



# FCC DFS TEST REPORT

**FCC ID** : TVE-391CBE0291  
**Equipment** : Secured Wireless Access Point  
**Brand Name** : FORTINET  
**Model Name** : FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx,  
FORTIAP-U231Gxxxxxx (Where "x" can be used as  
"A-Z", or "0-9", or "-", or blank for software changes  
or marketing purposes only)  
**Applicant** : Fortinet, Inc.  
899 Kifer Road, Sunnyvale, CA 94086, USA  
**Manufacturer** : Fortinet, Inc.  
899 Kifer Road, Sunnyvale, CA 94086, USA  
**Standard** : FCC Part 15 Subpart E

The product was received on Jan. 04, 2023, and testing was performed from Feb. 28, 2023 to Mar. 02, 2023. 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: Lance Tang

**Sporton International (USA) Inc.**

1175 Montague Expressway, Milpitas, CA 95035



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**Appendix A. DFS Radar Parameters**





### 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/manufacturer 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	Secured Wireless Access Point
Model Name	FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx, FORTIAP-U231Gxxxxxx (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 is subject to this standard	
Tx/Rx Frequency Range	5250 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
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:**

1. For other wireless features of this EUT, test report will be issued separately.
2. The device has three radios which support WLAN 5GHz. In single mode operation, the device activates Radio2 for WLAN5G UNII-2a and UNII-2c, while operating in dual mode, Radio2 works for UNII-2a and Radio1 works for UNII-2c. The test is performed on both bands in Dual Mode, in addition to high band in Single mode. Radio 3 single mode 5GHz supports 160MHz but in scan/monitor only and NO DFS. In the case of triband mode the device supports 160 MHz channel BW, but for DFS purposes, the largest effective bandwidth operating on DFS bands is still 80MHz as it has the third radio disabled, and only single 5G and dual 5G modes tested as clarified in this note.
3. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.



Antenna Type			PIFA		
Connector Type			IPEX		
Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency range
ANT0(D1)	Radio 1 2G Radio 1 5G	INPAQ	46-500534-01	3.89	2.4~2.4835GHz
				4.76	5.15~5.25GHz
				4.96	5.25~5.35GHz
				5.75	5.47~5.725GHz
				5.78	5.725~5.85GHz
ANT1(D2)	Radio 1 2G Radio 1 5G	INPAQ	46-500534-01	3.83	2.4~2.4835GHz
				4.5	5.15~5.25GHz
				4.72	5.25~5.35GHz
				5.46	5.47~5.725GHz
				5.54	5.725~5.85GHz
ANT2(D3)	Radio 3 2G Radio 3 5G	INPAQ	46-500534-01	3.78	2.4~2.4835GHz
				5.47	5.15~5.25GHz
				5.28	5.25~5.35GHz
				5.78	5.47~5.725GHz
				5.42	5.725~5.85GHz
ANT3(D4)	Radio 3 2G Radio 3 5G	INPAQ	46-500534-01	3.75	2.4~2.4835GHz
				4	5.15~5.25GHz
				4.55	5.25~5.35GHz
				5.77	5.47~5.725GHz
				5.32	5.725~5.85GHz



Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency range
ANT5(5G1)	Radio 2 5G	INPAQ	46-500534-01	4.66	5.15~5.25GHz
				4.75	5.25~5.35GHz
				5.56	5.47~5.725GHz
				5.59	5.725~5.85GHz
ANT6(5G2)	Radio 2 5G	INPAQ	46-500534-01	5.19	5.15~5.25GHz
				4.93	5.25~5.35GHz
				5.53	5.47~5.725GHz
				5.24	5.725~5.85GHz
ANT7(6G1)	Radio 3 6G	INPAQ	46-500534-01	5.31	5.955 ~ 6.415GHz
				5.51	6.435 ~ 6.525GHz
				5.71	6.525 ~ 6.855GHz
				5.67	6.875 ~ 7.115GHz
ANT8(6G2)	Radio 3 6G	INPAQ	46-500534-01	5.89	5.955 ~ 6.415GHz
				5.07	6.435 ~ 6.525GHz
				5.79	6.525 ~ 6.855GHz
				5.75	6.875 ~ 7.115GHz
ANT9	Radio 4 (BLE/Zigbee)	INPAQ	46-500534-01	3.96	2.4~2.4835GHz



### 1.3 Testing Facility

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL : 408-904-3300
Test Site No.	<b>Sporton Site No. :</b> 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 Laptop	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 ≥ 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
<p><b>Note 1:</b> This is the level at the input of the receiver assuming a 0 dBi receive antenna.</p> <p><b>Note 2:</b> 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.</p> <p><b>Note 3:</b> EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p>	

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 $\left\{ \begin{matrix} \left( \frac{1}{360} \right) \cdot \\ \left( \frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \end{matrix} \right\}$	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
<b>Note 1:</b> Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

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

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

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

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



Table 5a - Pulse Repetition Intervals Values for Test A

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



## 2.6 Long Pulse Radar Test Waveform

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

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

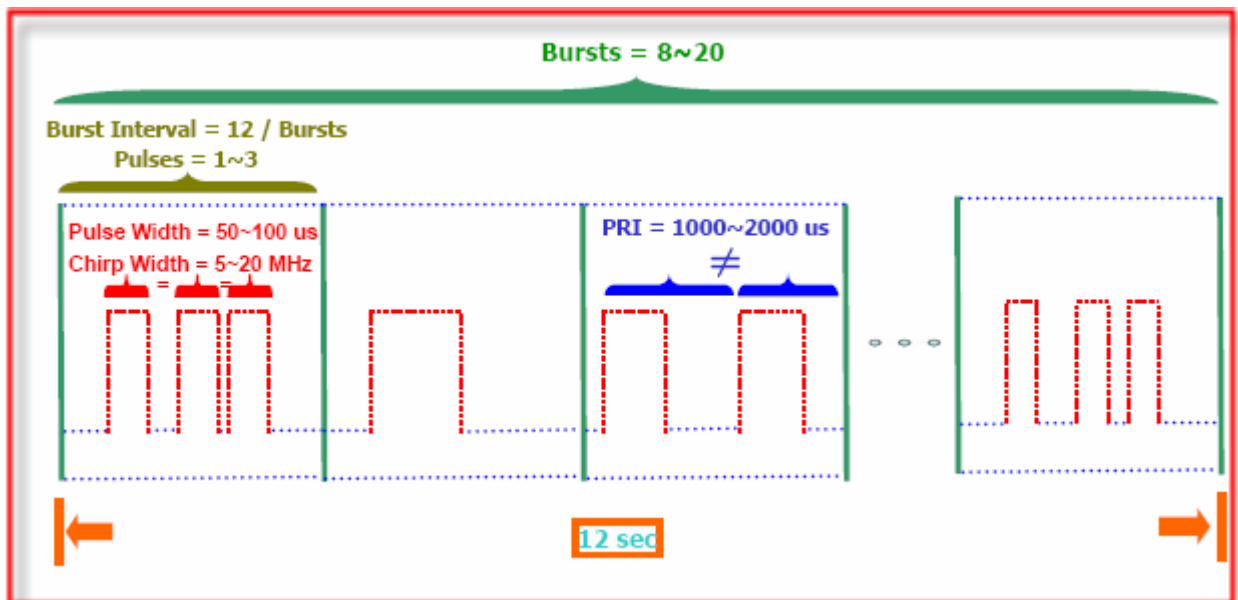
Note: The center frequency for each of the 30 trials of the Bin 5 radar shall be randomly selected within 80% of the Occupied Bandwidth.

- (1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
- (2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst\_Count.
- (3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- (4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- (5) Each pulse has a linear frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a **transmission period** will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz
- (6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
- (7) The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst\_Count. Each interval is of length  $(12,000,000 / \text{Burst\_Count})$  microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and  $[(12,000,000 / \text{Burst\_Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$  microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.



**A representative example of a Long Pulse radar test waveform:**

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

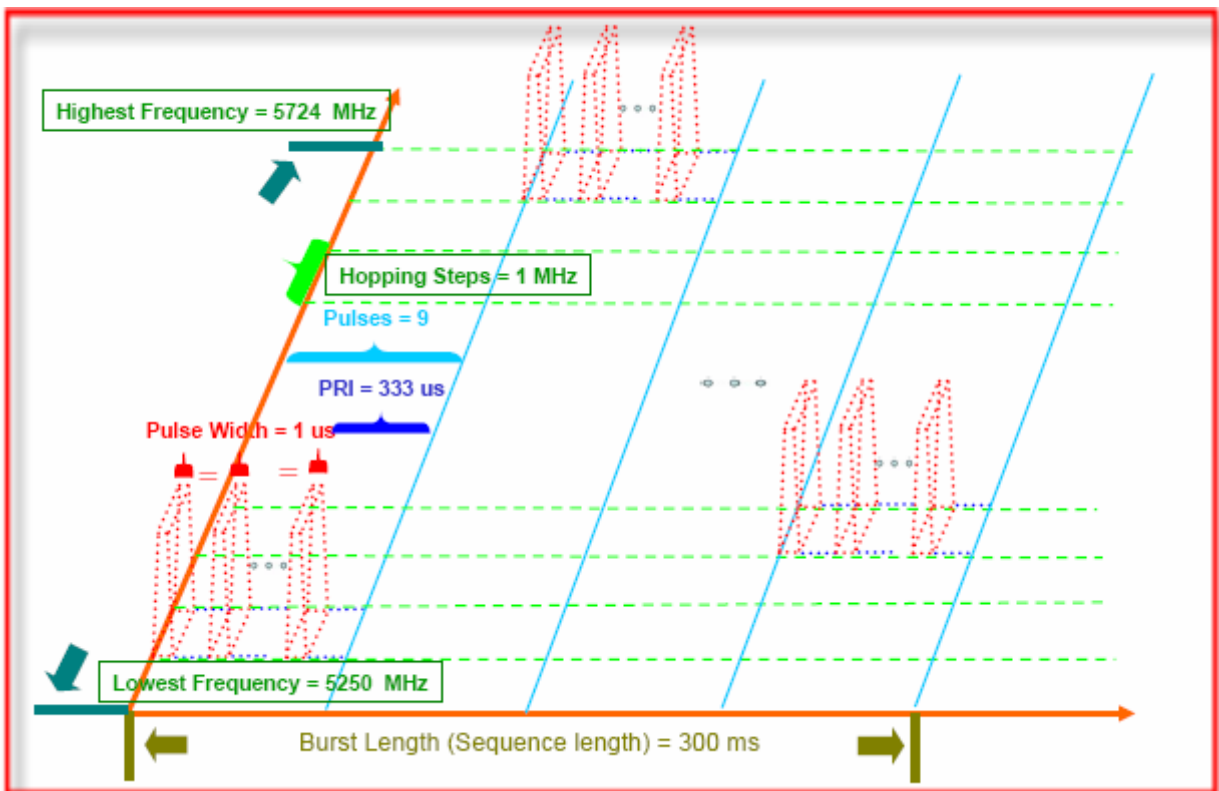


## 2.7 Frequency Hopping Radar Test Waveform

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

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

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.



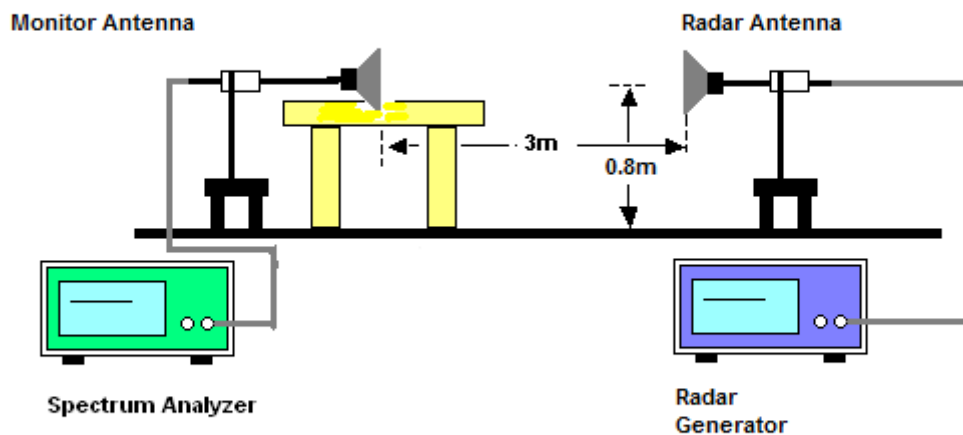
## 3 Calibration Setup and DFS Test Results

### 3.1 Calibration of Radar Waveform

#### 3.1.1 Radar Waveform Calibration Procedure

The Interference Radar Detection Threshold Level is  $-64\text{dBm}$  that had been taken into account the output power range and antenna gain. The following equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for radar type 0~6. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz to measure the radar waveform. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was  $-64\text{dBm}$ . Capture the spectrum analyzer plots on radar waveform.

#### 3.1.2 Calibration Setup



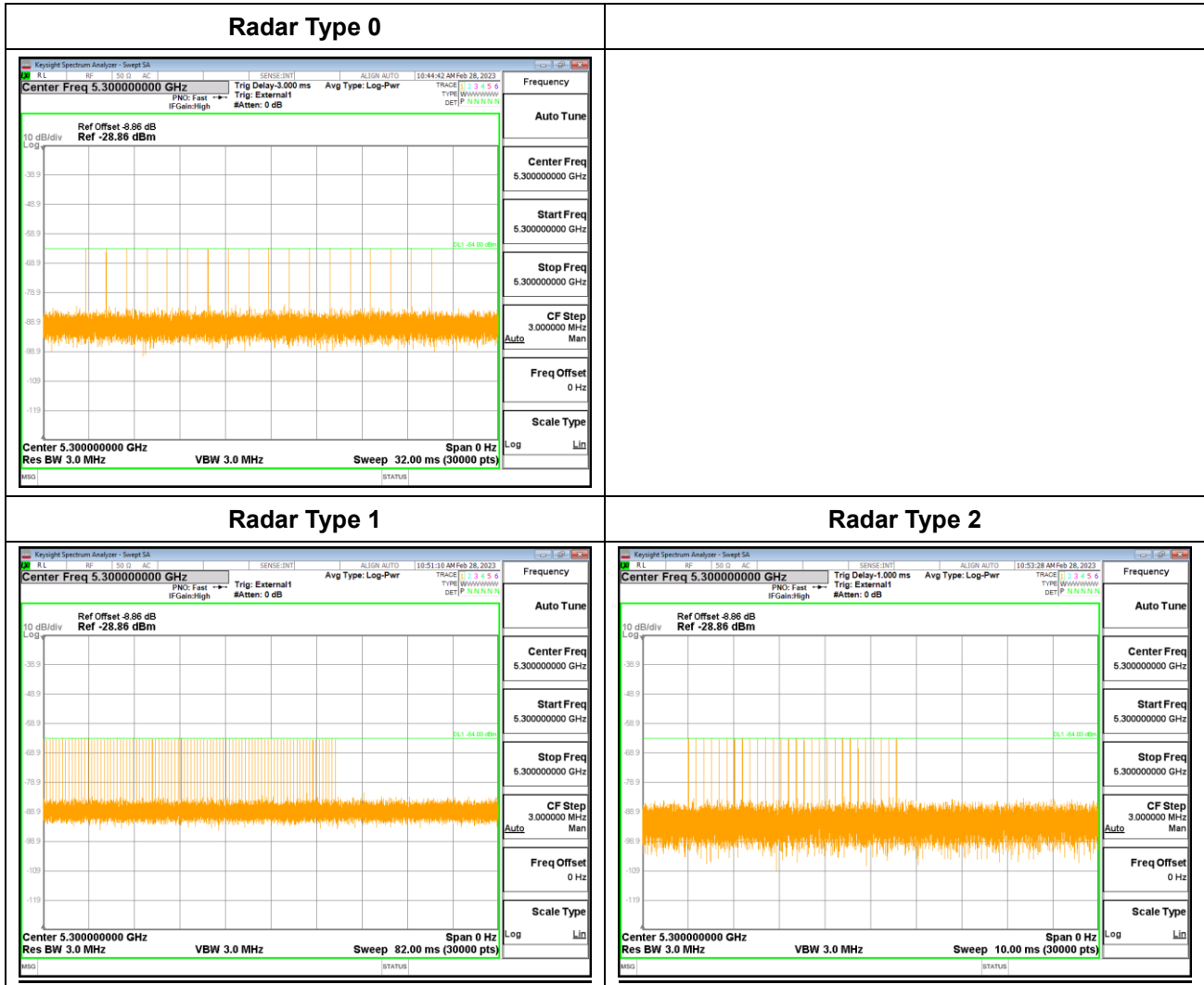
#### 3.1.3 Calibration Deviation

There is no deviation with the original standard.



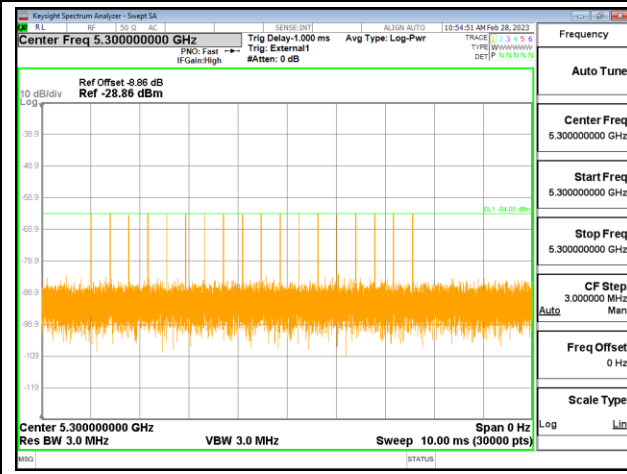
### 3.1.4 Radar Waveform Calibration Result

<20MHz / 5300MHz>

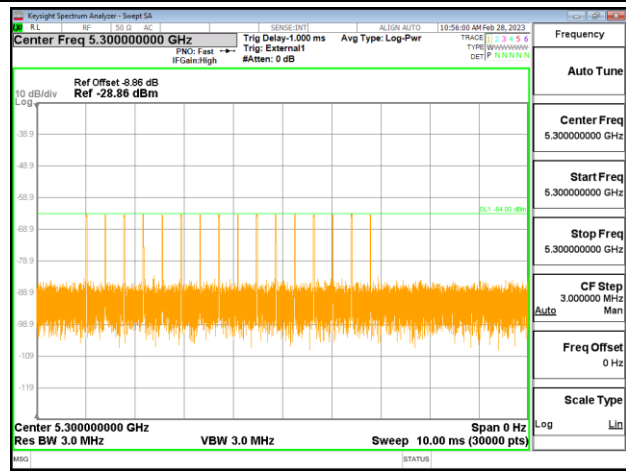




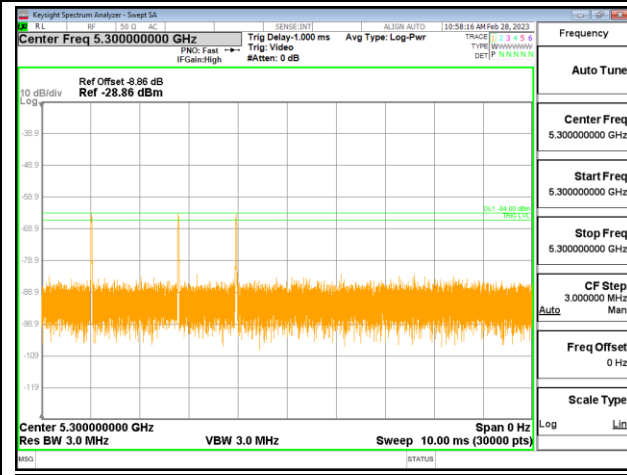
Radars Type 3



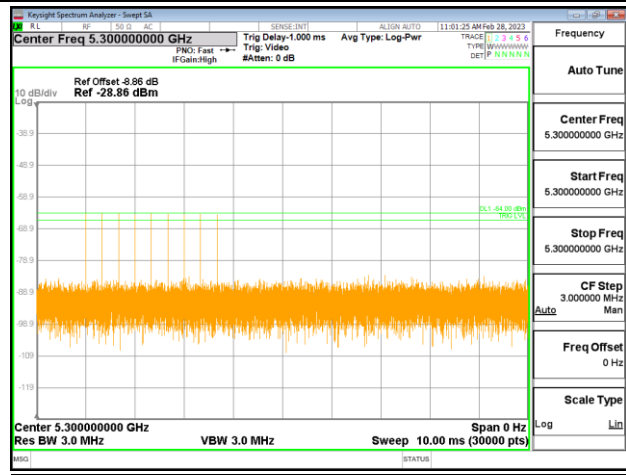
Radars Type 4



Single Burst of Radar Type 5



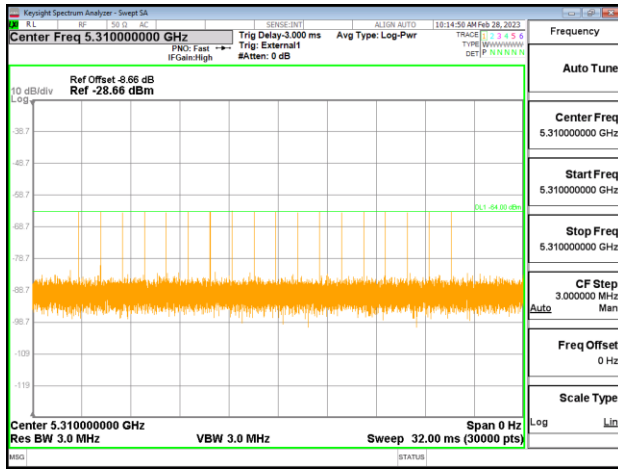
Single Burst of Radar Type 6



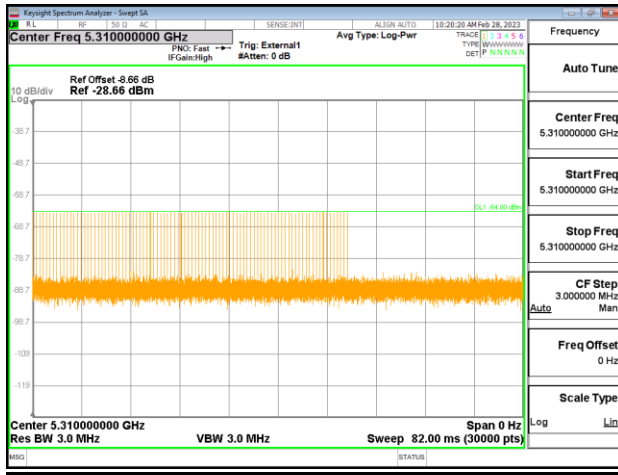


<40MHz / 5310MHz>

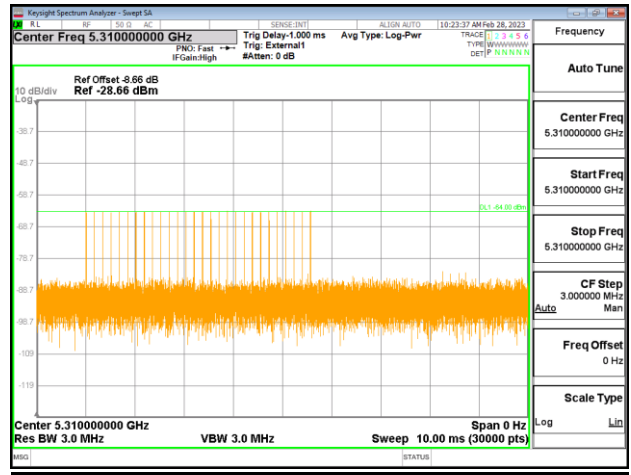
Radars Type 0



Radars Type 1

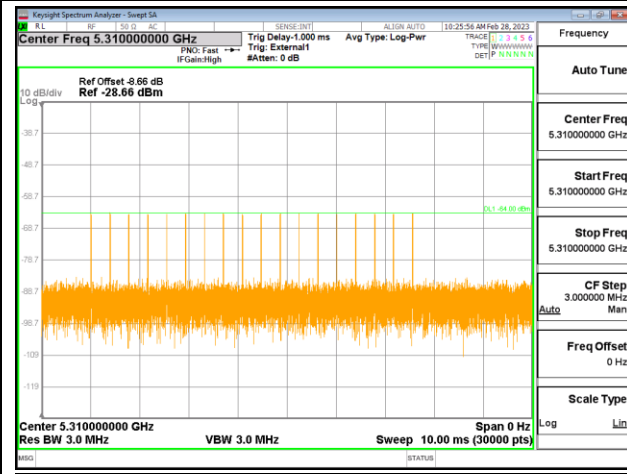


Radars Type 2

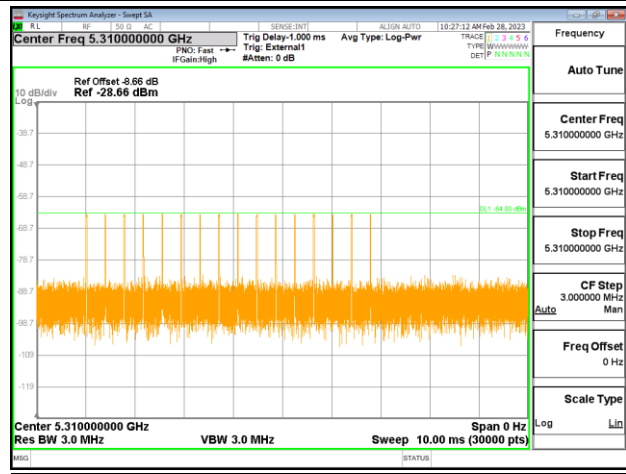




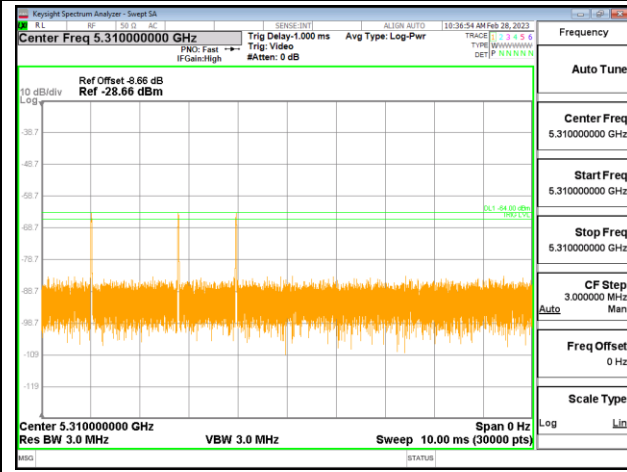
Radar Type 3



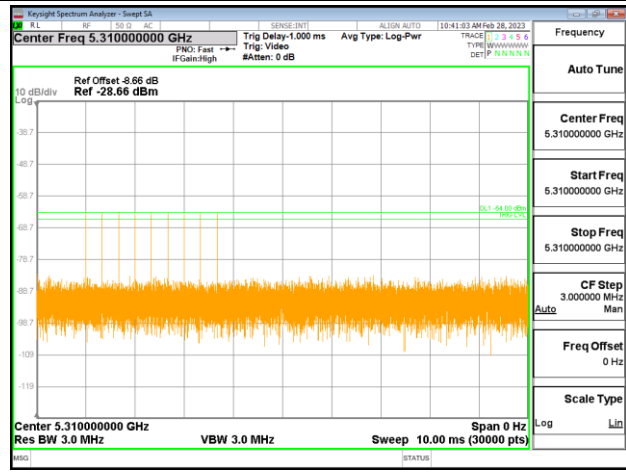
Radar Type 4



Single Burst of Radar Type 5



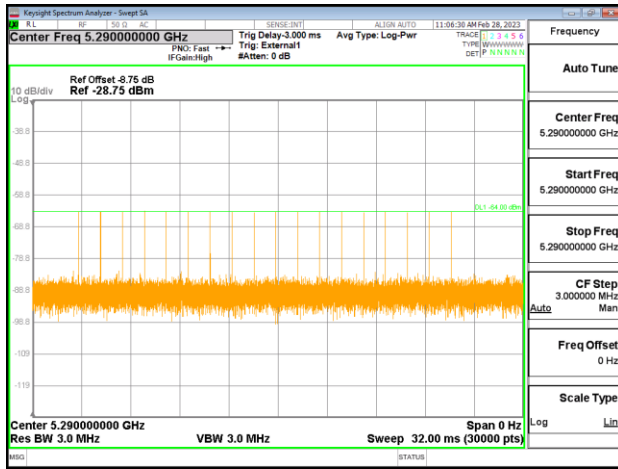
Single Burst of Radar Type 6



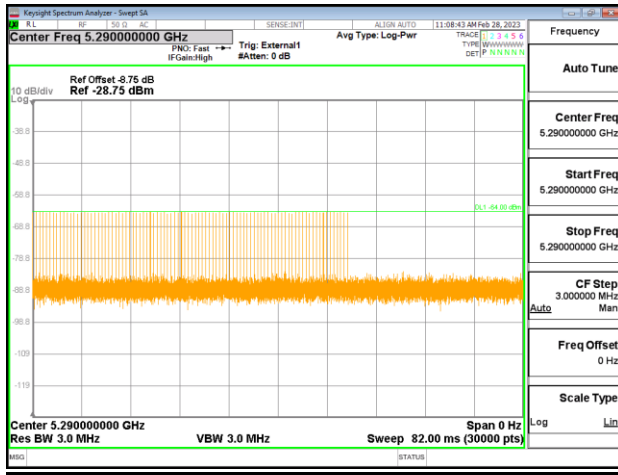


<80MHz / 5290MHz>

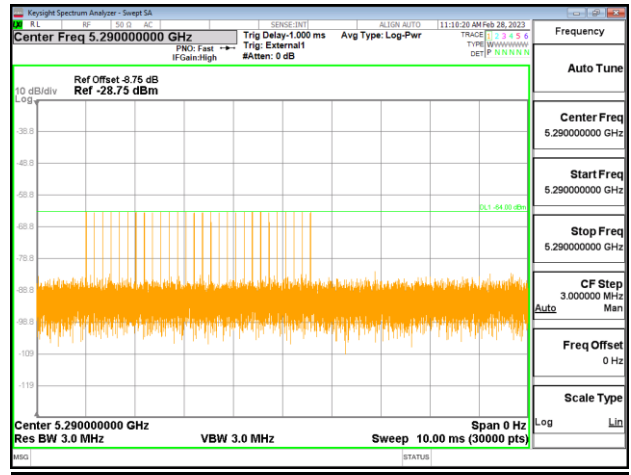
Radars Type 0



Radars Type 1



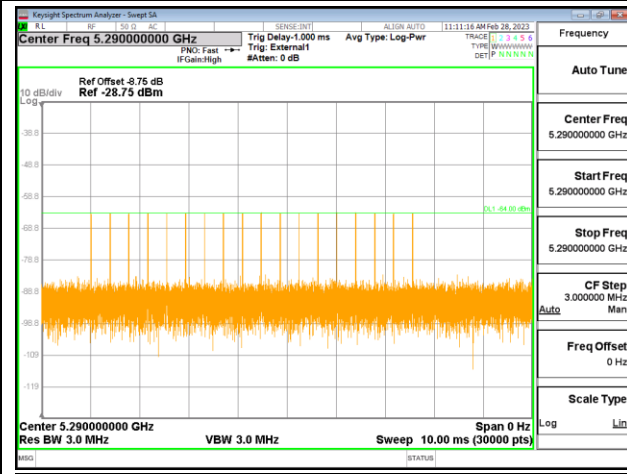
Radars Type 2



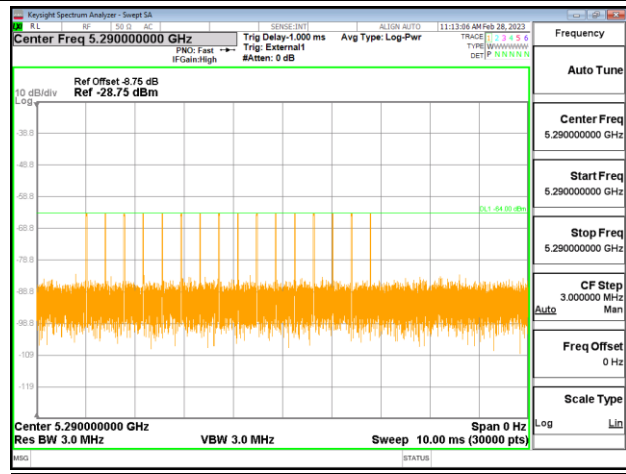




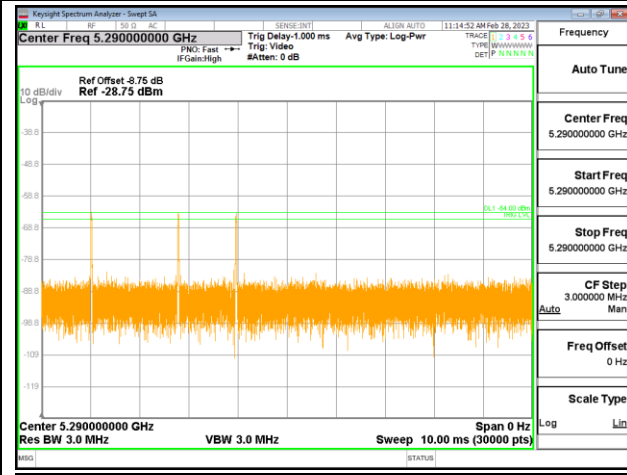
Radar Type 3



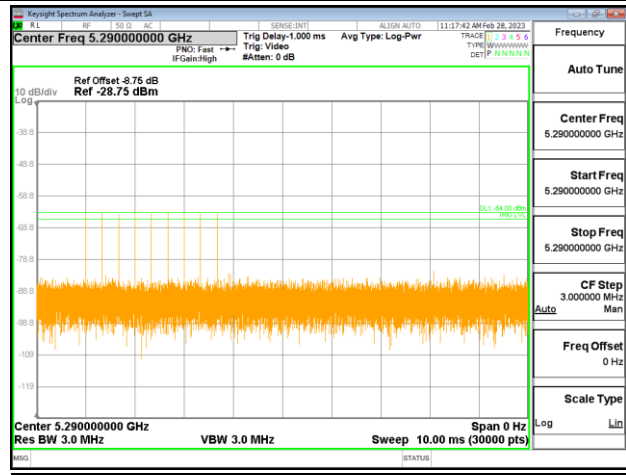
Radar Type 4



Single Burst of Radar Type 5



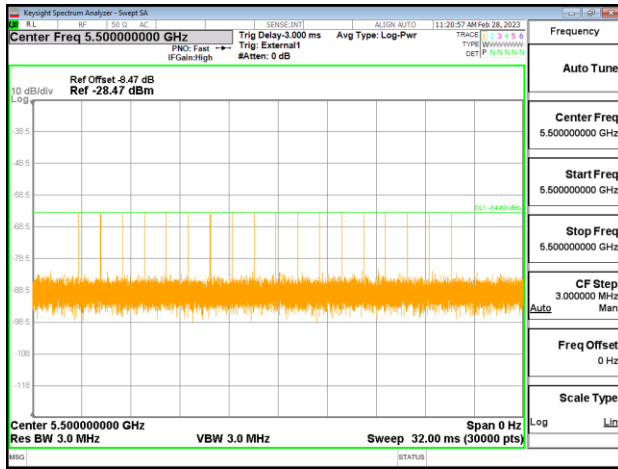
Single Burst of Radar Type 6



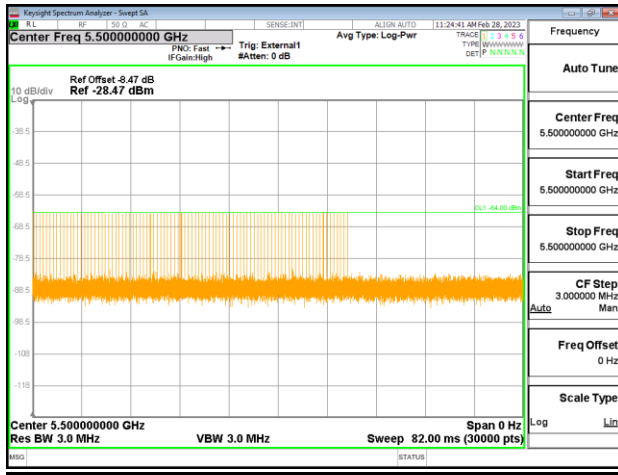


<20MHz / 5500MHz>

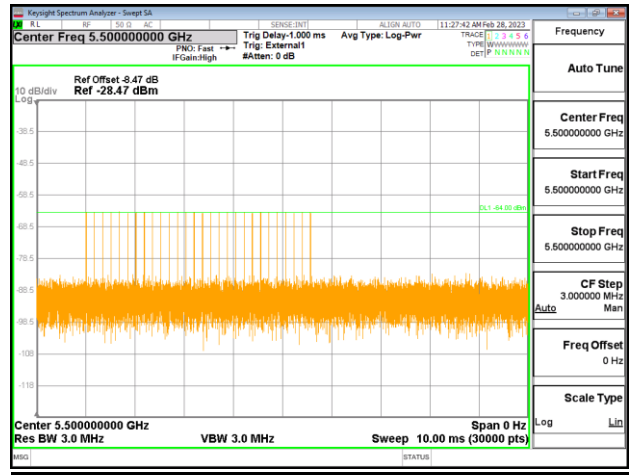
Radars Type 0



Radars Type 1

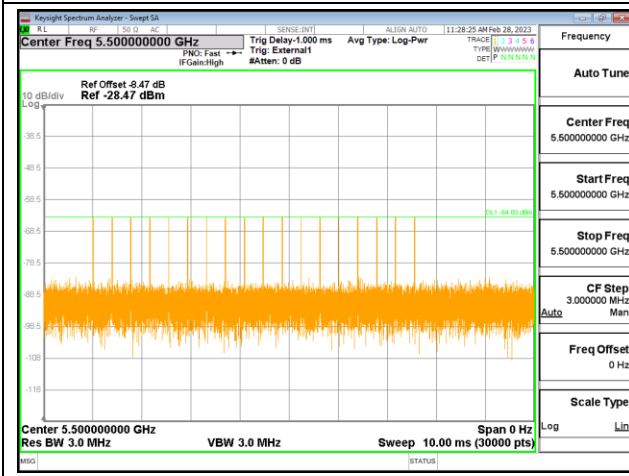


Radars Type 2

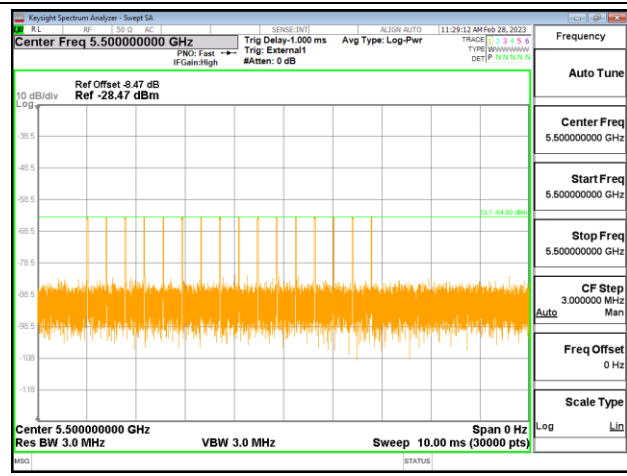




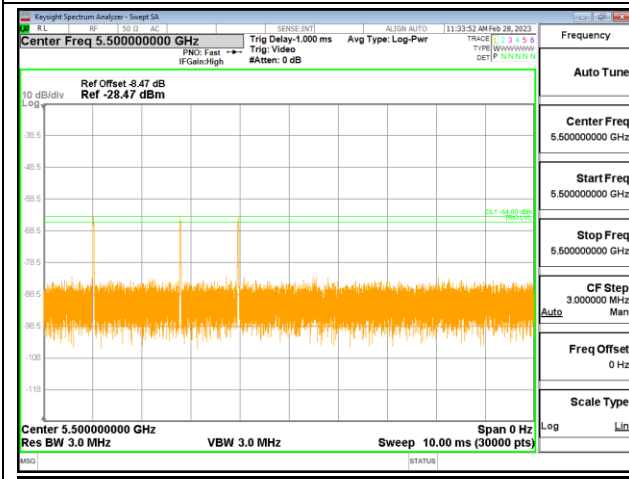
Radars Type 3



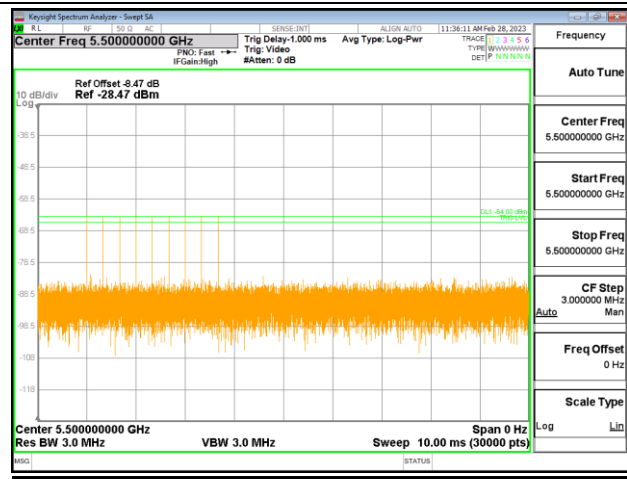
Radars Type 4



Single Burst of Radar Type 5



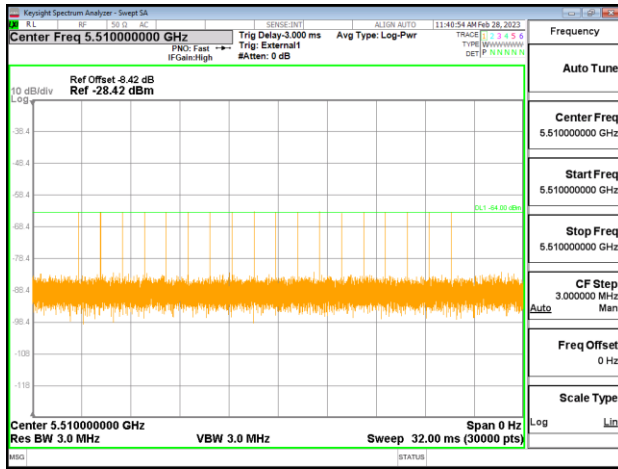
Single Burst of Radar Type 6



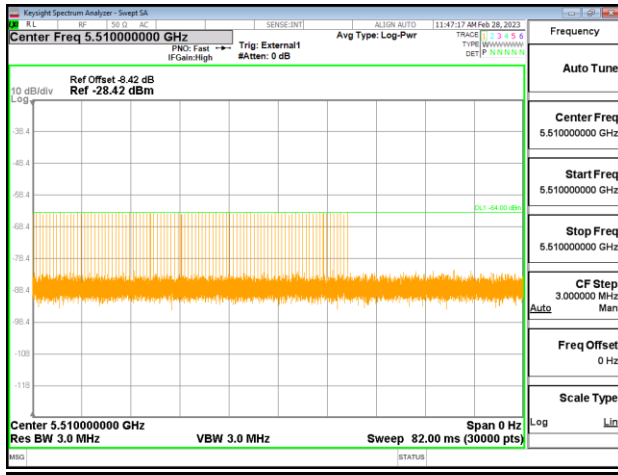


<40MHz / 5510MHz>

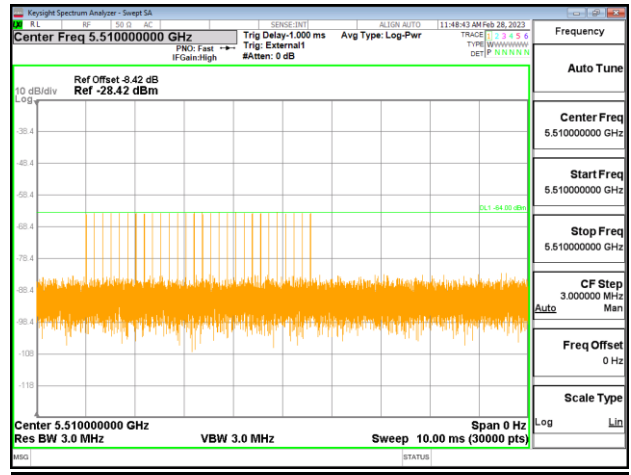
Radars Type 0



Radars Type 1

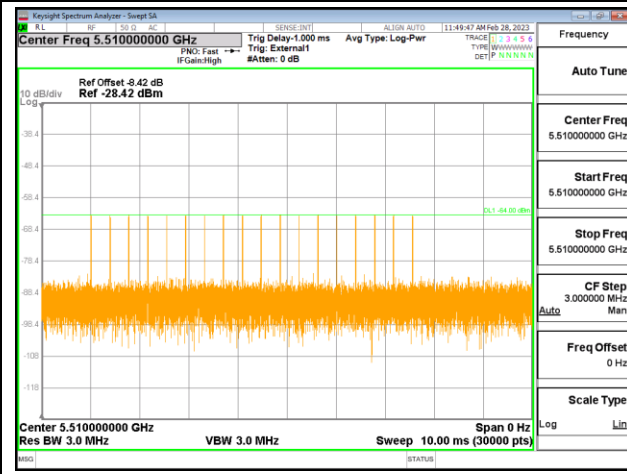


Radars Type 2

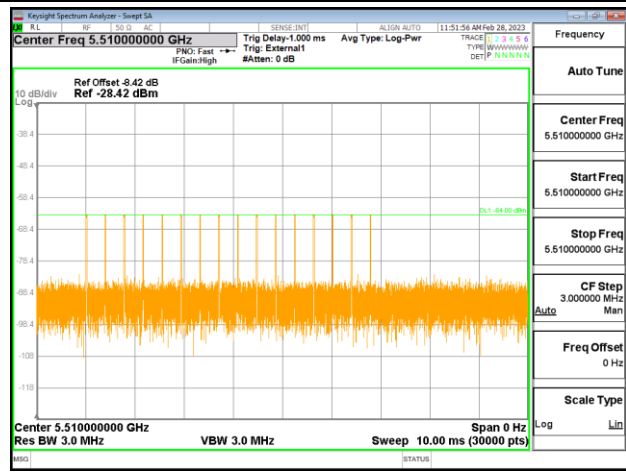




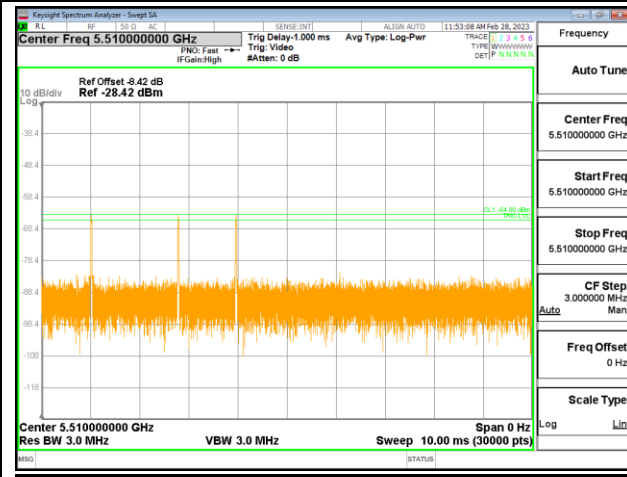
Radars Type 3



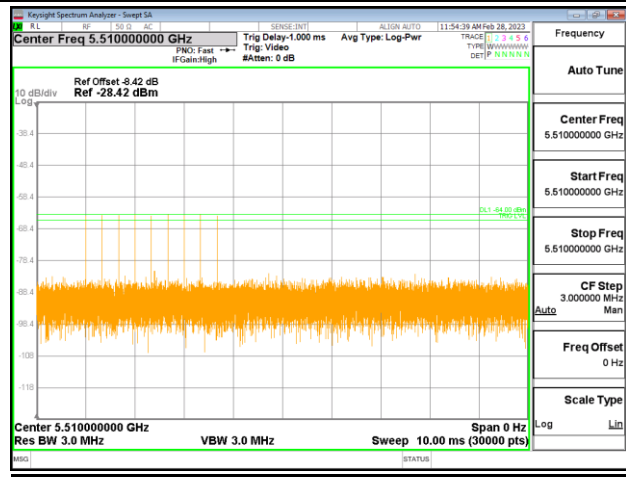
Radars Type 4



Single Burst of Radar Type 5



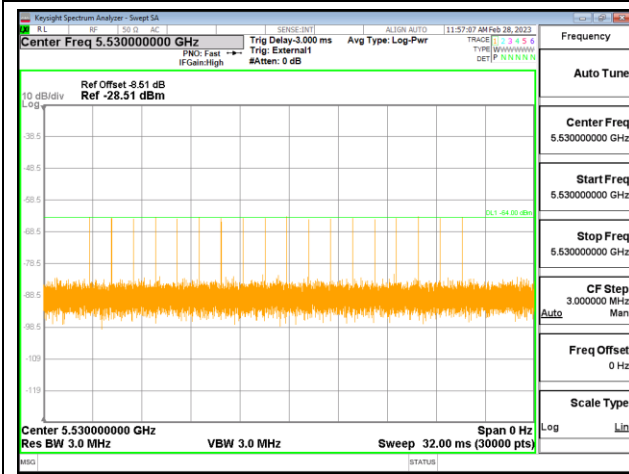
Single Burst of Radar Type 6



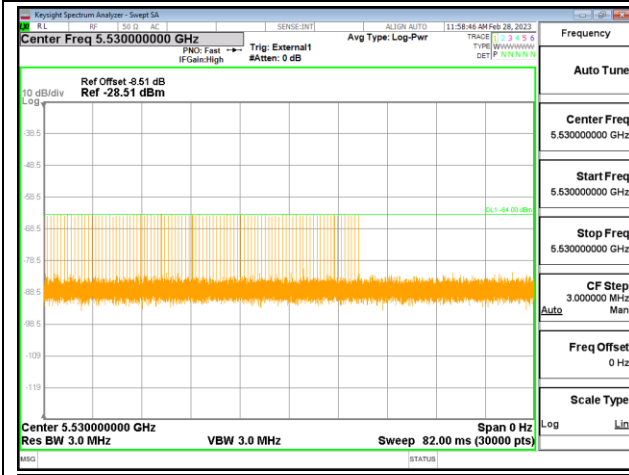


<80MHz / 5530MHz>

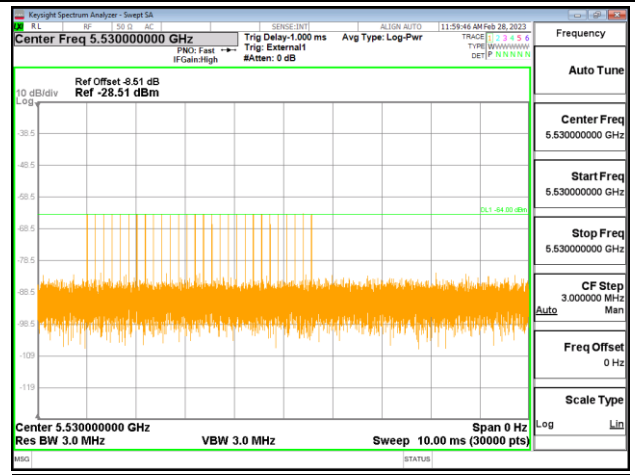
Radars Type 0



Radars Type 1

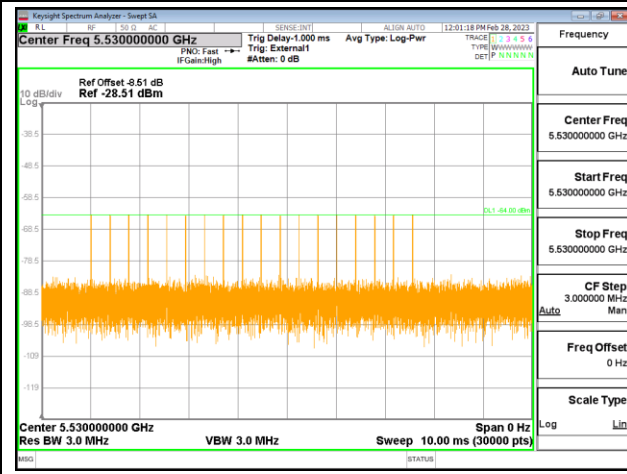


Radars Type 2

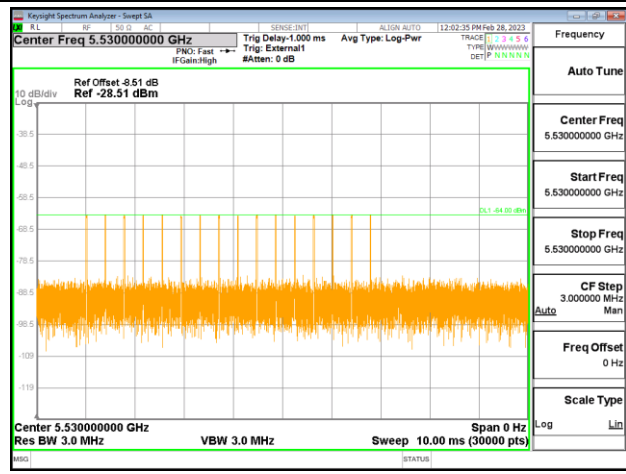




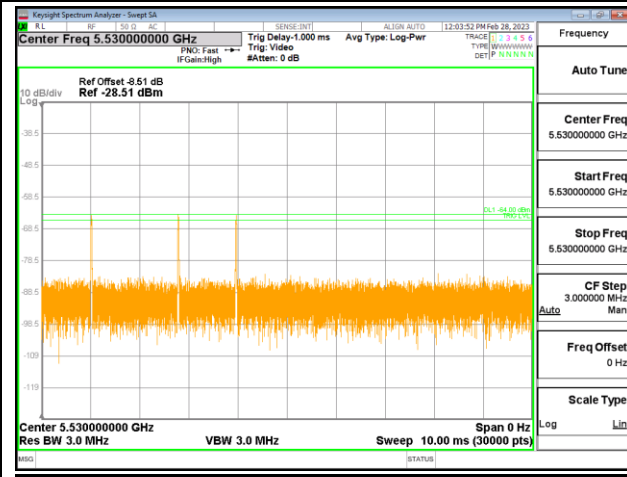
Radars Type 3



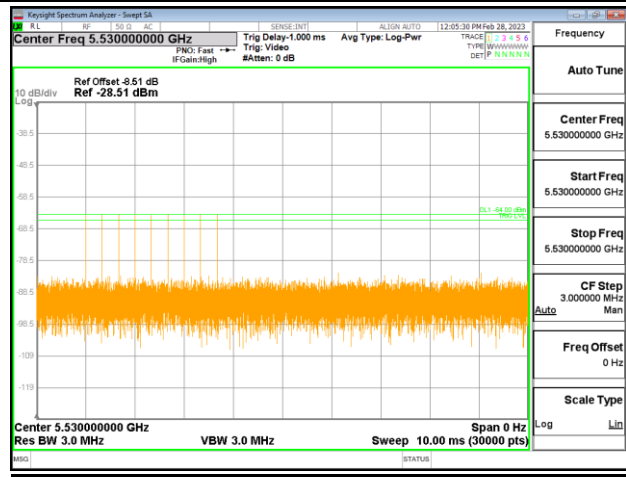
Radars Type 4



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

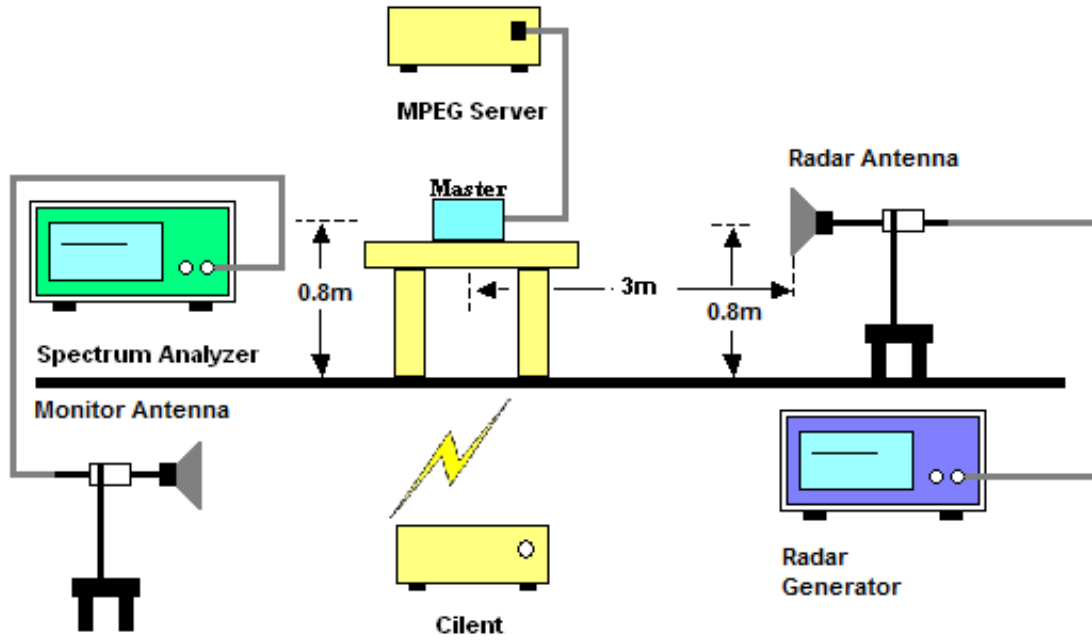
The U-NII Detection Bandwidth shall contain minimum 100% of the 99% power bandwidth. During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

### 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

Dual 5G Radio mode:

<20MHz / 5300MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5289	-11	N	N	N	N	N	N	N	N	N	N	0	
5290	-10	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	90%	F <sub>L</sub>
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%	F <sub>H</sub>
5311	+11	N	N	N	N	N	N	N	N	N	N	0	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = **5310 – 5290 = 20 MHz**  
EUT 99% Bandwidth = 19.166 MHz (Refer to channel 60)



<40MHz / 5310MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5289	-21	N	N	N	N	N	N	N	N	N	N	0%	
5290	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	F <sub>H</sub>
5331	+21	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5330 – 5290 = 40 MHz

EUT 99% Bandwidth = 36.263 MHz (Refer to channel 62)



<80MHz / 5290MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5250	-40	N	N	N	N	N	N	N	N	N	N	0%	
5251	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	
5275	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5380	-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%	F <sub>H</sub>
5329	+39	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5328 – 5251 = 77 MHz

EUT 99% Bandwidth = 76.382 MHz (Refer to channel 58)

<20MHz / 5500MHz>



Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5489	-11	N	N	N	N	N	N	N	N	N	N	0%	
5490	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	F <sub>H</sub>
5511	+11	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = **5510 – 5490 = 20 MHz**  
EUT 99% Bandwidth = 19.423 MHz (Refer to channel 100)



<40MHz / 5510MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5489	-21	N	N	N	N	N	N	N	N	N	N	0%	
5490	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	F <sub>H</sub>
5531	+21	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5530 – 5490 = 40 MHz

EUT 99% Bandwidth = 36.599 MHz (Refer to channel 102)



<80MHz / 5530MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5489	-41	N	N	N	N	N	N	N	N	N	N	0%	
5490	-40	N	N	Y	Y	Y	Y	Y	Y	Y	Y	80%	
5491	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	
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%	F <sub>H</sub>
5571	+41	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5570 – 5491 = 79 MHz

EUT 99% Bandwidth = 76.445 MHz (Refer to channel 106)



Single 5G Radio mode:

<20MHz / 5500MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5488	-12	N	N	N	N	N	N	N	N	N	N	0%	
5489	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	F <sub>H</sub>
5511	+11	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = **5510 – 5489 = 21 MHz**  
EUT 99% Bandwidth = 19.673 MHz (Refer to channel 100)





<40MHz / 5510MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5489	-21	N	N	N	N	N	N	N	N	N	N	0%	
5490	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
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%	F <sub>H</sub>
5531	+21	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5530 – 5490 = 40 MHz  
EUT 99% Bandwidth = 38.009 MHz (Refer to channel 102)



<80MHz / 5530MHz>

Frequency (MHz)	Fc	Trial Number (Detection = Y, No Detection = N)										Rate (%)	F <sub>H</sub> /F <sub>L</sub>
		1	2	3	4	5	6	7	8	9	10		
5489	-41	N	N	N	N	N	N	N	N	N	N	0%	
5490	-40	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	F <sub>L</sub>
5491	-39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%	
5492	-38	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	90%	
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%	
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%	F <sub>H</sub>
5571	+41	N	N	N	N	N	N	N	N	N	N	0%	

Detection Bandwidth = F<sub>H</sub> – F<sub>L</sub> = 5570 – 5490 = 80 MHz  
EUT 99% Bandwidth = 76.973 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**

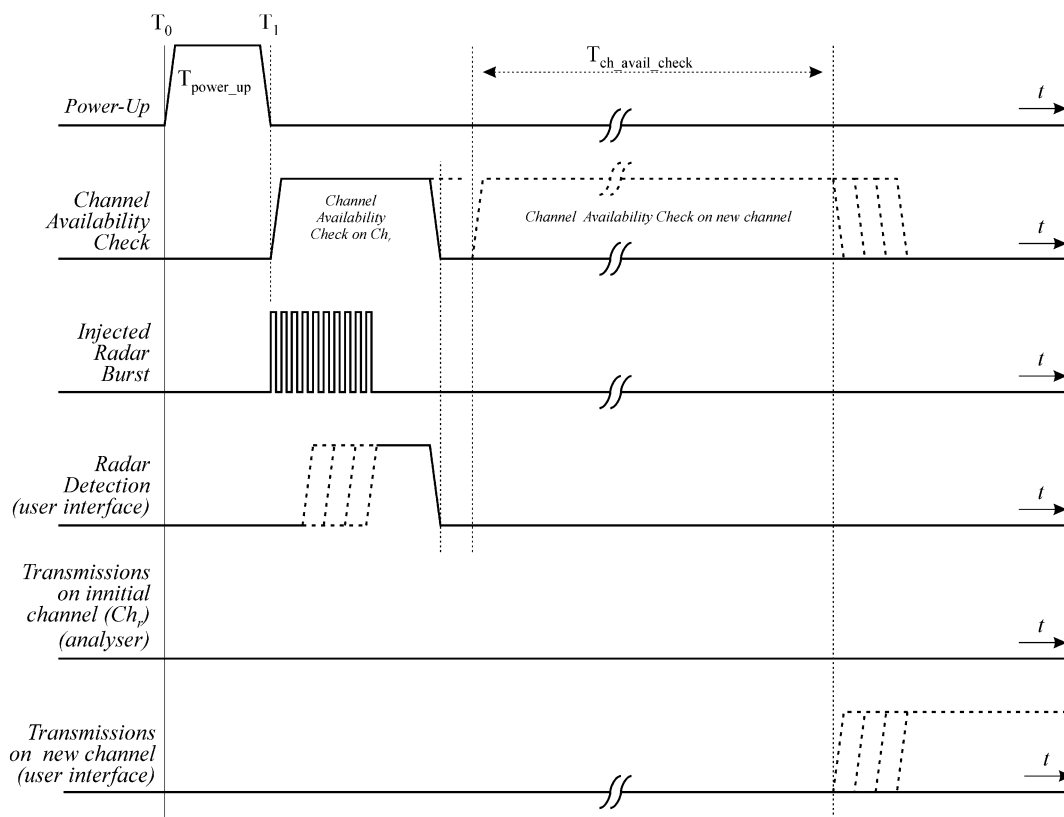
This test does not use any radar waveforms and only needs to be performed one time.

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

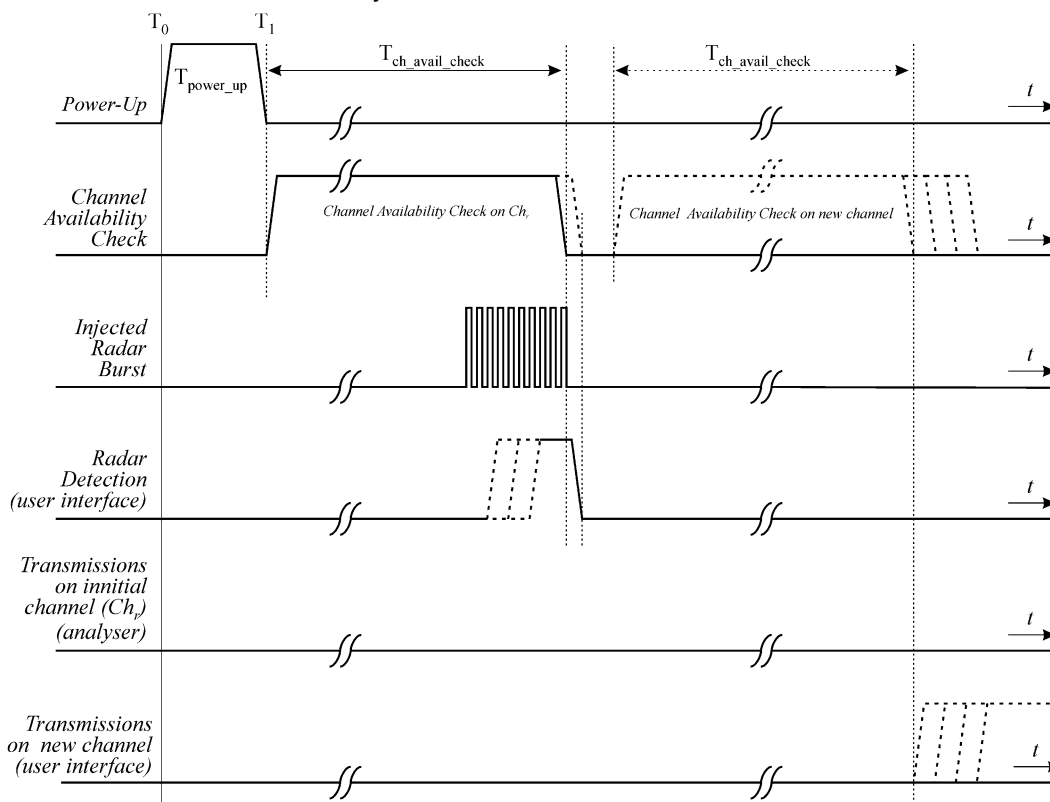


**Figure 15: Example of timing for radar testing at the beginning of the Channel Availability Check Time**

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

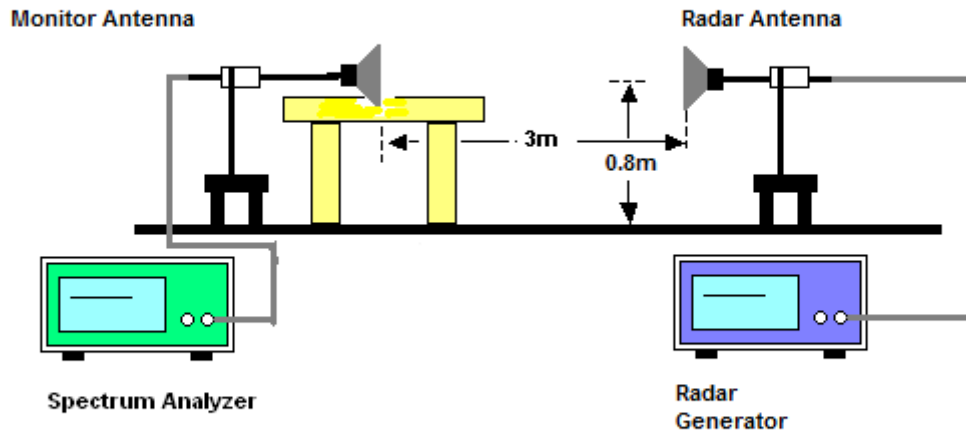
The steps below define the procedure to verify successful radar detection on the test Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1dB occurs at the end of the Channel Availability Check Time. This is illustrated in Figure 16.

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



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

### 3.3.5 Test Setup



### 3.3.6 Test Deviation

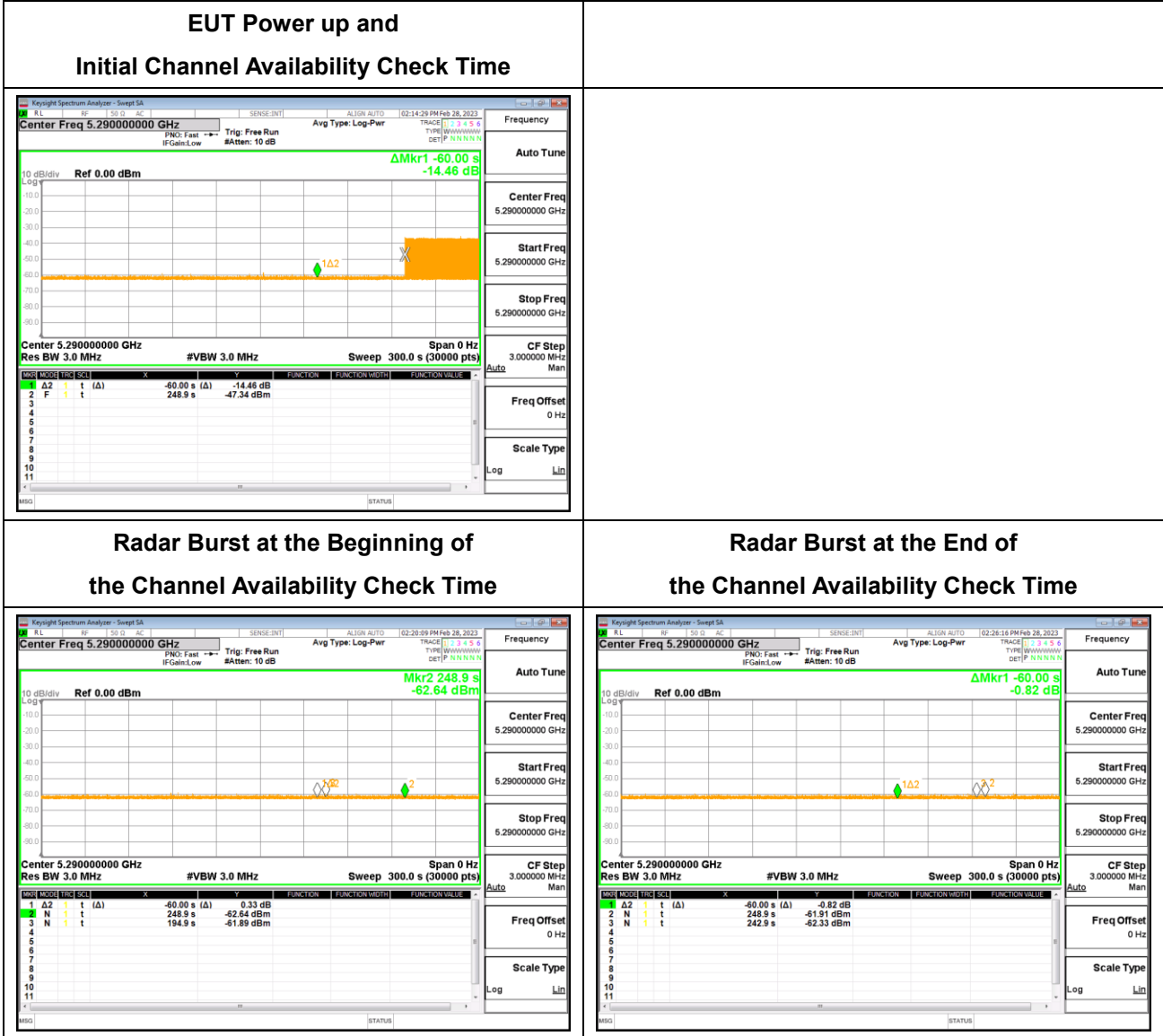
There is no deviation with the original standard.



### 3.3.7 Result of Channel Availability Check Time

#### Dual 5G Radio mode:

<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





Single 5G Radio mode:

<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

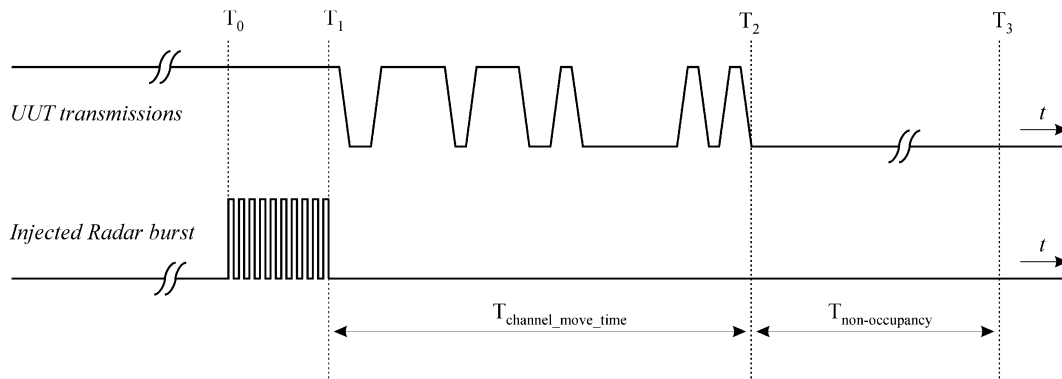
The EUT has In-Service Monitoring function to continuously monitor the radar signals, If radar is detected, it must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current Channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

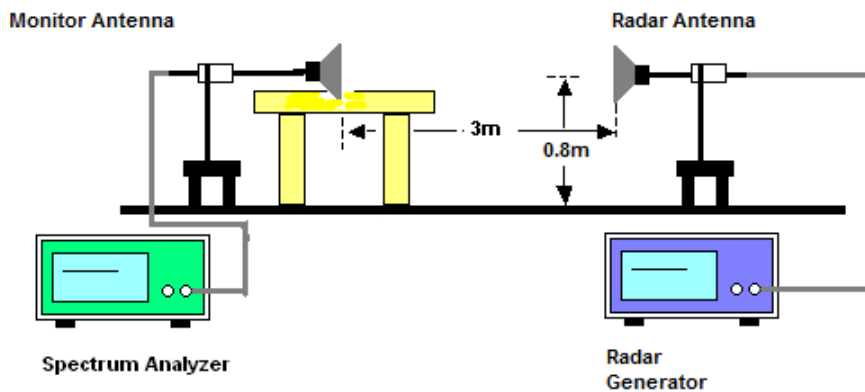
- (1) One frequency will be chosen from the Operating Channels of the EUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals 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 :	14.6~20.5°C
Test Engineer :	Liliana Gonzalez	Relative Humidity :	35.0~45.3%

Dual 5G Radio mode:

BW / Channel	Test Item	Test Result	Limit	Pass/Fail
80MHz / 5290MHz	Channel Move Time	0.9669s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 11.6014ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass
80MHz / 5530MHz	Channel Move Time	0.01172s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 0 ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass

Single 5G Radio mode:

BW / Channel	Test Item	Test Result	Limit	Pass/Fail
80MHz / 5530MHz	Channel Move Time	0.08318s	< 10s	Pass
	Channel Closing Transmission Time	200ms + 0 ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass

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



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

Dual 5G Radio mode:

**<80MHz / 5290MHz > 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.

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	966.9 ms	-54.00 dBm			
2	N	1	t	200.0 ms	-58.09 dBm			
3	N	1	t	10.00 s	-57.63 dBm			

Option	MK1 Time(s)	MK2 Time(s)	Delta2 Time(s)
Trigger Level(dBm):	200.0000ms	10000.0000	9800.0000m
On Time Point:	24497		11.6014ms
Sweep Time(s)	30000		0.1184%

**Run**

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**Note:**

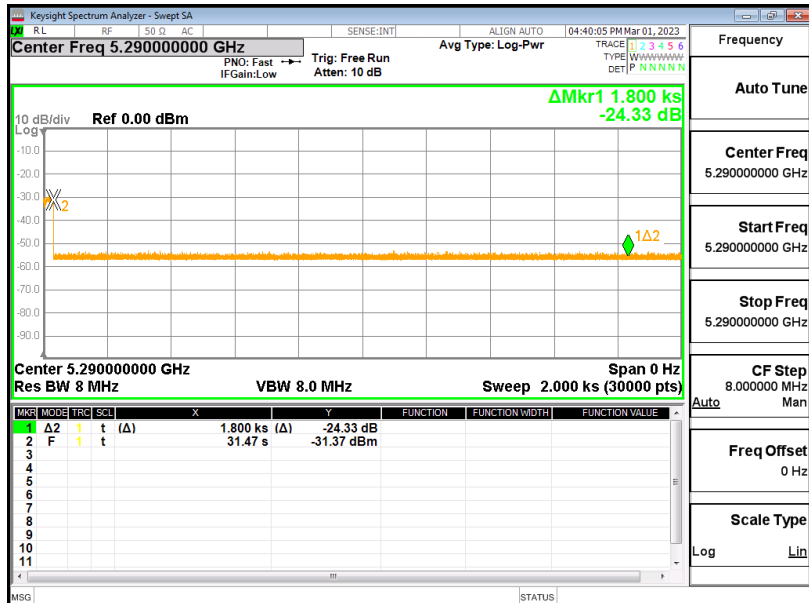
Dwell (0.4 ms)= Sweep Time (12000 ms) / Sweep Point Bins (30000)

Channel Closing Transmission Time (200 + 11.6 ms) = 200 + Number (29) X Dwell (0.4 ms) < 260ms



Non-Occupancy Period

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



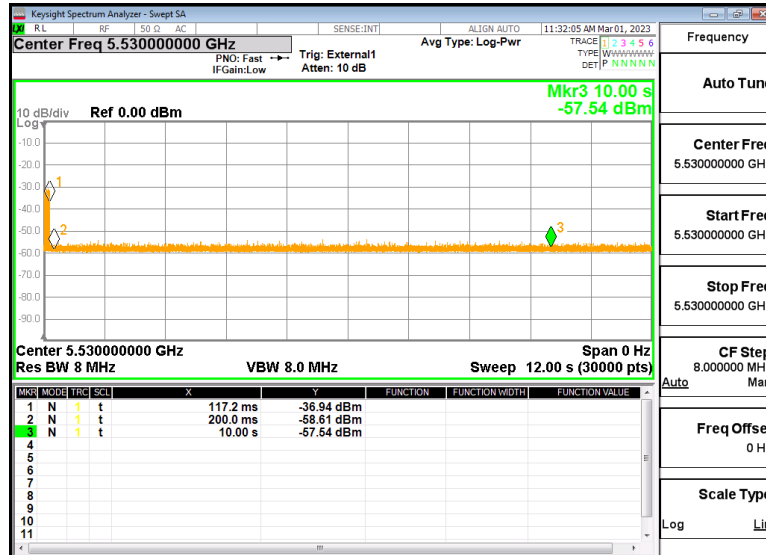


<80MHz / 5530MHz > In-Service Monitoring

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):

On Time Point:  Total Point:  Sum of On Time(s):

Sweep Time(s):  Sweep Point:  Duty Cycle(%):

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Note:

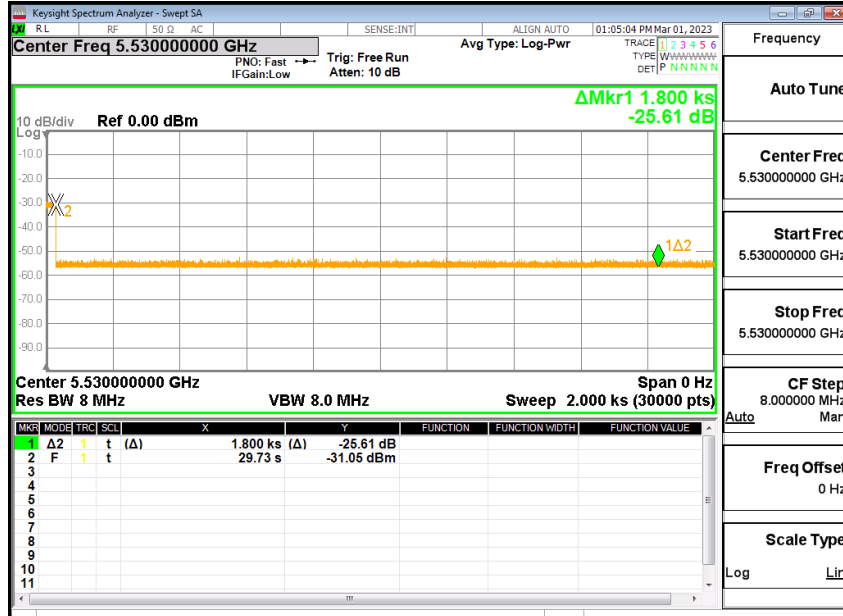
Dwell (0.4 ms)= Sweep Time (12000 ms) / Sweep Point Bins (30000)

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



Non-Occupancy Period

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







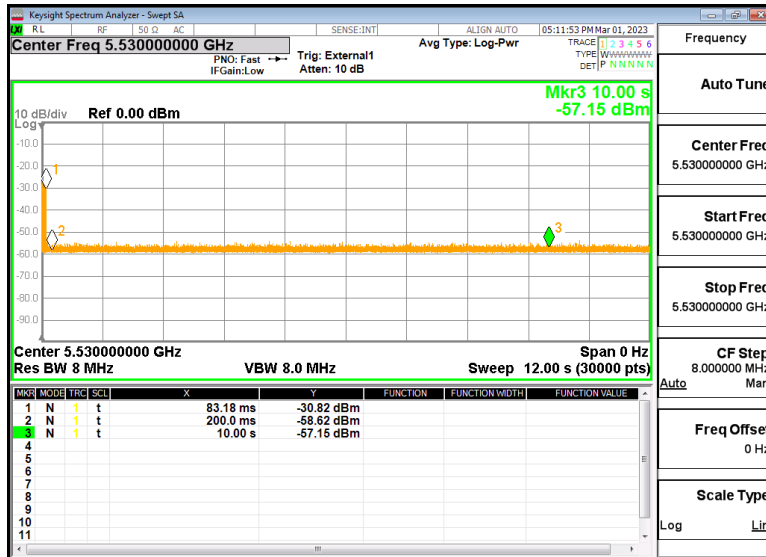
Single 5G Radio mode:

<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.



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Option

Trigger Level(dBm):	MK1 Time(s)	MK2 Time(s)	Delta2 Time(s)
-53	200.0000ms	10000.0000	9800.0000m
On Time Point:	Total Point:	Sum of On Time(s):	
0	24497	0.0000ms	
Sweep Time(s)	Sweep Point	Duty Cycle(%):	
12001.60ms	30000	0.0000%	

Run

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Note:

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

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



Non-Occupancy Period

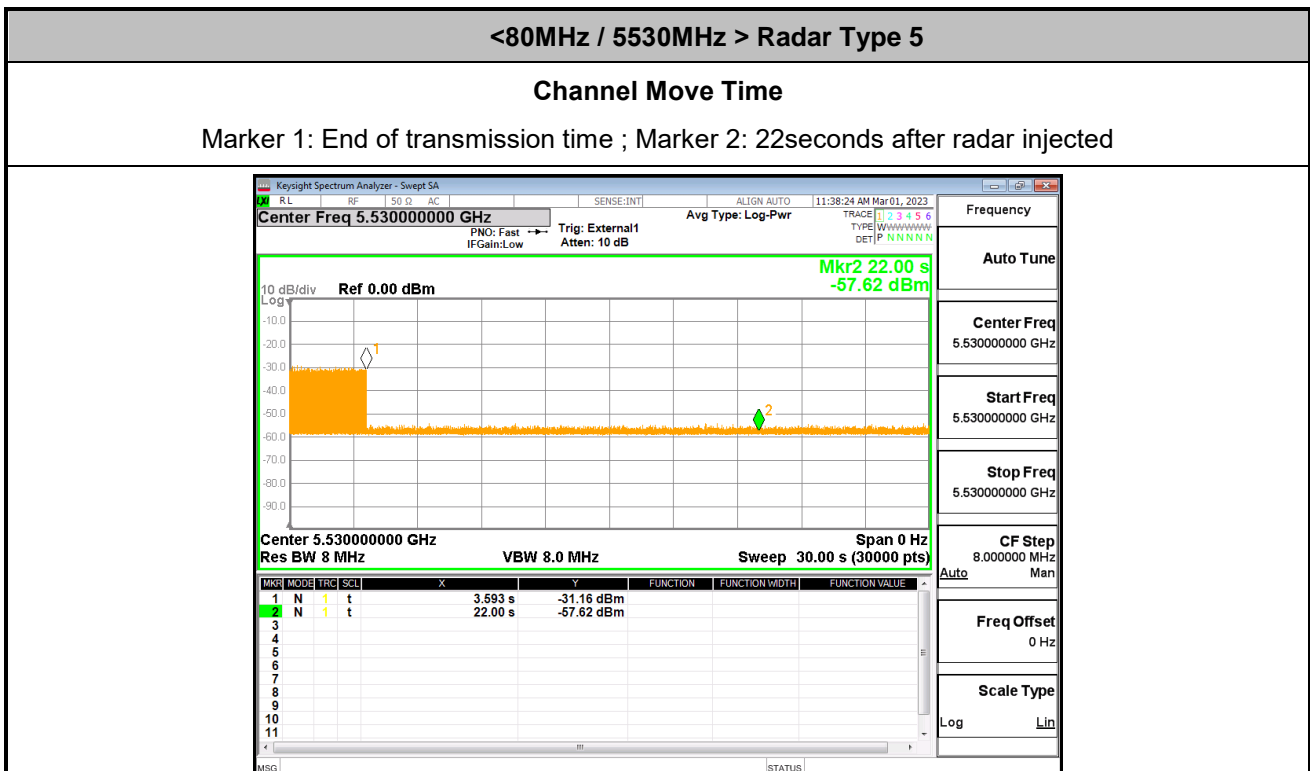
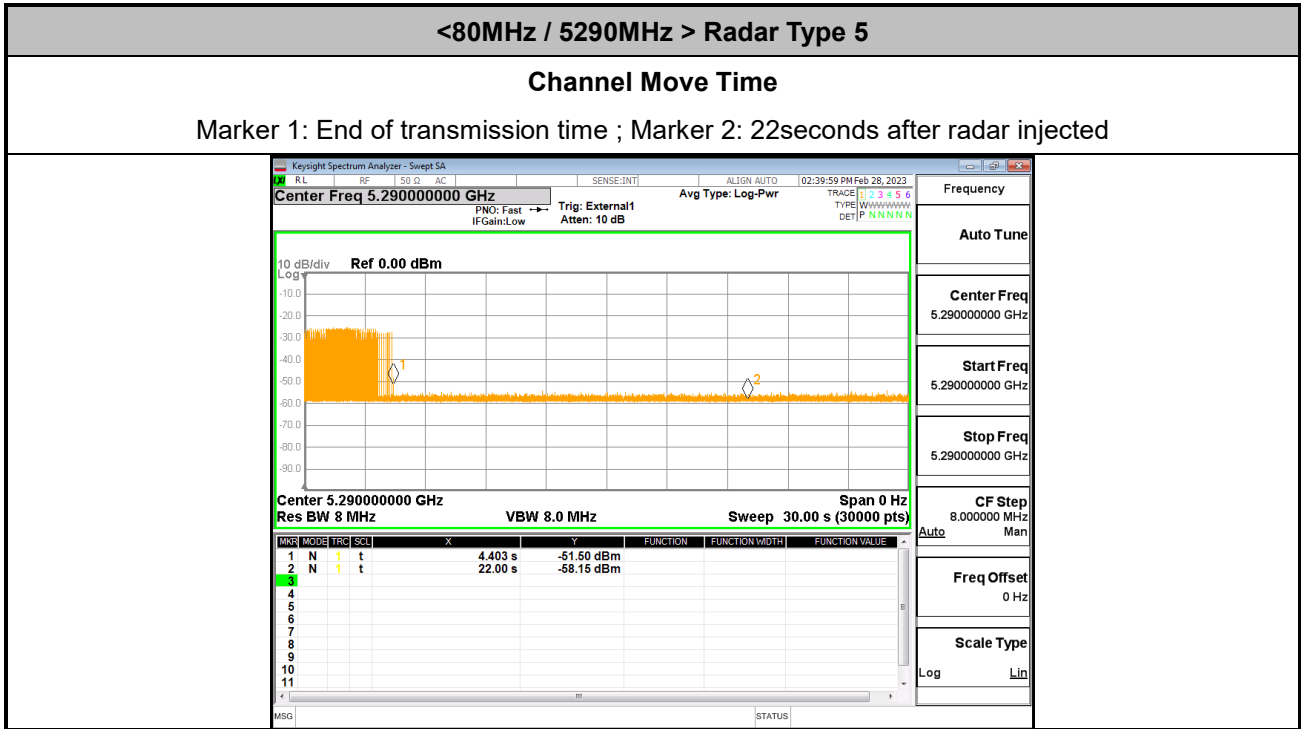
Marker 2: radar injected ; Delta 1: 30 minutes after radar injected





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

Dual 5G Radio mode:



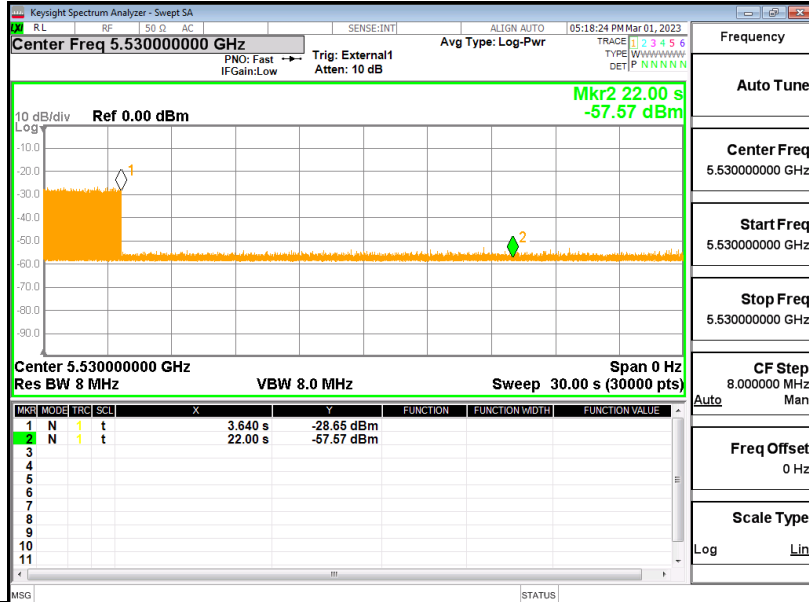


Single 5G Radio mode:

<80MHz / 5530MHz > Radar Type 5

Channel Move Time

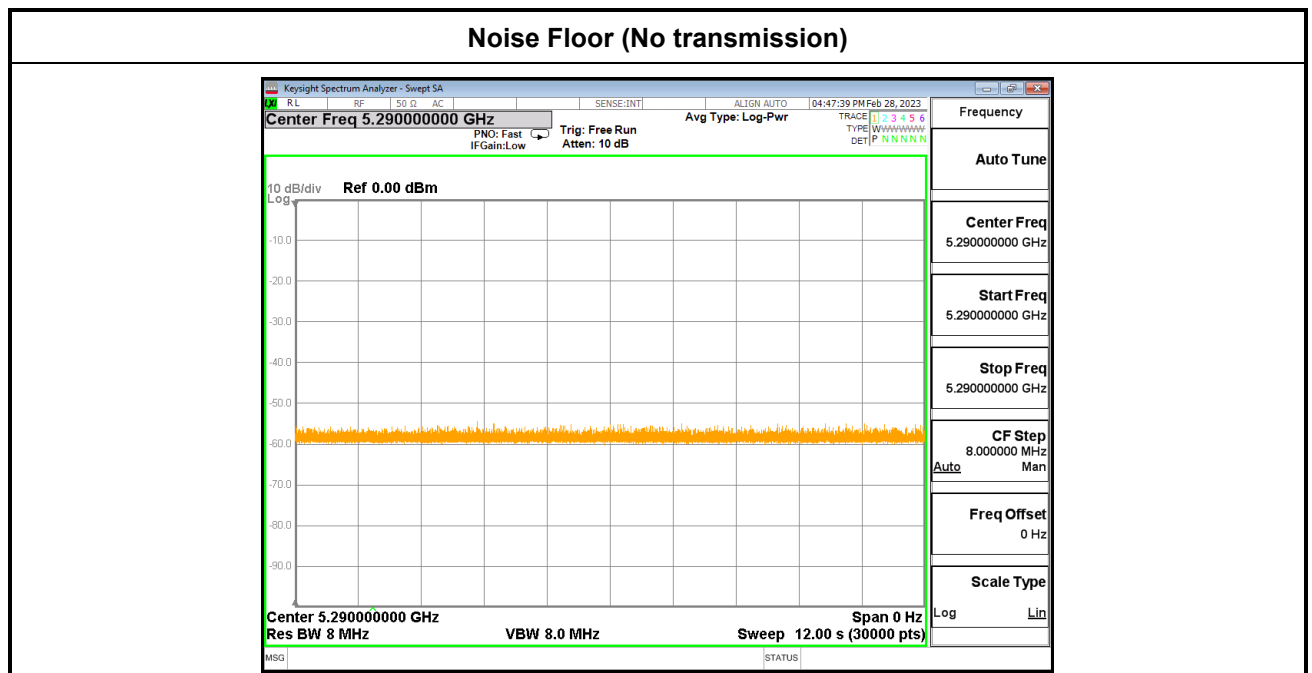
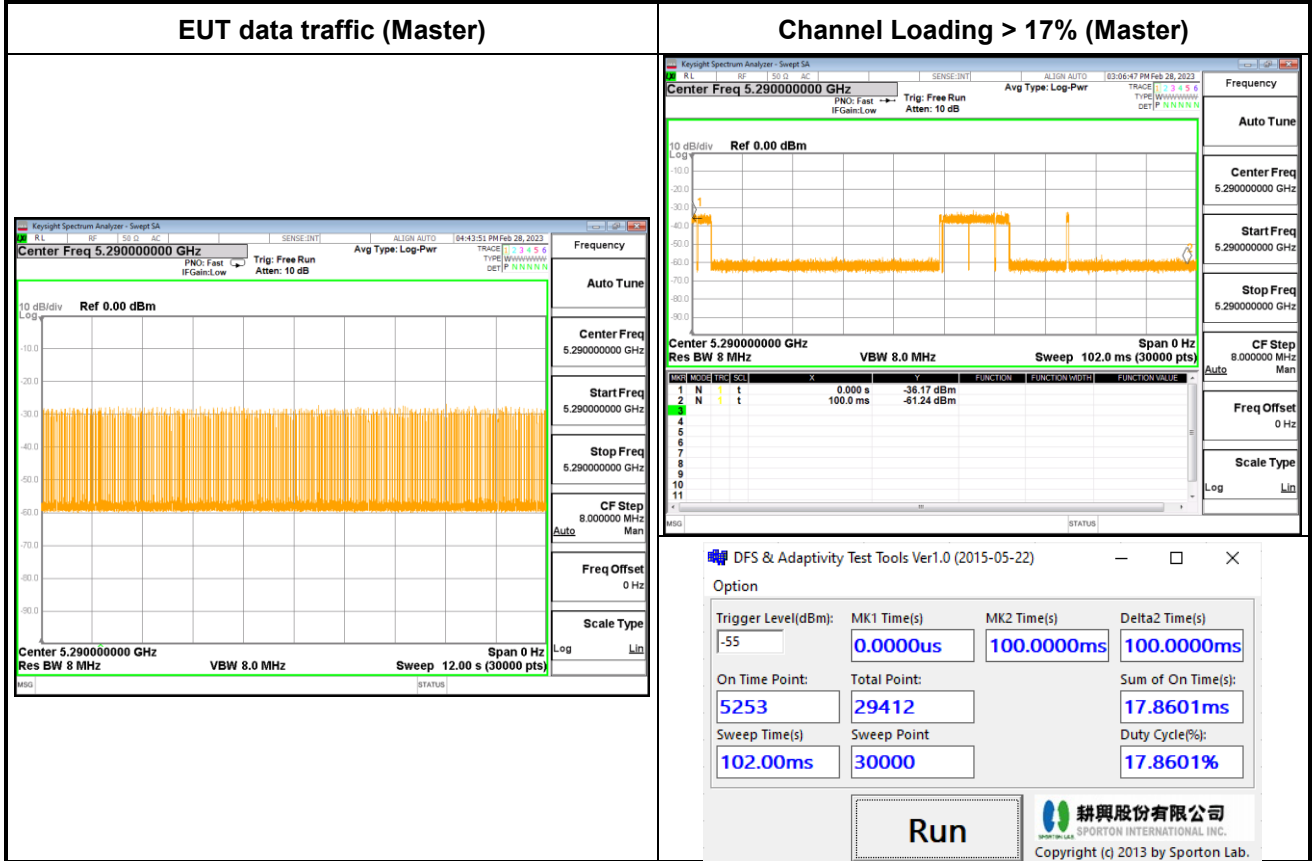
Marker 1: End of transmission time ; Marker 2: 22seconds after radar injected





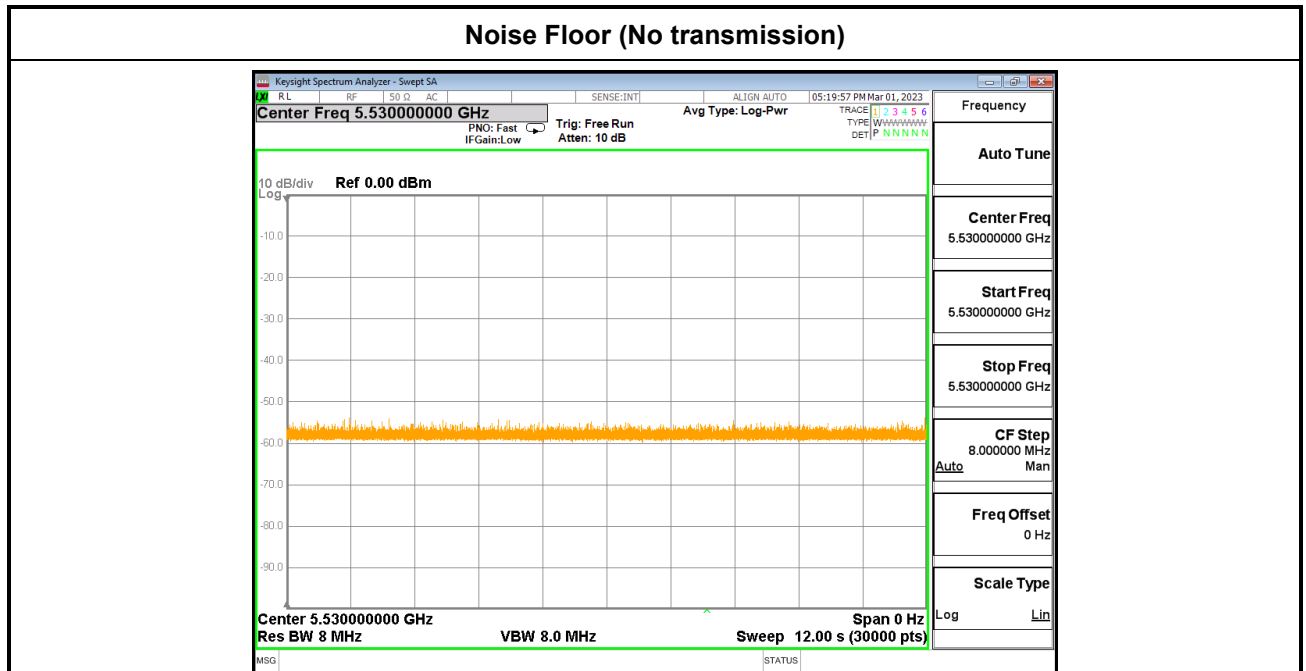
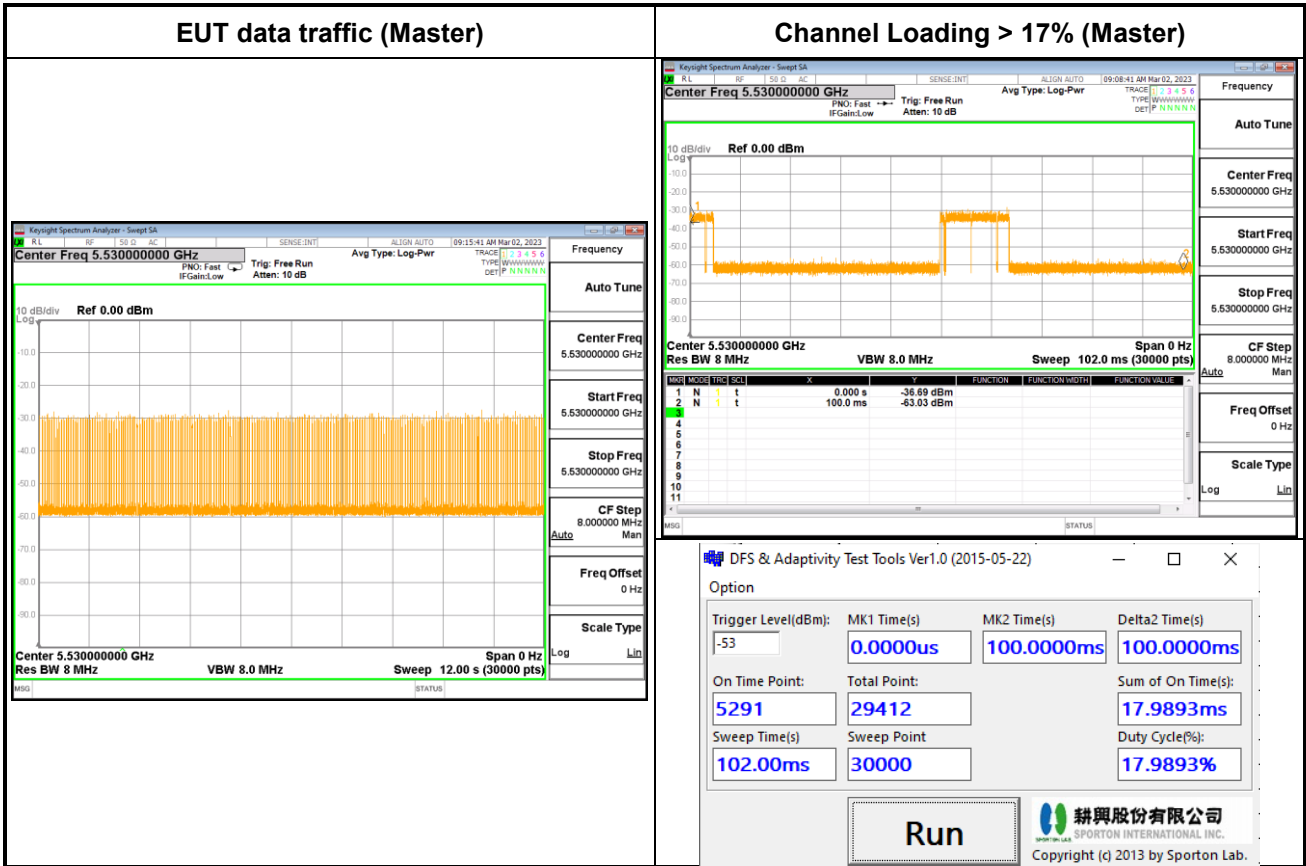
### 3.4.8 Data Traffic Channel Loading and Noise Floor Plots

Dual 5G Radio mode:





Single 5G Radio mode :





### 3.5 Statistical Performance Check

#### 3.5.1 Limit of Statistical Performance Check

##### Short Pulse Radar Test

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

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

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

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

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

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

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120



A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 1 through 4. For Short Pulse Radar Type 0, the same waveform is used a minimum of 30 times. If more than 30 waveforms are used for Short Pulse Radar Types 1 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

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:

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

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

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

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

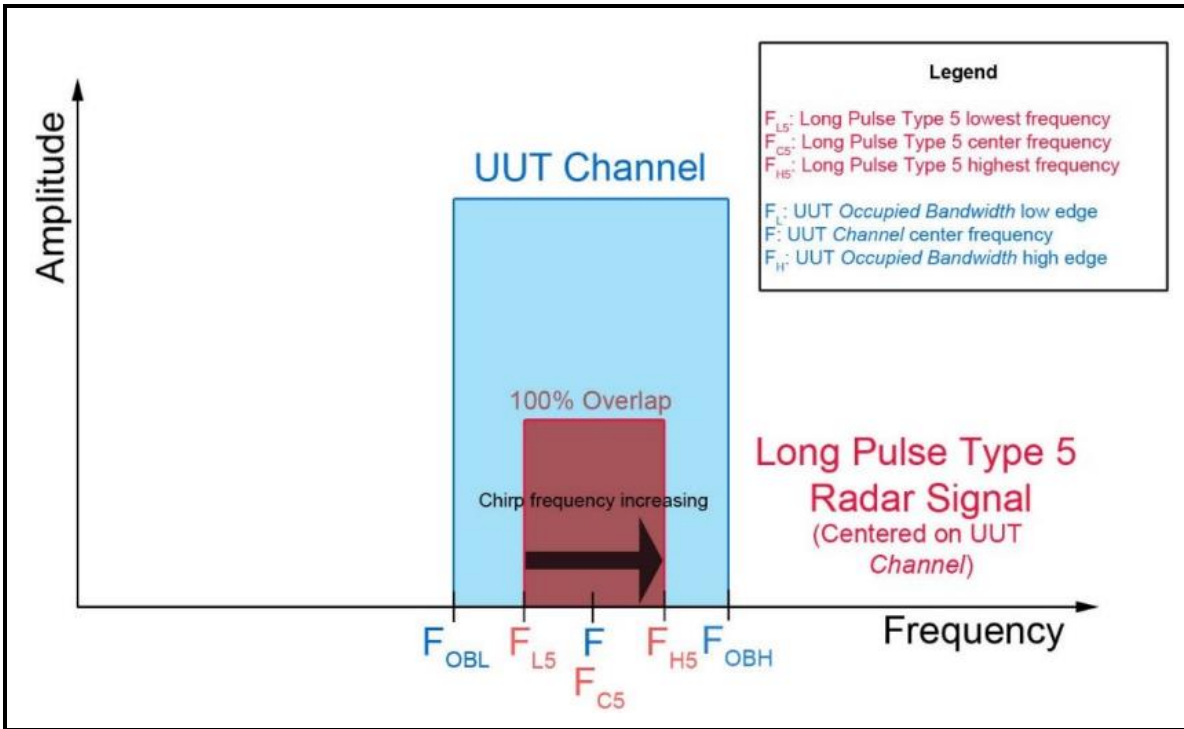
For subset case 3: to retain 90% frequency overlap between the radar signal and the UUT Occupied Bandwidth, the center frequency of the signal generator will vary for each of the ten trials in subset case 3.

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

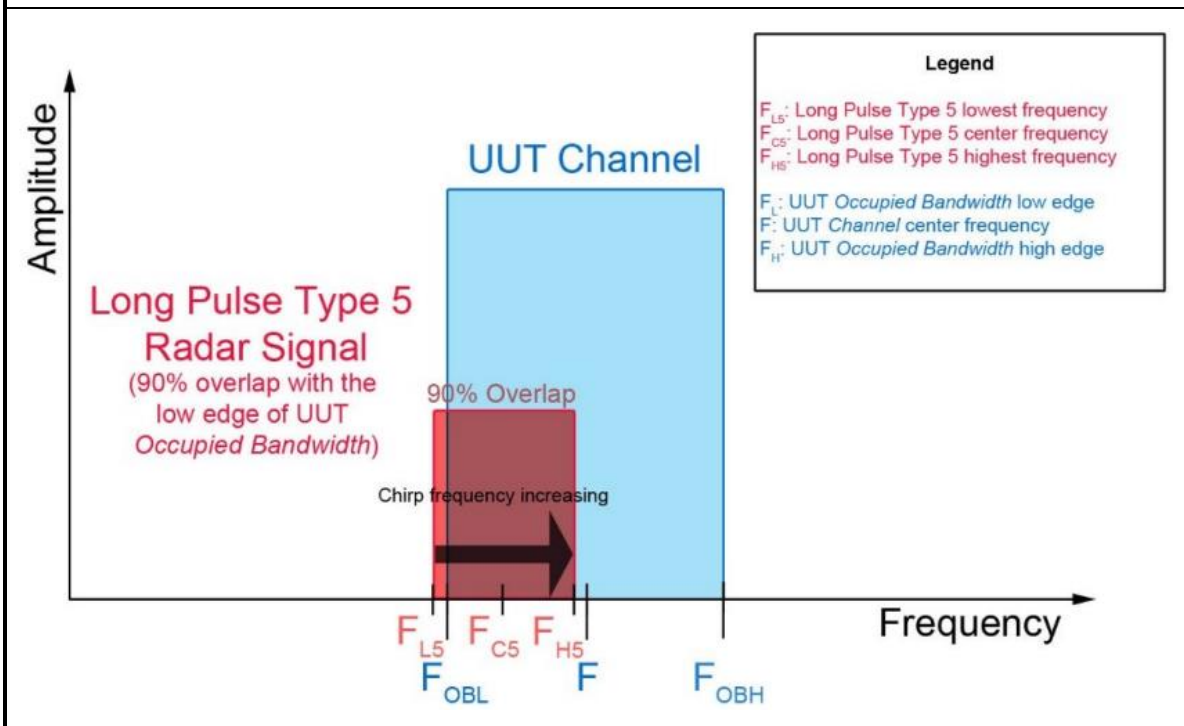
Note: The FH and FL are Occupied Bandwidth low edge and high edge, where

$FH = Fc + (OBW / 2)$  and  $FL = Fc - (OBW / 2)$

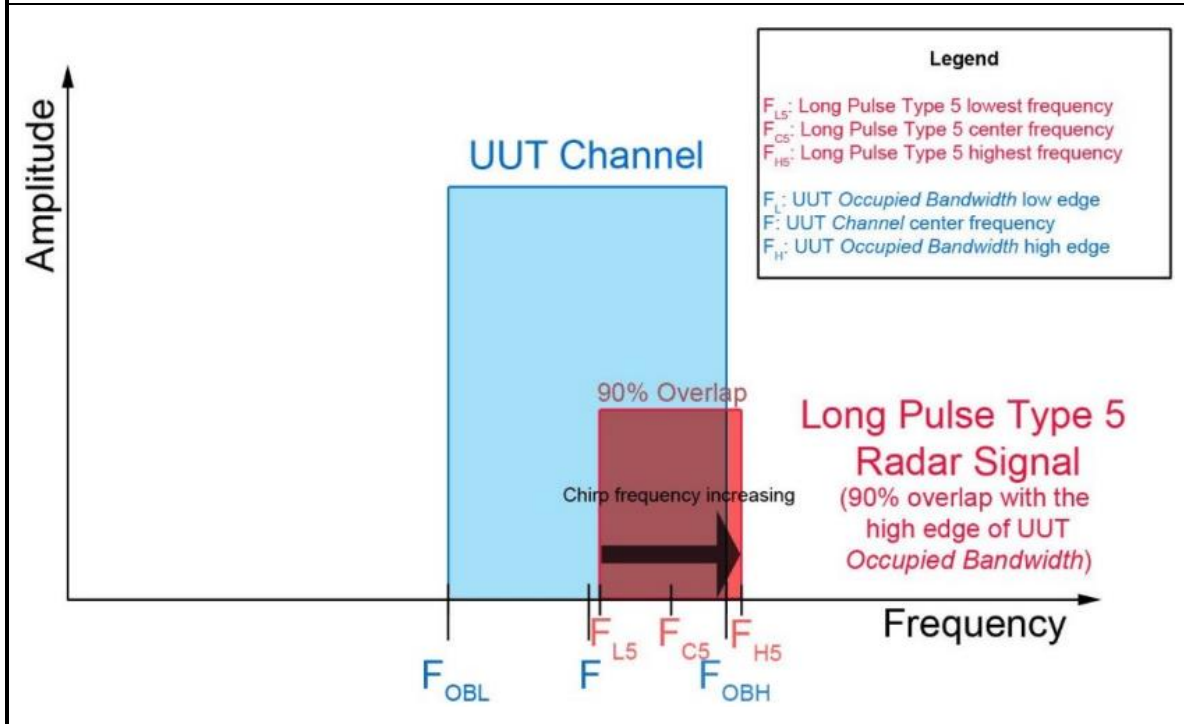
a) Channel center frequency (subset case 1)



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:

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

**Table 7 – Frequency Hopping Radar Test Waveform**

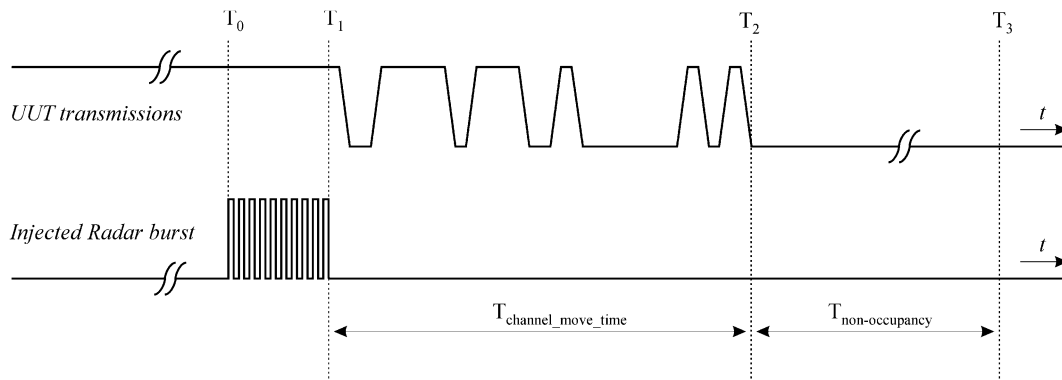
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

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

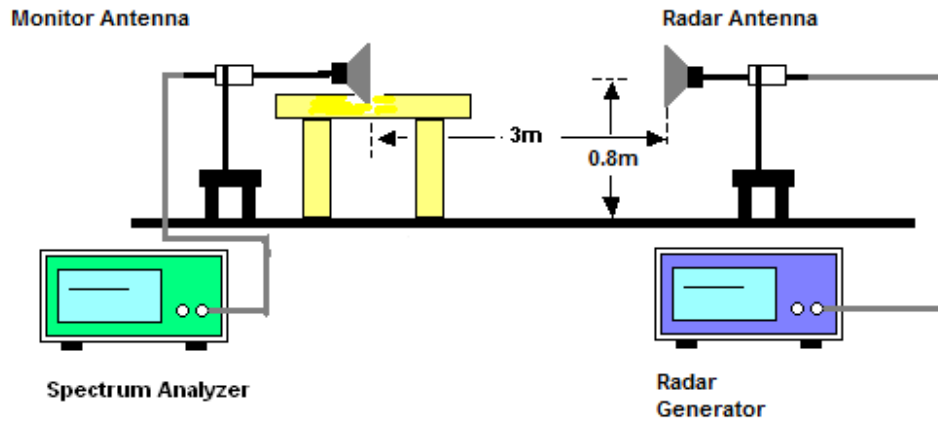
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

### 3.5.2 Test Procedures

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



### 3.5.3 Test Setup



### 3.5.4 Test Deviation

There is no deviation with the original standard.



3.5.5 Result of Statistical Performance Check

Dual 5G Radio mode :

<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	N	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	N
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	N	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	N	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>29/30</b>	<b>28/30</b>	<b>30/30</b>	<b>30/30</b>	<b>29/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>96.67%</b>	<b>93.33%</b>	<b>100%</b>	<b>100%</b>	<b>96.67%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>	<b>97.5% ( &gt;=80% )</b>					



<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	N	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>100% ( &gt;=80% )</b>		





<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	N	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	N	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	N	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>29/30</b>	<b>28/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>96.67%</b>	<b>93.33%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>99.17% ( &gt;=80% )</b>		



<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	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	N	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	N	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>98.34% ( &gt;=80% )</b>		



<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
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>100% ( &gt;=80% )</b>		



<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	N	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	N	Y
15	Y	Y	N	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
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>	<b>28/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>	<b>93.33%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>			<b>99.17% ( &gt;=80% )</b>			



Single 5G Radio mode :

<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	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
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>	<b>100% ( &gt;=80% )</b>					



<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	N	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	N	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	N	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	N	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>30/30</b>	<b>28/30</b>	<b>29/30</b>	<b>29/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>100%</b>	<b>93.33%</b>	<b>96.67%</b>	<b>96.67%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>			<b>97.5% ( &gt;=80% )</b>			



<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	N	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	N	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
<b>Trial of Detection</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>	<b>29/30</b>	<b>30/30</b>	<b>30/30</b>
<b>Probability (%)</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>	<b>96.67%</b>	<b>100%</b>	<b>100%</b>
<b>Limit (%)</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 60%</b>	<b>&gt;= 80%</b>	<b>&gt;= 70%</b>
<b>Average Probability of Radar Type 1~4 (%)</b>				<b>98.34% ( &gt;=80% )</b>		



## 4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Vector Generator	Keysight	N5182B	MY57300963	9KHz~6GHz	Mar. 23, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Mar. 22, 2023	DFS (DFS01-CA)
Frequency Extender for EXG or MXG	Keysight	N5182BX07	MY59360230	9kHz~7.2GHz	Apr. 27, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Apr. 26, 2023	DFS (DFS01-CA)
EXA Signal Analyzer	Keysight	N9010A	MY56070412	10Hz~7GHz	Nov. 21, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Nov. 20, 2023	DFS (DFS01-CA)
Horn Antenna	ETS-Lindgren	3117	00227739	1GHz ~18GHz	Jun. 27, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Jun. 26, 2023	DFS (DFS01-CA)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	01895	1GHz ~18GHz	Sep. 07, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Sep. 06, 2023	DFS (DFS01-CA)
Hygrometer	Testo	608-H1	45142588	Temperature & Humidity	Aug. 16, 2022	Feb. 28, 2023 ~ Mar. 02, 2023	Aug. 15, 2023	DFS (DFS01-CA)

————THE END————





## **Appendix A. DFS Radar Parameters**

<Single 5G Radio mode>

**Channel 100 Bandwidth 20MHz**

**DFS Radar Parameters**  
**FCC Radar Type 1**  
**Channel 100 Bandwidth 20MHz**

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	4	1730.10	578	Yes
2	13	1319.26	758	Yes
3	5	1672.24	598	Yes
4	17	1193.32	838	Yes
5	20	1113.59	898	Yes
6	21	1089.32	918	Yes
7	12	326.16	3066	Yes
8	10	1432.66	698	Yes
9	8	1519.76	658	Yes
10	1	1930.50	518	Yes
11	6	1618.12	618	Yes
12	12	1355.01	738	Yes
13	3	1792.11	558	Yes
14	19	1138.95	878	Yes
15	11	1392.76	718	Yes
16		579.71	1725	Yes
17		1173.71	852	Yes
18		503.78	1985	Yes
19		1472.75	679	Yes
20		352.73	2835	Yes
21		461.25	2168	Yes
22		467.29	2140	Yes
23		337.27	2965	Yes
24		1273.89	785	Yes
25		452.49	2210	Yes
26		1547.99	646	Yes
27		652.74	1532	Yes
28		1587.30	630	Yes
29		412.20	2426	Yes
30		1369.86	730	Yes

**DFS Radar Parameters**  
**FCC Radar Type 2**  
**Channel 100 Bandwidth 20MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	28	4.40	169	Yes
2	28	3.90	216	Yes
3	23	1.50	222	Yes
4	24	1.90	154	Yes
5	24	1.50	186	Yes
6	28	4.30	164	Yes
7	23	1.20	197	Yes
8	28	4.30	224	Yes
9	24	1.70	208	Yes
10	25	2.40	173	Yes
11	24	2.00	193	Yes
12	26	2.90	214	Yes
13	25	2.50	150	Yes
14	23	1.30	159	Yes
15	27	3.30	201	Yes
16	25	2.70	194	Yes
17	27	3.80	168	Yes
18	25	2.40	170	Yes
19	28	4.40	211	Yes
20	27	3.40	217	Yes
21	23	1.40	220	Yes
22	28	4.20	226	Yes
23	26	3.10	202	Yes
24	27	3.80	230	Yes
25	23	1.10	206	Yes
26	24	1.70	228	Yes
27	29	4.90	153	Yes
28	29	4.90	187	Yes
29	26	3.10	200	Yes
30	27	3.80	198	Yes

**DFS Radar Parameters**  
**FCC Radar Type 3**  
**Channel 100 Bandwidth 20MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	18	9.40	385	Yes
2	18	8.90	397	Yes
3	16	6.50	434	Yes
4	16	6.90	440	Yes
5	16	6.50	242	Yes
6	18	9.30	312	Yes
7	16	6.20	419	Yes
8	18	9.30	408	Yes
9	16	6.70	478	Yes
10	17	7.40	411	Yes
11	16	7.00	365	Yes
12	17	7.90	443	Yes
13	17	7.50	446	Yes
14	16	6.30	235	Yes
15	17	8.30	356	Yes
16	17	7.70	207	Yes
17	18	8.80	482	Yes
18	17	7.40	276	Yes
19	18	9.40	461	Yes
20	17	8.40	374	Yes
21	16	6.40	500	Yes
22	18	9.20	206	Yes
23	17	8.10	473	Yes
24	18	8.80	201	Yes
25	16	6.10	388	Yes
26	16	6.70	217	Yes
27	18	9.90	262	Yes
28	18	9.90	458	Yes
29	17	8.10	233	Yes
30	18	8.80	437	Yes

**DFS Radar Parameters**  
**FCC Radar Type 4**  
**Channel 100 Bandwidth 20MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	16	18.60	385	Yes
2	15	17.50	397	Yes
3	12	12.20	434	Yes
4	13	13.00	440	Yes
5	12	12.30	242	Yes
6	16	18.30	312	Yes
7	12	11.50	419	Yes
8	16	18.50	408	Yes
9	12	12.60	478	Yes
10	13	14.10	411	Yes
11	13	13.40	365	Yes
12	14	15.20	443	Yes
13	13	14.30	446	Yes
14	12	11.70	235	Yes
15	14	16.20	356	Yes
16	14	14.80	207	Yes
17	15	17.40	482	Yes
18	13	14.20	276	Yes
19	16	18.70	461	Yes
20	14	16.40	374	Yes
21	12	12.00	500	Yes
22	15	18.10	206	Yes
23	14	15.70	473	Yes
24	15	17.20	201	Yes
25	12	11.40	388	Yes
26	12	12.50	217	Yes
27	16	19.70	262	Yes
28	16	19.70	458	Yes
29	14	15.70	233	Yes
30	15	17.30	437	Yes

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			18			Yes
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	92	18	1861	1804	54110
2	3	85.9	18	1000	1350	215065
3	1	56.8	18	-	-	377256
4	1	61.1	18	-	-	538663
5	1	57.2	18	-	-	34515
6	3	90.4	18	1605	1927	194700
7	1	53.1	18	-	-	356972
8	3	91.3	18	1181	1544	516087
9	1	59.2	18	-	-	14638
10	2	67.4	18	1768	-	175607
11	1	63.3	18	-	-	337334
12	2	73.5	18	1550	-	497759
13	2	68.6	18	1643	-	658786
14	1	54.3	18	-	-	156150
15	2	78.8	18	1802	-	316552
16	2	71	18	1412	-	477486
17	3	85.2	18	1179	1687	637039
18	2	67.7	18	1240	-	135980
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			17			Yes
Chirp Center Frequency:			5500			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	92.5	16	1283	1713	313847
2	2	79.9	16	1345	-	484947
3	1	55.5	16	-	-	657215
4	3	89.3	16	1072	1707	122772
5	2	76.3	16	1621	-	293333
6	3	84.2	16	1045	1211	463372
7	1	52.2	16	-	-	636089
8	1	58.6	16	-	-	102140
9	3	98.1	16	1030	1619	271897
10	3	98	16	1531	1853	441445
11	2	76.2	16	1885	-	613094
12	3	85.2	16	1803	1523	80702
13	2	68	16	1779	-	251243
14	2	75.5	16	1171	-	421859
15	3	99.1	16	1847	1151	590857
16	3	85.3	16	1959	1964	59773
17	1	62.7	16	-	-	230820
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			3			Detection (Yes/No) Yes
Number of Bursts in Trial:			9			
Chirp Center Frequency:			5500			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	82.2	7	1478	-	758923
2	3	94.7	7	1857	1230	1080269
3	3	88.2	7	1610	1336	73618
4	2	69.4	7	1755	-	396315
5	2	70.8	7	1782	-	718771
6	2	77	7	1730	-	1041401
7	1	52.9	7	-	-	34010
8	2	78.4	7	1674	-	356625
9	1	53.7	7	-	-	679859
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Trial Number:			4			Detection (Yes/No) Yes
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5500			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	55.8	8	-	-	902661
2	2	79	8	1795	-	1191359
3	3	95.4	8	1087	1647	284871
4	1	51.4	8	-	-	575983
5	2	71	8	1466	-	865638
6	2	67.8	8	1245	-	1156473
7	3	95	8	1970	1518	248854
8	2	73.9	8	1306	-	539953
9	1	66	8	-	-	830955
10	3	96.9	8	1532	1166	1119371
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:		5				Detection (Yes/No)
Number of Bursts in Trial:		9				Yes
Chirp Center Frequency:		5500				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	92.4	7	1635	1118	237190
2	1	52.7	7	-	-	560458
3	1	59.6	7	-	-	883677
4	2	72.7	7	1721	-	1205491
5	1	58.9	7	-	-	197827
6	3	98.7	7	1126	1567	519912
7	3	92.4	7	1183	1216	842500
8	1	55.2	7	-	-	1166963
9	1	65.1	7	-	-	158139
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Trial Number:		6				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5500				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	2	74.1	17	1291	-	239788
2	3	99.5	17	1344	1392	400071
3	3	87.8	17	1537	1677	560089
4	2	74.4	17	1965	-	58872
5	3	83.4	17	1559	1407	219373
6	3	91.6	17	1431	1915	379670
7	3	96.6	17	1384	1094	541256
8	2	76.4	17	1615	-	39119
9	3	97.1	17	1460	1637	199571
10	3	98.4	17	1953	1580	360155
11	2	71.6	17	1123	-	522091
12	1	52.8	17	-	-	19335
13	1	52.5	17	-	-	180755
14	1	60.8	17	-	-	342106
15	2	72.5	17	1871	-	501536
16	2	78.3	17	1158	-	663703
17	2	73.2	17	1124	-	160498
18	1	63.2	17	-	-	322180
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:		7				Detection (Yes/No)
Number of Bursts in Trial:		8				Yes
Chirp Center Frequency:		5500				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	96.6	6	1429	1090	1086926
2	2	76.9	6	1894	-	1451108
3	1	58.3	6	-	-	317396
4	3	90.2	6	1333	1120	679937
5	3	94.1	6	1302	1174	1042782
6	1	59.4	6	-	-	1407864
7	1	52.1	6	-	-	272665
8	3	92.9	6	1137	1093	635097
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Trial Number:		8				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5500				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	1	60	18	-	-	443398
2	2	72.6	18	1309	-	603882
3	2	72	18	1807	-	100973
4	2	79.2	18	1380	-	262129
5	2	70.8	18	1872	-	422575
6	2	78.5	18	1638	-	583785
7	2	71.7	18	1731	-	81122
8	3	87.9	18	1186	1385	241616
9	1	54.3	18	-	-	403804
10	1	54.2	18	-	-	565468
11	2	68	18	1500	-	61337
12	1	54.6	18	-	-	222624
13	1	62	18	-	-	383876
14	1	59.8	18	-	-	545329
15	2	74.5	18	1579	-	41441
16	3	91.5	18	1136	1065	202266
17	3	97.9	18	1942	1877	361879
18	2	75.6	18	1234	-	524742
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:		9				Detection
Number of Bursts in Trial:		10				(Yes/No)
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	94.4	7	1463	1515	39000
2	3	94	7	1445	1943	328793
3	3	89.8	7	1754	1670	618811
4	3	91.9	7	1811	1386	908559
5	3	87.1	7	1206	1288	3271
6	3	94.4	7	1067	1196	293454
7	3	85.7	7	1577	1675	583162
8	3	85.4	7	1564	1215	873075
9	3	95.8	7	1231	1037	1163893
10	2	78.4	7	1340	-	257926
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Trial Number:		10				Detection
Number of Bursts in Trial:		12				(Yes/No)
Chirp Center Frequency:		5500				Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	56.7	10	-	-	457014
2	3	83.9	10	1902	1891	696527
3	1	55.4	10	-	-	941837
4	2	78.3	10	1975	-	184832
5	2	72.2	10	1809	-	426524
6	3	90.5	10	1062	1479	667585
7	2	81.6	10	1949	-	910213
8	2	74	10	1689	-	155106
9	1	54.3	10	-	-	397548
10	2	67.8	10	1720	-	638568
11	2	77.5	10	1177	-	881294
12	3	93.2	10	1372	1629	125235
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			11			Detection (Yes/No) Yes
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5494			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	81.1	9	1774	-	400532
2	1	64.7	9	-	-	665474
3	1	56.5	9	-	-	929894
4	2	68.2	9	1373	-	104347
5	1	60.3	9	-	-	368777
6	2	68.6	9	1481	-	631812
7	1	51.1	9	-	-	897290
8	3	86.8	9	1379	1308	71717
9	1	52.4	9	-	-	336194
10	2	66.9	9	1498	-	599511
11	3	92.4	9	1130	1967	862218
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Trial Number:			12			Detection (Yes/No) Yes
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5495			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	68.5	12	1232	-	30868
2	1	65.1	12	-	-	238517
3	1	58.1	12	-	-	445917
4	1	53	12	-	-	653413
5	2	68.1	12	1608	-	5353
6	3	85.6	12	1923	1854	211856
7	2	77.7	12	1049	-	420128
8	3	93.6	12	1542	1862	625722
9	3	85.4	12	1307	1494	832879
10	2	82.7	12	1113	-	187145
11	3	93.4	12	1511	1661	393473
12	2	81.1	12	1874	-	600998
13	2	70.4	12	1640	-	808235
14	3	98.9	12	1470	1449	161180
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			13			Detection (Yes/No) Yes
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5494			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	89.7	10	1776	1918	429376
2	2	82.4	10	1747	-	672245
3	2	71.6	10	1545	-	913466
4	2	78.3	10	1652	-	158640
5	1	50.4	10	-	-	401024
6	3	87.1	10	1086	1446	641566
7	2	80	10	1169	-	884442
8	3	98.1	10	1907	1618	128615
9	1	51.2	10	-	-	371202
10	1	62.9	10	-	-	613174
11	2	75.1	10	1339	-	854176
12	3	85.4	10	1916	1390	98955
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Trial Number:			14			Detection (Yes/No) Yes
Number of Bursts in Trial:			9			
Chirp Center Frequency:			5493			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	68.8	6	1488	-	455054
2	3	84.1	6	1632	1270	776629
3	2	67	6	1257	-	1100814
4	3	84.3	6	1129	1919	92401
5	1	59	6	-	-	415797
6	2	76	6	1274	-	738101
7	3	89.9	6	1761	1892	1058788
8	3	91.6	6	1664	1988	52694
9	3	87	6	1785	1121	375012
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			15			Detection (Yes/No) Yes
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5496			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	63.2	14	-	-	419038
2	1	64.1	14	-	-	612627
3	3	87.4	14	1324	1666	7807
4	1	63.4	14	-	-	201410
5	3	88.5	14	1724	1961	393175
6	2	76.7	14	1987	-	587179
7	2	74.3	14	1427	-	780700
8	3	92.2	14	1952	1315	176962
9	1	60.5	14	-	-	371487
10	3	87.8	14	1224	1251	563364
11	3	83.7	14	1849	1824	755238
12	3	86.1	14	1930	1718	153027
13	2	69.3	14	1310	-	346726
14	2	70.6	14	1421	-	540384
15	3	86.3	14	2000	1681	731081
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Trial Number:			16			Detection (Yes/No) Yes
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5495			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	79.6	11	1459	-	149717
2	1	58.4	11	-	-	373320
3	1	51.9	11	-	-	597107
4	2	79.8	11	1723	-	818957
5	1	62.3	11	-	-	122414
6	2	70.4	11	1749	-	345124
7	1	63.8	11	-	-	569178
8	3	95.3	11	1994	1534	790214
9	2	78	11	1978	-	94660
10	2	82.8	11	1883	-	317755
11	2	66.7	11	1736	-	541063
12	3	93.6	11	1866	1733	762758
13	2	76.5	11	1483	-	67241
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:		17				Detection (Yes/No)
Number of Bursts in Trial:		17				Yes
Chirp Center Frequency:		5497				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	1	51.1	16	-	-	222257
2	2	73.6	16	1526	-	392287
3	2	67.4	16	1992	-	562025
4	3	91.3	16	1035	1184	30343
5	2	78.9	16	1525	-	200891
6	1	61.9	16	-	-	371871
7	2	76.4	16	1688	-	541993
8	2	68.3	16	1558	-	9379
9	3	84.2	16	1208	1331	179584
10	1	64.8	16	-	-	350979
11	1	62	16	-	-	521709
12	1	60.4	16	-	-	692286
13	1	55.7	16	-	-	159200
14	1	55.8	16	-	-	329912
15	3	90.8	16	1071	1835	499067
16	2	75.1	16	1810	-	669937
17	3	91.4	16	1659	1910	137528
18						
19						
20						

Trial Number:		18				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5494				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	99.4	10	1602	1048	436648
2	3	99.5	10	1999	1312	677816
3	1	63.4	10	-	-	921898
4	2	80.8	10	1170	-	165777
5	1	54.6	10	-	-	408203
6	1	50.5	10	-	-	650586
7	2	74.1	10	1212	-	891322
8	1	60	10	-	-	136188
9	2	79.3	10	1132	-	377942
10	1	66.5	10	-	-	620313
11	3	99.5	10	1660	1423	860398
12	2	68.8	10	1716	-	106135
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			19			Detection
Number of Bursts in Trial:			19			(Yes/No)
Chirp Center Frequency:			5497			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	59.3	18	-	-	219932
2	2	80.7	18	1825	-	371936
3	2	71.7	18	1641	-	524094
4	2	83.1	18	1698	-	48120
5	3	97.8	18	1742	1828	200029
6	3	91.1	18	1013	1895	352458
7	3	86.9	18	1921	1491	504058
8	2	70.3	18	1575	-	29403
9	3	92.4	18	1831	1058	181456
10	1	57.1	18	-	-	335060
11	1	57.4	18	-	-	488009
12	3	94.2	18	1758	1980	10566
13	2	68	18	1979	-	162888
14	3	95.5	18	1111	1063	315160
15	3	93.6	18	1684	1197	466970
16	3	89.9	18	1256	1321	619170
17	2	69.4	18	1258	-	144287
18	1	56.5	18	-	-	297383
19	1	64.5	18	-	-	450018
20						

Trial Number:			20			Detection
Number of Bursts in Trial:			15			(Yes/No)
Chirp Center Frequency:			5496			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	73.1	14	1714	-	762265
2	2	70.1	14	1722	-	159034
3	3	86.7	14	1513	1361	351972
4	3	83.4	14	1656	1016	545084
5	2	67.2	14	1869	-	738683
6	2	80.2	14	1147	-	135462
7	3	95.8	14	1351	1993	327679
8	3	96.6	14	1413	1305	521379
9	2	73	14	1376	-	715606
10	3	93.4	14	1046	1182	111354
11	2	81.2	14	1131	-	304798
12	3	99.7	14	1948	1685	496592
13	3	95.5	14	1070	1233	690895
14	2	77	14	1709	-	87708
15	3	99.5	14	1521	1772	280361
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19						
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			21			Detection (Yes/No)
Number of Bursts in Trial:			9			Yes
Chirp Center Frequency:			5507			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	2	74.8	6	1576	-	791729
2	3	84.2	6	1097	1217	1113827
3	3	90.4	6	1112	1878	106534
4	2	77.3	6	1382	-	429210
5	1	58	6	-	-	752519
6	1	64.8	6	-	-	1075682
7	1	53.9	6	-	-	66992
8	1	54.8	6	-	-	390121
9	3	99	6	1614	1996	711061
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Trial Number:			22			Detection (Yes/No)
Number of Bursts in Trial:			18			Yes
Chirp Center Frequency:			5503			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	92.2	17	1066	1541	515438
2	3	92.1	17	1738	1743	13508
3	2	69.2	17	1880	-	174362
4	1	62.7	17	-	-	336448
5	1	59.1	17	-	-	497820
6	1	57	17	-	-	658740
7	3	84.3	17	1195	1928	154277
8	3	90.6	17	1476	1335	315258
9	2	72.7	17	1374	-	476646
10	1	51.9	17	-	-	639342
11	2	76.3	17	1006	-	134980
12	3	98.7	17	1913	1852	294777
13	2	72.7	17	1287	-	456992
14	3	97.3	17	1901	1187	616538
15	1	54.5	17	-	-	115241
16	1	52.9	17	-	-	276425
17	1	51.9	17	-	-	437829
18	3	94.6	17	1800	1416	596358
19						
20						

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			23			Detection
Number of Bursts in Trial:			14			(Yes/No)
Chirp Center Frequency:			5505			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	63.8	13	-	-	122712
2	2	77	13	1189	-	329774
3	1	61.2	13	-	-	538047
4	1	57.5	13	-	-	745661
5	1	62	13	-	-	97212
6	2	67.2	13	1145	-	304184
7	2	68.5	13	1236	-	511419
8	2	70.6	13	1819	-	718325
9	1	59.4	13	-	-	71593
10	3	99.6	13	1727	1617	278058
11	3	92.1	13	1968	1366	484596
12	3	98.5	13	1519	1033	692484
13	3	99.7	13	1881	1701	45889
14	2	69.2	13	1680	-	253096
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Trial Number:			24			Detection
Number of Bursts in Trial:			16			(Yes/No)
Chirp Center Frequency:			5504			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	65.3	15	-	-	403313
2	3	87.7	15	1139	1141	582867
3	3	91.2	15	1165	1117	17887
4	2	75.2	15	1806	-	199113
5	1	60.9	15	-	-	381053
6	2	83.1	15	1528	-	561257
7	3	87.4	15	1278	1703	741431
8	1	66	15	-	-	177092
9	1	59.1	15	-	-	358547
10	3	90.7	15	1622	1495	537585
11	2	76.9	15	1080	-	720694
12	3	93.5	15	1956	1402	154126
13	1	50.7	15	-	-	336424
14	1	50.8	15	-	-	517585
15	1	52	15	-	-	698891
16	3	87	15	1436	1408	131900
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19						
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			25			Detection (Yes/No) Yes
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5508			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	85.8	5	1142	1437	627492
2	2	74.4	5	1352	-	991282
3	1	56.1	5	-	-	1355364
4	2	70.3	5	1194	-	220103
5	3	90.1	5	1387	1109	582696
6	2	77.8	5	1794	-	946193
7	3	87.8	5	1848	1628	1307676
8	3	84.7	5	1371	1997	175113
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Trial Number:			26			Detection (Yes/No) Yes
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5507			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	80.1	7	1752	-	430561
2	1	52	7	-	-	721988
3	3	94.2	7	1314	1338	1010022
4	3	88.6	7	1904	1334	104250
5	3	97.6	7	1265	1061	394554
6	3	84.7	7	1214	1729	684330
7	3	98.5	7	1578	1789	973850
8	2	74.3	7	1645	-	68683
9	1	52.2	7	-	-	359517
10	1	57.1	7	-	-	649953
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			27			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5502			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	83.3	20	1951	-	468237
2	3	85.1	20	1100	1662	16377
3	1	56	20	-	-	161534
4	2	79.4	20	1304	-	305906
5	3	92.1	20	1469	1019	449841
6	2	68.8	20	1085	-	595673
7	1	57.2	20	-	-	143727
8	3	97.8	20	1342	1548	287559
9	2	67.9	20	1732	-	432637
10	2	70.5	20	1609	-	577584
11	2	80.7	20	1210	-	125527
12	2	68.5	20	1888	-	270364
13	1	66.4	20	-	-	416177
14	2	67.7	20	1796	-	559545
15	2	68.5	20	1203	-	107741
16	2	72.5	20	1480	-	252702
17	1	63.7	20	-	-	398558
18	2	67.7	20	1316	-	542646
19	3	92.3	20	1415	1940	89576
20	2	79.4	20	1348	-	234641

Trial Number:			28			Detection (Yes/No)
Number of Bursts in Trial:			20			
Chirp Center Frequency:			5502			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	79.1	20	1458	-	379190
2	3	87.5	20	1468	1514	523076
3	3	99.9	20	1103	1658	71937
4	1	56.5	20	-	-	217317
5	3	95.1	20	1430	1360	360555
6	1	58.8	20	-	-	507406
7	3	88.9	20	1009	1378	54147
8	3	98.8	20	1939	1010	198553
9	2	68.4	20	1991	-	343542
10	2	74.4	20	1744	-	488663
11	3	92.2	20	1694	1022	36265
12	1	52.5	20	-	-	181730
13	3	91.2	20	1986	1976	324692
14	3	93.7	20	1039	1502	470215
15	2	67.5	20	1801	-	18525
16	2	67	20	1931	-	163153
17	2	80.9	20	1737	-	308214
18	1	56.4	20	-	-	453740
19	2	82.4	20	1805	-	690
20	3	87.3	20	1769	1159	145101

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 100 Bandwidth 20MHz**

Trial Number:			29			Detection (Yes/No) Yes
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5505			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	63.1	13	-	-	416095
2	3	92.3	13	1507	1797	621328
3	1	59.9	13	-	-	831157
4	2	67.3	13	1490	-	182535
5	1	53.9	13	-	-	390651
6	1	61.5	13	-	-	597650
7	3	85.6	13	1995	1655	802403
8	2	76.5	13	1031	-	157208
9	2	70	13	1267	-	364484
10	2	75.1	13	1207	-	571352
11	2	71	13	1250	-	779007
12	2	80.7	13	1960	-	131476
13	2	82	13	1876	-	338428
14	2	72.9	13	1929	-	545368
15						
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Trial Number:			30			Detection (Yes/No) Yes
Number of Bursts in Trial:			17			
Chirp Center Frequency:			5503			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	78	16	1347	-	619608
2	3	95.9	16	1906	1353	87028
3	3	85.3	16	1357	1263	257434
4	3	99.6	16	1204	1524	427596
5	3	84.3	16	1073	1143	598137
6	2	83.2	16	1252	-	66279
7	2	79.9	16	1950	-	236738
8	1	58.4	16	-	-	408278
9	2	79.4	16	1473	-	577873
10	3	93.6	16	1337	1535	45220
11	2	78.4	16	1409	-	215908
12	2	78.1	16	1152	-	386671
13	2	77.4	16	1107	-	556902
14	2	72.8	16	1021	-	24298
15	1	50.2	16	-	-	195279
16	1	51.5	16	-	-	365799
17	3	91.6	16	1005	1492	535081
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**Channel 102 Bandwidth 40MHz**

**DFS Radar Parameters**  
**FCC Radar Type 1**  
**Channel 102 Bandwidth 40MHz**

Trial #	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	4	1730.10	578	Yes
2	13	1319.26	758	Yes
3	5	1672.24	598	Yes
4	17	1193.32	838	Yes
5	20	1113.59	898	Yes
6	21	1089.32	918	Yes
7	12	326.16	3066	Yes
8	10	1432.66	698	Yes
9	8	1519.76	658	Yes
10	1	1930.50	518	Yes
11	6	1618.12	618	Yes
12	12	1355.01	738	Yes
13	3	1792.11	558	Yes
14	19	1138.95	878	Yes
15	11	1392.76	718	Yes
16		579.71	1725	Yes
17		1173.71	852	Yes
18		503.78	1985	Yes
19		1472.75	679	Yes
20		352.73	2835	Yes
21		461.25	2168	Yes
22		467.29	2140	Yes
23		337.27	2965	Yes
24		1273.89	785	Yes
25		452.49	2210	Yes
26		1547.99	646	Yes
27		652.74	1532	Yes
28		1587.30	630	Yes
29		412.20	2426	Yes
30		1369.86	730	Yes

**DFS Radar Parameters**  
**FCC Radar Type 2**  
**Channel 102 Bandwidth 40MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	28	4.40	169	Yes
2	28	3.90	216	Yes
3	23	1.50	222	Yes
4	24	1.90	154	Yes
5	24	1.50	186	Yes
6	28	4.30	164	Yes
7	23	1.20	197	Yes
8	28	4.30	224	Yes
9	24	1.70	208	Yes
10	25	2.40	173	Yes
11	24	2.00	193	Yes
12	26	2.90	214	Yes
13	25	2.50	150	Yes
14	23	1.30	159	Yes
15	27	3.30	201	Yes
16	25	2.70	194	Yes
17	27	3.80	168	Yes
18	25	2.40	170	Yes
19	28	4.40	211	Yes
20	27	3.40	217	Yes
21	23	1.40	220	Yes
22	28	4.20	226	Yes
23	26	3.10	202	Yes
24	27	3.80	230	Yes
25	23	1.10	206	Yes
26	24	1.70	228	Yes
27	29	4.90	153	Yes
28	29	4.90	187	Yes
29	26	3.10	200	Yes
30	27	3.80	198	Yes



**DFS Radar Parameters**  
**FCC Radar Type 3**  
**Channel 102 Bandwidth 40MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	18	9.40	385	Yes
2	18	8.90	397	Yes
3	16	6.50	434	Yes
4	16	6.90	440	Yes
5	16	6.50	242	Yes
6	18	9.30	312	Yes
7	16	6.20	419	Yes
8	18	9.30	408	Yes
9	16	6.70	478	Yes
10	17	7.40	411	Yes
11	16	7.00	365	Yes
12	17	7.90	443	Yes
13	17	7.50	446	Yes
14	16	6.30	235	No
15	17	8.30	356	Yes
16	17	7.70	207	Yes
17	18	8.80	482	Yes
18	17	7.40	276	Yes
19	18	9.40	461	Yes
20	17	8.40	374	Yes
21	16	6.40	500	Yes
22	18	9.20	206	Yes
23	17	8.10	473	Yes
24	18	8.80	201	Yes
25	16	6.10	388	Yes
26	16	6.70	217	Yes
27	18	9.90	262	No
28	18	9.90	458	Yes
29	17	8.10	233	Yes
30	18	8.80	437	Yes

**DFS Radar Parameters**  
**FCC Radar Type 4**  
**Channel 102 Bandwidth 40MHz**

Trial #	Number Pulses per Burst	Pulse Width (Microseconds)	Pulse Repetition Interval (Microseconds)	Detection (Yes / No)
1	16	18.60	385	Yes
2	15	17.50	397	Yes
3	12	12.20	434	No
4	13	13.00	440	Yes
5	12	12.30	242	Yes
6	16	18.30	312	Yes
7	12	11.50	419	Yes
8	16	18.50	408	Yes
9	12	12.60	478	Yes
10	13	14.10	411	Yes
11	13	13.40	365	Yes
12	14	15.20	443	Yes
13	13	14.30	446	Yes
14	12	11.70	235	Yes
15	14	16.20	356	Yes
16	14	14.80	207	Yes
17	15	17.40	482	Yes
18	13	14.20	276	Yes
19	16	18.70	461	Yes
20	14	16.40	374	Yes
21	12	12.00	500	Yes
22	15	18.10	206	Yes
23	14	15.70	473	Yes
24	15	17.20	201	Yes
25	12	11.40	388	Yes
26	12	12.50	217	Yes
27	16	19.70	262	Yes
28	16	19.70	458	Yes
29	14	15.70	233	Yes
30	15	17.30	437	Yes

**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			1			Detection (Yes/No)
Number of Bursts in Trial:			18			Yes
Chirp Center Frequency:			5510			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	92	18	1861	1804	54110
2	3	85.9	18	1000	1350	215065
3	1	56.8	18	-	-	377256
4	1	61.1	18	-	-	538663
5	1	57.2	18	-	-	34515
6	3	90.4	18	1605	1927	194700
7	1	53.1	18	-	-	356972
8	3	91.3	18	1181	1544	516087
9	1	59.2	18	-	-	14638
10	2	67.4	18	1768	-	175607
11	1	63.3	18	-	-	337334
12	2	73.5	18	1550	-	497759
13	2	68.6	18	1643	-	658786
14	1	54.3	18	-	-	156150
15	2	78.8	18	1802	-	316552
16	2	71	18	1412	-	477486
17	3	85.2	18	1179	1687	637039
18	2	67.7	18	1240	-	135980
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Trial Number:			2			Detection (Yes/No)
Number of Bursts in Trial:			17			Yes
Chirp Center Frequency:			5510			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	92.5	16	1283	1713	313847
2	2	79.9	16	1345	-	484947
3	1	55.5	16	-	-	657215
4	3	89.3	16	1072	1707	122772
5	2	76.3	16	1621	-	293333
6	3	84.2	16	1045	1211	463372
7	1	52.2	16	-	-	636089
8	1	58.6	16	-	-	102140
9	3	98.1	16	1030	1619	271897
10	3	98	16	1531	1853	441445
11	2	76.2	16	1885	-	613094
12	3	85.2	16	1803	1523	80702
13	2	68	16	1779	-	251243
14	2	75.5	16	1171	-	421859
15	3	99.1	16	1847	1151	590857
16	3	85.3	16	1959	1964	59773
17	1	62.7	16	-	-	230820
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:		3				Detection (Yes/No)
Number of Bursts in Trial:		9				Yes
Chirp Center Frequency:		5510				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	82.2	7	1478	-	758923
2	3	94.7	7	1857	1230	1080269
3	3	88.2	7	1610	1336	73618
4	2	69.4	7	1755	-	396315
5	2	70.8	7	1782	-	718771
6	2	77	7	1730	-	1041401
7	1	52.9	7	-	-	34010
8	2	78.4	7	1674	-	356625
9	1	53.7	7	-	-	679859
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Trial Number:		4				Detection (Yes/No)
Number of Bursts in Trial:		10				Yes
Chirp Center Frequency:		5510				
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	55.8	8	-	-	902661
2	2	79	8	1795	-	1191359
3	3	95.4	8	1087	1647	284871
4	1	51.4	8	-	-	575983
5	2	71	8	1466	-	865638
6	2	67.8	8	1245	-	1156473
7	3	95	8	1970	1518	248854
8	2	73.9	8	1306	-	539953
9	1	66	8	-	-	830955
10	3	96.9	8	1532	1166	1119371
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:		5				Detection (Yes/No)
Number of Bursts in Trial:		9				Yes
Chirp Center Frequency:		5510				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	92.4	7	1635	1118	237190
2	1	52.7	7	-	-	560458
3	1	59.6	7	-	-	883677
4	2	72.7	7	1721	-	1205491
5	1	58.9	7	-	-	197827
6	3	98.7	7	1126	1567	519912
7	3	92.4	7	1183	1216	842500
8	1	55.2	7	-	-	1166963
9	1	65.1	7	-	-	158139
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Trial Number:		6				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5510				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	2	74.1	17	1291	-	239788
2	3	99.5	17	1344	1392	400071
3	3	87.8	17	1537	1677	560089
4	2	74.4	17	1965	-	58872
5	3	83.4	17	1559	1407	219373
6	3	91.6	17	1431	1915	379670
7	3	96.6	17	1384	1094	541256
8	2	76.4	17	1615	-	39119
9	3	97.1	17	1460	1637	199571
10	3	98.4	17	1953	1580	360155
11	2	71.6	17	1123	-	522091
12	1	52.8	17	-	-	19335
13	1	52.5	17	-	-	180755
14	1	60.8	17	-	-	342106
15	2	72.5	17	1871	-	501536
16	2	78.3	17	1158	-	663703
17	2	73.2	17	1124	-	160498
18	1	63.2	17	-	-	322180
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:		7				Detection (Yes/No)
Number of Bursts in Trial:		8				Yes
Chirp Center Frequency:		5510				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	96.6	6	1429	1090	1086926
2	2	76.9	6	1894	-	1451108
3	1	58.3	6	-	-	317396
4	3	90.2	6	1333	1120	679937
5	3	94.1	6	1302	1174	1042782
6	1	59.4	6	-	-	1407864
7	1	52.1	6	-	-	272665
8	3	92.9	6	1137	1093	635097
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Trial Number:		8				Detection (Yes/No)
Number of Bursts in Trial:		18				Yes
Chirp Center Frequency:		5510				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	60	18	-	-	443398
2	2	72.6	18	1309	-	603882
3	2	72	18	1807	-	100973
4	2	79.2	18	1380	-	262129
5	2	70.8	18	1872	-	422575
6	2	78.5	18	1638	-	583785
7	2	71.7	18	1731	-	81122
8	3	87.9	18	1186	1385	241616
9	1	54.3	18	-	-	403804
10	1	54.2	18	-	-	565468
11	2	68	18	1500	-	61337
12	1	54.6	18	-	-	222624
13	1	62	18	-	-	383876
14	1	59.8	18	-	-	545329
15	2	74.5	18	1579	-	41441
16	3	91.5	18	1136	1065	202266
17	3	97.9	18	1942	1877	361879
18	2	75.6	18	1234	-	524742
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			9			Detection (Yes/No)
Number of Bursts in Trial:			10			Yes
Chirp Center Frequency:			5510			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	94.4	7	1463	1515	39000
2	3	94	7	1445	1943	328793
3	3	89.8	7	1754	1670	618811
4	3	91.9	7	1811	1386	908559
5	3	87.1	7	1206	1288	3271
6	3	94.4	7	1067	1196	293454
7	3	85.7	7	1577	1675	583162
8	3	85.4	7	1564	1215	873075
9	3	95.8	7	1231	1037	1163893
10	2	78.4	7	1340	-	257926
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Trial Number:			10			Detection (Yes/No)
Number of Bursts in Trial:			12			Yes
Chirp Center Frequency:			5510			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	1	56.7	10	-	-	457014
2	3	83.9	10	1902	1891	696527
3	1	55.4	10	-	-	941837
4	2	78.3	10	1975	-	184832
5	2	72.2	10	1809	-	426524
6	3	90.5	10	1062	1479	667585
7	2	81.6	10	1949	-	910213
8	2	74	10	1689	-	155106
9	1	54.3	10	-	-	397548
10	2	67.8	10	1720	-	638568
11	2	77.5	10	1177	-	881294
12	3	93.2	10	1372	1629	125235
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			11			Detection (Yes/No) Yes
Number of Bursts in Trial:			11			
Chirp Center Frequency:			5495			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	81.1	9	1774	-	400532
2	1	64.7	9	-	-	665474
3	1	56.5	9	-	-	929894
4	2	68.2	9	1373	-	104347
5	1	60.3	9	-	-	368777
6	2	68.6	9	1481	-	631812
7	1	51.1	9	-	-	897290
8	3	86.8	9	1379	1308	71717
9	1	52.4	9	-	-	336194
10	2	66.9	9	1498	-	599511
11	3	92.4	9	1130	1967	862218
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Trial Number:			12			Detection (Yes/No) Yes
Number of Bursts in Trial:			14			
Chirp Center Frequency:			5496			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	68.5	12	1232	-	30868
2	1	65.1	12	-	-	238517
3	1	58.1	12	-	-	445917
4	1	53	12	-	-	653413
5	2	68.1	12	1608	-	5353
6	3	85.6	12	1923	1854	211856
7	2	77.7	12	1049	-	420128
8	3	93.6	12	1542	1862	625722
9	3	85.4	12	1307	1494	832879
10	2	82.7	12	1113	-	187145
11	3	93.4	12	1511	1661	393473
12	2	81.1	12	1874	-	600998
13	2	70.4	12	1640	-	808235
14	3	98.9	12	1470	1449	161180
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			13			Detection (Yes/No) Yes
Number of Bursts in Trial:			12			
Chirp Center Frequency:			5495			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	89.7	10	1776	1918	429376
2	2	82.4	10	1747	-	672245
3	2	71.6	10	1545	-	913466
4	2	78.3	10	1652	-	158640
5	1	50.4	10	-	-	401024
6	3	87.1	10	1086	1446	641566
7	2	80	10	1169	-	884442
8	3	98.1	10	1907	1618	128615
9	1	51.2	10	-	-	371202
10	1	62.9	10	-	-	613174
11	2	75.1	10	1339	-	854176
12	3	85.4	10	1916	1390	98955
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Trial Number:			14			Detection (Yes/No) Yes
Number of Bursts in Trial:			9			
Chirp Center Frequency:			5493			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	68.8	6	1488	-	455054
2	3	84.1	6	1632	1270	776629
3	2	67	6	1257	-	1100814
4	3	84.3	6	1129	1919	92401
5	1	59	6	-	-	415797
6	2	76	6	1274	-	738101
7	3	89.9	6	1761	1892	1058788
8	3	91.6	6	1664	1988	52694
9	3	87	6	1785	1121	375012
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			15			Detection (Yes/No) Yes
Number of Bursts in Trial:			15			
Chirp Center Frequency:			5497			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	63.2	14	-	-	419038
2	1	64.1	14	-	-	612627
3	3	87.4	14	1324	1666	7807
4	1	63.4	14	-	-	201410
5	3	88.5	14	1724	1961	393175
6	2	76.7	14	1987	-	587179
7	2	74.3	14	1427	-	780700
8	3	92.2	14	1952	1315	176962
9	1	60.5	14	-	-	371487
10	3	87.8	14	1224	1251	563364
11	3	83.7	14	1849	1824	755238
12	3	86.1	14	1930	1718	153027
13	2	69.3	14	1310	-	346726
14	2	70.6	14	1421	-	540384
15	3	86.3	14	2000	1681	731081
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Trial Number:			16			Detection (Yes/No) Yes
Number of Bursts in Trial:			13			
Chirp Center Frequency:			5495			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	79.6	11	1459	-	149717
2	1	58.4	11	-	-	373320
3	1	51.9	11	-	-	597107
4	2	79.8	11	1723	-	818957
5	1	62.3	11	-	-	122414
6	2	70.4	11	1749	-	345124
7	1	63.8	11	-	-	569178
8	3	95.3	11	1994	1534	790214
9	2	78	11	1978	-	94660
10	2	82.8	11	1883	-	317755
11	2	66.7	11	1736	-	541063
12	3	93.6	11	1866	1733	762758
13	2	76.5	11	1483	-	67241
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:		17				Detection (Yes/No)
Number of Bursts in Trial:		17				Yes
Chirp Center Frequency:		5497				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	1	51.1	16	-	-	222257
2	2	73.6	16	1526	-	392287
3	2	67.4	16	1992	-	562025
4	3	91.3	16	1035	1184	30343
5	2	78.9	16	1525	-	200891
6	1	61.9	16	-	-	371871
7	2	76.4	16	1688	-	541993
8	2	68.3	16	1558	-	9379
9	3	84.2	16	1208	1331	179584
10	1	64.8	16	-	-	350979
11	1	62	16	-	-	521709
12	1	60.4	16	-	-	692286
13	1	55.7	16	-	-	159200
14	1	55.8	16	-	-	329912
15	3	90.8	16	1071	1835	499067
16	2	75.1	16	1810	-	669937
17	3	91.4	16	1659	1910	137528
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Trial Number:		18				Detection (Yes/No)
Number of Bursts in Trial:		12				Yes
Chirp Center Frequency:		5495				Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	99.4	10	1602	1048	436648
2	3	99.5	10	1999	1312	677816
3	1	63.4	10	-	-	921898
4	2	80.8	10	1170	-	165777
5	1	54.6	10	-	-	408203
6	1	50.5	10	-	-	650586
7	2	74.1	10	1212	-	891322
8	1	60	10	-	-	136188
9	2	79.3	10	1132	-	377942
10	1	66.5	10	-	-	620313
11	3	99.5	10	1660	1423	860398
12	2	68.8	10	1716	-	106135
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			19			Detection
Number of Bursts in Trial:			19			(Yes/No)
Chirp Center Frequency:			5498			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	59.3	18	-	-	219932
2	2	80.7	18	1825	-	371936
3	2	71.7	18	1641	-	524094
4	2	83.1	18	1698	-	48120
5	3	97.8	18	1742	1828	200029
6	3	91.1	18	1013	1895	352458
7	3	86.9	18	1921	1491	504058
8	2	70.3	18	1575	-	29403
9	3	92.4	18	1831	1058	181456
10	1	57.1	18	-	-	335060
11	1	57.4	18	-	-	488009
12	3	94.2	18	1758	1980	10566
13	2	68	18	1979	-	162888
14	3	95.5	18	1111	1063	315160
15	3	93.6	18	1684	1197	466970
16	3	89.9	18	1256	1321	619170
17	2	69.4	18	1258	-	144287
18	1	56.5	18	-	-	297383
19	1	64.5	18	-	-	450018
20						

Trial Number:			20			Detection
Number of Bursts in Trial:			15			(Yes/No)
Chirp Center Frequency:			5497			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	73.1	14	1714	-	762265
2	2	70.1	14	1722	-	159034
3	3	86.7	14	1513	1361	351972
4	3	83.4	14	1656	1016	545084
5	2	67.2	14	1869	-	738683
6	2	80.2	14	1147	-	135462
7	3	95.8	14	1351	1993	327679
8	3	96.6	14	1413	1305	521379
9	2	73	14	1376	-	715606
10	3	93.4	14	1046	1182	111354
11	2	81.2	14	1131	-	304798
12	3	99.7	14	1948	1685	496592
13	3	95.5	14	1070	1233	690895
14	2	77	14	1709	-	87708
15	3	99.5	14	1521	1772	280361
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			21			Detection (Yes/No)
Number of Bursts in Trial:			9			Yes
Chirp Center Frequency:			5527			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	2	74.8	6	1576	-	791729
2	3	84.2	6	1097	1217	1113827
3	3	90.4	6	1112	1878	106534
4	2	77.3	6	1382	-	429210
5	1	58	6	-	-	752519
6	1	64.8	6	-	-	1075682
7	1	53.9	6	-	-	66992
8	1	54.8	6	-	-	390121
9	3	99	6	1614	1996	711061
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Trial Number:			22			Detection (Yes/No)
Number of Bursts in Trial:			18			Yes
Chirp Center Frequency:			5522			Starting Location Within Interval (usec)
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	
1	3	92.2	17	1066	1541	515438
2	3	92.1	17	1738	1743	13508
3	2	69.2	17	1880	-	174362
4	1	62.7	17	-	-	336448
5	1	59.1	17	-	-	497820
6	1	57	17	-	-	658740
7	3	84.3	17	1195	1928	154277
8	3	90.6	17	1476	1335	315258
9	2	72.7	17	1374	-	476646
10	1	51.9	17	-	-	639342
11	2	76.3	17	1006	-	134980
12	3	98.7	17	1913	1852	294777
13	2	72.7	17	1287	-	456992
14	3	97.3	17	1901	1187	616538
15	1	54.5	17	-	-	115241
16	1	52.9	17	-	-	276425
17	1	51.9	17	-	-	437829
18	3	94.6	17	1800	1416	596358
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			23			Detection
Number of Bursts in Trial:			14			(Yes/No)
Chirp Center Frequency:			5524			Yes
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	63.8	13	-	-	122712
2	2	77	13	1189	-	329774
3	1	61.2	13	-	-	538047
4	1	57.5	13	-	-	745661
5	1	62	13	-	-	97212
6	2	67.2	13	1145	-	304184
7	2	68.5	13	1236	-	511419
8	2	70.6	13	1819	-	718325
9	1	59.4	13	-	-	71593
10	3	99.6	13	1727	1617	278058
11	3	92.1	13	1968	1366	484596
12	3	98.5	13	1519	1033	692484
13	3	99.7	13	1881	1701	45889
14	2	69.2	13	1680	-	253096
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Trial Number:			24			Detection
Number of Bursts in Trial:			16			(Yes/No)
Chirp Center Frequency:			5523			No
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	1	65.3	15	-	-	403313
2	3	87.7	15	1139	1141	582867
3	3	91.2	15	1165	1117	17887
4	2	75.2	15	1806	-	199113
5	1	60.9	15	-	-	381053
6	2	83.1	15	1528	-	561257
7	3	87.4	15	1278	1703	741431
8	1	66	15	-	-	177092
9	1	59.1	15	-	-	358547
10	3	90.7	15	1622	1495	537585
11	2	76.9	15	1080	-	720694
12	3	93.5	15	1956	1402	154126
13	1	50.7	15	-	-	336424
14	1	50.8	15	-	-	517585
15	1	52	15	-	-	698891
16	3	87	15	1436	1408	131900
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**DFS Radar Parameters**  
**FCC Radar Type 5**  
**Channel 102 Bandwidth 40MHz**

Trial Number:			25			Detection (Yes/No) Yes
Number of Bursts in Trial:			8			
Chirp Center Frequency:			5527			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	3	85.8	5	1142	1437	627492
2	2	74.4	5	1352	-	991282
3	1	56.1	5	-	-	1355364
4	2	70.3	5	1194	-	220103
5	3	90.1	5	1387	1109	582696
6	2	77.8	5	1794	-	946193
7	3	87.8	5	1848	1628	1307676
8	3	84.7	5	1371	1997	175113
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Trial Number:			26			Detection (Yes/No) Yes
Number of Bursts in Trial:			10			
Chirp Center Frequency:			5526			
Burst	Number of Pulses	Pulse Width (Microseconds)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (usec)	Pulse 2-to-3 Spacing (usec)	Starting Location Within Interval (usec)
1	2	80.1	7	1752	-	430561
2	1	52	7	-	-	721988
3	3	94.2	7	1314	1338	1010022
4	3	88.6	7	1904	1334	104250
5	3	97.6	7	1265	1061	394554
6	3	84.7	7	1214	1729	684330
7	3	98.5	7	1578	1789	973850
8	2	74.3	7	1645	-	68683
9	1	52.2	7	-	-	359517
10	1	57.1	7	-	-	649953
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