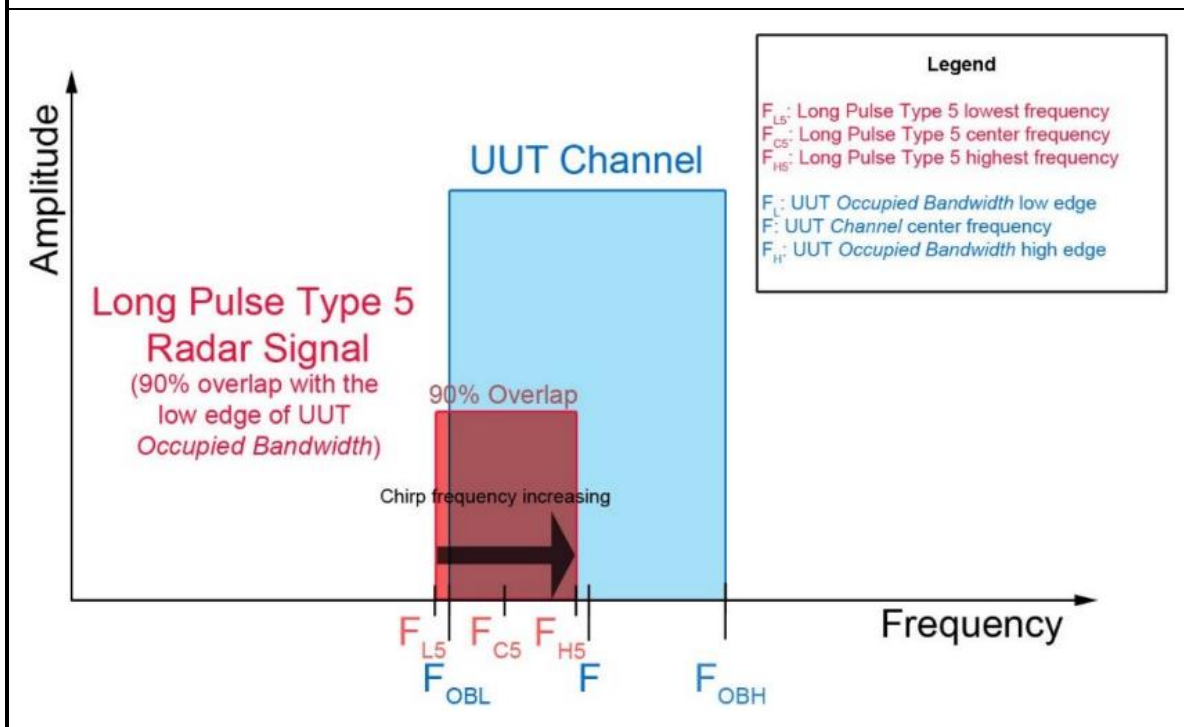
Note: The FH and FL are Occupied Bandwidth low edge and high edge, where

$$FH = F_c + (OBW / 2) \text{ and } FL = F_c - (OBW / 2)$$

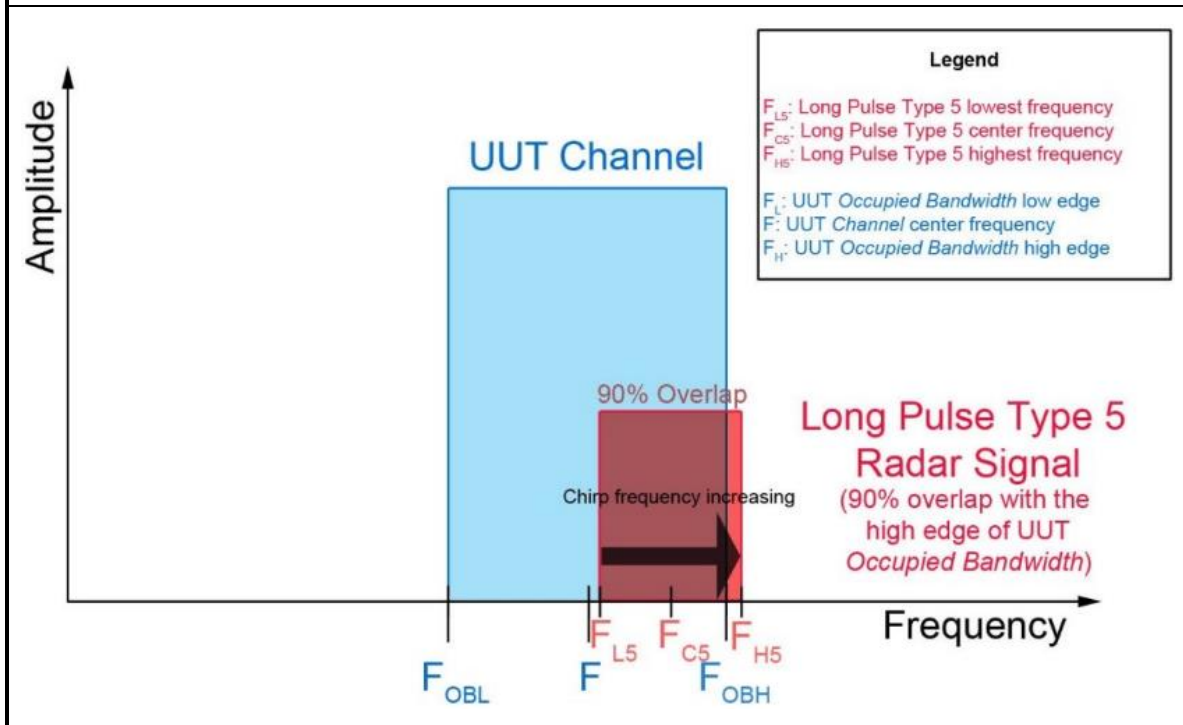
a) Channel center frequency (subset case 1)



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)



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:

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

Table 7 – Frequency Hopping Radar Test Waveform

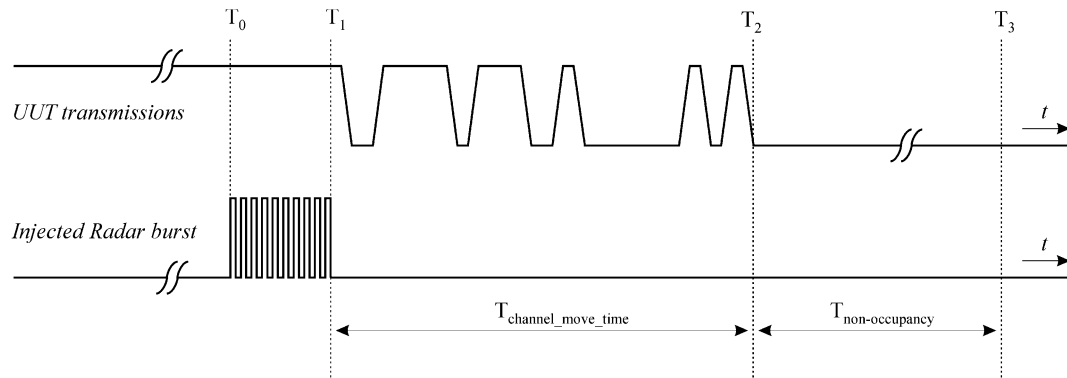
Radar Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

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:

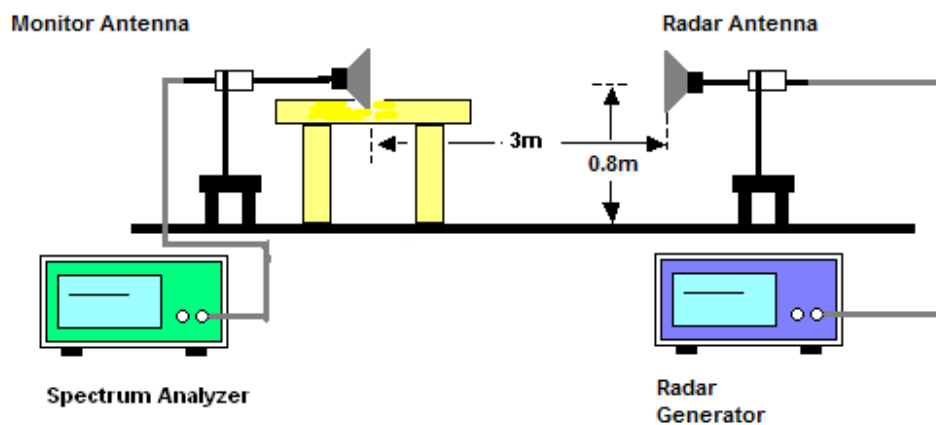
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues 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 / 5300MHz>

(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	Y	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
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100%	100%	100%	100%	100%	100%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			100% (>=80%)			



<40MHz /5310MHz>

(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	Y	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
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100%	100%	100%	100%	100%	100%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			100% (>=80%)			



<80MHz / 5290MHz>

(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	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	N	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	N	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
Trial of Detection	30/30	30/30	28/30	30/30	30/30	30/30
Probability (%)	100%	100%	93.33%	100%	100%	100%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			98.33% (>=80%)			



<20MHz / 5500MHz>

(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	N
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	Y	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
Trial of Detection	30/30	30/30	30/30	30/30	30/30	29/30
Probability (%)	100%	100%	100%	100%	100%	96.67%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			100% (>=80%)			



<40MHz / 5510MHz>

(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	Y	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
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100%	100%	100%	100%	100%	100%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			100% (>=80%)			



<80MHz / 5530MHz>

(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	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	N	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
Trial of Detection	30/30	30/30	30/30	29/30	30/30	30/30
Probability (%)	100%	100%	100%	96.67%	100%	100%
Limit (%)	>= 60%	>= 60%	>= 60%	>= 60%	>= 80%	>= 70%
Average Probability of Radar Type 1~4 (%)			99.17% (>=80%)			



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Vector Signal Generator	Keysight	N5182B	MY57300963	9KHz~6GHz	Mar. 26, 2024	Jun. 10, 2024~ Jun. 14, 2024	Mar. 25, 2025	DFS (DFS01-CA)
Frequency Extender	Keysight	N5182BX07	MY59360230	9kHz~7.2GHz	Mar. 26, 2024	Jun. 10, 2024~ Jun. 14, 2024	Mar. 25, 2025	DFS (DFS01-CA)
EXA Signal Analyzer	Keysight	N9010A	MY56070412	10Hz~7GHz	Nov. 30, 2023	Jun. 10, 2024~ Jun. 14, 2024	Nov. 29, 2024	DFS (DFS01-CA)
Horn Antenna	SCHWARZBECK	BBHA 9120D	01895	1GHz ~18GHz	Sep. 25, 2023	Jun. 10, 2024~ Jun. 14, 2024	Sep. 24, 2024	DFS (DFS01-CA)
Horn Antenna	SCHWARZBECK	BBHA 9120D	01894	1GHz ~18GHz	Aug. 30, 2023	Jun. 10, 2024~ Jun. 14, 2024	Aug. 29, 2024	DFS (DFS01-CA)
Hygrometer	Testo	608-H1	45142588	Temperature & Humidity	Jul. 26, 2023	Jun. 10, 2024~ Jun. 14, 2024	Jul. 25, 2024	DFS (DFS01-CA)



Appendix A. DFS Radar Parameters

Channel 58 Bandwidth 80MHz

DFS Radar Parameters
FCC Radar Type 1
Channel 58 Bandwidth 80MHz

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	9	1474.93	678	Yes
2	15	1253.13	798	Yes
3	11	1392.76	718	Yes
4	5	1672.24	598	Yes
5	3	1792.11	558	Yes
6	12	1355.01	738	Yes
7	14	1285.35	778	Yes
8	22	1066.10	938	Yes
9	19	1138.95	878	Yes
10	21	1089.32	918	Yes
11	13	1319.26	758	Yes
12	10	1432.66	698	Yes
13	12	326.16	3066	Yes
14	4	1730.10	578	Yes
15	8	1519.76	658	Yes
16		985.22	1015	Yes
17		520.02	1923	Yes
18		362.98	2755	Yes
19		415.80	2405	Yes
20		399.04	2506	Yes
21		882.61	1133	Yes
22		1184.83	844	Yes
23		358.68	2788	Yes
24		431.22	2319	Yes
25		1182.03	846	Yes
26		469.04	2132	Yes
27		798.72	1252	Yes
28		526.59	1899	Yes
29		914.91	1093	Yes
30		1795.33	557	Yes

DFS Radar Parameters
FCC Radar Type 2
Channel 58 Bandwidth 80MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	27	3.70	225	Yes
2	24	1.90	153	Yes
3	25	2.20	213	Yes
4	27	3.90	196	Yes
5	29	4.60	223	Yes
6	27	3.30	210	Yes
7	25	2.20	172	Yes
8	26	3.30	162	Yes
9	25	2.50	197	Yes
10	29	4.50	205	Yes
11	29	4.90	150	Yes
12	25	2.70	167	Yes
13	26	2.90	163	Yes
14	29	4.90	216	Yes
15	24	1.60	173	Yes
16	29	4.90	164	Yes
17	28	4.30	177	Yes
18	29	4.70	171	Yes
19	27	3.80	229	Yes
20	24	1.70	181	Yes
21	25	2.20	224	Yes
22	24	1.90	188	Yes
23	26	3.20	152	Yes
24	27	3.80	226	Yes
25	29	4.90	190	Yes
26	29	4.60	195	Yes
27	26	3.20	227	Yes
28	25	2.40	156	Yes
29	26	3.00	160	Yes
30	26	2.80	187	Yes

DFS Radar Parameters
FCC Radar Type 3
Channel 58 Bandwidth 80MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	17	8.70	324	Yes
2	16	6.90	450	Yes
3	16	7.20	440	Yes
4	18	8.90	319	Yes
5	18	9.60	385	Yes
6	17	8.30	437	Yes
7	16	7.20	337	Yes
8	17	8.30	296	Yes
9	17	7.50	220	Yes
10	18	9.50	438	Yes
11	18	9.90	397	Yes
12	17	7.70	381	Yes
13	17	7.90	407	Yes
14	18	9.90	331	Yes
15	16	6.60	488	Yes
16	18	9.90	469	Yes
17	18	9.30	339	Yes
18	18	9.70	467	Yes
19	18	8.80	206	Yes
20	16	6.70	389	Yes
21	16	7.20	362	Yes
22	16	6.90	244	No
23	17	8.20	288	Yes
24	18	8.80	250	Yes
25	18	9.90	391	Yes
26	18	9.60	204	No
27	17	8.20	297	Yes
28	17	7.40	489	Yes
29	17	8.00	429	Yes
30	17	7.80	359	Yes

DFS Radar Parameters
FCC Radar Type 4
Channel 58 Bandwidth 80MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	15	17.00	324	Yes
2	13	13.10	450	Yes
3	13	13.60	440	Yes
4	15	17.40	319	Yes
5	16	19.10	385	Yes
6	14	16.20	437	Yes
7	13	13.80	337	Yes
8	14	16.10	296	Yes
9	13	14.30	220	Yes
10	16	18.80	438	Yes
11	16	19.60	397	Yes
12	14	14.80	381	Yes
13	14	15.30	407	Yes
14	16	19.70	331	Yes
15	12	12.40	488	Yes
16	16	19.70	469	Yes
17	16	18.40	339	Yes
18	16	19.30	467	Yes
19	15	17.40	206	Yes
20	12	12.70	389	Yes
21	13	13.80	362	Yes
22	13	13.20	244	Yes
23	14	15.90	288	Yes
24	15	17.30	250	Yes
25	16	19.80	391	Yes
26	16	19.00	204	Yes
27	14	15.80	297	Yes
28	13	14.10	489	Yes
29	14	15.50	429	Yes
30	14	15.10	359	Yes

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			16			
Chirp Center Frequency:			5290			
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	83.1	15	1360	-	675545
2	1	61.7	15	-	-	109752
3	1	64.7	15	-	-	291406
4	3	85.6	15	1315	1457	470740
5	3	94.8	15	1738	1770	651561
6	2	78.7	15	1177	-	87186
7	1	65.6	15	-	-	268901
8	2	78.2	15	1060	-	449949
9	2	68.6	15	1839	-	630766
10	3	93.1	15	1546	1243	64714
11	3	97.8	15	1672	1400	245570
12	2	71.1	15	1206	-	427168
13	2	73.8	15	1801	-	608206
14	3	98	15	1027	1317	42516
15	1	58.1	15	-	-	224255
16	3	98.1	15	1103	1628	403959
17						
18						
19						
20						

Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5290			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	91.1	8	1260	1726	852229
2	3	95.8	8	1256	1835	29410
3	3	85.3	8	1547	1982	292698
4	1	59.6	8	-	-	558061
5	1	65.4	8	-	-	822233
6	1	62.1	8	-	-	1085995
7	2	77.5	8	1834	-	260707
8	3	84.9	8	1887	1008	523807
9	3	98.6	8	1535	1367	787699
10	3	94.3	8	1943	1487	1050896
11	2	76.9	8	1922	-	228160
12						
13						
14						
15						
16						
17						
18						
19						
20						

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5290			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	67.3	9	1127	-	492134
2	2	75.2	9	1453	-	755714
3	2	72.5	9	1213	-	1020123
4	1	52.9	9	-	-	196053
5	3	94.2	9	1803	1113	459017
6	1	55.5	9	-	-	724495
7	3	84.3	9	1663	1316	986204
8	1	59.8	9	-	-	163484
9	2	81.3	9	1468	-	426988
10	3	85.6	9	1093	1969	689946
11	1	62.9	9	-	-	956476
12						
13						
14						
15						
16						
17						
18						
19						
20						

Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5290			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	69.8	16	1962	-	84444
2	1	55.7	16	-	-	255455
3	3	89.6	16	1233	1492	424433
4	3	87.4	16	1336	1580	594670
5	1	58.4	16	-	-	63613
6	2	82	16	1978	-	233727
7	1	52.3	16	-	-	405364
8	1	65	16	-	-	576336
9	3	96.3	16	1414	1308	42408
10	3	94.6	16	1501	1125	212557
11	1	60.5	16	-	-	384368
12	1	62.3	16	-	-	555302
13	3	89.3	16	1019	1394	21496
14	3	94.3	16	1227	1569	191508
15	2	82	16	1796	-	362099
16	1	58.5	16	-	-	533848
17	2	77.4	16	1037	-	514
18						
19						
20						

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			5			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5290			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	71	19	1570	-	152778
2	3	84.3	19	1952	1956	304130
3	2	79.9	19	1991	-	457279
4	3	87	19	1451	1330	609344
5	1	50.4	19	-	-	134532
6	1	51.8	19	-	-	287125
7	3	98.3	19	1314	1040	438716
8	1	52.9	19	-	-	592717
9	3	96.2	19	1703	1380	115067
10	3	90.2	19	1165	1488	267324
11	1	53.6	19	-	-	421185
12	1	65.6	19	-	-	574050
13	3	89.5	19	1182	1631	96313
14	3	88.2	19	1186	1442	248508
15	2	76.9	19	1151	-	401545
16	1	62.5	19	-	-	555202
17	2	78.1	19	1388	-	77845
18	2	75.9	19	1088	-	230433
19	2	79.6	19	1129	-	382827
20						

Trial Number:			6			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5290			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	70.1	14	1832	-	678507
2	2	78.1	14	1225	-	74833
3	1	53.6	14	-	-	268746
4	3	95.5	14	1271	1443	460688
5	2	82.6	14	1038	-	655183
6	3	83.6	14	1504	1638	50903
7	3	98.1	14	1527	1269	243797
8	2	82.4	14	1656	-	437433
9	1	56.7	14	-	-	631754
10	1	62.9	14	-	-	27267
11	2	83.3	14	1472	-	220485
12	1	58.7	14	-	-	414448
13	1	62.1	14	-	-	608571
14	3	97.1	14	1372	1329	3397
15	1	56.8	14	-	-	196979
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			7			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5290			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	88.9	9	1552	1352	487004
2	3	97.1	9	1312	1681	728591
3	1	55.7	9	-	-	973024
4	2	76	9	1550	-	216181
5	2	69.4	9	1766	-	458185
6	1	53.8	9	-	-	701190
7	3	91.3	9	1750	1816	939326
8	3	84.4	9	1287	1916	186145
9	1	62.3	9	-	-	429035
10	3	91.9	9	1518	1729	669244
11	3	98.8	9	1935	1054	910936
12	3	99.5	9	1485	1658	156400
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Trial Number:			8			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5290			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	56.7	14	-	-	319180
2	1	56.3	14	-	-	512574
3	3	83.7	14	1148	1405	704505
4	3	99.8	14	1584	1215	101338
5	1	61.1	14	-	-	295279
6	2	68.3	14	1144	-	488258
7	1	52.4	14	-	-	682896
8	3	88.4	14	2000	1695	77414
9	3	99.3	14	1305	1337	270532
10	2	67.3	14	1187	-	464442
11	3	88.8	14	1582	1961	656040
12	3	97.4	14	1245	1973	53700
13	1	53.4	14	-	-	247557
14	1	52.3	14	-	-	441495
15	2	69.5	14	1829	-	633784
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			9			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5290			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	91.5	10	1987	1022	37504
2	3	90.1	10	1601	1051	279141
3	1	62.8	10	-	-	522212
4	2	81.4	10	1214	-	762988
5	3	91.5	10	1455	1258	7769
6	2	68.5	10	1020	-	249813
7	2	82.6	10	1353	-	491261
8	3	99.4	10	1674	1003	732414
9	2	79.8	10	1825	-	975048
10	1	56.8	10	-	-	220197
11	1	52.1	10	-	-	462189
12	1	56.5	10	-	-	704224
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Trial Number:			10			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5290			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	75.7	18	1919	-	595601
2	2	78.9	18	1486	-	119864
3	3	93.8	18	1425	1931	271395
4	3	91.4	18	1706	1539	423578
5	1	53.5	18	-	-	578563
6	3	83.8	18	1318	1754	100741
7	3	84.1	18	1874	1744	252568
8	3	91.4	18	1955	1688	404429
9	2	76	18	1162	-	558382
10	2	73.1	18	1209	-	82239
11	1	63.1	18	-	-	235125
12	2	72.1	18	1654	-	386987
13	3	90.4	18	1643	1898	538080
14	1	59.6	18	-	-	63595
15	1	58.7	18	-	-	216433
16	1	57.6	18	-	-	369156
17	2	71.5	18	1588	-	520455
18	1	58.2	18	-	-	44771
19	1	58.4	18	-	-	197662
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			11			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5260			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	72.6	20	1146	-	332110
2	2	67	20	1476	-	476598
3	3	84.3	20	1807	1175	24541
4	3	99.8	20	1786	1427	168837
5	3	94.4	20	1853	1986	313014
6	3	99.5	20	1071	1021	458851
7	1	60.5	20	-	-	6793
8	1	57.2	20	-	-	151870
9	2	81	20	1534	-	296485
10	2	74.2	20	1193	-	441654
11	1	56.9	20	-	-	587651
12	1	53.8	20	-	-	134151
13	3	93	20	1953	1091	277692
14	1	59	20	-	-	424461
15	1	61.8	20	-	-	569492
16	2	76.7	20	1988	-	115877
17	1	59.5	20	-	-	261537
18	1	55.5	20	-	-	406579
19	2	75.9	20	1967	-	549893
20	3	85.3	20	1277	1327	97909

Trial Number:			12			Detection (Yes/No)
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5256			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	63.5	11	-	-	375051
2	2	69.4	11	1827	-	597037
3	1	61	11	-	-	821889
4	3	93.6	11	1517	1036	123482
5	2	68.4	11	1910	-	346733
6	2	76.9	11	1261	-	570266
7	3	90.8	11	1867	1677	791484
8	3	91.1	11	1363	1701	95990
9	2	81.9	11	1344	-	319442
10	1	59.8	11	-	-	543335
11	2	75	11	1895	-	765272
12	2	77.8	11	1112	-	68726
13	2	71.6	11	1447	-	291748
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			13			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5257			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	98.5	12	1387	1917	476992
2	2	79.6	12	1469	-	685541
3	3	89.6	12	1780	1433	38144
4	3	91.5	12	1511	1936	244778
5	2	79.1	12	1607	-	452733
6	3	99.5	12	1172	1238	659333
7	3	91.9	12	1811	1711	12682
8	3	93	12	1682	1755	219489
9	2	76.6	12	1082	-	427266
10	1	53	12	-	-	635612
11	2	67.1	12	1065	-	841872
12	2	69	12	1007	-	194475
13	2	69.2	12	1664	-	401493
14	2	70.1	12	1099	-	608701
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Trial Number:			14			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5260			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	20	-	-	571695
2	2	78.5	20	1556	-	117898
3	2	83	20	1689	-	262780
4	3	99.2	20	1416	1105	406942
5	1	52	20	-	-	553383
6	3	95.7	20	1680	1358	99846
7	2	72.9	20	1800	-	244659
8	3	94.9	20	1600	1510	388640
9	1	53.1	20	-	-	536219
10	1	55.9	20	-	-	82591
11	3	90.8	20	1470	1321	226553
12	2	81.4	20	1742	-	371456
13	2	67.4	20	1653	-	516436
14	1	58.7	20	-	-	64629
15	2	69.4	20	1349	-	209314
16	2	75.3	20	1860	-	353880
17	2	71.2	20	1421	-	498732
18	3	99.2	20	1862	1160	46513
19	2	79.2	20	1541	-	191302
20	2	82.3	20	1332	-	336143

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			15			Detection (Yes/No)
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5255			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	94.6	7	1693	1589	962939
2	2	79.5	7	1690	-	57795
3	2	72.3	7	1537	-	347975
4	3	85.3	7	1474	1572	637787
5	2	80.5	7	1263	-	929215
6	1	56.1	7	-	-	22069
7	3	84	7	1837	1753	311682
8	3	92.3	7	1310	1889	601962
9	3	86.9	7	1639	1751	891541
10	1	66.3	7	-	-	1184406
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Trial Number:			16			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5260			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	93.9	20	1618	1158	137557
2	2	74.5	20	1130	-	283091
3	3	99.2	20	1381	1995	426043
4	1	56.7	20	-	-	574145
5	2	77.7	20	1821	-	120016
6	1	62.5	20	-	-	265418
7	3	98.9	20	1923	1326	408634
8	1	60.6	20	-	-	556128
9	2	73	20	1734	-	102259
10	2	82.2	20	1057	-	247131
11	3	98.7	20	1236	1138	391500
12	1	53.5	20	-	-	537598
13	2	76.4	20	1924	-	84391
14	3	83.6	20	1878	1143	228545
15	1	50.6	20	-	-	374903
16	3	97.7	20	1365	1178	517574
17	2	82	20	1899	-	66552
18	2	83.2	20	1904	-	211375
19	2	73.6	20	1449	-	356518
20	1	51.2	20	-	-	501903

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			17			Detection (Yes/No)
Number of Bursts in Trial:			18			
Chirp Center Frequency:			5259			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	81.9	18	1586	-	54180
2	2	68	18	1320	-	215317
3	3	89.9	18	1411	1722	375347
4	3	87	18	1334	1205	536163
5	2	75.6	18	1823	-	34399
6	3	83.6	18	1575	1872	194670
7	1	56.2	18	-	-	357060
8	3	97.8	18	1715	1843	516058
9	2	68.7	18	1998	-	14550
10	3	95.9	18	1159	1410	175285
11	1	61.6	18	-	-	337352
12	2	80.7	18	1282	-	497323
13	1	58	18	-	-	660254
14	3	86.9	18	1012	1351	155527
15	1	62	18	-	-	317275
16	1	66.3	18	-	-	478862
17	2	82.3	18	1532	-	638749
18	1	60.6	18	-	-	136184
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Trial Number:			18			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5259			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	81	19	1604	-	281090
2	1	56.9	19	-	-	434673
3	2	76.5	19	1869	-	585588
4	1	60.5	19	-	-	110128
5	2	76.2	19	1496	-	262182
6	3	97	19	1948	1084	413727
7	3	83.7	19	1240	1192	566061
8	3	91.1	19	1813	1430	90857
9	1	53.1	19	-	-	244361
10	3	88.7	19	1915	1540	394922
11	3	84.7	19	1368	1428	547590
12	2	82.8	19	1976	-	72273
13	2	74.2	19	1379	-	224839
14	1	50.8	19	-	-	377935
15	2	68.7	19	1970	-	529478
16	3	85.6	19	1376	1920	53456
17	3	84.4	19	1975	1749	205278
18	2	75.9	19	1408	-	358793
19	3	84.6	19	1814	1157	509785
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			19			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5258			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	62.2	16	-	-	39018
2	2	81.2	16	1417	-	209369
3	3	94.2	16	1114	1333	379199
4	1	56.3	16	-	-	551603
5	1	51.1	16	-	-	17962
6	3	92	16	1131	1719	187937
7	2	77.1	16	1647	-	358549
8	2	70.6	16	1452	-	529711
9	2	67.9	16	1990	-	699363
10	3	95.5	16	1244	1669	167102
11	3	89.5	16	1026	1156	337600
12	2	71.6	16	1992	-	507894
13	3	84.4	16	1494	1378	677582
14	1	65.3	16	-	-	146649
15	2	71.3	16	1817	-	316787
16	1	52.2	16	-	-	488268
17	1	66.6	16	-	-	659626
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Trial Number:			20			Detection (Yes/No)
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5255			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	74.8	8	1989	-	213446
2	2	71.3	8	1571	-	503703
3	3	91.8	8	1066	1885	793223
4	3	93	8	1942	1865	1081978
5	1	53.2	8	-	-	177987
6	3	84.6	8	1727	1611	467370
7	2	80.5	8	1900	-	758044
8	2	67.5	8	1212	-	1048979
9	1	63	8	-	-	142243
10	3	85.9	8	1031	1419	431981
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			21			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5325			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	71.7	9	1048	-	601937
2	1	60.8	9	-	-	844793
3	1	61.9	9	-	-	88619
4	2	72.5	9	1343	-	330525
5	1	52.4	9	-	-	572962
6	3	86.1	9	1465	1894	812048
7	2	81.7	9	1183	-	58766
8	2	70.1	9	1616	-	300640
9	2	79.5	9	1873	-	542023
10	3	86.9	9	1870	1498	782664
11	1	50.5	9	-	-	28968
12	2	75.3	9	1549	-	270669
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Trial Number:			22			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5325			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	8	1369	-	559346
2	3	99.2	8	1735	1598	821769
3	2	76.4	8	1788	-	1086844
4	1	65.7	8	-	-	263228
5	3	95.6	8	1732	1220	526275
6	1	63.6	8	-	-	791966
7	2	67.1	8	1466	-	1054720
8	1	50.3	8	-	-	230825
9	2	67.5	8	1640	-	494274
10	1	52.8	8	-	-	758880
11	3	98.6	8	1736	1708	1020451
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			23			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5323			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	13	-	-	145239
2	1	60.7	13	-	-	338961
3	1	63.1	13	-	-	532883
4	3	84.2	13	1767	1625	723373
5	3	91.7	13	1903	1512	120862
6	1	58.9	13	-	-	315167
7	3	96.6	13	1181	1257	506937
8	1	63.6	13	-	-	702000
9	3	88.9	13	1043	1554	97303
10	3	88.1	13	1292	1637	290234
11	1	56	13	-	-	485158
12	1	55.3	13	-	-	678553
13	1	59.7	13	-	-	73673
14	1	56	13	-	-	267490
15	2	73	13	1857	-	459783
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Trial Number:			24			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5322			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	16	1155	1652	575192
2	3	85.5	16	1357	1644	43769
3	1	52.6	16	-	-	214766
4	3	95.3	16	1519	1223	384363
5	3	91.8	16	1035	1121	554720
6	1	65.4	16	-	-	22944
7	1	66.1	16	-	-	193636
8	3	99.5	16	1432	1565	363290
9	1	52.6	16	-	-	535430
10	3	92.7	16	1908	1696	1885
11	1	66.6	16	-	-	172838
12	3	87.6	16	1034	1204	342340
13	3	89.1	16	1777	1298	512153
14	2	66.9	16	1762	-	683938
15	1	50.3	16	-	-	151613
16	1	62.7	16	-	-	322567
17	2	68.4	16	1364	-	492534
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			25			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5320			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	68.9	20	1662	-	562530
2	1	62.2	20	-	-	110964
3	1	59.8	20	-	-	255994
4	1	61.7	20	-	-	401028
5	3	89.4	20	1609	1090	544264
6	1	51.9	20	-	-	93051
7	3	90	20	1110	1460	237141
8	1	61.1	20	-	-	383412
9	2	83	20	1341	-	527671
10	2	73.2	20	1275	-	75075
11	1	61.7	20	-	-	220578
12	3	87.2	20	1234	1188	363958
13	1	62.6	20	-	-	510439
14	3	93.8	20	1855	1712	56981
15	1	66.6	20	-	-	202494
16	1	59.7	20	-	-	347833
17	2	72.6	20	1289	-	491773
18	2	76.6	20	1778	-	39336
19	2	81.7	20	1002	-	184292
20	3	97.7	20	1785	1237	328364

Trial Number:			26			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5321			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	72.2	19	1702	-	498396
2	1	61.1	19	-	-	22753
3	2	83.2	19	1335	-	175174
4	3	86	19	1629	1819	326812
5	1	61.2	19	-	-	481287
6	1	60.5	19	-	-	3921
7	3	91.5	19	1645	1418	156098
8	2	75.1	19	1420	-	308873
9	2	71.4	19	1173	-	461189
10	1	57.5	19	-	-	615463
11	3	96.8	19	1446	1861	137160
12	3	88.5	19	1283	1985	289350
13	2	75.3	19	1207	-	442472
14	3	87.7	19	1085	1063	594699
15	3	86.5	19	1016	1792	118643
16	3	97.6	19	1444	1482	270750
17	3	96.2	19	1319	1659	423006
18	1	61.2	19	-	-	577729
19	3	97.7	19	1605	1866	99671
20						

DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			27			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5323			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	83.5	13	1017	1840	342355
2	1	62.7	13	-	-	550959
3	3	84.1	13	1232	1480	756733
4	1	58.8	13	-	-	110633
5	3	92.2	13	1798	1996	316538
6	1	54.3	13	-	-	525502
7	1	62.3	13	-	-	733291
8	3	90.1	13	1296	1529	84767
9	3	98.9	13	1979	1459	291214
10	3	100	13	1691	1362	498505
11	2	77.8	13	1863	-	705794
12	1	66.5	13	-	-	59467
13	3	90.3	13	1752	1445	265880
14	2	68.7	13	1422	-	473989
15						
16						
17						
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19						
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Trial Number:			28			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5324			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	65.1	10	-	-	796284
2	3	96.2	10	1733	1077	39461
3	1	57.7	10	-	-	281806
4	2	79.1	10	1671	-	523240
5	2	73.9	10	1854	-	764529
6	1	50.5	10	-	-	9750
7	2	78.8	10	1716	-	251463
8	1	60.4	10	-	-	493932
9	1	64.9	10	-	-	735940
10	3	89.8	10	1013	1117	976604
11	2	75.5	10	1665	-	221767
12	2	76.4	10	1557	-	463546
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DFS Radar Parameters
FCC Radar Type 5
Channel 58 Bandwidth 80MHz

Trial Number:			29			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5323			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	73.3	13	1407	-	604353
2	1	61.8	13	-	-	812654
3	2	75	13	1720	-	164406
4	1	57.3	13	-	-	372250
5	2	69.1	13	1710	-	578377
6	1	63.5	13	-	-	787415
7	1	61.3	13	-	-	139107
8	2	78.9	13	1247	-	346071
9	3	98.2	13	1398	1957	552004
10	3	85	13	1683	1133	759395
11	3	88.1	13	1773	1507	113173
12	1	52.2	13	-	-	320989
13	3	91	13	1267	1033	527219
14	2	81.6	13	1229	-	735334
15						
16						
17						
18						
19						
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Trial Number:			30			Detection (Yes/No)
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5323			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	99	12	1288	1412	94583
2	2	70.5	12	1342	-	317798
3	3	92.7	12	1521	1254	540393
4	2	75.1	12	1610	-	764398
5	3	93.6	12	1347	1481	67105
6	3	91.1	12	1104	1879	289762
7	1	56.5	12	-	-	514527
8	2	69.7	12	1150	-	736933
9	1	60.2	12	-	-	39805
10	3	91.5	12	1856	1135	262559
11	2	78.7	12	1881	-	485999
12	2	68.4	12	1218	-	709651
13	2	72.2	12	1576	-	12238
14						
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Channel 60 Bandwidth 20MHz

DFS Radar Parameters
FCC Radar Type 1
Channel 60 Bandwidth 20MHz

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	9	1474.93	678	Yes
2	15	1253.13	798	Yes
3	11	1392.76	718	Yes
4	5	1672.24	598	Yes
5	3	1792.11	558	Yes
6	12	1355.01	738	Yes
7	14	1285.35	778	Yes
8	22	1066.10	938	Yes
9	19	1138.95	878	Yes
10	21	1089.32	918	Yes
11	13	1319.26	758	Yes
12	10	1432.66	698	Yes
13	12	326.16	3066	Yes
14	4	1730.10	578	Yes
15	8	1519.76	658	Yes
16		985.22	1015	Yes
17		520.02	1923	Yes
18		362.98	2755	Yes
19		415.80	2405	Yes
20		399.04	2506	Yes
21		882.61	1133	Yes
22		1184.83	844	Yes
23		358.68	2788	Yes
24		431.22	2319	Yes
25		1182.03	846	Yes
26		469.04	2132	Yes
27		798.72	1252	Yes
28		526.59	1899	Yes
29		914.91	1093	Yes
30		1795.33	557	Yes

DFS Radar Parameters
FCC Radar Type 2
Channel 60 Bandwidth 20MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	27	3.70	225	Yes
2	24	1.90	153	Yes
3	25	2.20	213	Yes
4	27	3.90	196	Yes
5	29	4.60	223	Yes
6	27	3.30	210	Yes
7	25	2.20	172	Yes
8	26	3.30	162	Yes
9	25	2.50	197	Yes
10	29	4.50	205	Yes
11	29	4.90	150	Yes
12	25	2.70	167	Yes
13	26	2.90	163	Yes
14	29	4.90	216	Yes
15	24	1.60	173	Yes
16	29	4.90	164	Yes
17	28	4.30	177	Yes
18	29	4.70	171	Yes
19	27	3.80	229	Yes
20	24	1.70	181	Yes
21	25	2.20	224	Yes
22	24	1.90	188	Yes
23	26	3.20	152	Yes
24	27	3.80	226	Yes
25	29	4.90	190	Yes
26	29	4.60	195	Yes
27	26	3.20	227	Yes
28	25	2.40	156	Yes
29	26	3.00	160	Yes
30	26	2.80	187	Yes

DFS Radar Parameters
FCC Radar Type 3
Channel 60 Bandwidth 20MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	17	8.70	324	Yes
2	16	6.90	450	Yes
3	16	7.20	440	Yes
4	18	8.90	319	Yes
5	18	9.60	385	Yes
6	17	8.30	437	Yes
7	16	7.20	337	Yes
8	17	8.30	296	Yes
9	17	7.50	220	Yes
10	18	9.50	438	Yes
11	18	9.90	397	Yes
12	17	7.70	381	Yes
13	17	7.90	407	Yes
14	18	9.90	331	Yes
15	16	6.60	488	Yes
16	18	9.90	469	Yes
17	18	9.30	339	Yes
18	18	9.70	467	Yes
19	18	8.80	206	Yes
20	16	6.70	389	Yes
21	16	7.20	362	Yes
22	16	6.90	244	Yes
23	17	8.20	288	Yes
24	18	8.80	250	Yes
25	18	9.90	391	Yes
26	18	9.60	204	Yes
27	17	8.20	297	Yes
28	17	7.40	489	Yes
29	17	8.00	429	Yes
30	17	7.80	359	Yes

DFS Radar Parameters
FCC Radar Type 4
Channel 60 Bandwidth 20MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	15	17.00	324	Yes
2	13	13.10	450	Yes
3	13	13.60	440	Yes
4	15	17.40	319	Yes
5	16	19.10	385	Yes
6	14	16.20	437	Yes
7	13	13.80	337	Yes
8	14	16.10	296	Yes
9	13	14.30	220	Yes
10	16	18.80	438	Yes
11	16	19.60	397	Yes
12	14	14.80	381	Yes
13	14	15.30	407	Yes
14	16	19.70	331	Yes
15	12	12.40	488	Yes
16	16	19.70	469	Yes
17	16	18.40	339	Yes
18	16	19.30	467	Yes
19	15	17.40	206	Yes
20	12	12.70	389	Yes
21	13	13.80	362	Yes
22	13	13.20	244	Yes
23	14	15.90	288	Yes
24	15	17.30	250	Yes
25	16	19.80	391	Yes
26	16	19.00	204	Yes
27	14	15.80	297	Yes
28	13	14.10	489	Yes
29	14	15.50	429	Yes
30	14	15.10	359	Yes

DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			16			
Chirp Center Frequency:			5300			
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	83.1	15	1360	-	675545
2	1	61.7	15	-	-	109752
3	1	64.7	15	-	-	291406
4	3	85.6	15	1315	1457	470740
5	3	94.8	15	1738	1770	651561
6	2	78.7	15	1177	-	87186
7	1	65.6	15	-	-	268901
8	2	78.2	15	1060	-	449949
9	2	68.6	15	1839	-	630766
10	3	93.1	15	1546	1243	64714
11	3	97.8	15	1672	1400	245570
12	2	71.1	15	1206	-	427168
13	2	73.8	15	1801	-	608206
14	3	98	15	1027	1317	42516
15	1	58.1	15	-	-	224255
16	3	98.1	15	1103	1628	403959
17						
18						
19						
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5300			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	91.1	8	1260	1726	852229
2	3	95.8	8	1256	1835	29410
3	3	85.3	8	1547	1982	292698
4	1	59.6	8	-	-	558061
5	1	65.4	8	-	-	822233
6	1	62.1	8	-	-	1085995
7	2	77.5	8	1834	-	260707
8	3	84.9	8	1887	1008	523807
9	3	98.6	8	1535	1367	787699
10	3	94.3	8	1943	1487	1050896
11	2	76.9	8	1922	-	228160
12						
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5300			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	67.3	9	1127	-	492134
2	2	75.2	9	1453	-	755714
3	2	72.5	9	1213	-	1020123
4	1	52.9	9	-	-	196053
5	3	94.2	9	1803	1113	459017
6	1	55.5	9	-	-	724495
7	3	84.3	9	1663	1316	986204
8	1	59.8	9	-	-	163484
9	2	81.3	9	1468	-	426988
10	3	85.6	9	1093	1969	689946
11	1	62.9	9	-	-	956476
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Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5300			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	69.8	16	1962	-	84444
2	1	55.7	16	-	-	255455
3	3	89.6	16	1233	1492	424433
4	3	87.4	16	1336	1580	594670
5	1	58.4	16	-	-	63613
6	2	82	16	1978	-	233727
7	1	52.3	16	-	-	405364
8	1	65	16	-	-	576336
9	3	96.3	16	1414	1308	42408
10	3	94.6	16	1501	1125	212557
11	1	60.5	16	-	-	384368
12	1	62.3	16	-	-	555302
13	3	89.3	16	1019	1394	21496
14	3	94.3	16	1227	1569	191508
15	2	82	16	1796	-	362099
16	1	58.5	16	-	-	533848
17	2	77.4	16	1037	-	514
18						
19						
20						

DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			5			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5300			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	71	19	1570	-	152778
2	3	84.3	19	1952	1956	304130
3	2	79.9	19	1991	-	457279
4	3	87	19	1451	1330	609344
5	1	50.4	19	-	-	134532
6	1	51.8	19	-	-	287125
7	3	98.3	19	1314	1040	438716
8	1	52.9	19	-	-	592717
9	3	96.2	19	1703	1380	115067
10	3	90.2	19	1165	1488	267324
11	1	53.6	19	-	-	421185
12	1	65.6	19	-	-	574050
13	3	89.5	19	1182	1631	96313
14	3	88.2	19	1186	1442	248508
15	2	76.9	19	1151	-	401545
16	1	62.5	19	-	-	555202
17	2	78.1	19	1388	-	77845
18	2	75.9	19	1088	-	230433
19	2	79.6	19	1129	-	382827
20						

Trial Number:			6			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5300			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	70.1	14	1832	-	678507
2	2	78.1	14	1225	-	74833
3	1	53.6	14	-	-	268746
4	3	95.5	14	1271	1443	460688
5	2	82.6	14	1038	-	655183
6	3	83.6	14	1504	1638	50903
7	3	98.1	14	1527	1269	243797
8	2	82.4	14	1656	-	437433
9	1	56.7	14	-	-	631754
10	1	62.9	14	-	-	27267
11	2	83.3	14	1472	-	220485
12	1	58.7	14	-	-	414448
13	1	62.1	14	-	-	608571
14	3	97.1	14	1372	1329	3397
15	1	56.8	14	-	-	196979
16						
17						
18						
19						
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			7			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5300			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	88.9	9	1552	1352	487004
2	3	97.1	9	1312	1681	728591
3	1	55.7	9	-	-	973024
4	2	76	9	1550	-	216181
5	2	69.4	9	1766	-	458185
6	1	53.8	9	-	-	701190
7	3	91.3	9	1750	1816	939326
8	3	84.4	9	1287	1916	186145
9	1	62.3	9	-	-	429035
10	3	91.9	9	1518	1729	669244
11	3	98.8	9	1935	1054	910936
12	3	99.5	9	1485	1658	156400
13						
14						
15						
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18						
19						
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Trial Number:			8			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5300			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	56.7	14	-	-	319180
2	1	56.3	14	-	-	512574
3	3	83.7	14	1148	1405	704505
4	3	99.8	14	1584	1215	101338
5	1	61.1	14	-	-	295279
6	2	68.3	14	1144	-	488258
7	1	52.4	14	-	-	682896
8	3	88.4	14	2000	1695	77414
9	3	99.3	14	1305	1337	270532
10	2	67.3	14	1187	-	464442
11	3	88.8	14	1582	1961	656040
12	3	97.4	14	1245	1973	53700
13	1	53.4	14	-	-	247557
14	1	52.3	14	-	-	441495
15	2	69.5	14	1829	-	633784
16						
17						
18						
19						
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			9			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5300			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	91.5	10	1987	1022	37504
2	3	90.1	10	1601	1051	279141
3	1	62.8	10	-	-	522212
4	2	81.4	10	1214	-	762988
5	3	91.5	10	1455	1258	7769
6	2	68.5	10	1020	-	249813
7	2	82.6	10	1353	-	491261
8	3	99.4	10	1674	1003	732414
9	2	79.8	10	1825	-	975048
10	1	56.8	10	-	-	220197
11	1	52.1	10	-	-	462189
12	1	56.5	10	-	-	704224
13						
14						
15						
16						
17						
18						
19						
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Trial Number:			10			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5300			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	75.7	18	1919	-	595601
2	2	78.9	18	1486	-	119864
3	3	93.8	18	1425	1931	271395
4	3	91.4	18	1706	1539	423578
5	1	53.5	18	-	-	578563
6	3	83.8	18	1318	1754	100741
7	3	84.1	18	1874	1744	252568
8	3	91.4	18	1955	1688	404429
9	2	76	18	1162	-	558382
10	2	73.1	18	1209	-	82239
11	1	63.1	18	-	-	235125
12	2	72.1	18	1654	-	386987
13	3	90.4	18	1643	1898	538080
14	1	59.6	18	-	-	63595
15	1	58.7	18	-	-	216433
16	1	57.6	18	-	-	369156
17	2	71.5	18	1588	-	520455
18	1	58.2	18	-	-	44771
19	1	58.4	18	-	-	197662
20						

DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			11			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5298			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	72.6	20	1146	-	332110
2	2	67	20	1476	-	476598
3	3	84.3	20	1807	1175	24541
4	3	99.8	20	1786	1427	168837
5	3	94.4	20	1853	1986	313014
6	3	99.5	20	1071	1021	458851
7	1	60.5	20	-	-	6793
8	1	57.2	20	-	-	151870
9	2	81	20	1534	-	296485
10	2	74.2	20	1193	-	441654
11	1	56.9	20	-	-	587651
12	1	53.8	20	-	-	134151
13	3	93	20	1953	1091	277692
14	1	59	20	-	-	424461
15	1	61.8	20	-	-	569492
16	2	76.7	20	1988	-	115877
17	1	59.5	20	-	-	261537
18	1	55.5	20	-	-	406579
19	2	75.9	20	1967	-	549893
20	3	85.3	20	1277	1327	97909

Trial Number:			12			Detection (Yes/No)
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5295			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	63.5	11	-	-	375051
2	2	69.4	11	1827	-	597037
3	1	61	11	-	-	821889
4	3	93.6	11	1517	1036	123482
5	2	68.4	11	1910	-	346733
6	2	76.9	11	1261	-	570266
7	3	90.8	11	1867	1677	791484
8	3	91.1	11	1363	1701	95990
9	2	81.9	11	1344	-	319442
10	1	59.8	11	-	-	543335
11	2	75	11	1895	-	765272
12	2	77.8	11	1112	-	68726
13	2	71.6	11	1447	-	291748
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			13			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5295			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	98.5	12	1387	1917	476992
2	2	79.6	12	1469	-	685541
3	3	89.6	12	1780	1433	38144
4	3	91.5	12	1511	1936	244778
5	2	79.1	12	1607	-	452733
6	3	99.5	12	1172	1238	659333
7	3	91.9	12	1811	1711	12682
8	3	93	12	1682	1755	219489
9	2	76.6	12	1082	-	427266
10	1	53	12	-	-	635612
11	2	67.1	12	1065	-	841872
12	2	69	12	1007	-	194475
13	2	69.2	12	1664	-	401493
14	2	70.1	12	1099	-	608701
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Trial Number:			14			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5298			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	20	-	-	571695
2	2	78.5	20	1556	-	117898
3	2	83	20	1689	-	262780
4	3	99.2	20	1416	1105	406942
5	1	52	20	-	-	553383
6	3	95.7	20	1680	1358	99846
7	2	72.9	20	1800	-	244659
8	3	94.9	20	1600	1510	388640
9	1	53.1	20	-	-	536219
10	1	55.9	20	-	-	82591
11	3	90.8	20	1470	1321	226553
12	2	81.4	20	1742	-	371456
13	2	67.4	20	1653	-	516436
14	1	58.7	20	-	-	64629
15	2	69.4	20	1349	-	209314
16	2	75.3	20	1860	-	353880
17	2	71.2	20	1421	-	498732
18	3	99.2	20	1862	1160	46513
19	2	79.2	20	1541	-	191302
20	2	82.3	20	1332	-	336143

DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			15			Detection (Yes/No)
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5293			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	94.6	7	1693	1589	962939
2	2	79.5	7	1690	-	57795
3	2	72.3	7	1537	-	347975
4	3	85.3	7	1474	1572	637787
5	2	80.5	7	1263	-	929215
6	1	56.1	7	-	-	22069
7	3	84	7	1837	1753	311682
8	3	92.3	7	1310	1889	601962
9	3	86.9	7	1639	1751	891541
10	1	66.3	7	-	-	1184406
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Trial Number:			16			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5298			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	93.9	20	1618	1158	137557
2	2	74.5	20	1130	-	283091
3	3	99.2	20	1381	1995	426043
4	1	56.7	20	-	-	574145
5	2	77.7	20	1821	-	120016
6	1	62.5	20	-	-	265418
7	3	98.9	20	1923	1326	408634
8	1	60.6	20	-	-	556128
9	2	73	20	1734	-	102259
10	2	82.2	20	1057	-	247131
11	3	98.7	20	1236	1138	391500
12	1	53.5	20	-	-	537598
13	2	76.4	20	1924	-	84391
14	3	83.6	20	1878	1143	228545
15	1	50.6	20	-	-	374903
16	3	97.7	20	1365	1178	517574
17	2	82	20	1899	-	66552
18	2	83.2	20	1904	-	211375
19	2	73.6	20	1449	-	356518
20	1	51.2	20	-	-	501903

DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			17			Detection (Yes/No)
Number of Bursts in Trial:			18			
Chirp Center Frequency:			5298			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	81.9	18	1586	-	54180
2	2	68	18	1320	-	215317
3	3	89.9	18	1411	1722	375347
4	3	87	18	1334	1205	536163
5	2	75.6	18	1823	-	34399
6	3	83.6	18	1575	1872	194670
7	1	56.2	18	-	-	357060
8	3	97.8	18	1715	1843	516058
9	2	68.7	18	1998	-	14550
10	3	95.9	18	1159	1410	175285
11	1	61.6	18	-	-	337352
12	2	80.7	18	1282	-	497323
13	1	58	18	-	-	660254
14	3	86.9	18	1012	1351	155527
15	1	62	18	-	-	317275
16	1	66.3	18	-	-	478862
17	2	82.3	18	1532	-	638749
18	1	60.6	18	-	-	136184
19						
20						

Trial Number:			18			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5298			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	81	19	1604	-	281090
2	1	56.9	19	-	-	434673
3	2	76.5	19	1869	-	585588
4	1	60.5	19	-	-	110128
5	2	76.2	19	1496	-	262182
6	3	97	19	1948	1084	413727
7	3	83.7	19	1240	1192	566061
8	3	91.1	19	1813	1430	90857
9	1	53.1	19	-	-	244361
10	3	88.7	19	1915	1540	394922
11	3	84.7	19	1368	1428	547590
12	2	82.8	19	1976	-	72273
13	2	74.2	19	1379	-	224839
14	1	50.8	19	-	-	377935
15	2	68.7	19	1970	-	529478
16	3	85.6	19	1376	1920	53456
17	3	84.4	19	1975	1749	205278
18	2	75.9	19	1408	-	358793
19	3	84.6	19	1814	1157	509785
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			19			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5297			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	62.2	16	-	-	39018
2	2	81.2	16	1417	-	209369
3	3	94.2	16	1114	1333	379199
4	1	56.3	16	-	-	551603
5	1	51.1	16	-	-	17962
6	3	92	16	1131	1719	187937
7	2	77.1	16	1647	-	358549
8	2	70.6	16	1452	-	529711
9	2	67.9	16	1990	-	699363
10	3	95.5	16	1244	1669	167102
11	3	89.5	16	1026	1156	337600
12	2	71.6	16	1992	-	507894
13	3	84.4	16	1494	1378	677582
14	1	65.3	16	-	-	146649
15	2	71.3	16	1817	-	316787
16	1	52.2	16	-	-	488268
17	1	66.6	16	-	-	659626
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19						
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Trial Number:			20			Detection (Yes/No)
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5294			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	74.8	8	1989	-	213446
2	2	71.3	8	1571	-	503703
3	3	91.8	8	1066	1885	793223
4	3	93	8	1942	1865	1081978
5	1	53.2	8	-	-	177987
6	3	84.6	8	1727	1611	467370
7	2	80.5	8	1900	-	758044
8	2	67.5	8	1212	-	1048979
9	1	63	8	-	-	142243
10	3	85.9	8	1031	1419	431981
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			21			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5306			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	71.7	9	1048	-	601937
2	1	60.8	9	-	-	844793
3	1	61.9	9	-	-	88619
4	2	72.5	9	1343	-	330525
5	1	52.4	9	-	-	572962
6	3	86.1	9	1465	1894	812048
7	2	81.7	9	1183	-	58766
8	2	70.1	9	1616	-	300640
9	2	79.5	9	1873	-	542023
10	3	86.9	9	1870	1498	782664
11	1	50.5	9	-	-	28968
12	2	75.3	9	1549	-	270669
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Trial Number:			22			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5306			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	8	1369	-	559346
2	3	99.2	8	1735	1598	821769
3	2	76.4	8	1788	-	1086844
4	1	65.7	8	-	-	263228
5	3	95.6	8	1732	1220	526275
6	1	63.6	8	-	-	791966
7	2	67.1	8	1466	-	1054720
8	1	50.3	8	-	-	230825
9	2	67.5	8	1640	-	494274
10	1	52.8	8	-	-	758880
11	3	98.6	8	1736	1708	1020451
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			23			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5304			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	13	-	-	145239
2	1	60.7	13	-	-	338961
3	1	63.1	13	-	-	532883
4	3	84.2	13	1767	1625	723373
5	3	91.7	13	1903	1512	120862
6	1	58.9	13	-	-	315167
7	3	96.6	13	1181	1257	506937
8	1	63.6	13	-	-	702000
9	3	88.9	13	1043	1554	97303
10	3	88.1	13	1292	1637	290234
11	1	56	13	-	-	485158
12	1	55.3	13	-	-	678553
13	1	59.7	13	-	-	73673
14	1	56	13	-	-	267490
15	2	73	13	1857	-	459783
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Trial Number:			24			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5303			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	16	1155	1652	575192
2	3	85.5	16	1357	1644	43769
3	1	52.6	16	-	-	214766
4	3	95.3	16	1519	1223	384363
5	3	91.8	16	1035	1121	554720
6	1	65.4	16	-	-	22944
7	1	66.1	16	-	-	193636
8	3	99.5	16	1432	1565	363290
9	1	52.6	16	-	-	535430
10	3	92.7	16	1908	1696	1885
11	1	66.6	16	-	-	172838
12	3	87.6	16	1034	1204	342340
13	3	89.1	16	1777	1298	512153
14	2	66.9	16	1762	-	683938
15	1	50.3	16	-	-	151613
16	1	62.7	16	-	-	322567
17	2	68.4	16	1364	-	492534
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19						
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			25			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5302			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	68.9	20	1662	-	562530
2	1	62.2	20	-	-	110964
3	1	59.8	20	-	-	255994
4	1	61.7	20	-	-	401028
5	3	89.4	20	1609	1090	544264
6	1	51.9	20	-	-	93051
7	3	90	20	1110	1460	237141
8	1	61.1	20	-	-	383412
9	2	83	20	1341	-	527671
10	2	73.2	20	1275	-	75075
11	1	61.7	20	-	-	220578
12	3	87.2	20	1234	1188	363958
13	1	62.6	20	-	-	510439
14	3	93.8	20	1855	1712	56981
15	1	66.6	20	-	-	202494
16	1	59.7	20	-	-	347833
17	2	72.6	20	1289	-	491773
18	2	76.6	20	1778	-	39336
19	2	81.7	20	1002	-	184292
20	3	97.7	20	1785	1237	328364

Trial Number:			26			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5302			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	72.2	19	1702	-	498396
2	1	61.1	19	-	-	22753
3	2	83.2	19	1335	-	175174
4	3	86	19	1629	1819	326812
5	1	61.2	19	-	-	481287
6	1	60.5	19	-	-	3921
7	3	91.5	19	1645	1418	156098
8	2	75.1	19	1420	-	308873
9	2	71.4	19	1173	-	461189
10	1	57.5	19	-	-	615463
11	3	96.8	19	1446	1861	137160
12	3	88.5	19	1283	1985	289350
13	2	75.3	19	1207	-	442472
14	3	87.7	19	1085	1063	594699
15	3	86.5	19	1016	1792	118643
16	3	97.6	19	1444	1482	270750
17	3	96.2	19	1319	1659	423006
18	1	61.2	19	-	-	577729
19	3	97.7	19	1605	1866	99671
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			27			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5304			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	83.5	13	1017	1840	342355
2	1	62.7	13	-	-	550959
3	3	84.1	13	1232	1480	756733
4	1	58.8	13	-	-	110633
5	3	92.2	13	1798	1996	316538
6	1	54.3	13	-	-	525502
7	1	62.3	13	-	-	733291
8	3	90.1	13	1296	1529	84767
9	3	98.9	13	1979	1459	291214
10	3	100	13	1691	1362	498505
11	2	77.8	13	1863	-	705794
12	1	66.5	13	-	-	59467
13	3	90.3	13	1752	1445	265880
14	2	68.7	13	1422	-	473989
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Trial Number:			28			Detection (Yes/No)
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5306			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	65.1	10	-	-	796284
2	3	96.2	10	1733	1077	39461
3	1	57.7	10	-	-	281806
4	2	79.1	10	1671	-	523240
5	2	73.9	10	1854	-	764529
6	1	50.5	10	-	-	9750
7	2	78.8	10	1716	-	251463
8	1	60.4	10	-	-	493932
9	1	64.9	10	-	-	735940
10	3	89.8	10	1013	1117	976604
11	2	75.5	10	1665	-	221767
12	2	76.4	10	1557	-	463546
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DFS Radar Parameters
FCC Radar Type 5
Channel 60 Bandwidth 20MHz

Trial Number:			29			Detection (Yes/No)
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5304			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	73.3	13	1407	-	604353
2	1	61.8	13	-	-	812654
3	2	75	13	1720	-	164406
4	1	57.3	13	-	-	372250
5	2	69.1	13	1710	-	578377
6	1	63.5	13	-	-	787415
7	1	61.3	13	-	-	139107
8	2	78.9	13	1247	-	346071
9	3	98.2	13	1398	1957	552004
10	3	85	13	1683	1133	759395
11	3	88.1	13	1773	1507	113173
12	1	52.2	13	-	-	320989
13	3	91	13	1267	1033	527219
14	2	81.6	13	1229	-	735334
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Trial Number:			30			Detection (Yes/No)
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5305			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	99	12	1288	1412	94583
2	2	70.5	12	1342	-	317798
3	3	92.7	12	1521	1254	540393
4	2	75.1	12	1610	-	764398
5	3	93.6	12	1347	1481	67105
6	3	91.1	12	1104	1879	289762
7	1	56.5	12	-	-	514527
8	2	69.7	12	1150	-	736933
9	1	60.2	12	-	-	39805
10	3	91.5	12	1856	1135	262559
11	2	78.7	12	1881	-	485999
12	2	68.4	12	1218	-	709651
13	2	72.2	12	1576	-	12238
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Channel 62 Bandwidth 40MHz

DFS Radar Parameters
FCC Radar Type 1
Channel 62 Bandwidth 40MHz

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	9	1474.93	678	Yes
2	15	1253.13	798	Yes
3	11	1392.76	718	Yes
4	5	1672.24	598	Yes
5	3	1792.11	558	Yes
6	12	1355.01	738	Yes
7	14	1285.35	778	Yes
8	22	1066.10	938	Yes
9	19	1138.95	878	Yes
10	21	1089.32	918	Yes
11	13	1319.26	758	Yes
12	10	1432.66	698	Yes
13	12	326.16	3066	Yes
14	4	1730.10	578	Yes
15	8	1519.76	658	Yes
16		985.22	1015	Yes
17		520.02	1923	Yes
18		362.98	2755	Yes
19		415.80	2405	Yes
20		399.04	2506	Yes
21		882.61	1133	Yes
22		1184.83	844	Yes
23		358.68	2788	Yes
24		431.22	2319	Yes
25		1182.03	846	Yes
26		469.04	2132	Yes
27		798.72	1252	Yes
28		526.59	1899	Yes
29		914.91	1093	Yes
30		1795.33	557	Yes

DFS Radar Parameters
FCC Radar Type 2
Channel 62 Bandwidth 40MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	27	3.70	225	Yes
2	24	1.90	153	Yes
3	25	2.20	213	Yes
4	27	3.90	196	Yes
5	29	4.60	223	Yes
6	27	3.30	210	Yes
7	25	2.20	172	Yes
8	26	3.30	162	Yes
9	25	2.50	197	Yes
10	29	4.50	205	Yes
11	29	4.90	150	Yes
12	25	2.70	167	Yes
13	26	2.90	163	Yes
14	29	4.90	216	Yes
15	24	1.60	173	Yes
16	29	4.90	164	Yes
17	28	4.30	177	Yes
18	29	4.70	171	Yes
19	27	3.80	229	Yes
20	24	1.70	181	Yes
21	25	2.20	224	Yes
22	24	1.90	188	Yes
23	26	3.20	152	Yes
24	27	3.80	226	Yes
25	29	4.90	190	Yes
26	29	4.60	195	Yes
27	26	3.20	227	Yes
28	25	2.40	156	Yes
29	26	3.00	160	Yes
30	26	2.80	187	Yes

DFS Radar Parameters
FCC Radar Type 3
Channel 62 Bandwidth 40MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	17	8.70	324	Yes
2	16	6.90	450	Yes
3	16	7.20	440	Yes
4	18	8.90	319	Yes
5	18	9.60	385	Yes
6	17	8.30	437	Yes
7	16	7.20	337	Yes
8	17	8.30	296	Yes
9	17	7.50	220	Yes
10	18	9.50	438	Yes
11	18	9.90	397	Yes
12	17	7.70	381	Yes
13	17	7.90	407	Yes
14	18	9.90	331	Yes
15	16	6.60	488	Yes
16	18	9.90	469	Yes
17	18	9.30	339	Yes
18	18	9.70	467	Yes
19	18	8.80	206	Yes
20	16	6.70	389	Yes
21	16	7.20	362	Yes
22	16	6.90	244	Yes
23	17	8.20	288	Yes
24	18	8.80	250	Yes
25	18	9.90	391	Yes
26	18	9.60	204	Yes
27	17	8.20	297	Yes
28	17	7.40	489	Yes
29	17	8.00	429	Yes
30	17	7.80	359	Yes

DFS Radar Parameters
FCC Radar Type 4
Channel 62 Bandwidth 40MHz

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	15	17.00	324	Yes
2	13	13.10	450	Yes
3	13	13.60	440	Yes
4	15	17.40	319	Yes
5	16	19.10	385	Yes
6	14	16.20	437	Yes
7	13	13.80	337	Yes
8	14	16.10	296	Yes
9	13	14.30	220	Yes
10	16	18.80	438	Yes
11	16	19.60	397	Yes
12	14	14.80	381	Yes
13	14	15.30	407	Yes
14	16	19.70	331	Yes
15	12	12.40	488	Yes
16	16	19.70	469	Yes
17	16	18.40	339	Yes
18	16	19.30	467	Yes
19	15	17.40	206	Yes
20	12	12.70	389	Yes
21	13	13.80	362	Yes
22	13	13.20	244	Yes
23	14	15.90	288	Yes
24	15	17.30	250	Yes
25	16	19.80	391	Yes
26	16	19.00	204	Yes
27	14	15.80	297	Yes
28	13	14.10	489	Yes
29	14	15.50	429	Yes
30	14	15.10	359	Yes

DFS Radar Parameters
FCC Radar Type 5
Channel 62 Bandwidth 40MHz

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			16			
Chirp Center Frequency:			5310			
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	83.1	15	1360	-	675545
2	1	61.7	15	-	-	109752
3	1	64.7	15	-	-	291406
4	3	85.6	15	1315	1457	470740
5	3	94.8	15	1738	1770	651561
6	2	78.7	15	1177	-	87186
7	1	65.6	15	-	-	268901
8	2	78.2	15	1060	-	449949
9	2	68.6	15	1839	-	630766
10	3	93.1	15	1546	1243	64714
11	3	97.8	15	1672	1400	245570
12	2	71.1	15	1206	-	427168
13	2	73.8	15	1801	-	608206
14	3	98	15	1027	1317	42516
15	1	58.1	15	-	-	224255
16	3	98.1	15	1103	1628	403959
17						
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5310			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	91.1	8	1260	1726	852229
2	3	95.8	8	1256	1835	29410
3	3	85.3	8	1547	1982	292698
4	1	59.6	8	-	-	558061
5	1	65.4	8	-	-	822233
6	1	62.1	8	-	-	1085995
7	2	77.5	8	1834	-	260707
8	3	84.9	8	1887	1008	523807
9	3	98.6	8	1535	1367	787699
10	3	94.3	8	1943	1487	1050896
11	2	76.9	8	1922	-	228160
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DFS Radar Parameters
FCC Radar Type 5
Channel 62 Bandwidth 40MHz

Trial Number:			3			Detection (Yes/No)
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5310			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	67.3	9	1127	-	492134
2	2	75.2	9	1453	-	755714
3	2	72.5	9	1213	-	1020123
4	1	52.9	9	-	-	196053
5	3	94.2	9	1803	1113	459017
6	1	55.5	9	-	-	724495
7	3	84.3	9	1663	1316	986204
8	1	59.8	9	-	-	163484
9	2	81.3	9	1468	-	426988
10	3	85.6	9	1093	1969	689946
11	1	62.9	9	-	-	956476
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Trial Number:			4			Detection (Yes/No)
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5310			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	69.8	16	1962	-	84444
2	1	55.7	16	-	-	255455
3	3	89.6	16	1233	1492	424433
4	3	87.4	16	1336	1580	594670
5	1	58.4	16	-	-	63613
6	2	82	16	1978	-	233727
7	1	52.3	16	-	-	405364
8	1	65	16	-	-	576336
9	3	96.3	16	1414	1308	42408
10	3	94.6	16	1501	1125	212557
11	1	60.5	16	-	-	384368
12	1	62.3	16	-	-	555302
13	3	89.3	16	1019	1394	21496
14	3	94.3	16	1227	1569	191508
15	2	82	16	1796	-	362099
16	1	58.5	16	-	-	533848
17	2	77.4	16	1037	-	514
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DFS Radar Parameters
FCC Radar Type 5
Channel 62 Bandwidth 40MHz

Trial Number:			5			Detection (Yes/No)
Number of Bursts in Trial:			19			
Chirp Center Frequency:			5310			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	71	19	1570	-	152778
2	3	84.3	19	1952	1956	304130
3	2	79.9	19	1991	-	457279
4	3	87	19	1451	1330	609344
5	1	50.4	19	-	-	134532
6	1	51.8	19	-	-	287125
7	3	98.3	19	1314	1040	438716
8	1	52.9	19	-	-	592717
9	3	96.2	19	1703	1380	115067
10	3	90.2	19	1165	1488	267324
11	1	53.6	19	-	-	421185
12	1	65.6	19	-	-	574050
13	3	89.5	19	1182	1631	96313
14	3	88.2	19	1186	1442	248508
15	2	76.9	19	1151	-	401545
16	1	62.5	19	-	-	555202
17	2	78.1	19	1388	-	77845
18	2	75.9	19	1088	-	230433
19	2	79.6	19	1129	-	382827
20						

Trial Number:			6			Detection (Yes/No)
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5310			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	70.1	14	1832	-	678507
2	2	78.1	14	1225	-	74833
3	1	53.6	14	-	-	268746
4	3	95.5	14	1271	1443	460688
5	2	82.6	14	1038	-	655183
6	3	83.6	14	1504	1638	50903
7	3	98.1	14	1527	1269	243797
8	2	82.4	14	1656	-	437433
9	1	56.7	14	-	-	631754
10	1	62.9	14	-	-	27267
11	2	83.3	14	1472	-	220485
12	1	58.7	14	-	-	414448
13	1	62.1	14	-	-	608571
14	3	97.1	14	1372	1329	3397
15	1	56.8	14	-	-	196979
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17						
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