

## DFS Test Report

**Report No.:** RF140901E08B-2

**FCC ID:** PY314200280

**Test Model:** EX7000

**Received Date:** Sep. 19, 2014

**Test Date:** Jan. 30, 2016

**Issued Date:** Mar. 02, 2016

**Applicant:** NETGEAR, Inc.

**Address:** 350 East Plumeria Drive San Jose, CA 95134

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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### Release Control Record

| Issue No.      | Description       | Date Issued   |
|----------------|-------------------|---------------|
| RF140901E08B-2 | Original release. | Mar. 02, 2016 |



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## 1 Certificate of Conformity

**Product:** AC1900 WiFi Range Extender

**Brand:** NETGEAR

**Test Model:** EX7000

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** NETGEAR, Inc.

**Test Date:** Jan. 30,2016

**Standards:** FCC Part 15, Subpart E (Section 15.407)

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :**  , **Date:** Mar. 02, 2016  
Elsie Hsu / Specialist

**Approved by :**  , **Date:** Mar. 02, 2016  
May Chen / Manager

## 2 EUT Information

### 2.1 Operating Frequency Bands and Mode of EUT

Table 1: Operating Frequency Bands and Mode of EUT

| Operational Mode | Operating Frequency Range |              |
|------------------|---------------------------|--------------|
|                  | 5250~5350MHz              | 5470~5725MHz |
| Master           | ✓                         | ✓            |

### 2.2 EUT Software and Firmware Version

Table 2: The EUT Software/Firmware Version

| No. | Product                    | Model No. | Software/Firmware Version       |
|-----|----------------------------|-----------|---------------------------------|
| 1   | AC1900 WiFi Range Extender | EX7000    | V1.0.0.45_1.0.95_dfs_slave_test |

### 2.3 Description Of Available Antennas to The EUT

Table 3: Antenna List

| Antenna No. | Brand   | Model | Antenna Gain(dBi) | Frequency range (MHz ~ MHz)                                   | Antenna Type | Connector Type | Cable Length(External only) |
|-------------|---------|-------|-------------------|---|--------------|----------------|-----------------------------|
| Antenna L   | Netgear | NA    | 2                 | 2412~2477<br>5150~5250<br>5250~5350<br>5470~5725<br>5725~5850 | Dipole       | Re-SMA         | 85+5/-0 mm                  |
| Antenna M   | Netgear | NA    | 2                 | 2412~2477<br>5150~5250<br>5250~5350<br>5470~5725<br>5725~5850 | Dipole       | Re-SMA         | 85+5/-0 mm                  |
| Antenna R   | Netgear | NA    | 2                 | 2412~2477<br>5150~5250<br>5250~5350<br>5470~5725<br>5725~5850 | Dipole       | Re-SMA         | 85+5/-0 mm                  |

## 2.4 EUT Maximum and Minimum Conducted Power

Table 4: The Measured Conducted Output Power

### 802.11a

#### 3Tx CDD Mode

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.17             | 207.32           | 17.17             | 52.119           |
| 5470~5725            | 23.21             | 209.369          | 17.21             | 52.602           |

### 802.11ac (VHT20)

#### 3Tx CDD Mode

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.11             | 204.639          | 17.11             | 51.404           |
| 5470~5725            | 23.20             | 209.113          | 17.20             | 52.481           |

#### 3Tx Beamforming Mode MCS0NSS1

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.11             | 204.639          | 17.11             | 51.404           |
| 5470~5725            | 23.20             | 209.113          | 17.20             | 52.481           |

**802.11ac (VHT40)**
**3Tx CDD Mode**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.89             | 244.829          | 17.89             | 61.518           |
| 5470~5725            | 23.87             | 243.878          | 17.87             | 61.235           |

**3Tx Beamforming Mode MCS0NSS1**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.12             | 205.19           | 17.12             | 51.523           |
| 5470~5725            | 23.15             | 206.429          | 17.15             | 51.88            |

**802.11ac (VHT80)**
**3Tx CDD Mode**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 21.86             | 153.597          | 15.86             | 38.548           |
| 5470~5725            | 23.87             | 244.004          | 17.87             | 61.235           |

**3Tx Beamforming Mode MCS0NSS1**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 21.86             | 153.597          | 15.86             | 38.548           |
| 5470~5725            | 23.16             | 206.913          | 17.16             | 51.999           |

## 2.5 EUT Maximum and Minimum EIRP Power

Table 5: The EIRP Output Power List

### 802.11a

#### 3Tx CDD Mode

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 25.17             | 328.580          | 19.17             | 82.604           |
| 5470~5725            | 25.21             | 331.828          | 19.21             | 83.368           |

### 802.11ac (VHT20)

#### 3Tx CDD Mode

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 25.11             | 324.331          | 19.11             | 81.47            |
| 5470~5725            | 25.20             | 331.422          | 19.20             | 83.176           |

#### 3Tx Beamforming Mode MCS0NSS1

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 29.88             | 972.721          | 23.88             | 244.343          |
| 5470~5725            | 29.97             | 993.988          | 23.97             | 249.459          |



**802.11ac (VHT40)****CDD Mode**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 25.89             | 388.028          | 19.89             | 97.499           |
| 5470~5725            | 25.87             | 386.521          | 19.87             | 97.051           |

**3Tx Beamforming Mode MCS0NSS1**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 29.89             | 975.340          | 23.89             | 244.906          |
| 5470~5725            | 29.92             | 981.230          | 23.92             | 246.604          |

**802.11ac (VHT80)****CDD Mode**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 23.86             | 243.435          | 17.86             | 61.094           |
| 5470~5725            | 25.87             | 386.720          | 19.87             | 97.051           |

**3Tx Beamforming Mode MCS0NSS1**

| Frequency Band (MHz) | MAX. Power        |                  | MIN. Power        |                  |
|----------------------|-------------------|------------------|-------------------|------------------|
|                      | Output Power(dBm) | Output Power(mW) | Output Power(dBm) | Output Power(mW) |
| 5250~5350            | 28.63             | 730.101          | 22.63             | 183.231          |
| 5470~5725            | 29.93             | 983.530          | 23.93             | 247.172          |

## 2.6 Transmit Power Control (TPC)

U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

Maximum EIRP of this device is **993.988** mW which more than 500mW, therefore it's require TPC function.

The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software

## 2.7 Statement of Manufacturer

Manufacturer statement confirming that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

### 3. U-NII DFS Rule Requirements

#### 3.1 Working Modes and Required Test Items

The manufacturer shall state whether the UUT is capable of operating as a Master and/or a Client. If the UUT is capable of operating in more than one operating mode then each operating mode shall be tested separately. See tables 6 and 7 for the applicability of DFS requirements for each of the operational modes.

Table 6: Applicability of DFS Requirements Prior To Use a Channel

| Requirement                     | Operational Mode |                                |                             |
|---------------------------------|------------------|--------------------------------|-----------------------------|
|                                 | Master           | Client without radar detection | Client with radar detection |
| Non-Occupancy Period            | ✓                | Not required                   | ✓                           |
| DFS Detection Threshold         | ✓                | Not required                   | ✓                           |
| Channel Availability Check Time | ✓                | Not required                   | Not required                |
| U-NII Detection Bandwidth       | ✓                | Not required                   | ✓                           |

Table 7: Applicability of DFS Requirements During Normal Operation.

| Requirement                       | Operational Mode                      |                                |
|-----------------------------------|---------------------------------------|--------------------------------|
|                                   | Master or Client with radar detection | Client without radar detection |
| DFS Detection Threshold           | ✓                                     | Not required                   |
| Channel Closing Transmission Time | ✓                                     | ✓                              |
| Channel Move Time                 | ✓                                     | ✓                              |
| U-NII Detection Bandwidth         | ✓                                     | Not required                   |

| Additional requirements for devices with multiple bandwidth modes | 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 of KDB) 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.

### 3.2 Test Limits And Radar Signal Parameters

#### Detection Threshold Values

Table 8: DFS Detection Thresholds For Master Devices And Client Devices With Radar Detection

| Maximum Transmit Power  | Value<br>(See Notes 1, 2, and 3) |
|---|----------------------------------|
| EIRP $\geq$ 200 milliwatt   | -64 dBm                          |
| EIRP < 200 milliwatt and<br>power spectral density < 10 dBm/MHz                 | -62 dBm                          |
| EIRP < 200 milliwatt that do not meet the<br>power spectral density requirement | -64 dBm                          |

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

Table 9: DFS Response Requirement Values

| Parameter                         | Value  |
|-----------------------------------|--|
| Non-occupancy period              | Minimum 30 minutes   |
| Channel Availability Check Time   | 60 seconds   |
| Channel Move Time                 | 10 seconds<br>See Note 1.  |
| Channel Closing Transmission Time | 200 milliseconds + an aggregate of 60<br>milliseconds over remaining 10 second period.<br>See Notes 1 and 2. |
| U-NII Detection Bandwidth         | Minimum 100% of the U-NII 99% transmission<br>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 a Channel move (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 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.



**Parameters of DFS Test Signals**

Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 10: Short Pulse Radar Test Waveforms

| Radar Type   | Pulse Width (μsec) | PRI (μsec)  | Number of Pulses   | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|--|--------------------|---|--|--|--------------------------|
| 0  | 1                  | 1428  | 18   | See Note 1                                 | See Note 1               |
| 1  | 1                  | Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a   | $\text{Roundup} \left\{ \left( \frac{1}{360} \right) \cdot \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 60%  | 30                       |
|  |                    | Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A |  |  |                          |
| 2  | 1-5                | 150-230   | 23-29  | 60%  | 30                       |
| 3  | 6-10               | 200-500   | 16-18  | 60%  | 30                       |
| 4  | 11-20              | 200-500   | 12-16  | 60%  | 30                       |
| Aggregate (Radar Types 1-4)  |                    |   |  | 80%  | 120                      |
| Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. |                    |   |  |  |                          |



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Table 11: 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                       |

Table 12: 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                       |

#### 4. Test & Support Equipment List

##### 4.1 Test Instruments

Table 13: Test Instruments List

| Description & Manufacturer      | Model No. | Serial No  | Date Of Calibration | Due Date Of Calibration |
|---------------------------------|-----------|------------|---------------------|-------------------------|
| Spectrum Analyzer R&S           | FSP40     | 100060     | May 08, 2015        | May 07, 2016            |
| Vector Signal Generator Agilent | N5182B    | MY53051263 | Aug. 10, 2015       | Aug. 09, 2016           |
| Horn_Antenna EMCO               | 1018G     | 0001       | Feb 05, 2015        | Feb. 04, 2016           |

##### 4.2 Description of Support Units

Table 14: Support Unit Information.

| No. | Product           | Brand | Model No. | FCC ID        | Spec |
|-----|-------------------|-------|-----------|---------------|------|
| 1   | Wireless LAN Unit | NEC   | NP05LM    | RRK-NECNP05LM |      |

**NOTE:** This device was functioned as a  Master  Slave device during the DFS test.

Table 15: Software/Firmware Information.

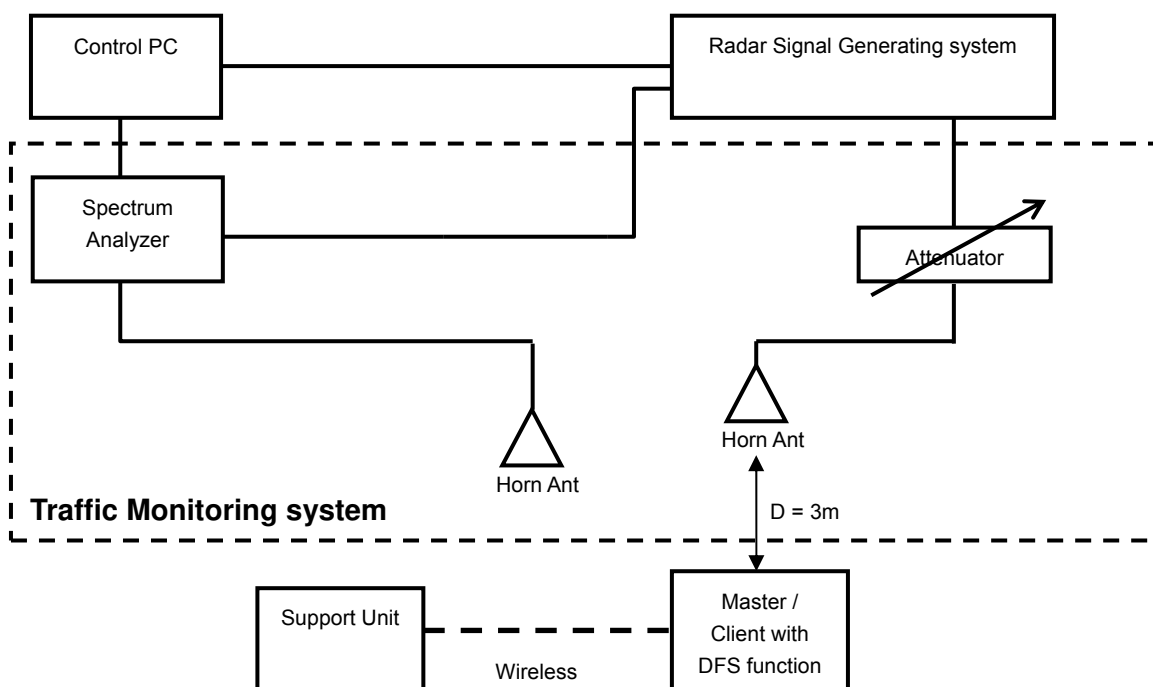
| No. | Product           | Model No. | Software/Firmware Version                          |
|-----|-------------------|-----------|--|
| 1   | Wireless LAN Unit | NP05LM    | Driver Version:<br>06/18/2014,<br>1026.12.606.2014 |

## 5. Test Procedure

### 5.1 DFS Measurement System

A complete DFS Measurement System consists of two subsystems: (1) the Radar Signal Generating system and (2) the Traffic Monitoring system. The control PC is necessary for generating the Radar waveforms in Table 10, 11 and 12. The traffic monitoring subsystem is specified to the type of unit under test (UUT).

#### Radiated Setup Configuration of DFS Measurement System



#### Channel Loading

System testing will be performed with channel-loading using means appropriate to the data types that are used by the unlicensed device. The following requirements apply:

|    |   |   |
|----|---|---|
| a) | The data file must be of a type that is typical for the device (i.e., MPEG-2, MPEG-4, WAV, MP3, MP4, AVI, etc.) and must generally be transmitting in a streaming mode. |   |
| b) | Software to ping the client is permitted to simulate data transfer but must have random ping intervals.   |   |
| c) | Timing plots are required with calculations demonstrating a minimum channel loading of approximately 17% or greater.  | ✓ |
| d) | Unicast or Multicast protocols are preferable but other protocols may be used. The appropriate protocol used must be described in the test procedures.                  |   |

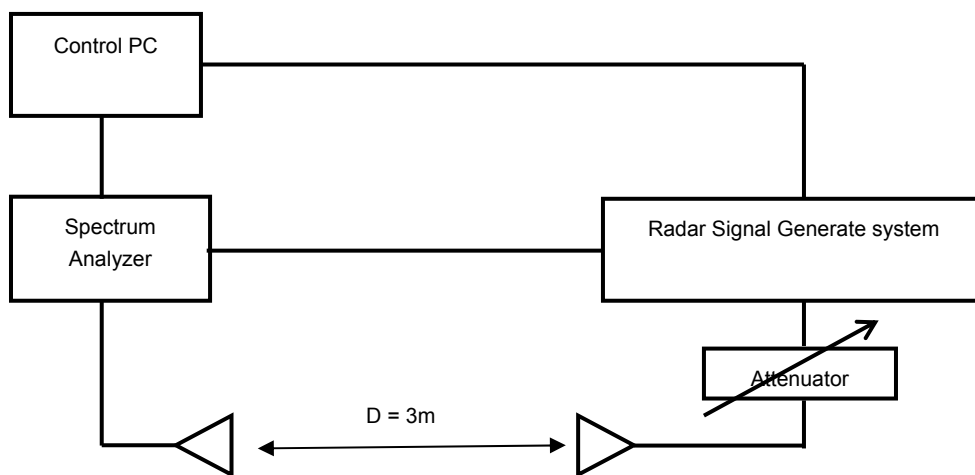


### 5.2 Calibration of DFS Detection Threshold Level

The measured channel is 5500MHz and 5510MHz and 5530MHz. The radar signal was the same as transmitted channels, and injected into the antenna of AP (master) or Client Device with Radar Detection, measured the channel closing transmission time and channel move time.

#### Radiated setup configuration of Calibration of DFS Detection Threshold Level

The calibrated conducted detection threshold level is set to -64dBm. The tested level is lower than required level hence it provides margin to the limit.



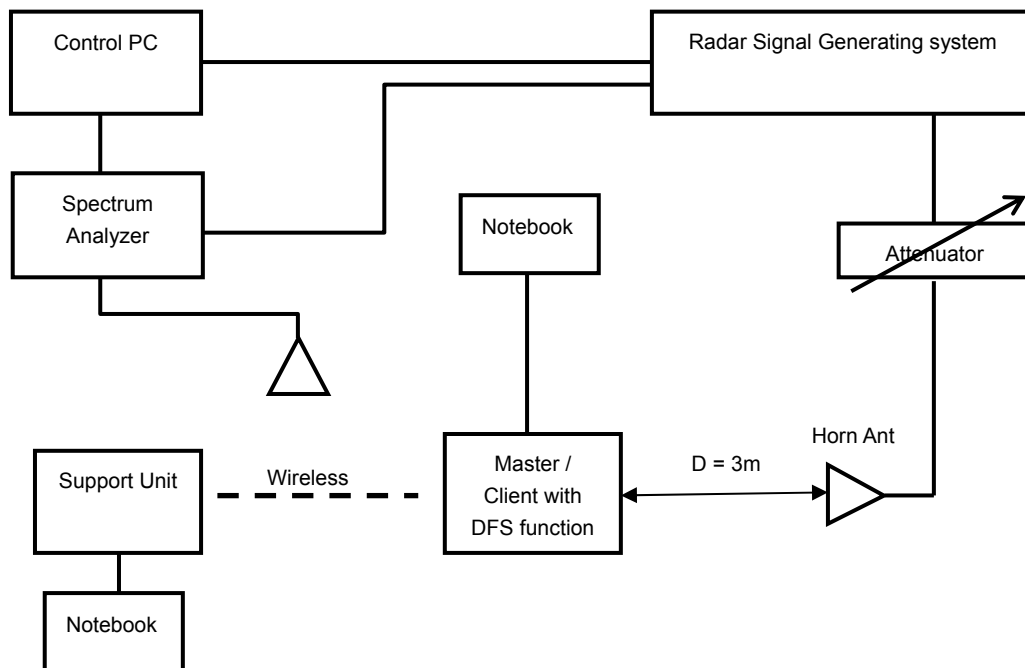
### 5.3 Deviation from Test Standard

No deviation.

### 5.4 Radiated Test Setup Configuration

#### Master mode

The EUT is a U-NII Device operating in Master mode. The radar test signals are injected into the Master Device.





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## 6. Test Results

### 6.1 Summary of Test Results

| Clause | Test Parameter                    | Remarks    | Pass/Fail |
|--------|-----------------------------------|------------|-----------|
| 15.407 | DFS Detection Threshold           | Applicable | Pass      |
| 15.407 | Channel Availability Check Time   | Applicable | Pass      |
| 15.407 | Channel Move Time                 | Applicable | Pass      |
| 15.407 | Channel Closing Transmission Time | Applicable | Pass      |
| 15.407 | Non- Occupancy Period             | Applicable | Pass      |
| 15.407 | U-NII Detection Bandwidth         | Applicable | Pass      |

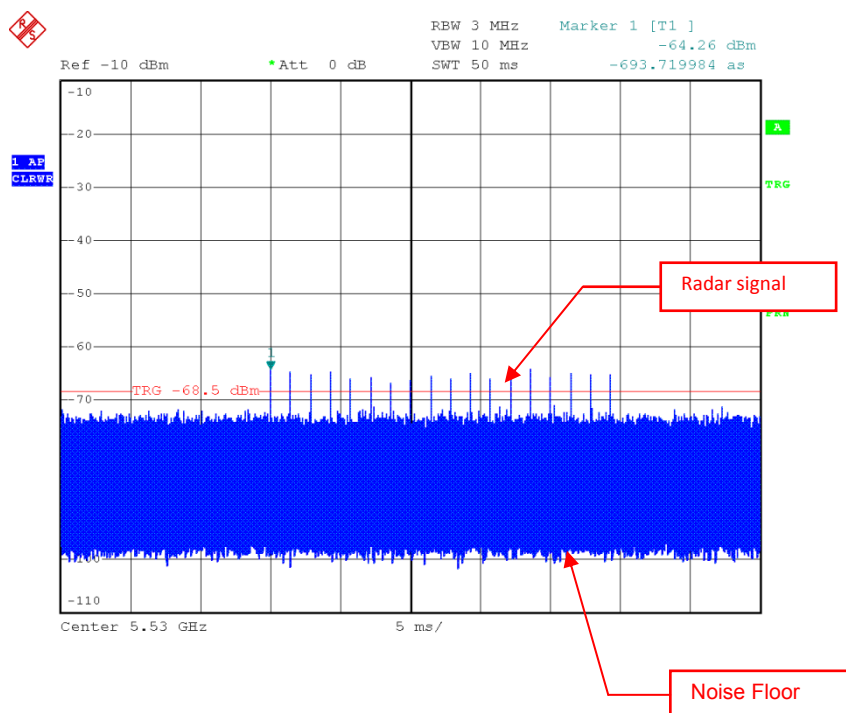
## 6.2 Test Results

### 6.2.1 Test Mode: Device Operating In Master Mode.

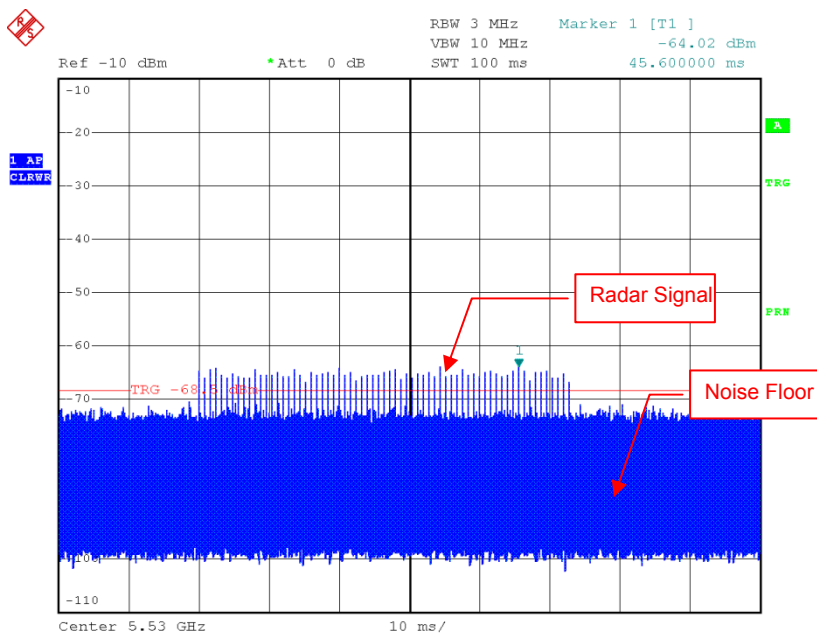
The radar test waveforms are injected into the Master.

#### DFS Detection Threshold

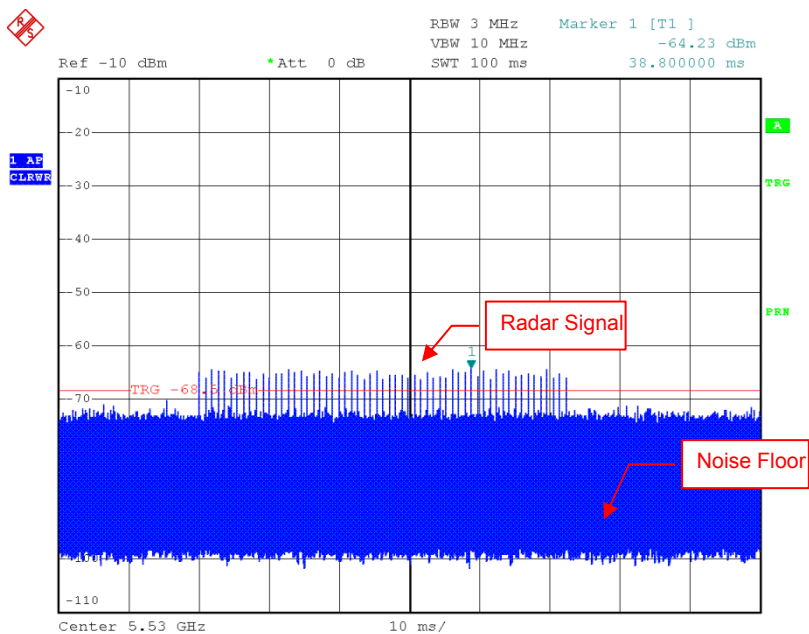
For detection threshold level of -64dBm, the tested level is lower than required level for 1dB, hence it provides margin to the limit.



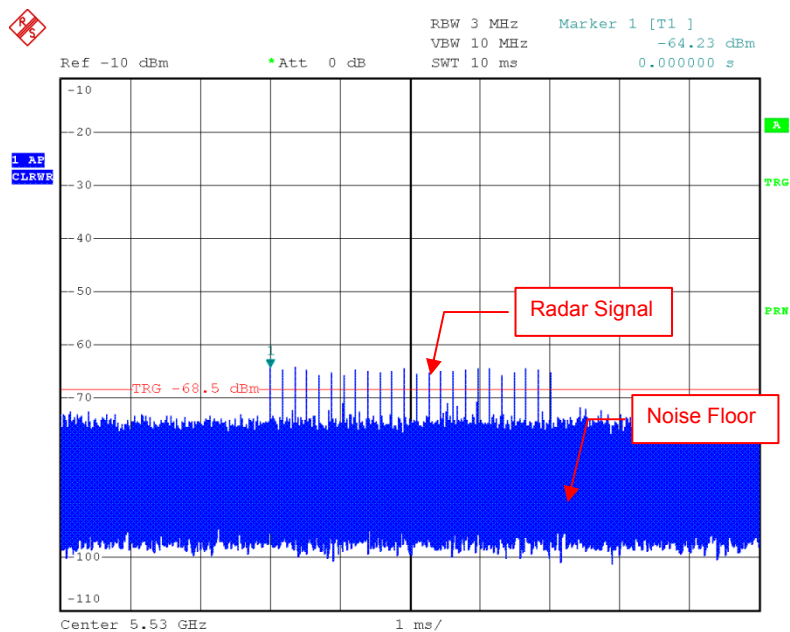
Radar Signal 0



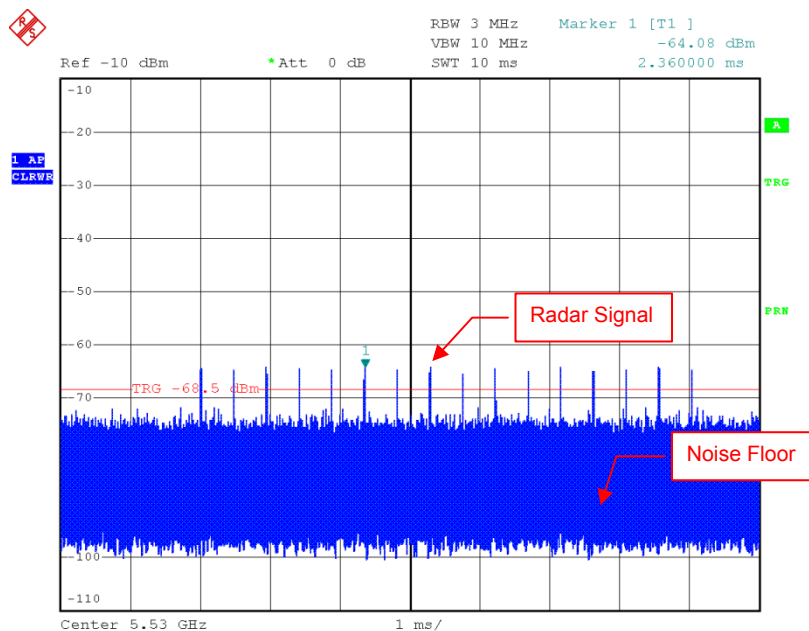
Radar Signal 1 (Test A)



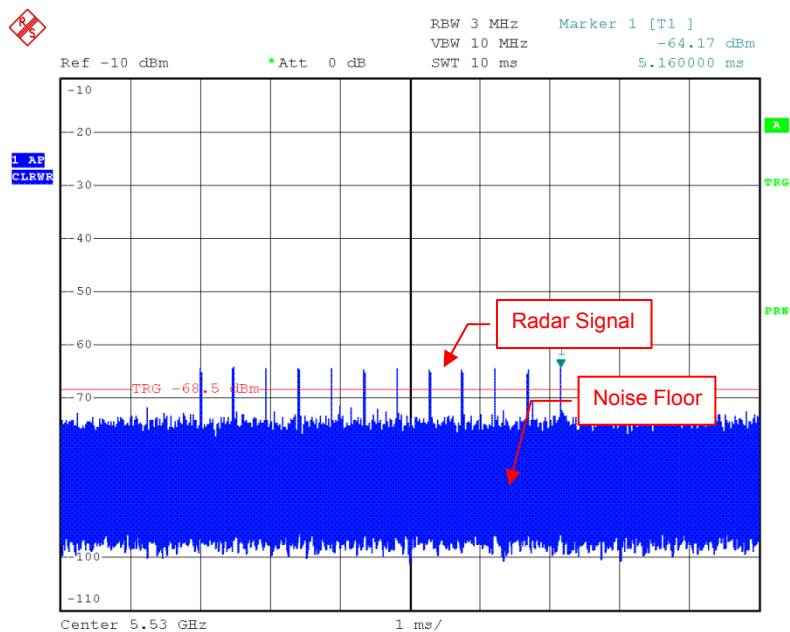
Radar Signal 1 (Test B)



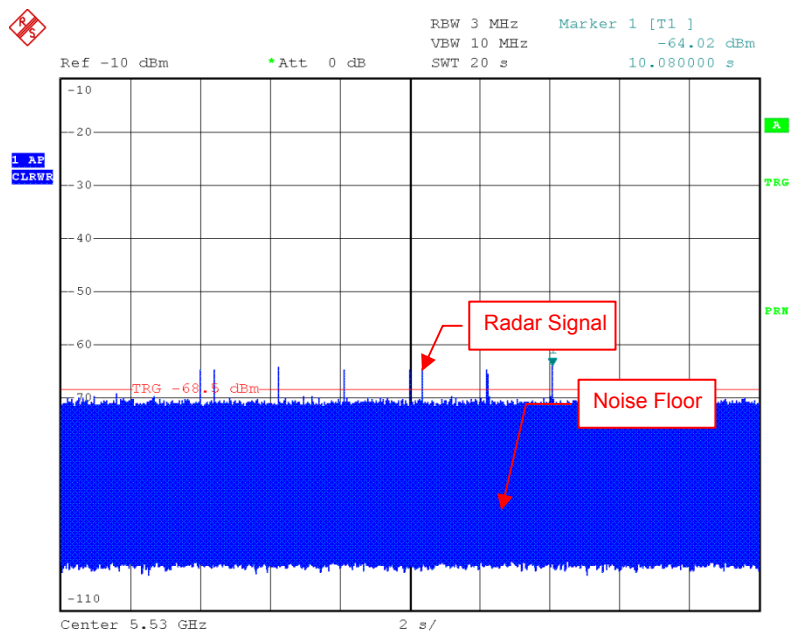
Radar Signal 2



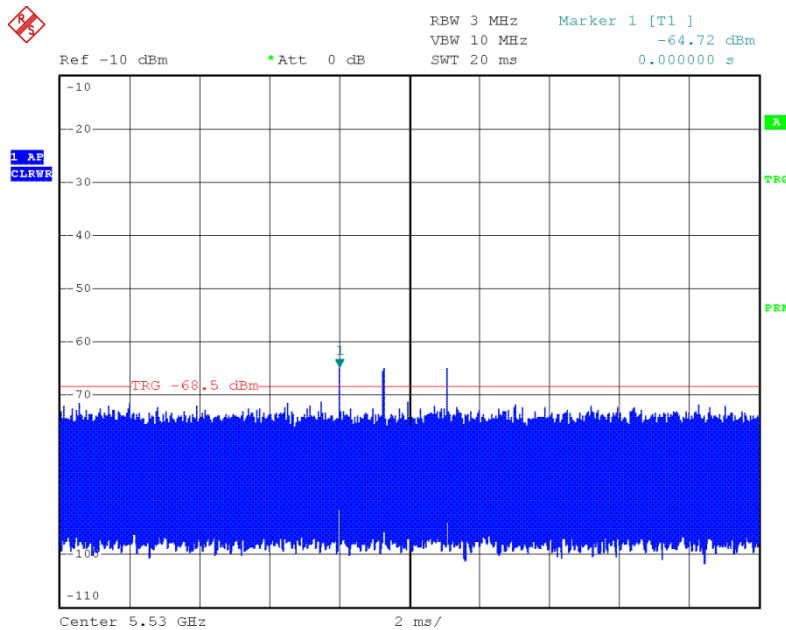
Radar Signal 3



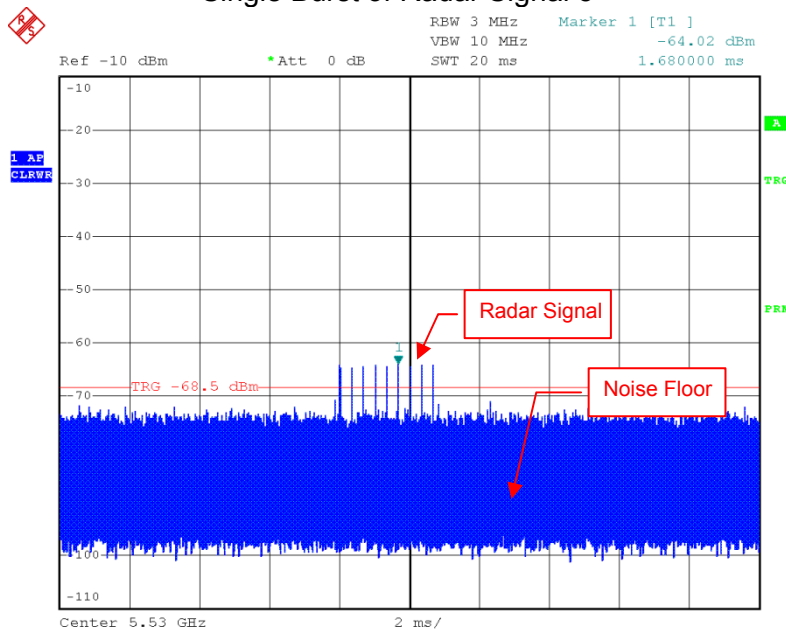
Single Burst of Radar Signal 4



Radar Signal 5



### Single Burst of Radar Signal 5



### Radar Signal 6





A D T

### 6.2.2 U-NII Detection Bandwidth

#### IEEE 802.11ac (VHT20)



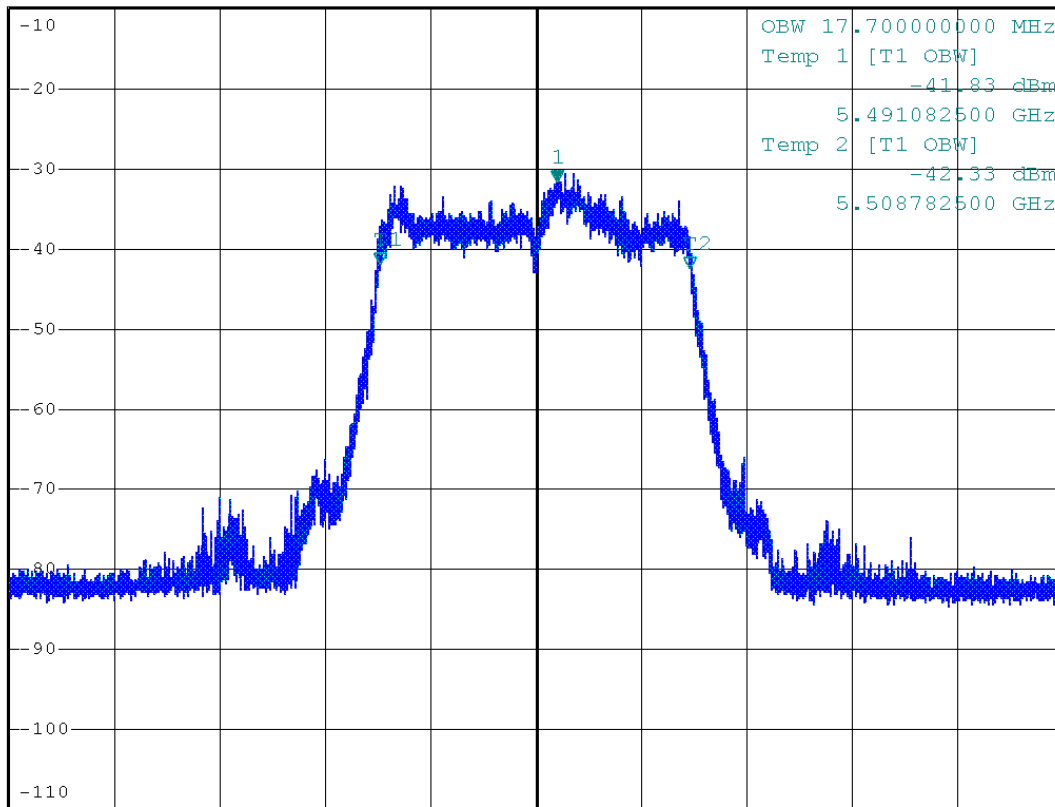
\*RBW 300 kHz Marker 1 [T1 ]  
\*VBW 1 MHz -31.59 dBm  
5.501200000 GHz

Ref -10 dBm

\*Att 0 dB

SWT 40 ms

1 PK  
MAXH



Center 5.5 GHz 6 MHz/ Span 60 MHz

U-NII 99% Channel bandwidth



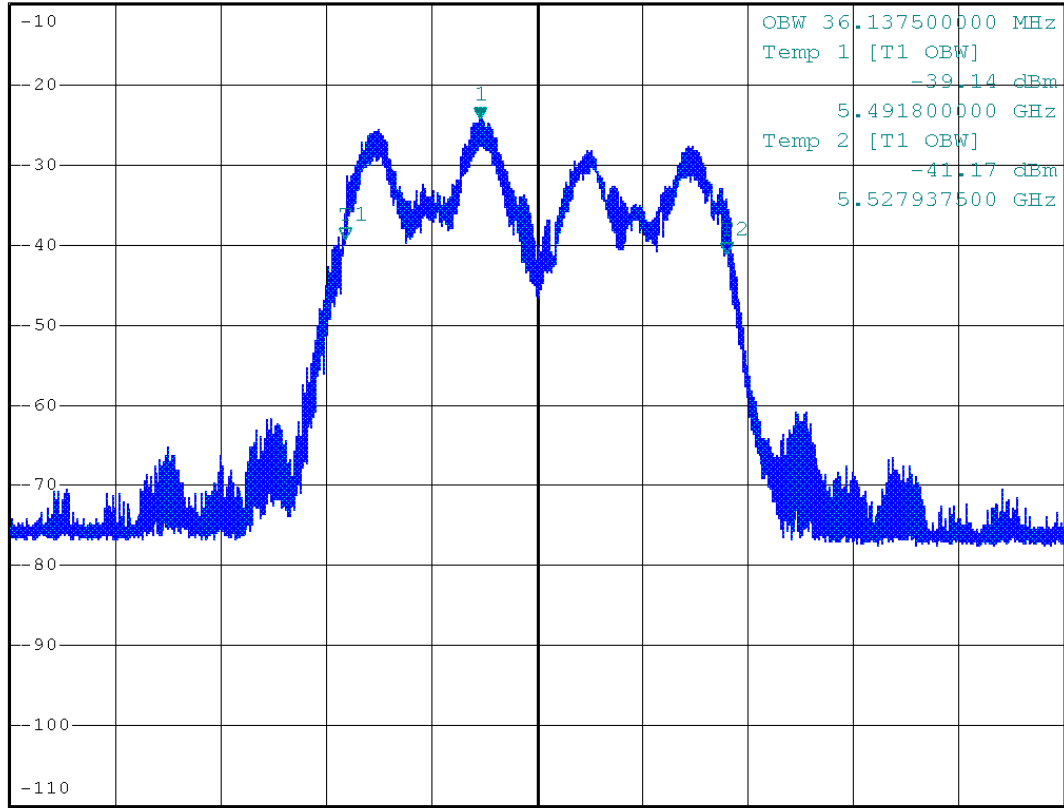
A D T

### IEEE 802.11ac (VHT40)



Ref -10 dBm      \*Att 0 dB      SWT 40 ms      Marker 1 [T1 ]  
\*RBW 1 MHz      -24.20 dBm  
\*VBW 3 MHz      5.504537500 GHz

1 PK  
MAXH



Center 5.51 GHz      10 MHz/      Span 100 MHz

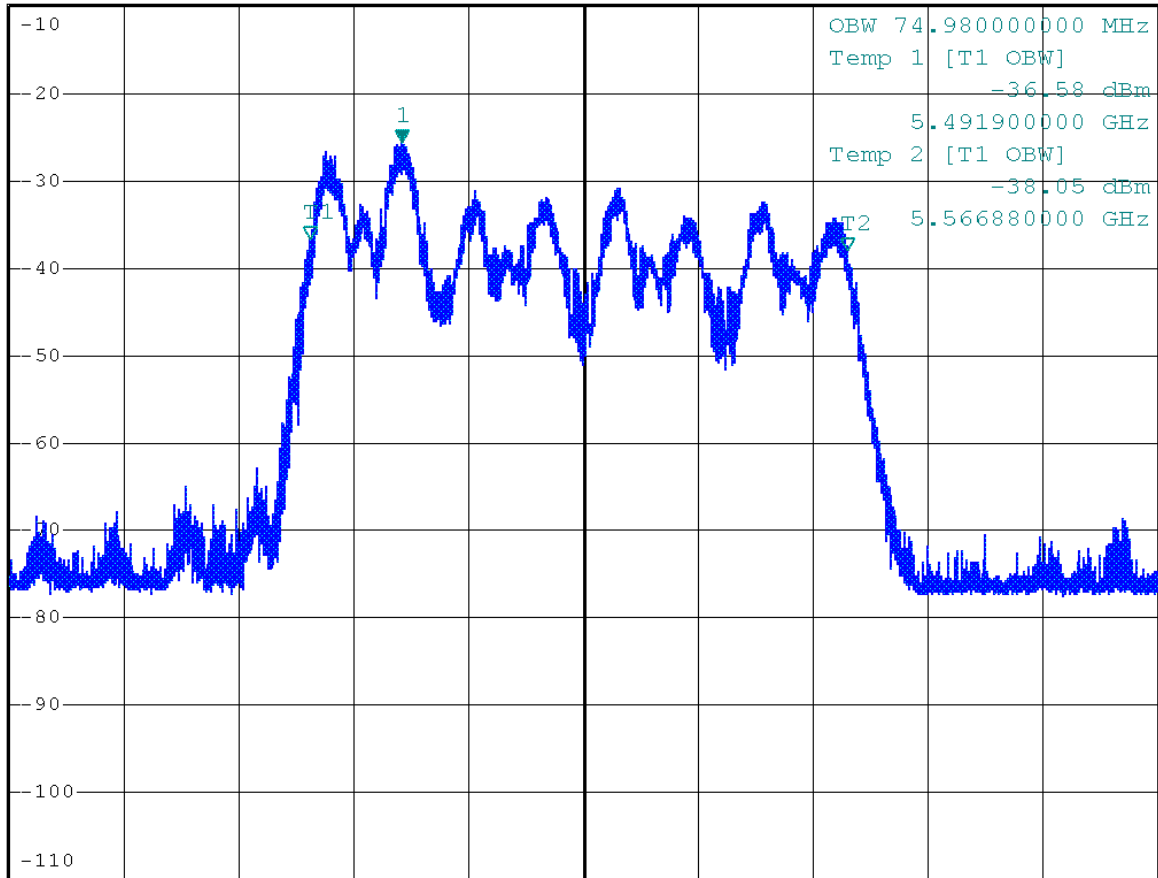
U-NII 99% Channel bandwidth

### IEEE 802.11ac (VHT80)



\*RBW 1 MHz      Marker 1 [T1 ]  
 \*VBW 3 MHz      -25.52 dBm  
 Ref -10 dBm      \*Att 0 dB      SWT 40 ms      5.504660000 GHz

1 PK  
 MAXH



Center 5.53 GHz      16 MHz/      Span 160 MHz

U-NII 99% Channel bandwidth

| Detection Bandwidth Test - IEEE 802.11ac VHT20                       |                          |     |     |     |     |     |     |     |     |     |                       |
|--|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------|
| Radar Type 0   |                          |     |     |     |     |     |     |     |     |     |                       |
| EUT Frequency: 5500MHz   |                          |     |     |     |     |     |     |     |     |     |                       |
| EUT 99% Power bandwidth: 17.7MHz                                     |                          |     |     |     |     |     |     |     |     |     |                       |
| Detection bandwidth limit (100% of EUT 99% Power bandwidth): 17.7MHz |                          |     |     |     |     |     |     |     |     |     |                       |
| Detection bandwidth (5509(FH) – 5491(FL)) : 18MHz                    |                          |     |     |     |     |     |     |     |     |     |                       |
| Test Result : PASS   |                          |     |     |     |     |     |     |     |     |     |                       |
| Radar<br>Frequency<br>(MHz)  | Trial Number / Detection |     |     |     |     |     |     |     |     |     | Detection<br>Rate (%) |
|  | 1                        | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |                       |
| 5.491G(FL)   | Yes                      | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                    |
| 5.492G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.493G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.494G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.495G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.496G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.497G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.498G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.499G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.500G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.501G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.502G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.503G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.504G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.505G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.506G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.507G   | No                       | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                    |
| 5.508G   | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                   |
| 5.509G(FH)   | Yes                      | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                    |

| Detection Bandwidth Test - IEEE 802.11ac VHT40                          |                          |     |     |     |     |     |     |     |     |     |                    |
|---|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|
| Radar Type 0  |                          |     |     |     |     |     |     |     |     |     |                    |
| EUT Frequency: 5510MHz  |                          |     |     |     |     |     |     |     |     |     |                    |
| EUT 99% Power bandwidth: 36.1375MHz                                     |                          |     |     |     |     |     |     |     |     |     |                    |
| Detection bandwidth limit (100% of EUT 99% Power bandwidth): 36.1375MHz |                          |     |     |     |     |     |     |     |     |     |                    |
| Detection bandwidth (5529(FH) – 5491(FL)) : 38MHz                       |                          |     |     |     |     |     |     |     |     |     |                    |
| Test Result : PASS  |                          |     |     |     |     |     |     |     |     |     |                    |
| Radar Frequency (MHz)   | Trial Number / Detection |     |     |     |     |     |     |     |     |     | Detection Rate (%) |
|   | 1                        | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |                    |
| 5.491G(FL)  | Yes                      | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                 |
| 5.492G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.493G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.494G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.495G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.496G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.497G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.498G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.499G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.500G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.501G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.502G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.503G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.504G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.505G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.506G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.507G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.508G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.509G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.510G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.511G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.512G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.513G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.514G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.515G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.516G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.517G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.518G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.519G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.520G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.521G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.522G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.523G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.524G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.525G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.526G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.527G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.528G  | Yes                      | Yes | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                 |
| 5.529G(FH)  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No  | Yes | 90                 |

| Detection Bandwidth Test - IEEE 802.11ac VHT80                        |                          |     |     |     |     |     |     |     |     |     |                    |
|---|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|
| Radar Type 0  |                          |     |     |     |     |     |     |     |     |     |                    |
| EUT Frequency: 5530MHz  |                          |     |     |     |     |     |     |     |     |     |                    |
| EUT 99% Power bandwidth: 74.98MHz                                     |                          |     |     |     |     |     |     |     |     |     |                    |
| Detection bandwidth limit (100% of EUT 99% Power bandwidth): 74.98MHz |                          |     |     |     |     |     |     |     |     |     |                    |
| Detection bandwidth (5568(FH) – 5492(FL)) : 76MHz                     |                          |     |     |     |     |     |     |     |     |     |                    |
| Test Result : PASS  |                          |     |     |     |     |     |     |     |     |     |                    |
| Radar Frequency (MHz)   | Trial Number / Detection |     |     |     |     |     |     |     |     |     | Detection Rate (%) |
|   | 1                        | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |                    |
| 5.492G(FL)  | Yes                      | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 90                 |
| 5.493G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.494G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.495G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.496G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.497G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.498G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.499G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.500G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.501G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.502G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.503G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.504G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.505G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.506G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.507G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.508G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.509G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.510G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.511G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.512G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.513G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.514G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.515G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.516G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.517G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.518G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.519G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.520G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.521G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.522G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.523G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.524G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.525G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.526G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.527G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.528G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.529G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.530G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.531G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.532G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.533G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.534G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.535G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |
| 5.536G  | Yes                      | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100                |

|            |     |     |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5.537G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.538G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.539G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.540G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.541G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.542G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.543G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.544G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.545G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.546G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.547G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.548G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.549G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.550G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.551G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.552G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.553G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.554G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.555G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.556G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.557G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.558G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.559G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.560G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.561G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.562G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.563G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.564G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.565G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.566G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.567G     | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |
| 5.568G(FH) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 100 |

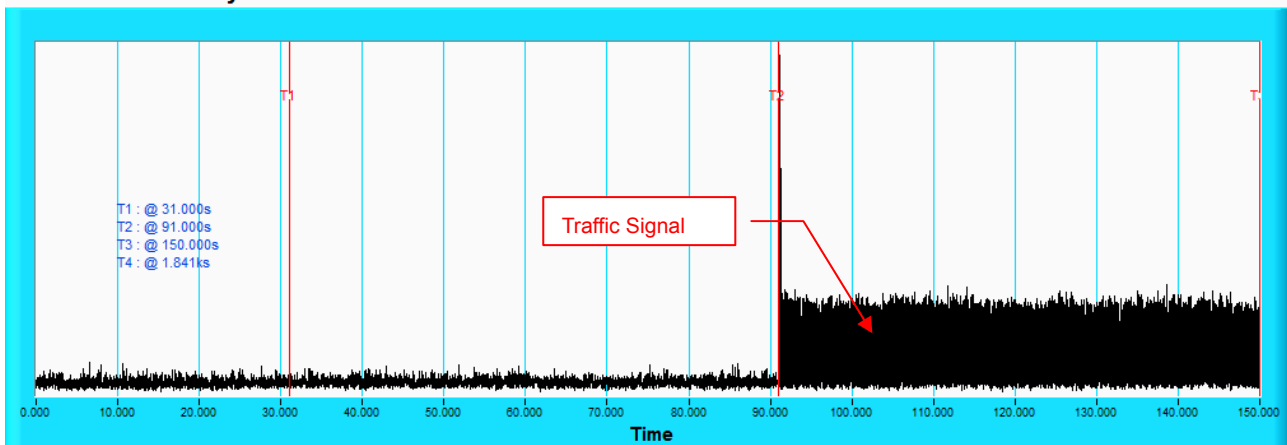
### 6.2.3 Channel Availability Check Time

If the EUT successfully detected the radar burst, it should be observed as the EUT has no transmissions occurred until the EUT starts transmitting on another channel.

| Timing of Radar Signal | Observation |                   |
|------------------------|-------------|-------------------|
|                        | EUT         | Spectrum Analyzer |
| Within 1 to 6 second   | Detected    | No transmissions  |
| Within 54 to 60 second | Detected    | No transmissions  |

### Initial Channel Availability Check Time

#### Channel Availability Check

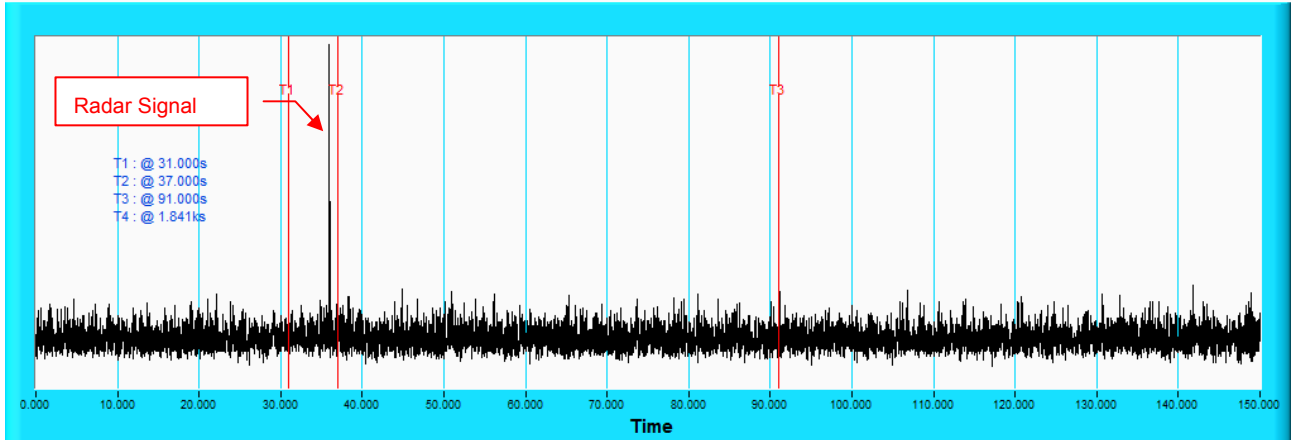


**NOTE:** T1 denotes the end of power-up time period is 31<sup>th</sup> second. T2 denotes the end of Channel Availability Check time is 91<sup>th</sup> second. Channel Availability Check time is equal to ( T2 – T1) 60 seconds.



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

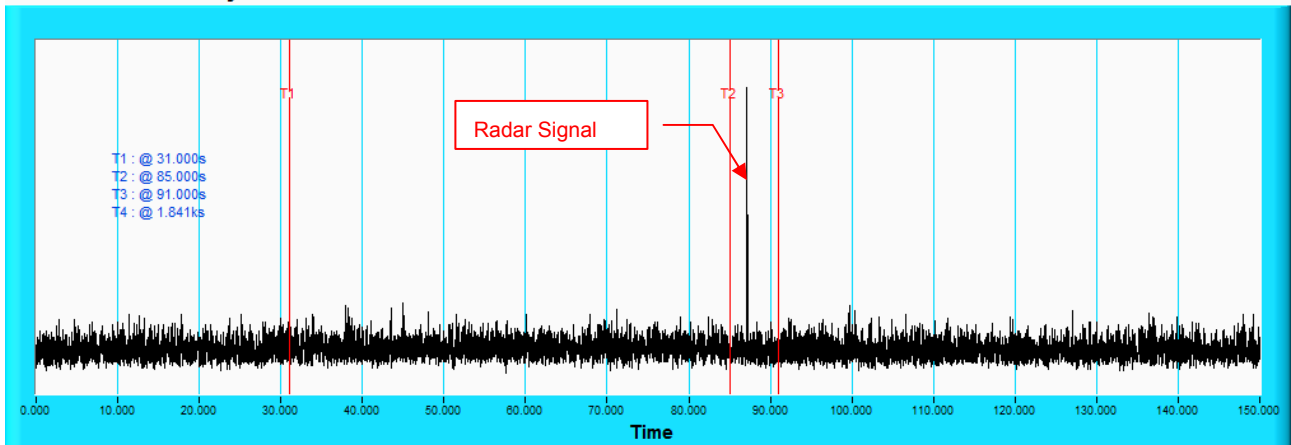
#### Channel Availability Check



**NOTE:** T1 denotes the end of power up time period is 31<sup>th</sup> second. T2 denotes 37<sup>th</sup> second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T3 denotes the 91<sup>th</sup> second.

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

#### Channel Availability Check



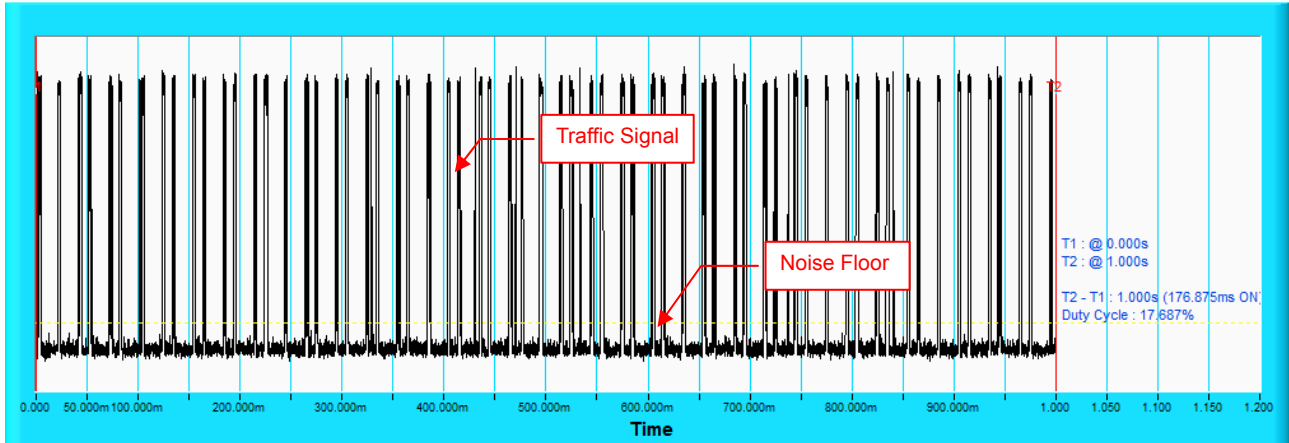
**NOTE:** T1 denotes the end of power up time period is 31<sup>th</sup> second. T2 denotes 85<sup>th</sup> second and the radar burst was commenced within 54<sup>th</sup> second to 60<sup>th</sup> second window starting from the end of power-up sequence. T3 denotes the 91<sup>th</sup> second.

### 6.2.4 Channel Closing Transmission and Channel Move Time

#### Wireless Traffic Loading

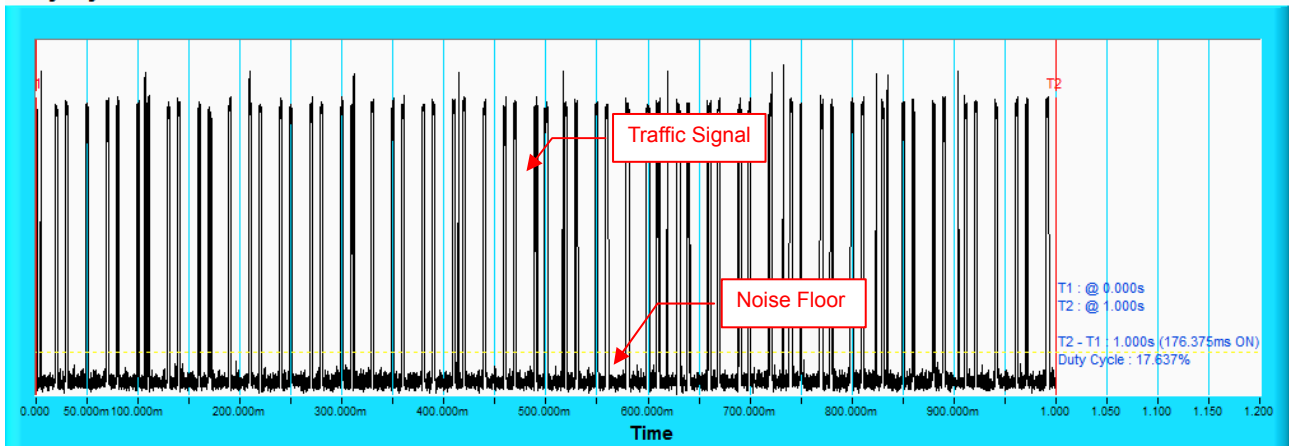
#### IEEE 802.11ac VHT20

##### Duty Cycle



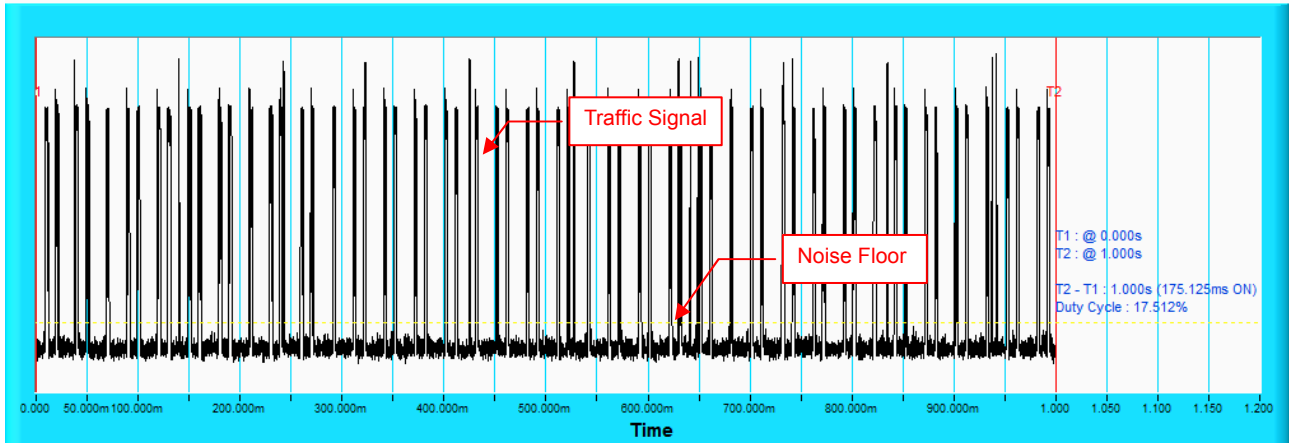
#### IEEE 802.11ac VHT40

##### Duty Cycle



#### IEEE 802.11ac VHT80

##### Duty Cycle



**IEEE 802.11ac VHT20**

Table 1: Short Pulse Radar Test Waveforms.

| Radar Type                  | Pulse Width (µsec)   | PRI (µsec)   | Number of Pulses | Number of Trials(Times) | Percentage of Successful Detection (%) |
|-----------------------------|--|--|------------------|-------------------------|--|
| 1                           | <p>Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a</p> <p>-----</p> <p>Test B: 15 unique PRI values randomly selected within the range of 518-3066 µ sec, with a minimum increment of 1 µ sec, excluding PRI values selected in Test A</p> | $\text{Roundup} \left\{ \left( \frac{1}{360} \right) \cdot \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 18               | 30                      | 83.3                                   |
| 2                           | 1-5  | 150-230  | 23-29            | 30                      | 90                                     |
| 3                           | 6-10   | 200-500  | 16-18            | 30                      | 93.3                                   |
| 4                           | 11-20  | 200-500  | 12-16            | 30                      | 93.3                                   |
| Aggregate (Radar Types 1-4) |  |  |                  | 120                     | 90                                     |

Table 2: Long Pulse Radar Test Waveform

| Radar Type | Pulse Width (µsec) | Chirp Width (MHz) | PRI (µsec) | Number of Pulses per Burst | Number of Bursts | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------|-------------------|------------|----------------------------|------------------|-------------------------|--|
| 5          | 50-100             | 5-20              | 1000-2000  | 1-3                        | 8-20             | 30                      | 86.7                                   |

Table 3: Frequency Hopping Radar Test Waveform

| Radar Type | Pulse Width ( $\mu$ sec) | PRI ( $\mu$ sec) | Pulses per Hop | Hopping Rate (kHz) | Hopping Sequence Length (msec) | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------------|------------------|----------------|--------------------|--------------------------------|-------------------------|--|
| 6          | 1                        | 333              | 9              | 0.333              | 300                            | 30                      | 93.3                                   |

**IEEE 802.11ac VHT40**

Table 1: Short Pulse Radar Test Waveforms.

| Radar Type                  | Pulse Width (µsec)   | PRI (µsec)   | Number of Pulses | Number of Trials(Times) | Percentage of Successful Detection (%) |
|-----------------------------|--|--|------------------|-------------------------|--|
| 1                           | <p>Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a</p> <p>-----</p> <p>Test B: 15 unique PRI values randomly selected within the range of 518-3066 µ sec, with a minimum increment of 1 µ sec, excluding PRI values selected in Test A</p> | $\text{Roundup} \left\{ \left( \frac{1}{360} \right) \cdot \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$ | 18               | 30                      | 86.7                                   |
| 2                           | 1-5  | 150-230  | 23-29            | 30                      | 90                                     |
| 3                           | 6-10   | 200-500  | 16-18            | 30                      | 93.3                                   |
| 4                           | 11-20  | 200-500  | 12-16            | 30                      | 83.3                                   |
| Aggregate (Radar Types 1-4) |  |  |                  | 120                     | 88.3                                   |

Table 2: Long Pulse Radar Test Waveform

| Radar Type | Pulse Width (µsec) | Chirp Width (MHz) | PRI (µsec) | Number of Pulses per Burst | Number of Bursts | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------|-------------------|------------|----------------------------|------------------|-------------------------|--|
| 5          | 50-100             | 5-20              | 1000-2000  | 1-3                        | 8-20             | 30                      | 83.3                                   |

Table 3: Frequency Hopping Radar Test Waveform

| Radar Type | Pulse Width ( $\mu$ sec) | PRI ( $\mu$ sec) | Pulses per Hop | Hopping Rate (kHz) | Hopping Sequence Length (msec) | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------------|------------------|----------------|--------------------|--------------------------------|-------------------------|--|
| 6          | 1                        | 333              | 9              | 0.333              | 300                            | 30                      | 93.3                                   |

**IEEE 802.11ac VHT80**

Table 1: Short Pulse Radar Test Waveforms.

| Radar Type                  | Pulse Width (μsec)   | PRI (μsec)   | Number of Pulses | Number of Trials(Times) | Percentage of Successful Detection (%) |
|-----------------------------|--|--|------------------|-------------------------|--|
| 1                           | <p>Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a</p> <p>-----</p> <p>Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A</p> | $\text{Roundup} \left\{ \begin{array}{l} \left( \frac{1}{360} \right) \cdot \\ \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \end{array} \right\}$ | 18               | 30                      | 90                                     |
| 2                           | 1-5  | 150-230  | 23-29            | 30                      | 93.3                                   |
| 3                           | 6-10   | 200-500  | 16-18            | 30                      | 86.7                                   |
| 4                           | 11-20  | 200-500  | 12-16            | 30                      | 83.3                                   |
| Aggregate (Radar Types 1-4) |  |  |                  | 120                     | 88.3                                   |

Table 2: Long Pulse Radar Test Waveform

| Radar Type | Pulse Width (μsec) | Chirp Width (MHz) | PRI (μsec) | Number of Pulses per Burst | Number of Bursts | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------|-------------------|------------|----------------------------|------------------|-------------------------|--|
| 5          | 50-100             | 5-20              | 1000-2000  | 1-3                        | 8-20             | 30                      | 83.3                                   |

Table 3: Frequency Hopping Radar Test Waveform

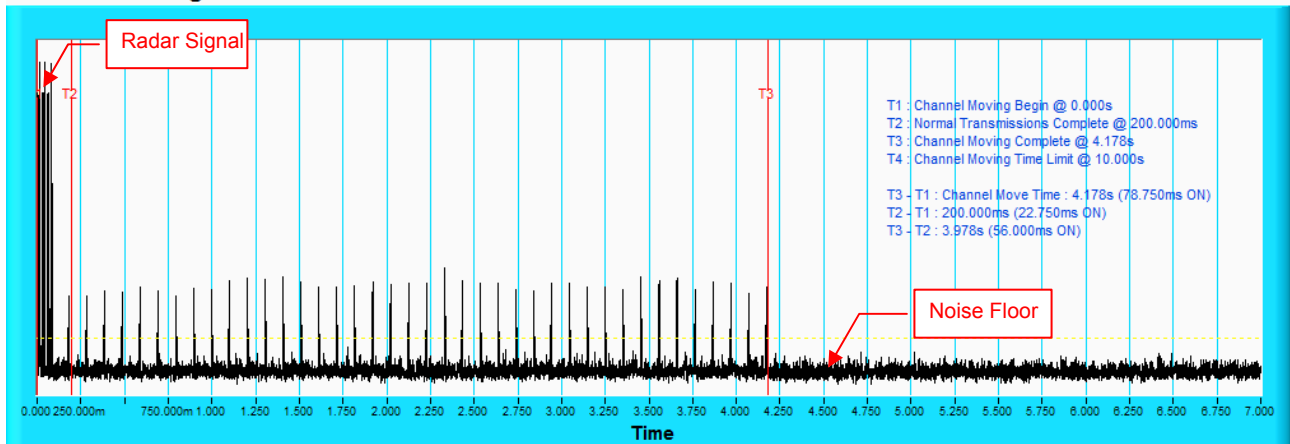
| Radar Type | Pulse Width ( $\mu$ sec) | PRI ( $\mu$ sec) | Pulses per Hop | Hopping Rate (kHz) | Hopping Sequence Length (msec) | Number of Trials(Times) | Percentage of Successful Detection (%) |
|------------|--------------------------|------------------|----------------|--------------------|--------------------------------|-------------------------|--|
| 6          | 1                        | 333              | 9              | 0.333              | 300                            | 30                      | 90                                     |



### Radar signal 0

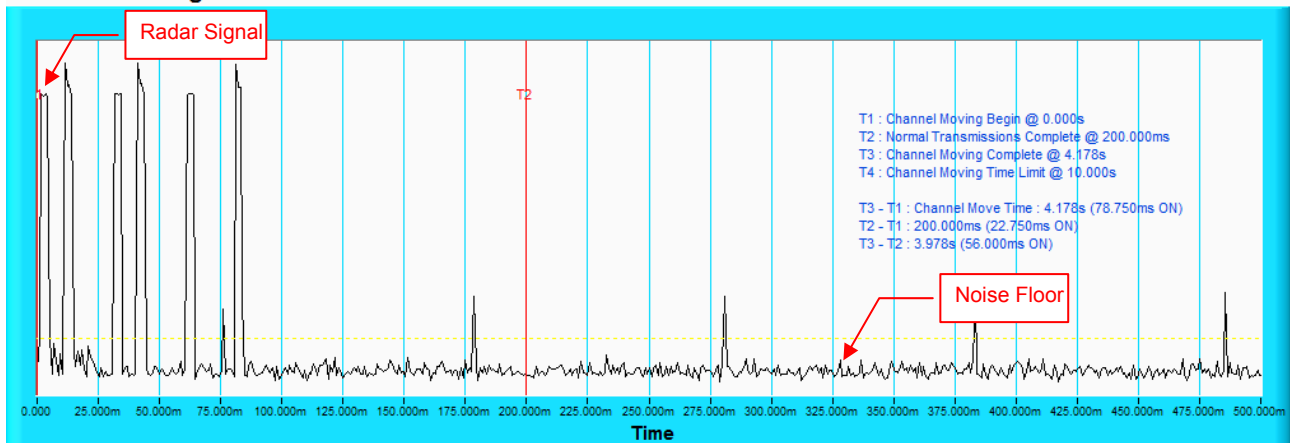
IEEE 802.11ac VHT80

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



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

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

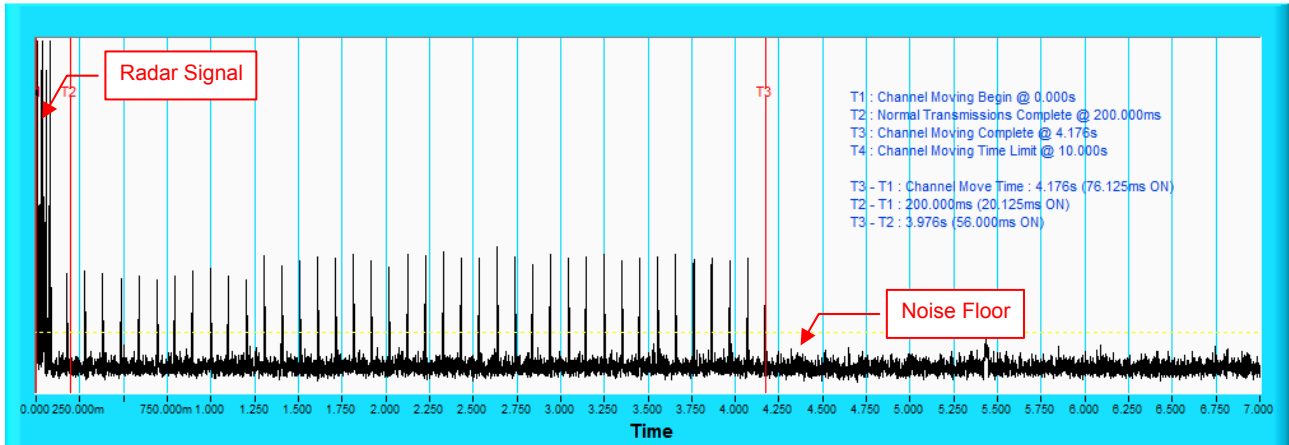


**NOTE:** Room-in of the first 500ms after radar signal applied.

### Radar signal 1

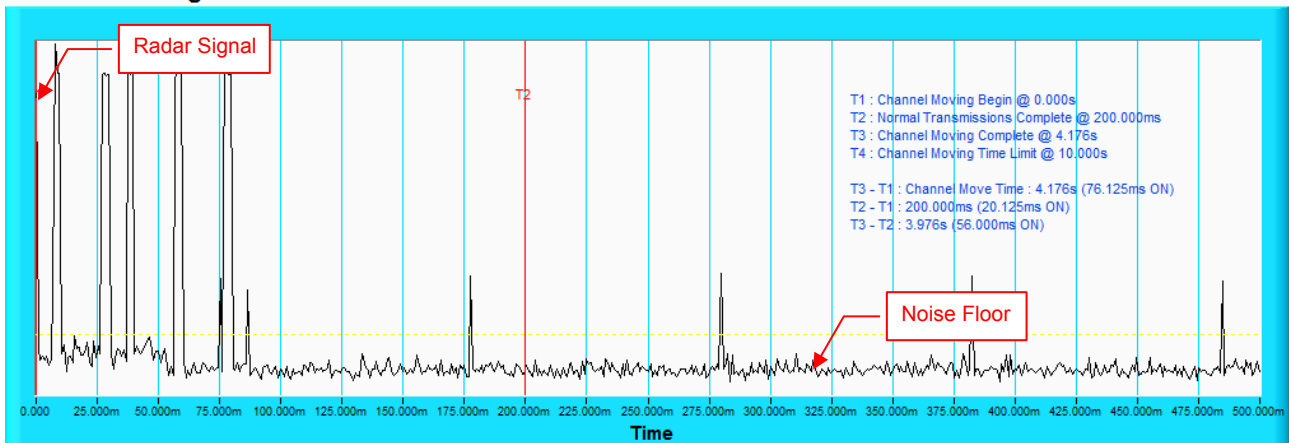
IEEE 802.11ac VHT80

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



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

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

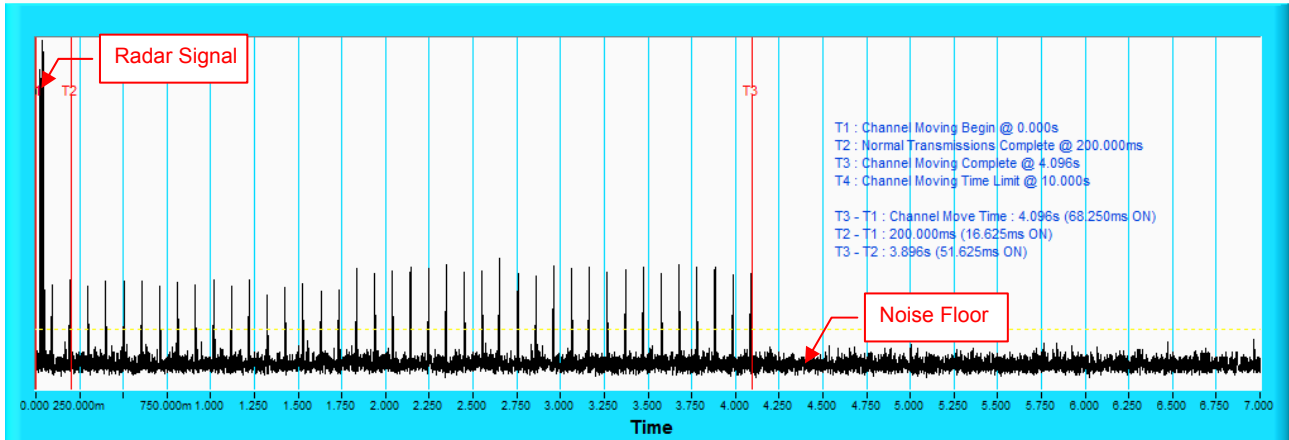


**NOTE:** Room-in of the first 500ms after radar signal applied.

## Radar signal 2

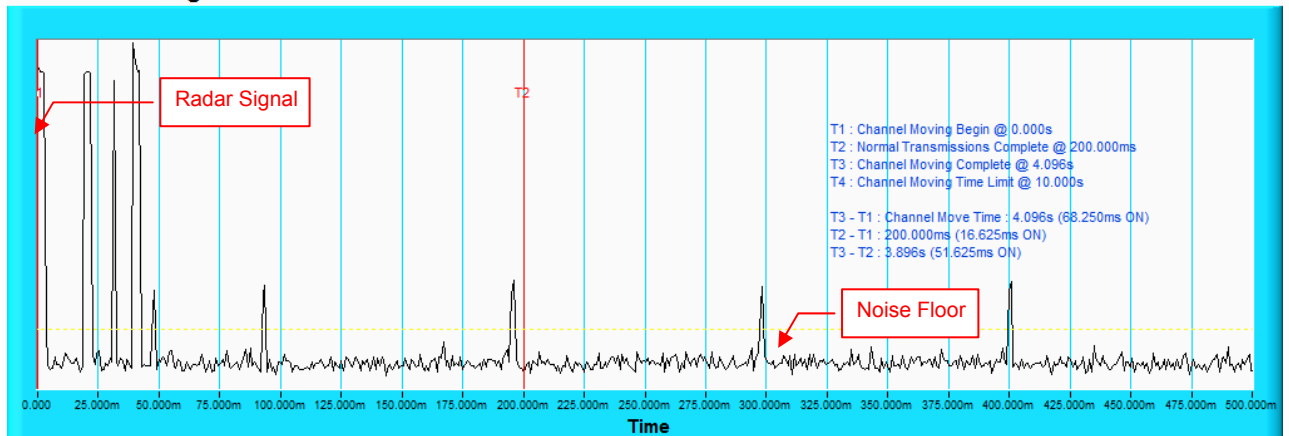
IEEE 802.11ac VHT80

### Channel Closing Transmission Time & Channel Move Time



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

### Channel Closing Transmission Time & Channel Move Time

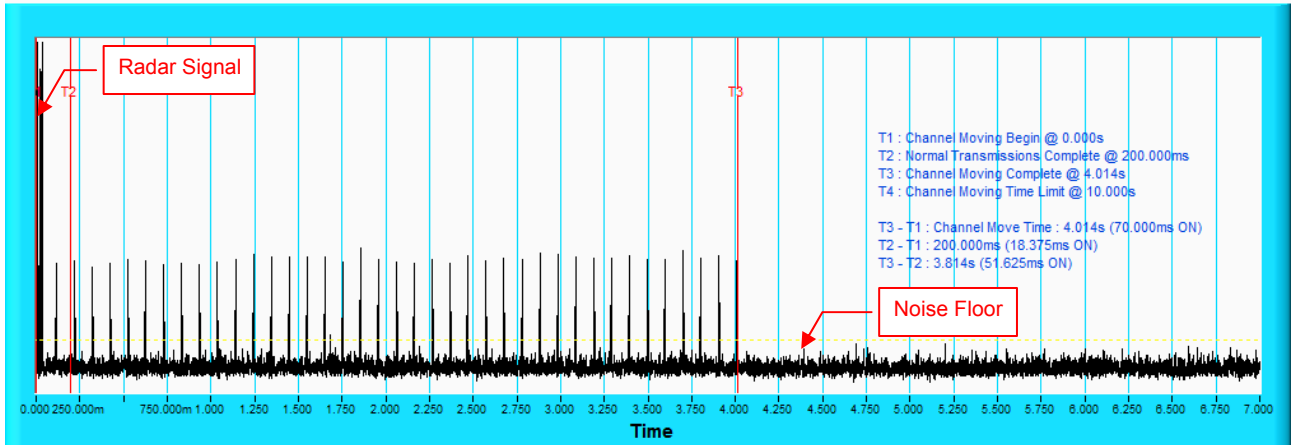


**NOTE:** Room-in of the first 500ms after radar signal applied.

### Radar signal 3

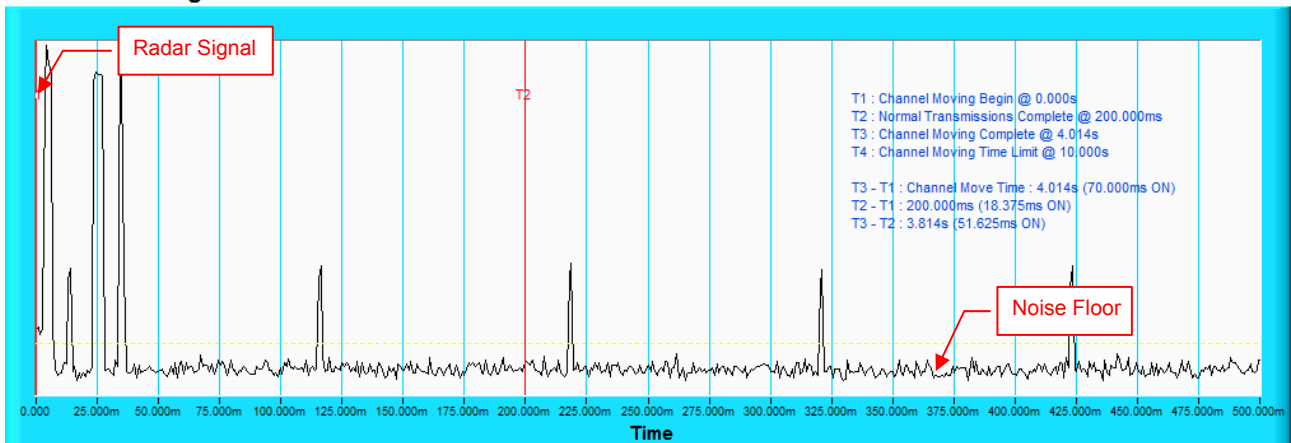
IEEE 802.11ac VHT80

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



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

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

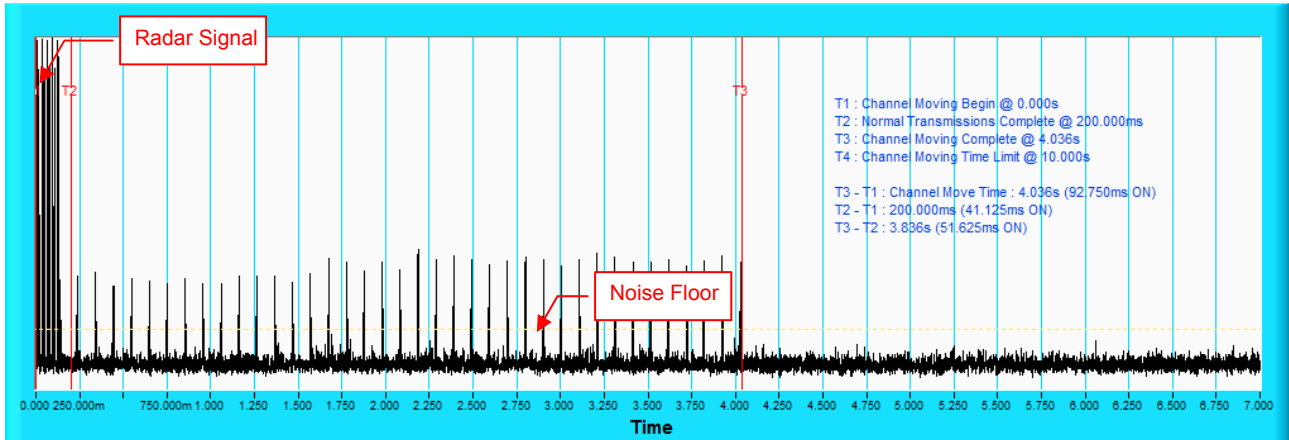


**NOTE:** Room-in of the first 500ms after radar signal applied.

### Radar signal 4

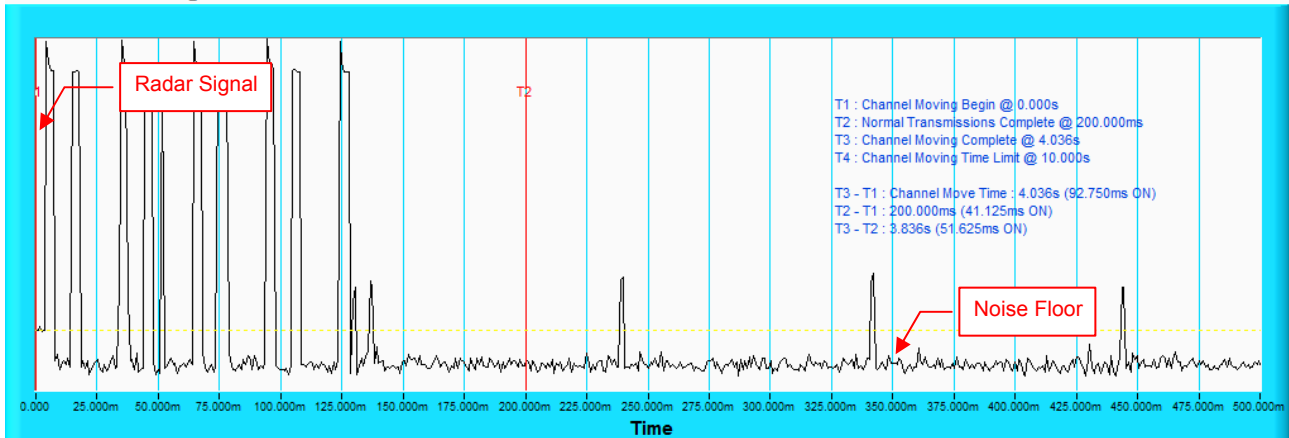
IEEE 802.11ac VHT80

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



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

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

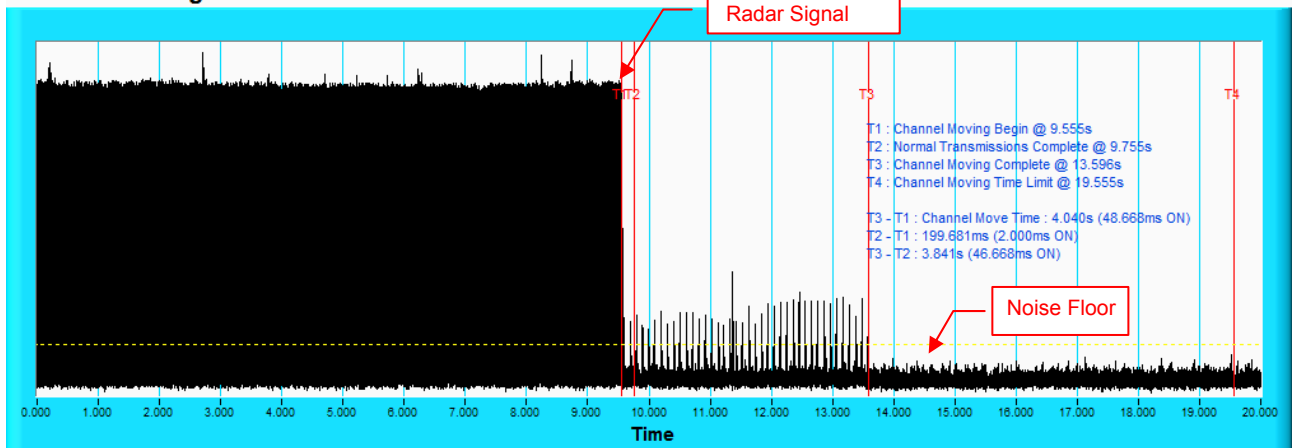


**NOTE:** Room-in of the first 500ms after radar signal applied.

### Radar signal 5

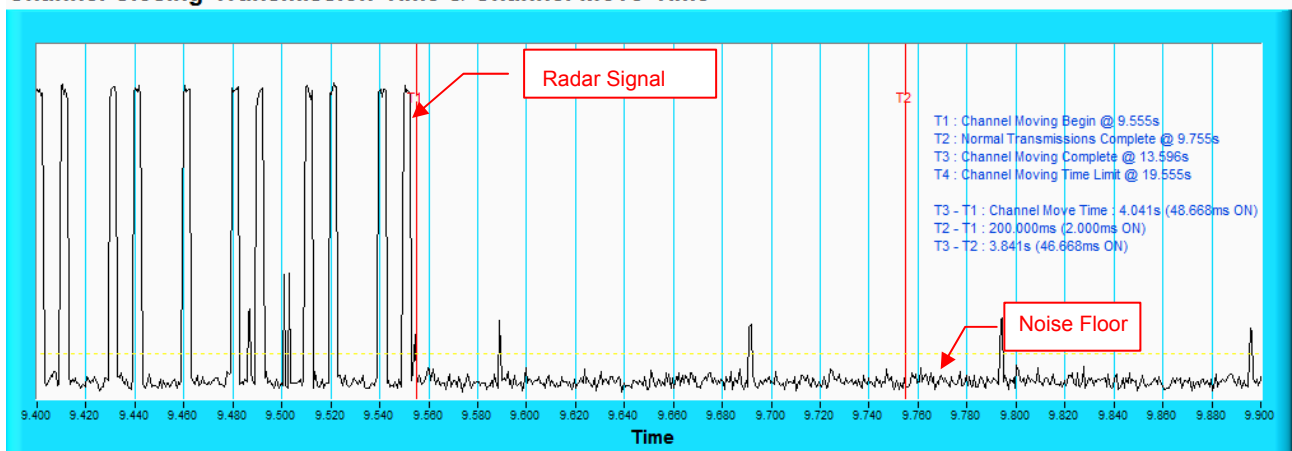
IEEE 802.11ac VHT80

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



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

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

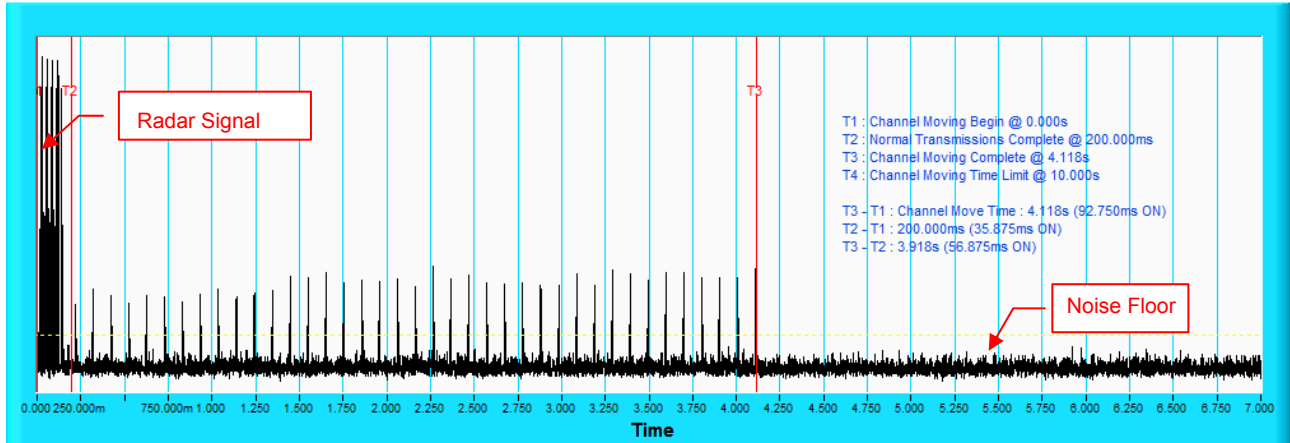


**NOTE:** An expanded plot for the device vacates the channel in the required 500ms.

## Radar signal 6

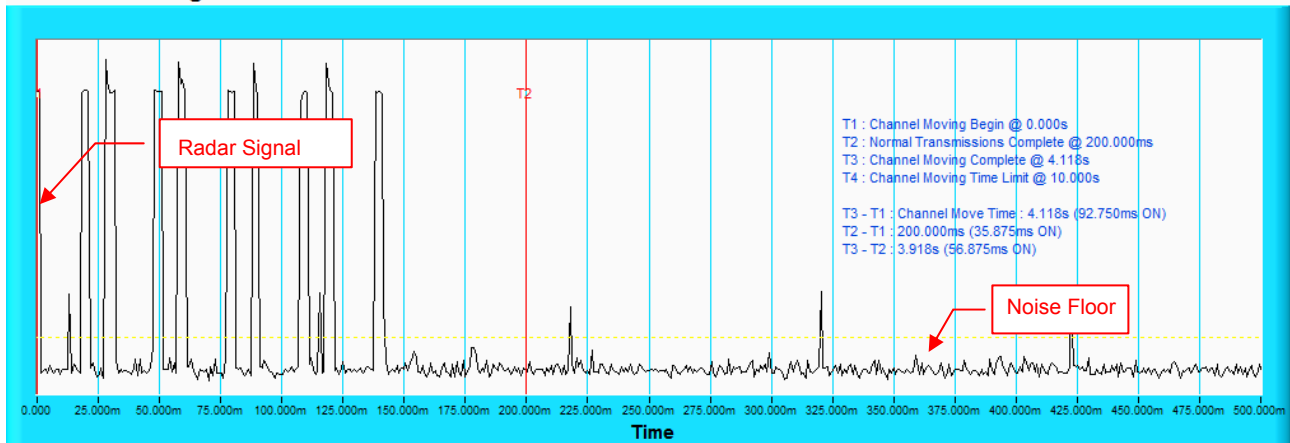
IEEE 802.11ac VHT80

### Channel Closing Transmission Time & Channel Move Time



**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

### Channel Closing Transmission Time & Channel Move Time



**NOTE:** An expanded plot for the device vacates the channel in the required 500ms.



## 802.11ac (VHT20)

| Type 1 Radar Statistical Performances |                      |   |  |                  |  |           |
|---------------------------------------|----------------------|---|--|------------------|--|-----------|
| Trial #                               | Test Frequency (MHz) | Pulse Repetition Frequency Number (1 to 23) | Pulse Repetition Frequency (Pulse per seconds) | Pulses per Burst | Pulse Repetition Interval (microseconds) | Detection |
| 1                                     | 5500                 | 15  | 1253   | 67               | 798                                      | Yes       |
| 2                                     | 5507                 | 16  | 1223   | 65               | 818                                      | Yes       |
| 3                                     | 5503                 | 4   | 1730   | 92               | 578                                      | Yes       |
| 4                                     | 5497                 | 11  | 1393   | 74               | 718                                      | Yes       |
| 5                                     | 5495                 | 22  | 1066   | 57               | 938                                      | Yes       |
| 6                                     | 5504                 | 7   | 1567   | 83               | 638                                      | Yes       |
| 7                                     | 5494                 | 2   | 1859   | 99               | 538                                      | Yes       |
| 8                                     | 5508                 | 8   | 1520   | 81               | 658                                      | Yes       |
| 9                                     | 5500                 | 1   | 1931   | 102              | 518                                      | Yes       |
| 10                                    | 5496                 | 19  | 1139   | 61               | 878                                      | No        |
| 11                                    | 5504                 | 21  | 1089   | 58               | 918                                      | Yes       |
| 12                                    | 5503                 | 23  | 326.2  | 18               | 3066                                     | Yes       |
| 13                                    | 5493                 | 9   | 1475   | 78               | 678                                      | Yes       |
| 14                                    | 5500                 | 5   | 1672   | 89               | 598                                      | Yes       |
| 15                                    | 5494                 | 6   | 1618   | 86               | 618                                      | Yes       |
| 16                                    | 5497                 |   | 1111   | 59               | 900                                      | Yes       |
| 17                                    | 5506                 |   | 1024   | 55               | 977                                      | Yes       |
| 18                                    | 5492                 |   | 625.8  | 34               | 1598                                     | Yes       |
| 19                                    | 5495                 |   | 730.5  | 39               | 1369                                     | Yes       |
| 20                                    | 5504                 |   | 1181   | 63               | 847                                      | Yes       |
| 21                                    | 5505                 |   | 400.6  | 22               | 2496                                     | No        |
| 22                                    | 5494                 |   | 529.4  | 28               | 1889                                     | Yes       |
| 23                                    | 5492                 |   | 347.6  | 19               | 2877                                     | Yes       |
| 24                                    | 5504                 |   | 641.4  | 34               | 1559                                     | Yes       |
| 25                                    | 5504                 |   | 508.9  | 27               | 1965                                     | Yes       |
| 26                                    | 5502                 |   | 345.4  | 19               | 2895                                     | No        |
| 27                                    | 5493                 |   | 580.7  | 31               | 1722                                     | Yes       |
| 28                                    | 5503                 |   | 786.8  | 42               | 1271                                     | Yes       |
| 29                                    | 5509                 |   | 808.4  | 43               | 1237                                     | No        |
| 30                                    | 5503                 |   | 517.1  | 28               | 1934                                     | No        |
| Detection Rate: 83.3 %                |                      |   |  |                  |  |           |





802.11ac (VHT20)

| Type 2 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5500                 | 24               | 1.7             | 174     | Yes       |
| 2                                     | 5493                 | 27               | 3.8             | 176     | Yes       |
| 3                                     | 5495                 | 28               | 4               | 161     | Yes       |
| 4                                     | 5500                 | 28               | 4.3             | 226     | Yes       |
| 5                                     | 5496                 | 24               | 1.9             | 193     | Yes       |
| 6                                     | 5504                 | 23               | 1.1             | 230     | Yes       |
| 7                                     | 5496                 | 29               | 4.5             | 198     | Yes       |
| 8                                     | 5505                 | 26               | 2.9             | 227     | Yes       |
| 9                                     | 5499                 | 26               | 2.8             | 171     | Yes       |
| 10                                    | 5506                 | 27               | 3.6             | 221     | Yes       |
| 11                                    | 5500                 | 23               | 1.1             | 180     | Yes       |
| 12                                    | 5508                 | 23               | 1.3             | 189     | Yes       |
| 13                                    | 5505                 | 25               | 2.5             | 204     | Yes       |
| 14                                    | 5491                 | 29               | 4.5             | 203     | Yes       |
| 15                                    | 5502                 | 29               | 5               | 170     | No        |
| 16                                    | 5495                 | 26               | 3.1             | 201     | No        |
| 17                                    | 5494                 | 24               | 2.1             | 218     | Yes       |
| 18                                    | 5493                 | 25               | 2.6             | 208     | Yes       |
| 19                                    | 5502                 | 24               | 1.8             | 223     | Yes       |
| 20                                    | 5506                 | 23               | 1.2             | 220     | Yes       |
| 21                                    | 5509                 | 26               | 2.9             | 224     | Yes       |
| 22                                    | 5491                 | 28               | 4               | 160     | Yes       |
| 23                                    | 5503                 | 25               | 2.5             | 209     | No        |
| 24                                    | 5500                 | 23               | 1               | 205     | Yes       |
| 25                                    | 5503                 | 27               | 3.7             | 151     | Yes       |
| 26                                    | 5505                 | 25               | 2.5             | 186     | Yes       |
| 27                                    | 5500                 | 23               | 1.5             | 190     | Yes       |
| 28                                    | 5494                 | 23               | 1.3             | 185     | Yes       |
| 29                                    | 5492                 | 23               | 1.2             | 175     | Yes       |
| 30                                    | 5500                 | 24               | 1.7             | 216     | Yes       |

Detection Rate: 90 %



802.11ac (VHT20)

| Type 3 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5500                 | 16               | 6.7             | 467     | Yes       |
| 2                                     | 5504                 | 18               | 8.8             | 304     | Yes       |
| 3                                     | 5503                 | 18               | 9               | 316     | Yes       |
| 4                                     | 5494                 | 18               | 9.3             | 439     | Yes       |
| 5                                     | 5501                 | 16               | 6.9             | 420     | Yes       |
| 6                                     | 5501                 | 16               | 6.1             | 249     | Yes       |
| 7                                     | 5501                 | 18               | 9.5             | 463     | Yes       |
| 8                                     | 5492                 | 17               | 7.9             | 258     | Yes       |
| 9                                     | 5495                 | 17               | 7.8             | 212     | Yes       |
| 10                                    | 5498                 | 17               | 8.6             | 236     | Yes       |
| 11                                    | 5493                 | 16               | 6.1             | 474     | Yes       |
| 12                                    | 5500                 | 16               | 6.3             | 461     | Yes       |
| 13                                    | 5497                 | 17               | 7.5             | 437     | No        |
| 14                                    | 5503                 | 18               | 9.5             | 287     | Yes       |
| 15                                    | 5492                 | 18               | 10              | 395     | Yes       |
| 16                                    | 5497                 | 17               | 8.1             | 322     | Yes       |
| 17                                    | 5494                 | 16               | 7.1             | 468     | Yes       |
| 18                                    | 5508                 | 17               | 7.6             | 255     | Yes       |
| 19                                    | 5493                 | 16               | 6.8             | 423     | Yes       |
| 20                                    | 5500                 | 16               | 6.2             | 456     | Yes       |
| 21                                    | 5501                 | 17               | 7.9             | 351     | Yes       |
| 22                                    | 5509                 | 18               | 9               | 411     | Yes       |
| 23                                    | 5504                 | 17               | 7.5             | 279     | Yes       |
| 24                                    | 5508                 | 16               | 6               | 431     | No        |
| 25                                    | 5503                 | 17               | 8.7             | 324     | Yes       |
| 26                                    | 5506                 | 17               | 7.5             | 419     | Yes       |
| 27                                    | 5494                 | 16               | 6.5             | 447     | Yes       |
| 28                                    | 5501                 | 16               | 6.3             | 481     | Yes       |
| 29                                    | 5507                 | 16               | 6.2             | 438     | Yes       |
| 30                                    | 5492                 | 16               | 6.7             | 270     | Yes       |

Detection Rate: 93.3 %



## 802.11ac (VHT20)

| Type 4 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5500                 | 12               | 12.5            | 467     | Yes       |
| 2                                     | 5502                 | 15               | 17.2            | 304     | Yes       |
| 3                                     | 5501                 | 15               | 17.8            | 316     | Yes       |
| 4                                     | 5505                 | 16               | 18.5            | 439     | Yes       |
| 5                                     | 5493                 | 13               | 13.1            | 420     | Yes       |
| 6                                     | 5503                 | 12               | 11.3            | 249     | Yes       |
| 7                                     | 5503                 | 16               | 18.8            | 463     | No        |
| 8                                     | 5496                 | 14               | 15.3            | 258     | Yes       |
| 9                                     | 5495                 | 14               | 15.1            | 212     | Yes       |
| 10                                    | 5506                 | 15               | 16.9            | 236     | Yes       |
| 11                                    | 5509                 | 12               | 11.2            | 474     | Yes       |
| 12                                    | 5495                 | 12               | 11.7            | 461     | Yes       |
| 13                                    | 5503                 | 13               | 14.4            | 437     | Yes       |
| 14                                    | 5502                 | 16               | 18.9            | 287     | Yes       |
| 15                                    | 5508                 | 16               | 19.9            | 395     | Yes       |
| 16                                    | 5503                 | 14               | 15.7            | 322     | Yes       |
| 17                                    | 5503                 | 13               | 13.4            | 468     | Yes       |
| 18                                    | 5501                 | 13               | 14.5            | 255     | No        |
| 19                                    | 5495                 | 13               | 12.9            | 423     | Yes       |
| 20                                    | 5502                 | 12               | 11.5            | 456     | Yes       |
| 21                                    | 5497                 | 14               | 15.3            | 351     | Yes       |
| 22                                    | 5496                 | 15               | 17.8            | 411     | Yes       |
| 23                                    | 5493                 | 13               | 14.3            | 279     | Yes       |
| 24                                    | 5494                 | 12               | 11.1            | 431     | Yes       |
| 25                                    | 5504                 | 15               | 17              | 324     | Yes       |
| 26                                    | 5501                 | 13               | 14.5            | 419     | Yes       |
| 27                                    | 5504                 | 12               | 12.1            | 447     | Yes       |
| 28                                    | 5491                 | 12               | 11.7            | 481     | Yes       |
| 29                                    | 5505                 | 12               | 11.6            | 438     | Yes       |
| 30                                    | 5502                 | 12               | 12.7            | 270     | Yes       |

Detection Rate: 93.3 %



## 802.11ac (VHT20)

| Type 5 Radar Statistical Performances |                             |                  |           |
|---------------------------------------|-----------------------------|------------------|-----------|
| Trial #                               | Chirp Center Frequency(MHz) | Test Signal Name | Detection |
| 1                                     | 5500                        | LP_Signal_01     | YES       |
| 2                                     | 5504                        | LP_Signal_02     | YES       |
| 3                                     | 5495                        | LP_Signal_03     | YES       |
| 4                                     | 5500                        | LP_Signal_04     | YES       |
| 5                                     | 5507                        | LP_Signal_05     | NO        |
| 6                                     | 5499                        | LP_Signal_06     | YES       |
| 7                                     | 5496                        | LP_Signal_07     | YES       |
| 8                                     | 5506                        | LP_Signal_08     | YES       |
| 9                                     | 5496                        | LP_Signal_09     | NO        |
| 10                                    | 5502                        | LP_Signal_10     | YES       |
| 11                                    | 5498                        | LP_Signal_11     | YES       |
| 12                                    | 5504                        | LP_Signal_12     | YES       |
| 13                                    | 5501                        | LP_Signal_13     | YES       |
| 14                                    | 5505                        | LP_Signal_14     | YES       |
| 15                                    | 5497                        | LP_Signal_15     | YES       |
| 16                                    | 5501                        | LP_Signal_16     | YES       |
| 17                                    | 5505                        | LP_Signal_17     | YES       |
| 18                                    | 5506                        | LP_Signal_18     | YES       |
| 19                                    | 5504                        | LP_Signal_19     | YES       |
| 20                                    | 5500                        | LP_Signal_20     | YES       |
| 21                                    | 5500                        | LP_Signal_21     | YES       |
| 22                                    | 5503                        | LP_Signal_22     | YES       |
| 23                                    | 5506                        | LP_Signal_23     | YES       |
| 24                                    | 5501                        | LP_Signal_24     | YES       |
| 25                                    | 5503                        | LP_Signal_25     | YES       |
| 26                                    | 5506                        | LP_Signal_26     | YES       |
| 27                                    | 5497                        | LP_Signal_27     | YES       |
| 28                                    | 5504                        | LP_Signal_28     | YES       |
| 29                                    | 5506                        | LP_Signal_29     | NO        |
| 30                                    | 5499                        | LP_Signal_30     | NO        |

Detection Rate: 86.7 %

The Long Pulse Radar pattern shown in Appendix A.1



802.11ac (VHT20)

| Type 6 Radar Statistical Performances |                  |                 |         |                        |
|---------------------------------------|------------------|-----------------|---------|------------------------|
| Trial #                               | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection              |
| 1                                     | 9                | 1               | 333.3   | Yes                    |
| 2                                     | 9                | 1               | 333.3   | Yes                    |
| 3                                     | 9                | 1               | 333.3   | Yes                    |
| 4                                     | 9                | 1               | 333.3   | Yes                    |
| 5                                     | 9                | 1               | 333.3   | Yes                    |
| 6                                     | 9                | 1               | 333.3   | Yes                    |
| 7                                     | 9                | 1               | 333.3   | Yes                    |
| 8                                     | 9                | 1               | 333.3   | Yes                    |
| 9                                     | 9                | 1               | 333.3   | Yes                    |
| 10                                    | 9                | 1               | 333.3   | Yes                    |
| 11                                    | 9                | 1               | 333.3   | No                     |
| 12                                    | 9                | 1               | 333.3   | Yes                    |
| 13                                    | 9                | 1               | 333.3   | Yes                    |
| 14                                    | 9                | 1               | 333.3   | Yes                    |
| 15                                    | 9                | 1               | 333.3   | Yes                    |
| 16                                    | 9                | 1               | 333.3   | Yes                    |
| 17                                    | 9                | 1               | 333.3   | Yes                    |
| 18                                    | 9                | 1               | 333.3   | Yes                    |
| 19                                    | 9                | 1               | 333.3   | Yes                    |
| 20                                    | 9                | 1               | 333.3   | Yes                    |
| 21                                    | 9                | 1               | 333.3   | Yes                    |
| 22                                    | 9                | 1               | 333.3   | Yes                    |
| 23                                    | 9                | 1               | 333.3   | Yes                    |
| 24                                    | 9                | 1               | 333.3   | No                     |
| 25                                    | 9                | 1               | 333.3   | Yes                    |
| 26                                    | 9                | 1               | 333.3   | Yes                    |
| 27                                    | 9                | 1               | 333.3   | Yes                    |
| 28                                    | 9                | 1               | 333.3   | Yes                    |
| 29                                    | 9                | 1               | 333.3   | Yes                    |
| 30                                    | 9                | 1               | 333.3   | Yes                    |
|                                       |                  |                 |         | Detection Rate: 93.3 % |



802.11ac (VHT20)

| Type 6 Radar Statistical Performances |                                 |           |
|---------------------------------------|---------------------------------|-----------|
| Trial #                               | Hopping Frequency Sequence Name | Detection |
| 1                                     | HOP_FREQ_SEQ_01                 | Yes       |
| 2                                     | HOP_FREQ_SEQ_02                 | Yes       |
| 3                                     | HOP_FREQ_SEQ_03                 | Yes       |
| 4                                     | HOP_FREQ_SEQ_04                 | Yes       |
| 5                                     | HOP_FREQ_SEQ_05                 | Yes       |
| 6                                     | HOP_FREQ_SEQ_06                 | Yes       |
| 7                                     | HOP_FREQ_SEQ_07                 | Yes       |
| 8                                     | HOP_FREQ_SEQ_08                 | Yes       |
| 9                                     | HOP_FREQ_SEQ_09                 | Yes       |
| 10                                    | HOP_FREQ_SEQ_10                 | Yes       |
| 11                                    | HOP_FREQ_SEQ_11                 | No        |
| 12                                    | HOP_FREQ_SEQ_12                 | Yes       |
| 13                                    | HOP_FREQ_SEQ_13                 | Yes       |
| 14                                    | HOP_FREQ_SEQ_14                 | Yes       |
| 15                                    | HOP_FREQ_SEQ_15                 | Yes       |
| 16                                    | HOP_FREQ_SEQ_16                 | Yes       |
| 17                                    | HOP_FREQ_SEQ_17                 | Yes       |
| 18                                    | HOP_FREQ_SEQ_18                 | Yes       |
| 19                                    | HOP_FREQ_SEQ_19                 | Yes       |
| 20                                    | HOP_FREQ_SEQ_20                 | Yes       |
| 21                                    | HOP_FREQ_SEQ_21                 | Yes       |
| 22                                    | HOP_FREQ_SEQ_22                 | Yes       |
| 23                                    | HOP_FREQ_SEQ_23                 | Yes       |
| 24                                    | HOP_FREQ_SEQ_24                 | No        |
| 25                                    | HOP_FREQ_SEQ_25                 | Yes       |
| 26                                    | HOP_FREQ_SEQ_26                 | Yes       |
| 27                                    | HOP_FREQ_SEQ_27                 | Yes       |
| 28                                    | HOP_FREQ_SEQ_28                 | Yes       |
| 29                                    | HOP_FREQ_SEQ_29                 | Yes       |
| 30                                    | HOP_FREQ_SEQ_30                 | Yes       |

Detection Rate: 93.3 %

The Frequency Hopping Radar pattern shown in Appendix A.2



802.11ac (VHT40)

Type 1 Radar Statistical Performances

| Trial # | Test Frequency (MHz) | Pulse Repetition Frequency Number (1 to 23) | Pulse Repetition Frequency (Pulse per seconds) | Pulses per Burst | Pulse Repetition Interval (microseconds) | Detection |
|---------|----------------------|---|--|------------------|--|-----------|
| 1       | 5510                 | 15  | 1253   | 67               | 798                                      | Yes       |
| 2       | 5520                 | 16  | 1223   | 65               | 818                                      | Yes       |
| 3       | 5500                 | 4   | 1730   | 92               | 578                                      | Yes       |
| 4       | 5500                 | 11  | 1393   | 74               | 718                                      | Yes       |
| 5       | 5525                 | 22  | 1066   | 57               | 938                                      | Yes       |
| 6       | 5506                 | 7   | 1567   | 83               | 638                                      | No        |
| 7       | 5501                 | 2   | 1859   | 99               | 538                                      | Yes       |
| 8       | 5528                 | 8   | 1520   | 81               | 658                                      | Yes       |
| 9       | 5513                 | 1   | 1931   | 102              | 518                                      | Yes       |
| 10      | 5519                 | 19  | 1139   | 61               | 878                                      | Yes       |
| 11      | 5495                 | 21  | 1089   | 58               | 918                                      | Yes       |
| 12      | 5525                 | 23  | 326.2  | 18               | 3066                                     | Yes       |
| 13      | 5525                 | 9   | 1475   | 78               | 678                                      | Yes       |
| 14      | 5503                 | 5   | 1672   | 89               | 598                                      | Yes       |
| 15      | 5502                 | 6   | 1618   | 86               | 618                                      | Yes       |
| 16      | 5498                 |   | 1111   | 59               | 900                                      | Yes       |
| 17      | 5516                 |   | 1024   | 55               | 977                                      | Yes       |
| 18      | 5493                 |   | 625.8  | 34               | 1598                                     | Yes       |
| 19      | 5517                 |   | 730.5  | 39               | 1369                                     | No        |
| 20      | 5498                 |   | 1181   | 63               | 847                                      | Yes       |
| 21      | 5495                 |   | 400.6  | 22               | 2496                                     | Yes       |
| 22      | 5495                 |   | 529.4  | 28               | 1889                                     | Yes       |
| 23      | 5523                 |   | 347.6  | 19               | 2877                                     | Yes       |
| 24      | 5499                 |   | 641.4  | 34               | 1559                                     | Yes       |
| 25      | 5525                 |   | 508.9  | 27               | 1965                                     | No        |
| 26      | 5518                 |   | 345.4  | 19               | 2895                                     | Yes       |
| 27      | 5507                 |   | 580.7  | 31               | 1722                                     | Yes       |
| 28      | 5510                 |   | 786.8  | 42               | 1271                                     | Yes       |
| 29      | 5527                 |   | 808.4  | 43               | 1237                                     | No        |
| 30      | 5502                 |   | 517.1  | 28               | 1934                                     | Yes       |

Detection Rate: 86.7 %

**802.11ac (VHT40)**

| Type 2 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5510                 | 24               | 1.7             | 174     | No        |
| 2                                     | 5520                 | 27               | 3.8             | 176     | Yes       |
| 3                                     | 5500                 | 28               | 4               | 161     | Yes       |
| 4                                     | 5512                 | 28               | 4.3             | 226     | Yes       |
| 5                                     | 5528                 | 24               | 1.9             | 193     | Yes       |
| 6                                     | 5526                 | 23               | 1.1             | 230     | Yes       |
| 7                                     | 5492                 | 29               | 4.5             | 198     | Yes       |
| 8                                     | 5498                 | 26               | 2.9             | 227     | Yes       |
| 9                                     | 5505                 | 26               | 2.8             | 171     | Yes       |
| 10                                    | 5499                 | 27               | 3.6             | 221     | Yes       |
| 11                                    | 5515                 | 23               | 1.1             | 180     | Yes       |
| 12                                    | 5523                 | 23               | 1.3             | 189     | No        |
| 13                                    | 5505                 | 25               | 2.5             | 204     | Yes       |
| 14                                    | 5496                 | 29               | 4.5             | 203     | Yes       |
| 15                                    | 5493                 | 29               | 5               | 170     | Yes       |
| 16                                    | 5511                 | 26               | 3.1             | 201     | Yes       |
| 17                                    | 5525                 | 24               | 2.1             | 218     | No        |
| 18                                    | 5514                 | 25               | 2.6             | 208     | Yes       |
| 19                                    | 5526                 | 24               | 1.8             | 223     | Yes       |
| 20                                    | 5501                 | 23               | 1.2             | 220     | Yes       |
| 21                                    | 5512                 | 26               | 2.9             | 224     | Yes       |
| 22                                    | 5513                 | 28               | 4               | 160     | Yes       |
| 23                                    | 5498                 | 25               | 2.5             | 209     | Yes       |
| 24                                    | 5513                 | 23               | 1               | 205     | Yes       |
| 25                                    | 5513                 | 27               | 3.7             | 151     | Yes       |
| 26                                    | 5521                 | 25               | 2.5             | 186     | Yes       |
| 27                                    | 5505                 | 23               | 1.5             | 190     | Yes       |
| 28                                    | 5525                 | 23               | 1.3             | 185     | Yes       |
| 29                                    | 5501                 | 23               | 1.2             | 175     | Yes       |
| 30                                    | 5498                 | 24               | 1.7             | 216     | Yes       |
| <b>Detection Rate: 90 %</b>           |                      |                  |                 |         |           |





802.11ac (VHT40)

| Type 3 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5510                 | 16               | 6.7             | 467     | Yes       |
| 2                                     | 5520                 | 18               | 8.8             | 304     | Yes       |
| 3                                     | 5500                 | 18               | 9               | 316     | Yes       |
| 4                                     | 5517                 | 18               | 9.3             | 439     | Yes       |
| 5                                     | 5523                 | 16               | 6.9             | 420     | Yes       |
| 6                                     | 5508                 | 16               | 6.1             | 249     | Yes       |
| 7                                     | 5505                 | 18               | 9.5             | 463     | No        |
| 8                                     | 5508                 | 17               | 7.9             | 258     | Yes       |
| 9                                     | 5507                 | 17               | 7.8             | 212     | Yes       |
| 10                                    | 5506                 | 17               | 8.6             | 236     | Yes       |
| 11                                    | 5512                 | 16               | 6.1             | 474     | Yes       |
| 12                                    | 5513                 | 16               | 6.3             | 461     | Yes       |
| 13                                    | 5523                 | 17               | 7.5             | 437     | Yes       |
| 14                                    | 5513                 | 18               | 9.5             | 287     | Yes       |
| 15                                    | 5512                 | 18               | 10              | 395     | Yes       |
| 16                                    | 5508                 | 17               | 8.1             | 322     | Yes       |
| 17                                    | 5503                 | 16               | 7.1             | 468     | Yes       |
| 18                                    | 5526                 | 17               | 7.6             | 255     | Yes       |
| 19                                    | 5510                 | 16               | 6.8             | 423     | Yes       |
| 20                                    | 5522                 | 16               | 6.2             | 456     | No        |
| 21                                    | 5525                 | 17               | 7.9             | 351     | Yes       |
| 22                                    | 5498                 | 18               | 9               | 411     | Yes       |
| 23                                    | 5515                 | 17               | 7.5             | 279     | Yes       |
| 24                                    | 5508                 | 16               | 6               | 431     | Yes       |
| 25                                    | 5517                 | 17               | 8.7             | 324     | Yes       |
| 26                                    | 5494                 | 17               | 7.5             | 419     | Yes       |
| 27                                    | 5508                 | 16               | 6.5             | 447     | Yes       |
| 28                                    | 5498                 | 16               | 6.3             | 481     | Yes       |
| 29                                    | 5495                 | 16               | 6.2             | 438     | Yes       |
| 30                                    | 5526                 | 16               | 6.7             | 270     | Yes       |

Detection Rate: 93.3 %



802.11ac (VHT40)

| Type 4 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5510                 | 12               | 12.5            | 467     | Yes       |
| 2                                     | 5520                 | 15               | 17.2            | 304     | No        |
| 3                                     | 5500                 | 15               | 17.8            | 316     | Yes       |
| 4                                     | 5520                 | 16               | 18.5            | 439     | Yes       |
| 5                                     | 5505                 | 13               | 13.1            | 420     | Yes       |
| 6                                     | 5503                 | 12               | 11.3            | 249     | Yes       |
| 7                                     | 5522                 | 16               | 18.8            | 463     | Yes       |
| 8                                     | 5525                 | 14               | 15.3            | 258     | Yes       |
| 9                                     | 5508                 | 14               | 15.1            | 212     | Yes       |
| 10                                    | 5501                 | 15               | 16.9            | 236     | Yes       |
| 11                                    | 5508                 | 12               | 11.2            | 474     | Yes       |
| 12                                    | 5492                 | 12               | 11.7            | 461     | No        |
| 13                                    | 5498                 | 13               | 14.4            | 437     | Yes       |
| 14                                    | 5518                 | 16               | 18.9            | 287     | Yes       |
| 15                                    | 5527                 | 16               | 19.9            | 395     | No        |
| 16                                    | 5514                 | 14               | 15.7            | 322     | Yes       |
| 17                                    | 5527                 | 13               | 13.4            | 468     | Yes       |
| 18                                    | 5519                 | 13               | 14.5            | 255     | Yes       |
| 19                                    | 5517                 | 13               | 12.9            | 423     | Yes       |
| 20                                    | 5524                 | 12               | 11.5            | 456     | No        |
| 21                                    | 5512                 | 14               | 15.3            | 351     | Yes       |
| 22                                    | 5503                 | 15               | 17.8            | 411     | Yes       |
| 23                                    | 5504                 | 13               | 14.3            | 279     | Yes       |
| 24                                    | 5507                 | 12               | 11.1            | 431     | Yes       |
| 25                                    | 5498                 | 15               | 17              | 324     | Yes       |
| 26                                    | 5498                 | 13               | 14.5            | 419     | No        |
| 27                                    | 5525                 | 12               | 12.1            | 447     | Yes       |
| 28                                    | 5495                 | 12               | 11.7            | 481     | Yes       |
| 29                                    | 5513                 | 12               | 11.6            | 438     | Yes       |
| 30                                    | 5494                 | 12               | 12.7            | 270     | Yes       |

Detection Rate: 83.3 %



802.11ac (VHT40)

| Type 5 Radar Statistical Performances |                             |                  |           |
|---------------------------------------|-----------------------------|------------------|-----------|
| Trial #                               | Chirp Center Frequency(MHz) | Test Signal Name | Detection |
| 1                                     | 5510                        | LP_Signal_01     | NO        |
| 2                                     | 5520                        | LP_Signal_02     | YES       |
| 3                                     | 5500                        | LP_Signal_03     | YES       |
| 4                                     | 5520                        | LP_Signal_04     | NO        |
| 5                                     | 5503                        | LP_Signal_05     | YES       |
| 6                                     | 5507                        | LP_Signal_06     | YES       |
| 7                                     | 5518                        | LP_Signal_07     | YES       |
| 8                                     | 5515                        | LP_Signal_08     | YES       |
| 9                                     | 5517                        | LP_Signal_09     | NO        |
| 10                                    | 5522                        | LP_Signal_10     | YES       |
| 11                                    | 5524                        | LP_Signal_11     | YES       |
| 12                                    | 5523                        | LP_Signal_12     | YES       |
| 13                                    | 5520                        | LP_Signal_13     | YES       |
| 14                                    | 5505                        | LP_Signal_14     | YES       |
| 15                                    | 5512                        | LP_Signal_15     | YES       |
| 16                                    | 5510                        | LP_Signal_16     | YES       |
| 17                                    | 5497                        | LP_Signal_17     | NO        |
| 18                                    | 5520                        | LP_Signal_18     | YES       |
| 19                                    | 5511                        | LP_Signal_19     | YES       |
| 20                                    | 5504                        | LP_Signal_20     | YES       |
| 21                                    | 5506                        | LP_Signal_21     | YES       |
| 22                                    | 5500                        | LP_Signal_22     | YES       |
| 23                                    | 5520                        | LP_Signal_23     | YES       |
| 24                                    | 5506                        | LP_Signal_24     | YES       |
| 25                                    | 5514                        | LP_Signal_25     | YES       |
| 26                                    | 5524                        | LP_Signal_26     | YES       |
| 27                                    | 5516                        | LP_Signal_27     | YES       |
| 28                                    | 5500                        | LP_Signal_28     | YES       |
| 29                                    | 5512                        | LP_Signal_29     | NO        |
| 30                                    | 5508                        | LP_Signal_30     | YES       |

Detection Rate: 83.3 %

The Long Pulse Radar pattern shown in Appendix A.1



802.11ac (VHT40)

| Type 6 Radar Statistical Performances |                  |                 |         |                        |
|---------------------------------------|------------------|-----------------|---------|------------------------|
| Trial #                               | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection              |
| 1                                     | 9                | 1               | 333.3   | Yes                    |
| 2                                     | 9                | 1               | 333.3   | Yes                    |
| 3                                     | 9                | 1               | 333.3   | Yes                    |
| 4                                     | 9                | 1               | 333.3   | Yes                    |
| 5                                     | 9                | 1               | 333.3   | Yes                    |
| 6                                     | 9                | 1               | 333.3   | Yes                    |
| 7                                     | 9                | 1               | 333.3   | Yes                    |
| 8                                     | 9                | 1               | 333.3   | Yes                    |
| 9                                     | 9                | 1               | 333.3   | Yes                    |
| 10                                    | 9                | 1               | 333.3   | Yes                    |
| 11                                    | 9                | 1               | 333.3   | Yes                    |
| 12                                    | 9                | 1               | 333.3   | Yes                    |
| 13                                    | 9                | 1               | 333.3   | Yes                    |
| 14                                    | 9                | 1               | 333.3   | Yes                    |
| 15                                    | 9                | 1               | 333.3   | Yes                    |
| 16                                    | 9                | 1               | 333.3   | Yes                    |
| 17                                    | 9                | 1               | 333.3   | No                     |
| 18                                    | 9                | 1               | 333.3   | Yes                    |
| 19                                    | 9                | 1               | 333.3   | Yes                    |
| 20                                    | 9                | 1               | 333.3   | Yes                    |
| 21                                    | 9                | 1               | 333.3   | Yes                    |
| 22                                    | 9                | 1               | 333.3   | Yes                    |
| 23                                    | 9                | 1               | 333.3   | Yes                    |
| 24                                    | 9                | 1               | 333.3   | Yes                    |
| 25                                    | 9                | 1               | 333.3   | Yes                    |
| 26                                    | 9                | 1               | 333.3   | Yes                    |
| 27                                    | 9                | 1               | 333.3   | No                     |
| 28                                    | 9                | 1               | 333.3   | Yes                    |
| 29                                    | 9                | 1               | 333.3   | Yes                    |
| 30                                    | 9                | 1               | 333.3   | Yes                    |
|                                       |                  |                 |         | Detection Rate: 93.3 % |



802.11ac (VHT40)

| Type 6 Radar Statistical Performances |                                 |           |
|---------------------------------------|---------------------------------|-----------|
| Trial #                               | Hopping Frequency Sequence Name | Detection |
| 1                                     | HOP_FREQ_SEQ_01                 | Yes       |
| 2                                     | HOP_FREQ_SEQ_02                 | Yes       |
| 3                                     | HOP_FREQ_SEQ_03                 | Yes       |
| 4                                     | HOP_FREQ_SEQ_04                 | Yes       |
| 5                                     | HOP_FREQ_SEQ_05                 | Yes       |
| 6                                     | HOP_FREQ_SEQ_06                 | Yes       |
| 7                                     | HOP_FREQ_SEQ_07                 | Yes       |
| 8                                     | HOP_FREQ_SEQ_08                 | Yes       |
| 9                                     | HOP_FREQ_SEQ_09                 | Yes       |
| 10                                    | HOP_FREQ_SEQ_10                 | Yes       |
| 11                                    | HOP_FREQ_SEQ_11                 | Yes       |
| 12                                    | HOP_FREQ_SEQ_12                 | Yes       |
| 13                                    | HOP_FREQ_SEQ_13                 | Yes       |
| 14                                    | HOP_FREQ_SEQ_14                 | Yes       |
| 15                                    | HOP_FREQ_SEQ_15                 | Yes       |
| 16                                    | HOP_FREQ_SEQ_16                 | Yes       |
| 17                                    | HOP_FREQ_SEQ_17                 | No        |
| 18                                    | HOP_FREQ_SEQ_18                 | Yes       |
| 19                                    | HOP_FREQ_SEQ_19                 | Yes       |
| 20                                    | HOP_FREQ_SEQ_20                 | Yes       |
| 21                                    | HOP_FREQ_SEQ_21                 | Yes       |
| 22                                    | HOP_FREQ_SEQ_22                 | Yes       |
| 23                                    | HOP_FREQ_SEQ_23                 | Yes       |
| 24                                    | HOP_FREQ_SEQ_24                 | Yes       |
| 25                                    | HOP_FREQ_SEQ_25                 | Yes       |
| 26                                    | HOP_FREQ_SEQ_26                 | Yes       |
| 27                                    | HOP_FREQ_SEQ_27                 | No        |
| 28                                    | HOP_FREQ_SEQ_28                 | Yes       |
| 29                                    | HOP_FREQ_SEQ_29                 | Yes       |
| 30                                    | HOP_FREQ_SEQ_30                 | Yes       |

Detection Rate: 93.3 %

The Frequency Hopping Radar pattern shown in Appendix A.2



802.11ac (VHT80)

| Type 1 Radar Statistical Performances |                      |   |  |                  |  |           |
|---------------------------------------|----------------------|---|--|------------------|--|-----------|
| Trial #                               | Test Frequency (MHz) | Pulse Repetition Frequency Number (1 to 23) | Pulse Repetition Frequency (Pulse per seconds) | Pulses per Burst | Pulse Repetition Interval (microseconds) | Detection |
| 1                                     | 5530                 | 15  | 1253   | 67               | 798                                      | Yes       |
| 2                                     | 5540                 | 16  | 1223   | 65               | 818                                      | Yes       |
| 3                                     | 5560                 | 4   | 1730   | 92               | 578                                      | Yes       |
| 4                                     | 5520                 | 11  | 1393   | 74               | 718                                      | Yes       |
| 5                                     | 5500                 | 22  | 1066   | 57               | 938                                      | Yes       |
| 6                                     | 5539                 | 7   | 1567   | 83               | 638                                      | Yes       |
| 7                                     | 5533                 | 2   | 1859   | 99               | 538                                      | No        |
| 8                                     | 5499                 | 8   | 1520   | 81               | 658                                      | Yes       |
| 9                                     | 5563                 | 1   | 1931   | 102              | 518                                      | Yes       |
| 10                                    | 5564                 | 19  | 1139   | 61               | 878                                      | Yes       |
| 11                                    | 5551                 | 21  | 1089   | 58               | 918                                      | Yes       |
| 12                                    | 5508                 | 23  | 326.2  | 18               | 3066                                     | Yes       |
| 13                                    | 5542                 | 9   | 1475   | 78               | 678                                      | Yes       |
| 14                                    | 5510                 | 5   | 1672   | 89               | 598                                      | Yes       |
| 15                                    | 5554                 | 6   | 1618   | 86               | 618                                      | Yes       |
| 16                                    | 5535                 |   | 1111   | 59               | 900                                      | No        |
| 17                                    | 5508                 |   | 1024   | 55               | 977                                      | Yes       |
| 18                                    | 5494                 |   | 625.8  | 34               | 1598                                     | Yes       |
| 19                                    | 5567                 |   | 730.5  | 39               | 1369                                     | Yes       |
| 20                                    | 5521                 |   | 1181   | 63               | 847                                      | Yes       |
| 21                                    | 5529                 |   | 400.6  | 22               | 2496                                     | Yes       |
| 22                                    | 5542                 |   | 529.4  | 28               | 1889                                     | Yes       |
| 23                                    | 5513                 |   | 347.6  | 19               | 2877                                     | Yes       |
| 24                                    | 5494                 |   | 641.4  | 34               | 1559                                     | Yes       |
| 25                                    | 5499                 |   | 508.9  | 27               | 1965                                     | Yes       |
| 26                                    | 5497                 |   | 345.4  | 19               | 2895                                     | Yes       |
| 27                                    | 5525                 |   | 580.7  | 31               | 1722                                     | Yes       |
| 28                                    | 5504                 |   | 786.8  | 42               | 1271                                     | Yes       |
| 29                                    | 5560                 |   | 808.4  | 43               | 1237                                     | No        |
| 30                                    | 5511                 |   | 517.1  | 28               | 1934                                     | Yes       |
| Detection Rate: 90 %                  |                      |   |  |                  |  |           |



802.11ac (VHT80)

| Type 2 Radar Statistical Performances |                      |                  |                 |         |           |
|---------------------------------------|----------------------|------------------|-----------------|---------|-----------|
| Trial #                               | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
| 1                                     | 5530                 | 24               | 1.7             | 174     | Yes       |
| 2                                     | 5540                 | 27               | 3.8             | 176     | No        |
| 3                                     | 5560                 | 28               | 4               | 161     | Yes       |
| 4                                     | 5520                 | 28               | 4.3             | 226     | Yes       |
| 5                                     | 5500                 | 24               | 1.9             | 193     | Yes       |
| 6                                     | 5516                 | 23               | 1.1             | 230     | Yes       |
| 7                                     | 5517                 | 29               | 4.5             | 198     | Yes       |
| 8                                     | 5546                 | 26               | 2.9             | 227     | No        |
| 9                                     | 5507                 | 26               | 2.8             | 171     | Yes       |
| 10                                    | 5537                 | 27               | 3.6             | 221     | Yes       |
| 11                                    | 5545                 | 23               | 1.1             | 180     | Yes       |
| 12                                    | 5531                 | 23               | 1.3             | 189     | Yes       |
| 13                                    | 5534                 | 25               | 2.5             | 204     | Yes       |
| 14                                    | 5521                 | 29               | 4.5             | 203     | Yes       |
| 15                                    | 5567                 | 29               | 5               | 170     | Yes       |
| 16                                    | 5499                 | 26               | 3.1             | 201     | Yes       |
| 17                                    | 5541                 | 24               | 2.1             | 218     | Yes       |
| 18                                    | 5548                 | 25               | 2.6             | 208     | Yes       |
| 19                                    | 5567                 | 24               | 1.8             | 223     | Yes       |
| 20                                    | 5517                 | 23               | 1.2             | 220     | Yes       |
| 21                                    | 5506                 | 26               | 2.9             | 224     | Yes       |
| 22                                    | 5540                 | 28               | 4               | 160     | Yes       |
| 23                                    | 5499                 | 25               | 2.5             | 209     | Yes       |
| 24                                    | 5529                 | 23               | 1               | 205     | Yes       |
| 25                                    | 5527                 | 27               | 3.7             | 151     | Yes       |
| 26                                    | 5548                 | 25               | 2.5             | 186     | Yes       |
| 27                                    | 5511                 | 23               | 1.5             | 190     | Yes       |
| 28                                    | 5529                 | 23               | 1.3             | 185     | Yes       |
| 29                                    | 5552                 | 23               | 1.2             | 175     | Yes       |
| 30                                    | 5543                 | 24               | 1.7             | 216     | Yes       |

Detection Rate: 93.3 %



## 802.11ac (VHT80)

## Type 3 Radar Statistical Performances

| Trial # | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
|---------|----------------------|------------------|-----------------|---------|-----------|
| 1       | 5530                 | 16               | 6.7             | 467     | Yes       |
| 2       | 5540                 | 18               | 8.8             | 304     | Yes       |
| 3       | 5560                 | 18               | 9               | 316     | Yes       |
| 4       | 5520                 | 18               | 9.3             | 439     | No        |
| 5       | 5500                 | 16               | 6.9             | 420     | Yes       |
| 6       | 5530                 | 16               | 6.1             | 249     | Yes       |
| 7       | 5535                 | 18               | 9.5             | 463     | Yes       |
| 8       | 5507                 | 17               | 7.9             | 258     | Yes       |
| 9       | 5512                 | 17               | 7.8             | 212     | No        |
| 10      | 5524                 | 17               | 8.6             | 236     | Yes       |
| 11      | 5557                 | 16               | 6.1             | 474     | Yes       |
| 12      | 5535                 | 16               | 6.3             | 461     | Yes       |
| 13      | 5496                 | 17               | 7.5             | 437     | Yes       |
| 14      | 5546                 | 18               | 9.5             | 287     | Yes       |
| 15      | 5543                 | 18               | 10              | 395     | Yes       |
| 16      | 5496                 | 17               | 8.1             | 322     | Yes       |
| 17      | 5500                 | 16               | 7.1             | 468     | Yes       |
| 18      | 5524                 | 17               | 7.6             | 255     | Yes       |
| 19      | 5534                 | 16               | 6.8             | 423     | Yes       |
| 20      | 5536                 | 16               | 6.2             | 456     | Yes       |
| 21      | 5535                 | 17               | 7.9             | 351     | Yes       |
| 22      | 5558                 | 18               | 9               | 411     | Yes       |
| 23      | 5559                 | 17               | 7.5             | 279     | Yes       |
| 24      | 5550                 | 16               | 6               | 431     | Yes       |
| 25      | 5502                 | 17               | 8.7             | 324     | No        |
| 26      | 5501                 | 17               | 7.5             | 419     | Yes       |
| 27      | 5558                 | 16               | 6.5             | 447     | Yes       |
| 28      | 5518                 | 16               | 6.3             | 481     | No        |
| 29      | 5515                 | 16               | 6.2             | 438     | Yes       |
| 30      | 5495                 | 16               | 6.7             | 270     | Yes       |

Detection Rate: 86.7 %





## 802.11ac (VHT80)

## Type 4 Radar Statistical Performances

| Trial # | Test Frequency (MHz) | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection |
|---------|----------------------|------------------|-----------------|---------|-----------|
| 1       | 5530                 | 12               | 12.5            | 467     | Yes       |
| 2       | 5540                 | 15               | 17.2            | 304     | Yes       |
| 3       | 5560                 | 15               | 17.8            | 316     | No        |
| 4       | 5520                 | 16               | 18.5            | 439     | Yes       |
| 5       | 5500                 | 13               | 13.1            | 420     | Yes       |
| 6       | 5545                 | 12               | 11.3            | 249     | Yes       |
| 7       | 5546                 | 16               | 18.8            | 463     | Yes       |
| 8       | 5554                 | 14               | 15.3            | 258     | Yes       |
| 9       | 5505                 | 14               | 15.1            | 212     | Yes       |
| 10      | 5530                 | 15               | 16.9            | 236     | Yes       |
| 11      | 5531                 | 12               | 11.2            | 474     | Yes       |
| 12      | 5565                 | 12               | 11.7            | 461     | Yes       |
| 13      | 5515                 | 13               | 14.4            | 437     | Yes       |
| 14      | 5523                 | 16               | 18.9            | 287     | Yes       |
| 15      | 5537                 | 16               | 19.9            | 395     | Yes       |
| 16      | 5557                 | 14               | 15.7            | 322     | No        |
| 17      | 5518                 | 13               | 13.4            | 468     | Yes       |
| 18      | 5556                 | 13               | 14.5            | 255     | Yes       |
| 19      | 5552                 | 13               | 12.9            | 423     | Yes       |
| 20      | 5499                 | 12               | 11.5            | 456     | Yes       |
| 21      | 5556                 | 14               | 15.3            | 351     | Yes       |
| 22      | 5546                 | 15               | 17.8            | 411     | Yes       |
| 23      | 5532                 | 13               | 14.3            | 279     | Yes       |
| 24      | 5563                 | 12               | 11.1            | 431     | No        |
| 25      | 5549                 | 15               | 17              | 324     | Yes       |
| 26      | 5534                 | 13               | 14.5            | 419     | No        |
| 27      | 5508                 | 12               | 12.1            | 447     | Yes       |
| 28      | 5521                 | 12               | 11.7            | 481     | Yes       |
| 29      | 5508                 | 12               | 11.6            | 438     | No        |
| 30      | 5502                 | 12               | 12.7            | 270     | Yes       |

Detection Rate: 83.3 %



## 802.11ac (VHT80)

## Type 5 Radar Statistical Performances

| Trial # | Chirp Center Frequency(MHz) | Test Signal Name | Detection |
|---------|-----------------------------|------------------|-----------|
| 1       | 5530                        | LP_Signal_01     | YES       |
| 2       | 5540                        | LP_Signal_02     | YES       |
| 3       | 5560                        | LP_Signal_03     | NO        |
| 4       | 5520                        | LP_Signal_04     | YES       |
| 5       | 5500                        | LP_Signal_05     | YES       |
| 6       | 5534                        | LP_Signal_06     | YES       |
| 7       | 5552                        | LP_Signal_07     | YES       |
| 8       | 5512                        | LP_Signal_08     | YES       |
| 9       | 5523                        | LP_Signal_09     | NO        |
| 10      | 5529                        | LP_Signal_10     | YES       |
| 11      | 5536                        | LP_Signal_11     | YES       |
| 12      | 5509                        | LP_Signal_12     | YES       |
| 13      | 5505                        | LP_Signal_13     | YES       |
| 14      | 5554                        | LP_Signal_14     | YES       |
| 15      | 5537                        | LP_Signal_15     | YES       |
| 16      | 5511                        | LP_Signal_16     | YES       |
| 17      | 5551                        | LP_Signal_17     | NO        |
| 18      | 5547                        | LP_Signal_18     | NO        |
| 19      | 5530                        | LP_Signal_19     | YES       |
| 20      | 5526                        | LP_Signal_20     | YES       |
| 21      | 5511                        | LP_Signal_21     | YES       |
| 22      | 5503                        | LP_Signal_22     | YES       |
| 23      | 5533                        | LP_Signal_23     | YES       |
| 24      | 5520                        | LP_Signal_24     | YES       |
| 25      | 5511                        | LP_Signal_25     | YES       |
| 26      | 5516                        | LP_Signal_26     | YES       |
| 27      | 5521                        | LP_Signal_27     | YES       |
| 28      | 5505                        | LP_Signal_28     | YES       |
| 29      | 5541                        | LP_Signal_29     | YES       |
| 30      | 5517                        | LP_Signal_30     | NO        |

Detection Rate: 83.3 %

The Long Pulse Radar pattern shown in Appendix A.1



802.11ac (VHT80)

| Type 6 Radar Statistical Performances |                  |                 |         |                      |
|---------------------------------------|------------------|-----------------|---------|----------------------|
| Trial #                               | Pulses per Burst | Pulse Width(us) | PRI(us) | Detection            |
| 1                                     | 9                | 1               | 333.3   | Yes                  |
| 2                                     | 9                | 1               | 333.3   | Yes                  |
| 3                                     | 9                | 1               | 333.3   | Yes                  |
| 4                                     | 9                | 1               | 333.3   | Yes                  |
| 5                                     | 9                | 1               | 333.3   | Yes                  |
| 6                                     | 9                | 1               | 333.3   | Yes                  |
| 7                                     | 9                | 1               | 333.3   | Yes                  |
| 8                                     | 9                | 1               | 333.3   | Yes                  |
| 9                                     | 9                | 1               | 333.3   | Yes                  |
| 10                                    | 9                | 1               | 333.3   | Yes                  |
| 11                                    | 9                | 1               | 333.3   | No                   |
| 12                                    | 9                | 1               | 333.3   | Yes                  |
| 13                                    | 9                | 1               | 333.3   | Yes                  |
| 14                                    | 9                | 1               | 333.3   | Yes                  |
| 15                                    | 9                | 1               | 333.3   | Yes                  |
| 16                                    | 9                | 1               | 333.3   | No                   |
| 17                                    | 9                | 1               | 333.3   | Yes                  |
| 18                                    | 9                | 1               | 333.3   | Yes                  |
| 19                                    | 9                | 1               | 333.3   | Yes                  |
| 20                                    | 9                | 1               | 333.3   | Yes                  |
| 21                                    | 9                | 1               | 333.3   | Yes                  |
| 22                                    | 9                | 1               | 333.3   | Yes                  |
| 23                                    | 9                | 1               | 333.3   | Yes                  |
| 24                                    | 9                | 1               | 333.3   | Yes                  |
| 25                                    | 9                | 1               | 333.3   | Yes                  |
| 26                                    | 9                | 1               | 333.3   | Yes                  |
| 27                                    | 9                | 1               | 333.3   | Yes                  |
| 28                                    | 9                | 1               | 333.3   | Yes                  |
| 29                                    | 9                | 1               | 333.3   | No                   |
| 30                                    | 9                | 1               | 333.3   | Yes                  |
|                                       |                  |                 |         | Detection Rate: 90 % |



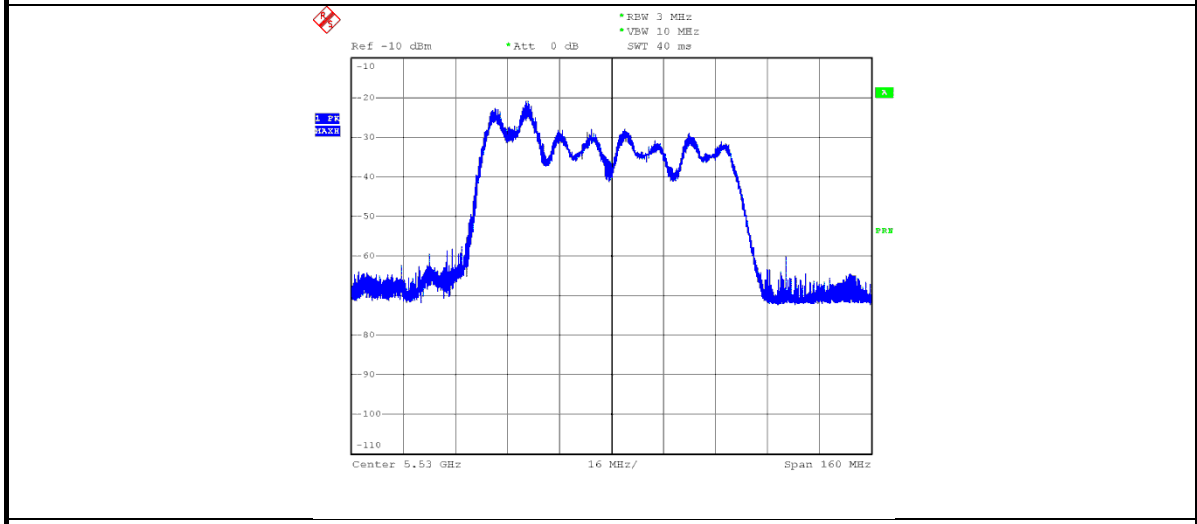
802.11ac (VHT80)

| Type 6 Radar Statistical Performances |                                 |                      |
|---------------------------------------|---------------------------------|----------------------|
| Trial #                               | Hopping Frequency Sequence Name | Detection            |
| 1                                     | HOP_FREQ_SEQ_01                 | Yes                  |
| 2                                     | HOP_FREQ_SEQ_02                 | Yes                  |
| 3                                     | HOP_FREQ_SEQ_03                 | Yes                  |
| 4                                     | HOP_FREQ_SEQ_04                 | Yes                  |
| 5                                     | HOP_FREQ_SEQ_05                 | Yes                  |
| 6                                     | HOP_FREQ_SEQ_06                 | Yes                  |
| 7                                     | HOP_FREQ_SEQ_07                 | Yes                  |
| 8                                     | HOP_FREQ_SEQ_08                 | Yes                  |
| 9                                     | HOP_FREQ_SEQ_09                 | Yes                  |
| 10                                    | HOP_FREQ_SEQ_10                 | Yes                  |
| 11                                    | HOP_FREQ_SEQ_11                 | No                   |
| 12                                    | HOP_FREQ_SEQ_12                 | Yes                  |
| 13                                    | HOP_FREQ_SEQ_13                 | Yes                  |
| 14                                    | HOP_FREQ_SEQ_14                 | Yes                  |
| 15                                    | HOP_FREQ_SEQ_15                 | Yes                  |
| 16                                    | HOP_FREQ_SEQ_16                 | No                   |
| 17                                    | HOP_FREQ_SEQ_17                 | Yes                  |
| 18                                    | HOP_FREQ_SEQ_18                 | Yes                  |
| 19                                    | HOP_FREQ_SEQ_19                 | Yes                  |
| 20                                    | HOP_FREQ_SEQ_20                 | Yes                  |
| 21                                    | HOP_FREQ_SEQ_21                 | Yes                  |
| 22                                    | HOP_FREQ_SEQ_22                 | Yes                  |
| 23                                    | HOP_FREQ_SEQ_23                 | Yes                  |
| 24                                    | HOP_FREQ_SEQ_24                 | Yes                  |
| 25                                    | HOP_FREQ_SEQ_25                 | Yes                  |
| 26                                    | HOP_FREQ_SEQ_26                 | Yes                  |
| 27                                    | HOP_FREQ_SEQ_27                 | Yes                  |
| 28                                    | HOP_FREQ_SEQ_28                 | Yes                  |
| 29                                    | HOP_FREQ_SEQ_29                 | No                   |
| 30                                    | HOP_FREQ_SEQ_30                 | Yes                  |
|                                       |                                 | Detection Rate: 90 % |

The Frequency Hopping Radar pattern shown in Appendix A.2

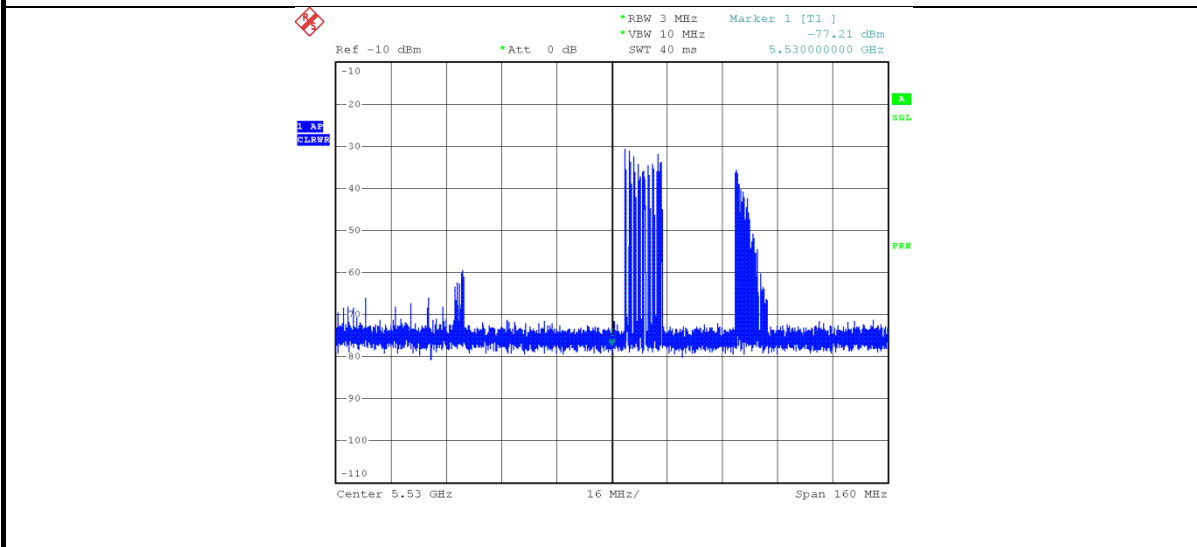
### 6.2.5 Non- Occupancy Period

1) Test results demonstrating an associated client link is established with the master on a test frequency.



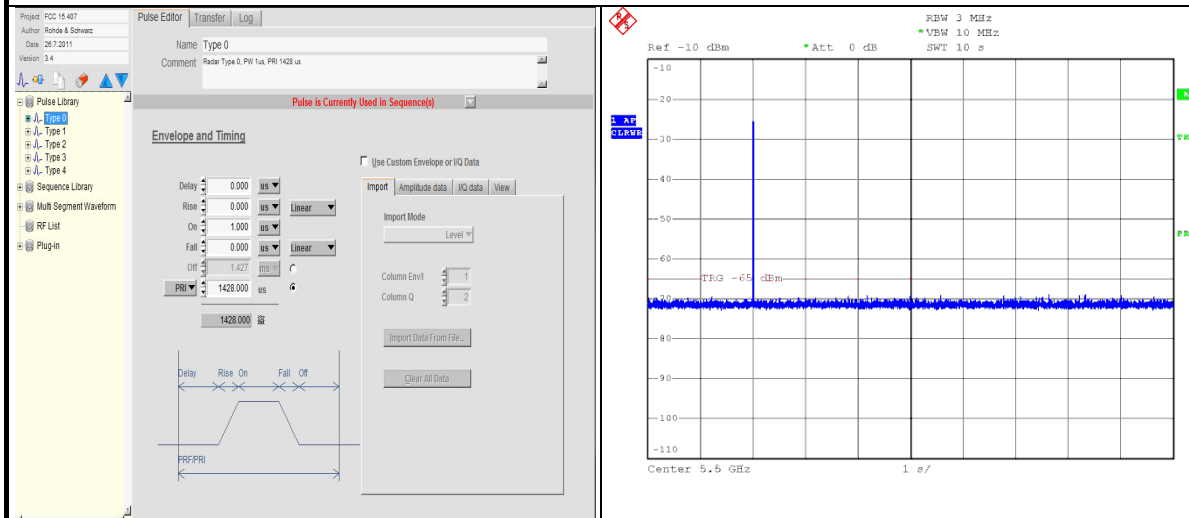
EUT (master) links with Client on 5530MHz

2) The master and DFS-certified client device are associated, and system testing will be performed with channel-loading for a non-occupancy period test.



Client performed with channel-loading via master.

3). The device transmits one type of radar as specified in the DFS Order.

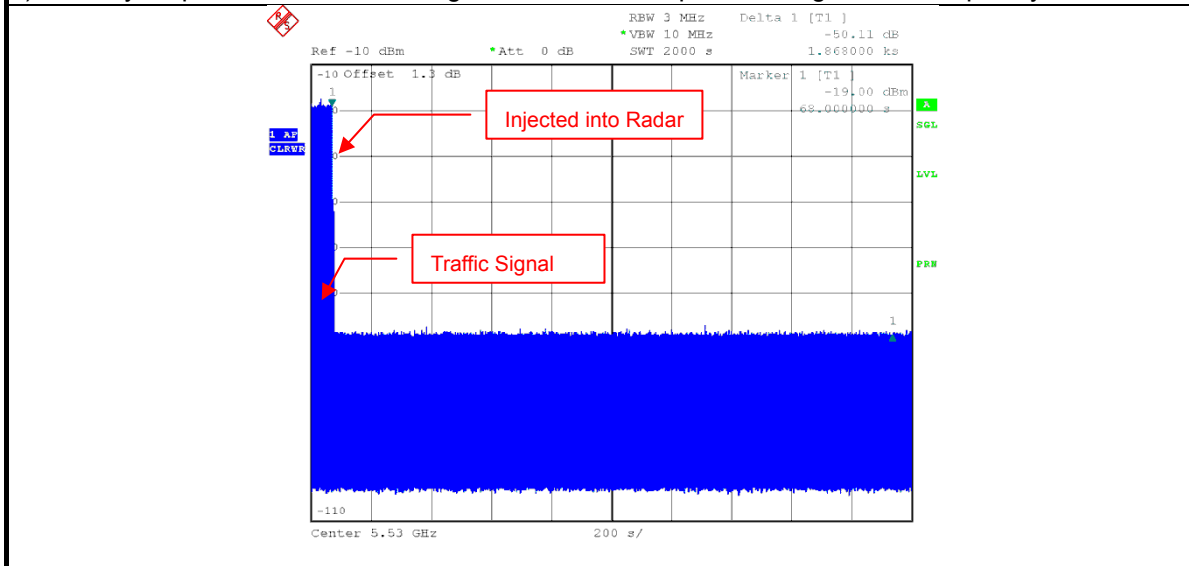


Radar 0 is used to test during DFS testing.

4) The test frequency has been monitored to ensure no transmission of any type has occurred for 30 minutes;

Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear;

5) An analyzer plot that contains a single 30-minute sweep on the original test frequency.





## 7. Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

The address and road map of all our labs can be found in our web site also.

**8. APPENDIX-A**

**RADAR TEST SIGNAL**

**B.1 The Long Pulse Radar Pattern**

| Long Pulse Radar Test Signal   |                  |             |                 |            |            |            |
|--------------------------------|------------------|-------------|-----------------|------------|------------|------------|
| Test Signal Name: LP_Signal_01 |                  |             |                 |            |            |            |
| Number of Bursts in Trial: 10  |                  |             |                 |            |            |            |
| Burst                          | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
| 1                              | 1                | 7           | 58.7            | 1765       | -          | -          |
| 2                              | 3                | 15          | 84.3            | 1452       | 1398       | 1571       |
| 3                              | 3                | 16          | 87.4            | 1358       | 1377       | 1111       |
| 4                              | 3                | 18          | 91.4            | 1554       | 1036       | 1662       |
| 5                              | 1                | 8           | 61.8            | 1828       | -          | -          |
| 6                              | 1                | 5           | 51.8            | 1621       | -          | -          |
| 7                              | 3                | 18          | 93.4            | 1063       | 1317       | 1923       |
| 8                              | 2                | 12          | 73.8            | 1804       | 1156       | -          |
| 9                              | 2                | 12          | 72.6            | 1935       | 1079       | -          |
| 10                             | 2                | 15          | 82.5            | 1049       | 1478       | -          |
| 11                             |                  |             |                 |            |            |            |
| 12                             |                  |             |                 |            |            |            |
| 13                             |                  |             |                 |            |            |            |
| 14                             |                  |             |                 |            |            |            |
| 15                             |                  |             |                 |            |            |            |
| 16                             |                  |             |                 |            |            |            |
| 17                             |                  |             |                 |            |            |            |
| 18                             |                  |             |                 |            |            |            |
| 19                             |                  |             |                 |            |            |            |
| 20                             |                  |             |                 |            |            |            |





Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_02

Number of Bursts in Trial: 16

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 5           | 51.3            | 1713       | -          | -          |
| 2     | 1                | 6           | 54              | 1485       | -          | -          |
| 3     | 2                | 11          | 69.1            | 1043       | 1750       | -          |
| 4     | 3                | 18          | 93.8            | 1665       | 1844       | 1155       |
| 5     | 3                | 20          | 99.1            | 1505       | 1825       | 1538       |
| 6     | 2                | 13          | 76              | 1866       | 1508       | -          |
| 7     | 1                | 9           | 63.5            | 1889       | -          | -          |
| 8     | 2                | 11          | 69.8            | 1024       | 1578       | -          |
| 9     | 1                | 8           | 60.9            | 1067       | -          | -          |
| 10    | 1                | 5           | 52.9            | 1162       | -          | -          |
| 11    | 2                | 12          | 73.7            | 1211       | 1581       | -          |
| 12    | 3                | 17          | 87.8            | 1516       | 1753       | 1473       |
| 13    | 2                | 10          | 68.6            | 1029       | 1730       | -          |
| 14    | 1                | 5           | 50.9            | 1930       | -          | -          |
| 15    | 2                | 15          | 83              | 1675       | 1303       | -          |
| 16    | 2                | 11          | 69.5            | 1296       | 1410       | -          |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_03

Number of Bursts in Trial: 17

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 7           | 56.4            | 1603       | -          | -          |
| 2     | 1                | 6           | 53.9            | 1545       | -          | -          |
| 3     | 1                | 6           | 53.5            | 1943       | -          | -          |
| 4     | 1                | 8           | 59.4            | 1206       | -          | -          |
| 5     | 2                | 14          | 78.5            | 1305       | 1969       | -          |
| 6     | 3                | 16          | 86.1            | 1355       | 1823       | 1948       |
| 7     | 2                | 10          | 67              | 1788       | 1958       | -          |
| 8     | 2                | 12          | 74.5            | 1213       | 1124       | -          |
| 9     | 2                | 15          | 81.3            | 1215       | 1366       | -          |
| 10    | 2                | 15          | 81.5            | 1429       | 1293       | -          |
| 11    | 2                | 14          | 79.9            | 1345       | 1990       | -          |
| 12    | 1                | 5           | 50.5            | 1996       | -          | -          |
| 13    | 3                | 17          | 88.4            | 1871       | 1121       | 1723       |
| 14    | 1                | 10          | 65.7            | 1964       | -          | -          |
| 15    | 3                | 18          | 93              | 1962       | 1265       | 1267       |
| 16    | 1                | 9           | 63.6            | 1020       | -          | -          |
| 17    | 2                | 13          | 78.1            | 1737       | 1422       | -          |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_04

Number of Bursts in Trial: 18

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 13          | 76.8            | 1105       | 1462       | -          |
| 2     | 2                | 12          | 72.6            | 1668       | 1188       | -          |
| 3     | 2                | 11          | 70.4            | 1321       | 1820       | -          |
| 4     | 1                | 7           | 57              | 1683       | -          | -          |
| 5     | 3                | 17          | 88.6            | 1721       | 1611       | 1967       |
| 6     | 1                | 6           | 55              | 1594       | -          | -          |
| 7     | 3                | 18          | 93.3            | 1624       | 1678       | 1625       |
| 8     | 3                | 16          | 86.7            | 1720       | 1540       | 1349       |
| 9     | 3                | 16          | 86.7            | 1816       | 1617       | 1754       |
| 10    | 1                | 7           | 57.7            | 1382       | -          | -          |
| 11    | 2                | 14          | 78.1            | 1561       | 1416       | -          |
| 12    | 1                | 8           | 59.9            | 1734       | -          | -          |
| 13    | 2                | 11          | 71              | 1677       | 1220       | -          |
| 14    | 1                | 10          | 65.7            | 1497       | -          | -          |
| 15    | 3                | 16          | 86.4            | 1957       | 1088       | 1054       |
| 16    | 1                | 7           | 58.3            | 1104       | -          | -          |
| 17    | 3                | 18          | 92.3            | 1589       | 1800       | 1189       |
| 18    | 3                | 19          | 95.4            | 1147       | 1801       | 1748       |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_05

Number of Bursts in Trial: 11

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 17          | 89.4            | 1574       | 1736       | 1023       |
| 2     | 2                | 11          | 70.2            | 1655       | 1500       | -          |
| 3     | 1                | 9           | 63.2            | 1445       | -          | -          |
| 4     | 1                | 6           | 53.9            | 1098       | -          | -          |
| 5     | 1                | 9           | 65.2            | 1918       | -          | -          |
| 6     | 3                | 16          | 87.1            | 1453       | 1658       | 1236       |
| 7     | 3                | 19          | 94.6            | 1896       | 1154       | 1456       |
| 8     | 1                | 8           | 62.4            | 1646       | -          | -          |
| 9     | 2                | 10          | 67.6            | 1600       | 1439       | -          |
| 10    | 3                | 19          | 96.2            | 1629       | 1909       | 1879       |
| 11    | 1                | 9           | 62.9            | 1793       | -          | -          |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_06

Number of Bursts in Trial: 8

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 15          | 81.4            | 1413       | 1565       | -          |
| 2     | 3                | 19          | 95.3            | 1774       | 1131       | 1995       |
| 3     | 1                | 8           | 60              | 1160       | -          | -          |
| 4     | 1                | 8           | 60.1            | 1922       | -          | -          |
| 5     | 1                | 8           | 59.6            | 1069       | -          | -          |
| 6     | 3                | 18          | 91.8            | 1259       | 1810       | 1477       |
| 7     | 2                | 14          | 78.4            | 1763       | 1487       | -          |
| 8     | 1                | 9           | 62.6            | 1122       | -          | -          |
| 9     |                  |             |                 |            |            |            |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_07

Number of Bursts in Trial: 19

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 8           | 62.4            | 1000       | -          | -          |
| 2     | 2                | 10          | 67.9            | 1925       | 1039       | -          |
| 3     | 3                | 20          | 99              | 1890       | 1228       | 1326       |
| 4     | 1                | 8           | 60.3            | 1210       | -          | -          |
| 5     | 2                | 12          | 72.7            | 1688       | 1548       | -          |
| 6     | 3                | 18          | 91.9            | 1988       | 1503       | 1201       |
| 7     | 2                | 14          | 78.3            | 1309       | 1198       | -          |
| 8     | 3                | 17          | 88.9            | 1080       | 1399       | 1115       |
| 9     | 1                | 9           | 64.5            | 1087       | -          | -          |
| 10    | 1                | 8           | 60.3            | 1133       | -          | -          |
| 11    | 1                | 10          | 65.8            | 1579       | -          | -          |
| 12    | 3                | 18          | 93.5            | 1619       | 1682       | 1758       |
| 13    | 3                | 18          | 92.2            | 1533       | 1842       | 1979       |
| 14    | 3                | 19          | 96.2            | 1672       | 1744       | 1971       |
| 15    | 2                | 11          | 70.3            | 1414       | 1692       | -          |
| 16    | 1                | 6           | 53.5            | 1706       | -          | -          |
| 17    | 3                | 18          | 93.4            | 1870       | 1242       | 1395       |
| 18    | 1                | 9           | 64.9            | 1438       | -          | -          |
| 19    | 2                | 12          | 72.9            | 1239       | 1817       | -          |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_08

Number of Bursts in Trial: 14

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 7           | 57.3            | 1698       | -          | -          |
| 2     | 2                | 15          | 83.3            | 1700       | 1427       | -          |
| 3     | 1                | 8           | 62.5            | 1952       | -          | -          |
| 4     | 2                | 13          | 76.1            | 1612       | 1397       | -          |
| 5     | 3                | 16          | 87.5            | 1139       | 1901       | 1400       |
| 6     | 3                | 20          | 97.1            | 1352       | 1798       | 1636       |
| 7     | 2                | 12          | 73.8            | 1496       | 1536       | -          |
| 8     | 1                | 6           | 55.2            | 1357       | -          | -          |
| 9     | 1                | 8           | 62.5            | 1811       | -          | -          |
| 10    | 2                | 10          | 68.1            | 1251       | 1843       | -          |
| 11    | 3                | 20          | 99.9            | 1819       | 1057       | 1017       |
| 12    | 1                | 8           | 61.3            | 1342       | -          | -          |
| 13    | 2                | 12          | 73.9            | 1725       | 1872       | -          |
| 14    | 1                | 7           | 58              | 1747       | -          | -          |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_09

Number of Bursts in Trial: 13

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 19          | 95.8            | 1465       | 1975       | 1904       |
| 2     | 2                | 14          | 79.9            | 1764       | 1174       | -          |
| 3     | 2                | 13          | 77.4            | 1235       | 1584       | -          |
| 4     | 3                | 17          | 90.4            | 1114       | 1974       | 1027       |
| 5     | 1                | 8           | 59.9            | 1126       | -          | -          |
| 6     | 3                | 17          | 90.5            | 1275       | 1985       | 1845       |
| 7     | 1                | 8           | 62              | 1062       | -          | -          |
| 8     | 3                | 16          | 87              | 1463       | 1587       | 1887       |
| 9     | 3                | 20          | 98.3            | 1586       | 1187       | 1651       |
| 10    | 2                | 14          | 80.1            | 1277       | 1881       | -          |
| 11    | 1                | 5           | 52.1            | 1330       | -          | -          |
| 12    | 1                | 5           | 51.7            | 1333       | -          | -          |
| 13    | 1                | 5           | 52.7            | 1867       | -          | -          |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |





Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_10

Number of Bursts in Trial: 16

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 11          | 70.7            | 1934       | 1731       | -          |
| 2     | 3                | 16          | 85.3            | 1179       | 1751       | 1711       |
| 3     | 2                | 12          | 75              | 1034       | 1261       | -          |
| 4     | 1                | 7           | 56.4            | 1954       | -          | -          |
| 5     | 2                | 10          | 66.7            | 1243       | 1090       | -          |
| 6     | 3                | 19          | 94.8            | 1224       | 1970       | 1214       |
| 7     | 2                | 11          | 68.8            | 1701       | 1280       | -          |
| 8     | 2                | 11          | 71              | 1563       | 1537       | -          |
| 9     | 2                | 14          | 79.4            | 1525       | 1389       | -          |
| 10    | 3                | 20          | 100             | 1717       | 1498       | 1740       |
| 11    | 3                | 18          | 91.9            | 1295       | 1037       | 1829       |
| 12    | 1                | 8           | 61.5            | 1949       | -          | -          |
| 13    | 1                | 9           | 63.2            | 1596       | -          | -          |
| 14    | 3                | 20          | 99              | 1254       | 1919       | 1073       |
| 15    | 3                | 16          | 86.6            | 1606       | 1849       | 1202       |
| 16    | 1                | 10          | 65.8            | 1635       | -          | -          |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_11

Number of Bursts in Trial: 8

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 11          | 70.7            | 1897       | 1749       | -          |
| 2     | 1                | 9           | 64.6            | 1965       | -          | -          |
| 3     | 3                | 20          | 99              | 1012       | 1045       | 1772       |
| 4     | 3                | 18          | 91.9            | 1583       | 1466       | 1549       |
| 5     | 3                | 16          | 85.5            | 1420       | 1780       | 1459       |
| 6     | 3                | 19          | 96.5            | 1530       | 1924       | 1835       |
| 7     | 1                | 10          | 66.2            | 1550       | -          | -          |
| 8     | 3                | 18          | 92.9            | 1929       | 1335       | 1883       |
| 9     |                  |             |                 |            |            |            |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_12

Number of Bursts in Trial: 9

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 9           | 63.1            | 1642       | -          | -          |
| 2     | 3                | 15          | 83.5            | 1005       | 1981       | 1250       |
| 3     | 2                | 12          | 74.5            | 1914       | 1474       | -          |
| 4     | 1                | 8           | 60.9            | 1430       | -          | -          |
| 5     | 2                | 11          | 70.4            | 1680       | 1542       | -          |
| 6     | 3                | 16          | 85.1            | 1048       | 1127       | 1393       |
| 7     | 2                | 15          | 82.4            | 1605       | 1282       | -          |
| 8     | 2                | 12          | 74              | 1108       | 1691       | -          |
| 9     | 3                | 16          | 85.7            | 1486       | 1976       | 1212       |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_13

Number of Bursts in Trial: 12

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 19          | 94.4            | 1385       | 1336       | 1376       |
| 2     | 1                | 5           | 53              | 1805       | -          | -          |
| 3     | 2                | 11          | 70              | 1248       | 1558       | -          |
| 4     | 3                | 17          | 87.6            | 1403       | 1170       | 1315       |
| 5     | 1                | 8           | 61.7            | 1042       | -          | -          |
| 6     | 2                | 15          | 83.2            | 1100       | 1535       | -          |
| 7     | 1                | 10          | 66.6            | 1038       | -          | -          |
| 8     | 1                | 6           | 55.1            | 1423       | -          | -          |
| 9     | 3                | 16          | 87              | 1789       | 1306       | 1643       |
| 10    | 1                | 10          | 66.4            | 1409       | -          | -          |
| 11    | 2                | 14          | 80              | 1319       | 1094       | -          |
| 12    | 3                | 16          | 85.6            | 1891       | 1291       | 1529       |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_14

Number of Bursts in Trial: 19

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 14          | 78.9            | 1613       | 1263       | -          |
| 2     | 3                | 19          | 96.7            | 1627       | 1432       | 1986       |
| 3     | 3                | 18          | 91.5            | 1472       | 1759       | 1784       |
| 4     | 2                | 13          | 75.4            | 1274       | 1795       | -          |
| 5     | 2                | 11          | 71.1            | 1968       | 1444       | -          |
| 6     | 2                | 13          | 77.5            | 1588       | 1441       | -          |
| 7     | 1                | 9           | 65.4            | 1710       | -          | -          |
| 8     | 1                | 6           | 53.1            | 1419       | -          | -          |
| 9     | 1                | 8           | 59.9            | 1518       | -          | -          |
| 10    | 2                | 10          | 67.3            | 1195       | 1168       | -          |
| 11    | 2                | 12          | 74.2            | 1386       | 1216       | -          |
| 12    | 2                | 11          | 69              | 1557       | 1132       | -          |
| 13    | 2                | 15          | 82.1            | 1987       | 1186       | -          |
| 14    | 3                | 18          | 93.3            | 1365       | 1032       | 1728       |
| 15    | 2                | 15          | 83.3            | 1103       | 1568       | -          |
| 16    | 2                | 11          | 70.3            | 1699       | 1281       | -          |
| 17    | 1                | 7           | 57.9            | 1285       | -          | -          |
| 18    | 1                | 5           | 50.6            | 1850       | -          | -          |
| 19    | 3                | 19          | 94.3            | 1479       | 1218       | 1733       |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_15

Number of Bursts in Trial: 20

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 10          | 67.5            | 1434       | 1117       | -          |
| 2     | 2                | 10          | 67.8            | 1567       | 1773       | -          |
| 3     | 2                | 13          | 75.9            | 1846       | 1362       | -          |
| 4     | 2                | 11          | 68.9            | 1237       | 1818       | -          |
| 5     | 3                | 19          | 96              | 1339       | 1796       | 1852       |
| 6     | 1                | 10          | 66.6            | 1289       | -          | -          |
| 7     | 2                | 14          | 78.3            | 1862       | 1856       | -          |
| 8     | 1                | 7           | 58.9            | 1412       | -          | -          |
| 9     | 2                | 15          | 81.5            | 1113       | 1591       | -          |
| 10    | 2                | 15          | 82.4            | 1059       | 1861       | -          |
| 11    | 3                | 16          | 86.8            | 1797       | 1163       | 1320       |
| 12    | 3                | 20          | 98.5            | 1268       | 1300       | 1868       |
| 13    | 2                | 14          | 80.1            | 1086       | 1482       | -          |
| 14    | 3                | 16          | 86.3            | 1860       | 1407       | 1998       |
| 15    | 1                | 7           | 57.2            | 1241       | -          | -          |
| 16    | 3                | 15          | 84.3            | 1808       | 1873       | 1628       |
| 17    | 3                | 16          | 86.8            | 1258       | 1302       | 1978       |
| 18    | 2                | 15          | 83              | 1690       | 1378       | -          |
| 19    | 3                | 16          | 85.6            | 1327       | 1956       | 1311       |
| 20    | 3                | 20          | 99.4            | 1112       | 1815       | 1262       |

Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_16

Number of Bursts in Trial: 14

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 7           | 57.5            | 1379       | -          | -          |
| 2     | 2                | 10          | 67              | 1551       | 1620       | -          |
| 3     | 2                | 11          | 70.9            | 1939       | 1083       | -          |
| 4     | 2                | 13          | 75.7            | 1332       | 1476       | -          |
| 5     | 2                | 13          | 77.1            | 1840       | 1010       | -          |
| 6     | 2                | 14          | 78.8            | 1371       | 1618       | -          |
| 7     | 1                | 5           | 51              | 1494       | -          | -          |
| 8     | 1                | 6           | 55.4            | 1794       | -          | -          |
| 9     | 2                | 10          | 68.5            | 1590       | 1266       | -          |
| 10    | 3                | 20          | 100             | 1484       | 1314       | 1428       |
| 11    | 3                | 19          | 96.4            | 1363       | 1361       | 1292       |
| 12    | 3                | 20          | 97.2            | 1694       | 1480       | 1446       |
| 13    | 3                | 16          | 86.4            | 1447       | 1227       | 1102       |
| 14    | 2                | 12          | 72.1            | 1184       | 1638       | -          |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |

Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_17

Number of Bursts in Trial: 11

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 8           | 62.4            | 1329       | -          | -          |
| 2     | 2                | 10          | 67.8            | 1364       | 1937       | -          |
| 3     | 1                | 5           | 53              | 1790       | -          | -          |
| 4     | 2                | 13          | 77.8            | 1546       | 1906       | -          |
| 5     | 3                | 19          | 95.6            | 1145       | 1743       | 1499       |
| 6     | 1                | 7           | 58.8            | 1199       | -          | -          |
| 7     | 3                | 18          | 92.8            | 1424       | 1408       | 1381       |
| 8     | 2                | 10          | 68.5            | 1340       | 1972       | -          |
| 9     | 3                | 15          | 84              | 1607       | 1663       | 1270       |
| 10    | 2                | 11          | 70.8            | 1468       | 1760       | -          |
| 11    | 2                | 12          | 73.1            | 1869       | 1515       | -          |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |





Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_18

Number of Bursts in Trial: 13

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 11          | 68.8            | 1504       | 1973       | -          |
| 2     | 3                | 19          | 94.2            | 1920       | 1299       | 1467       |
| 3     | 2                | 15          | 82.7            | 1003       | 1351       | -          |
| 4     | 2                | 12          | 74.8            | 1597       | 1457       | -          |
| 5     | 1                | 7           | 58.9            | 1874       | -          | -          |
| 6     | 3                | 19          | 96.5            | 1838       | 1708       | 1328       |
| 7     | 3                | 16          | 87.3            | 1405       | 1271       | 1687       |
| 8     | 2                | 12          | 72.4            | 1200       | 1433       | -          |
| 9     | 1                | 5           | 51.3            | 1475       | -          | -          |
| 10    | 3                | 16          | 86.8            | 1159       | 1652       | 1942       |
| 11    | 1                | 5           | 50.4            | 1056       | -          | -          |
| 12    | 3                | 20          | 97              | 1884       | 1876       | 1415       |
| 13    | 1                | 5           | 50.1            | 1519       | -          | -          |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_19

Number of Bursts in Trial: 10

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 18          | 91.9            | 1301       | 1337       | 1645       |
| 2     | 2                | 10          | 67.2            | 1983       | 1040       | -          |
| 3     | 1                | 9           | 65.5            | 1671       | -          | -          |
| 4     | 2                | 12          | 72.8            | 1489       | 1016       | -          |
| 5     | 3                | 17          | 90.5            | 1552       | 1180       | 1064       |
| 6     | 2                | 15          | 81.6            | 1807       | 1853       | -          |
| 7     | 3                | 16          | 86              | 1312       | 1905       | 1278       |
| 8     | 3                | 17          | 89.6            | 1152       | 1068       | 1832       |
| 9     | 1                | 8           | 62.1            | 1119       | -          | -          |
| 10    | 1                | 7           | 58              | 1234       | -          | -          |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_20

Number of Bursts in Trial: 8

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 12          | 73.8            | 1071       | 1915       | -          |
| 2     | 3                | 17          | 89.5            | 1294       | 1450       | 1025       |
| 3     | 2                | 14          | 81.2            | 1144       | 1146       | -          |
| 4     | 1                | 7           | 59              | 1041       | -          | -          |
| 5     | 3                | 16          | 87.5            | 1096       | 1941       | 1018       |
| 6     | 2                | 13          | 76.7            | 1667       | 1947       | -          |
| 7     | 1                | 7           | 56.5            | 1573       | -          | -          |
| 8     | 3                | 17          | 89              | 1033       | 1391       | -          |
| 9     |                  |             |                 |            |            |            |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_21

Number of Bursts in Trial: 14

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 15          | 83.1            | 1762       | 1058       | -          |
| 2     | 1                | 5           | 50              | 1739       | -          | -          |
| 3     | 1                | 5           | 52.6            | 1055       | -          | -          |
| 4     | 1                | 7           | 58.2            | 1704       | -          | -          |
| 5     | 3                | 16          | 84.6            | 1226       | 1177       | 1886       |
| 6     | 2                | 10          | 68.3            | 1269       | 1851       | -          |
| 7     | 2                | 14          | 80.6            | 1814       | 1074       | -          |
| 8     | 1                | 8           | 59.5            | 1009       | -          | -          |
| 9     | 1                | 6           | 53.4            | 1417       | -          | -          |
| 10    | 1                | 7           | 59.1            | 1431       | -          | -          |
| 11    | 2                | 12          | 74.8            | 1002       | 1394       | -          |
| 12    | 3                | 16          | 85              | 1670       | 1755       | 1158       |
| 13    | 3                | 16          | 85.3            | 1307       | 1560       | 1078       |
| 14    | 1                | 8           | 61.9            | 1197       | -          | -          |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_22

Number of Bursts in Trial: 17

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 11          | 70.8            | 1022       | 1015       | -          |
| 2     | 1                | 5           | 52.9            | 1483       | -          | -          |
| 3     | 3                | 16          | 86              | 1524       | 1308       | 1287       |
| 4     | 2                | 14          | 78.4            | 1821       | 1406       | -          |
| 5     | 3                | 18          | 93.3            | 1991       | 1966       | 1290       |
| 6     | 2                | 11          | 70              | 1858       | 1471       | -          |
| 7     | 2                | 13          | 78.1            | 1507       | 1705       | -          |
| 8     | 1                | 5           | 52.4            | 1060       | -          | -          |
| 9     | 3                | 16          | 84.8            | 1859       | 1839       | 1993       |
| 10    | 3                | 15          | 83.5            | 1150       | 1492       | 1443       |
| 11    | 1                | 7           | 56.7            | 1208       | -          | -          |
| 12    | 3                | 16          | 86.2            | 1674       | 1125       | 1053       |
| 13    | 1                | 7           | 58.8            | 1436       | -          | -          |
| 14    | 3                | 16          | 85.4            | 1686       | 1509       | 1577       |
| 15    | 2                | 13          | 77.7            | 1297       | 1298       | -          |
| 16    | 3                | 16          | 87.4            | 1649       | 1894       | 1075       |
| 17    | 3                | 20          | 99.8            | 1185       | 1167       | 1616       |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_23  
Number of Bursts in Trial: 12

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 19          | 95.7            | 1353       | 1813       | 1028       |
| 2     | 3                | 19          | 94.9            | 1735       | 1994       | 1084       |
| 3     | 3                | 20          | 97.9            | 1354       | 1792       | 1418       |
| 4     | 2                | 10          | 67.4            | 1348       | 1008       | -          |
| 5     | 3                | 20          | 96.9            | 1916       | 1425       | 1283       |
| 6     | 3                | 20          | 97.6            | 1384       | 1050       | 1569       |
| 7     | 3                | 15          | 83.6            | 1231       | 1219       | 1194       |
| 8     | 2                | 15          | 82.6            | 1128       | 1346       | -          |
| 9     | 3                | 20          | 97.2            | 1142       | 1769       | 1173       |
| 10    | 3                | 18          | 92.3            | 1181       | 1164       | 1458       |
| 11    | 2                | 14          | 80.9            | 1222       | 1756       | -          |
| 12    | 2                | 13          | 78.1            | 1190       | 1999       | -          |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_24

Number of Bursts in Trial: 8

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 13          | 76.9            | 1564       | 1767       | -          |
| 2     | 1                | 9           | 64.7            | 1437       | -          | -          |
| 3     | 2                | 13          | 77.1            | 1046       | 1944       | -          |
| 4     | 2                | 12          | 72.7            | 1440       | 1374       | -          |
| 5     | 1                | 8           | 61.9            | 1035       | -          | -          |
| 6     | 2                | 10          | 68.6            | 1205       | 1892       | -          |
| 7     | 2                | 14          | 78.3            | 1047       | 1273       | -          |
| 8     | 2                | 12          | 73.1            | 1426       | 1863       | -          |
| 9     |                  |             |                 |            |            |            |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_25

Number of Bursts in Trial: 16

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 7           | 59.1            | 1718       | -          | -          |
| 2     | 3                | 15          | 83.5            | 1070       | 1129       | 1318       |
| 3     | 3                | 16          | 86.5            | 1176       | 1253       | 1442       |
| 4     | 1                | 8           | 60.8            | 1209       | -          | -          |
| 5     | 2                | 14          | 80.7            | 2000       | 1360       | -          |
| 6     | 1                | 9           | 65.2            | 1101       | -          | -          |
| 7     | 2                | 11          | 69.1            | 1511       | 1030       | -          |
| 8     | 1                | 5           | 51.5            | 1161       | -          | -          |
| 9     | 3                | 20          | 98.5            | 1061       | 1951       | 1812       |
| 10    | 1                | 8           | 59.5            | 1325       | -          | -          |
| 11    | 3                | 19          | 95.3            | 1284       | 1650       | 1169       |
| 12    | 2                | 15          | 81.8            | 1460       | 1077       | -          |
| 13    | 1                | 10          | 66              | 1149       | -          | -          |
| 14    | 1                | 7           | 59.3            | 1373       | -          | -          |
| 15    | 2                | 14          | 79.2            | 1836       | 1534       | -          |
| 16    | 3                | 17          | 90.2            | 1455       | 1738       | 1490       |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |





Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_26

Number of Bursts in Trial: 13

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 16          | 87.5            | 1343       | 1331       | 1313       |
| 2     | 3                | 19          | 94.6            | 1448       | 1543       | 1803       |
| 3     | 2                | 12          | 73.9            | 1722       | 1514       | -          |
| 4     | 1                | 6           | 55.4            | 1506       | -          | -          |
| 5     | 1                | 5           | 52.3            | 1960       | -          | -          |
| 6     | 3                | 19          | 95.8            | 1240       | 1380       | 1252       |
| 7     | 3                | 19          | 96.1            | 1372       | 1411       | 1908       |
| 8     | 2                | 13          | 77.8            | 1885       | 1593       | -          |
| 9     | 3                | 20          | 97.2            | 1021       | 1614       | 1633       |
| 10    | 2                | 12          | 74.3            | 1582       | 1097       | -          |
| 11    | 1                | 7           | 57.9            | 1031       | -          | -          |
| 12    | 2                | 11          | 68.8            | 1927       | 1936       | -          |
| 13    | 2                | 14          | 79.6            | 1857       | 1470       | -          |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_27

Number of Bursts in Trial: 9

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 9           | 63.4            | 1595       | -          | -          |
| 2     | 3                | 20          | 97              | 1451       | 1660       | 1562       |
| 3     | 2                | 10          | 66.7            | 1116       | 1544       | -          |
| 4     | 3                | 20          | 99.5            | 1553       | 1526       | 1768       |
| 5     | 1                | 9           | 64.3            | 1107       | -          | -          |
| 6     | 3                | 18          | 90.7            | 1992       | 1626       | 1899       |
| 7     | 1                | 8           | 62.1            | 1630       | -          | -          |
| 8     | 1                | 7           | 58.3            | 1676       | -          | -          |
| 9     | 3                | 16          | 87              | 1726       | 1696       | 1464       |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_28

Number of Bursts in Trial: 9

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 3                | 16          | 86.8            | 1673       | 1383       | 1653       |
| 2     | 2                | 15          | 81.7            | 1841       | 1911       | -          |
| 3     | 2                | 14          | 78.4            | 1900       | 1229       | -          |
| 4     | 2                | 15          | 82.1            | 1527       | 1072       | -          |
| 5     | 3                | 15          | 84.1            | 1893       | 1742       | 1491       |
| 6     | 3                | 17          | 87.7            | 1247       | 1341       | 1955       |
| 7     | 3                | 20          | 97              | 1559       | 1685       | 1572       |
| 8     | 3                | 20          | 99.1            | 1641       | 1727       | 1848       |
| 9     | 1                | 8           | 62              | 1245       | -          | -          |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_29

Number of Bursts in Trial: 8

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 2                | 10          | 67.5            | 1193       | 1182       | -          |
| 2     | 3                | 16          | 85.6            | 1221       | 1741       | 1338       |
| 3     | 3                | 16          | 86.9            | 1580       | 1775       | 1809       |
| 4     | 3                | 16          | 85.3            | 1082       | 1854       | 1095       |
| 5     | 2                | 10          | 67.3            | 1898       | 1977       | -          |
| 6     | 3                | 19          | 94.8            | 1791       | 1350       | 1230       |
| 7     | 2                | 12          | 72.9            | 1681       | 1323       | -          |
| 8     | 2                | 11          | 70.7            | 1709       | 1123       | -          |
| 9     |                  |             |                 |            |            |            |
| 10    |                  |             |                 |            |            |            |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |



Long Pulse Radar Test Signal

Test Signal Name: LP\_Signal\_30

Number of Bursts in Trial: 10

| Burst | Pulses per Burst | Chrip (MHz) | Pulse Width(us) | PRI-1 (us) | PRI-2 (us) | PRI-3 (us) |
|-------|------------------|-------------|-----------------|------------|------------|------------|
| 1     | 1                | 9           | 63.3            | 1044       | -          | -          |
| 2     | 3                | 16          | 87.4            | 1945       | 1602       | 1203       |
| 3     | 1                | 7           | 58.7            | 1556       | -          | -          |
| 4     | 1                | 9           | 63.6            | 1598       | -          | -          |
| 5     | 1                | 7           | 56.3            | 1110       | -          | -          |
| 6     | 1                | 7           | 57.2            | 1878       | -          | -          |
| 7     | 1                | 5           | 50.3            | 1659       | -          | -          |
| 8     | 2                | 12          | 71.9            | 1143       | 1724       | -          |
| 9     | 3                | 16          | 85.1            | 1404       | 1715       | 1449       |
| 10    | 1                | 9           | 62.5            | 1276       | -          | -          |
| 11    |                  |             |                 |            |            |            |
| 12    |                  |             |                 |            |            |            |
| 13    |                  |             |                 |            |            |            |
| 14    |                  |             |                 |            |            |            |
| 15    |                  |             |                 |            |            |            |
| 16    |                  |             |                 |            |            |            |
| 17    |                  |             |                 |            |            |            |
| 18    |                  |             |                 |            |            |            |
| 19    |                  |             |                 |            |            |            |
| 20    |                  |             |                 |            |            |            |

A.2 The Frequency Hopping Radar pattern

| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_01 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.551G         | 2    | 5.488G         | 3    | 5.414G         | 4    | 5.690G         |
| 5  | 5.570G         | 6    | 5.335G         | 7    | 5.581G         | 8    | 5.429G         |
| 9  | 5.706G         | 10   | 5.391G         | 11   | 5.356G         | 12   | 5.431G         |
| 13   | 5.442G         | 14   | 5.666G         | 15   | 5.689G         | 16   | 5.338G         |
| 17   | 5.286G         | 18   | 5.603G         | 19   | 5.399G         | 20   | 5.514G         |
| 21   | 5.340G         | 22   | 5.557G         | 23   | 5.313G         | 24   | 5.482G         |
| 25   | 5.680G         | 26   | 5.427G         | 27   | 5.674G         | 28   | 5.713G         |
| 29   | 5.522G         | 30   | 5.494G         | 31   | 5.509G         | 32   | 5.701G         |
| 33   | 5.425G         | 34   | 5.309G         | 35   | 5.504G         | 36   | 5.694G         |
| 37   | 5.564G         | 38   | 5.692G         | 39   | 5.327G         | 40   | 5.434G         |
| 41   | 5.478G         | 42   | 5.622G         | 43   | 5.517G         | 44   | 5.477G         |
| 45   | 5.515G         | 46   | 5.578G         | 47   | 5.330G         | 48   | 5.471G         |
| 49   | 5.271G         | 50   | 5.326G         | 51   | 5.655G         | 52   | 5.707G         |
| 53   | 5.274G         | 54   | 5.290G         | 55   | 5.552G         | 56   | 5.639G         |
| 57   | 5.405G         | 58   | 5.617G         | 59   | 5.420G         | 60   | 5.709G         |
| 61   | 5.276G         | 62   | 5.486G         | 63   | 5.556G         | 64   | 5.407G         |
| 65   | 5.621G         | 66   | 5.467G         | 67   | 5.668G         | 68   | 5.562G         |
| 69   | 5.536G         | 70   | 5.328G         | 71   | 5.490G         | 72   | 5.343G         |
| 73   | 5.699G         | 74   | 5.649G         | 75   | 5.583G         | 76   | 5.624G         |
| 77   | 5.499G         | 78   | 5.567G         | 79   | 5.720G         | 80   | 5.673G         |
| 81   | 5.357G         | 82   | 5.677G         | 83   | 5.629G         | 84   | 5.652G         |
| 85   | 5.685G         | 86   | 5.545G         | 87   | 5.613G         | 88   | 5.612G         |
| 89   | 5.620G         | 90   | 5.458G         | 91   | 5.658G         | 92   | 5.656G         |
| 93   | 5.535G         | 94   | 5.575G         | 95   | 5.333G         | 96   | 5.498G         |
| 97   | 5.566G         | 98   | 5.362G         | 99   | 5.625G         | 100  | 5.372G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_02 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.700G         | 2    | 5.693G         | 3    | 5.590G         | 4    | 5.669G         |
| 5  | 5.455G         | 6    | 5.362G         | 7    | 5.557G         | 8    | 5.351G         |
| 9  | 5.441G         | 10   | 5.320G         | 11   | 5.685G         | 12   | 5.567G         |
| 13   | 5.561G         | 14   | 5.562G         | 15   | 5.433G         | 16   | 5.621G         |
| 17   | 5.403G         | 18   | 5.325G         | 19   | 5.305G         | 20   | 5.524G         |
| 21   | 5.679G         | 22   | 5.722G         | 23   | 5.560G         | 24   | 5.696G         |
| 25   | 5.310G         | 26   | 5.572G         | 27   | 5.515G         | 28   | 5.477G         |
| 29   | 5.661G         | 30   | 5.619G         | 31   | 5.699G         | 32   | 5.532G         |
| 33   | 5.277G         | 34   | 5.523G         | 35   | 5.468G         | 36   | 5.528G         |
| 37   | 5.632G         | 38   | 5.343G         | 39   | 5.510G         | 40   | 5.711G         |
| 41   | 5.655G         | 42   | 5.385G         | 43   | 5.670G         | 44   | 5.719G         |
| 45   | 5.673G         | 46   | 5.461G         | 47   | 5.313G         | 48   | 5.612G         |
| 49   | 5.505G         | 50   | 5.694G         | 51   | 5.347G         | 52   | 5.355G         |
| 53   | 5.558G         | 54   | 5.489G         | 55   | 5.345G         | 56   | 5.642G         |
| 57   | 5.358G         | 58   | 5.394G         | 59   | 5.447G         | 60   | 5.563G         |
| 61   | 5.338G         | 62   | 5.538G         | 63   | 5.635G         | 64   | 5.419G         |
| 65   | 5.401G         | 66   | 5.437G         | 67   | 5.509G         | 68   | 5.678G         |
| 69   | 5.552G         | 70   | 5.623G         | 71   | 5.328G         | 72   | 5.499G         |
| 73   | 5.620G         | 74   | 5.717G         | 75   | 5.463G         | 76   | 5.360G         |
| 77   | 5.293G         | 78   | 5.412G         | 79   | 5.404G         | 80   | 5.645G         |
| 81   | 5.617G         | 82   | 5.350G         | 83   | 5.508G         | 84   | 5.639G         |
| 85   | 5.283G         | 86   | 5.672G         | 87   | 5.671G         | 88   | 5.565G         |
| 89   | 5.398G         | 90   | 5.473G         | 91   | 5.474G         | 92   | 5.370G         |
| 93   | 5.383G         | 94   | 5.395G         | 95   | 5.724G         | 96   | 5.570G         |
| 97   | 5.553G         | 98   | 5.389G         | 99   | 5.327G         | 100  | 5.402G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_03 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.616G         | 2    | 5.593G         | 3    | 5.412G         | 4    | 5.699G         |
| 5  | 5.355G         | 6    | 5.583G         | 7    | 5.352G         | 8    | 5.553G         |
| 9  | 5.580G         | 10   | 5.639G         | 11   | 5.317G         | 12   | 5.519G         |
| 13   | 5.467G         | 14   | 5.401G         | 15   | 5.554G         | 16   | 5.420G         |
| 17   | 5.568G         | 18   | 5.643G         | 19   | 5.584G         | 20   | 5.558G         |
| 21   | 5.448G         | 22   | 5.533G         | 23   | 5.516G         | 24   | 5.618G         |
| 25   | 5.418G         | 26   | 5.527G         | 27   | 5.492G         | 28   | 5.426G         |
| 29   | 5.693G         | 30   | 5.447G         | 31   | 5.398G         | 32   | 5.451G         |
| 33   | 5.499G         | 34   | 5.678G         | 35   | 5.373G         | 36   | 5.430G         |
| 37   | 5.393G         | 38   | 5.548G         | 39   | 5.367G         | 40   | 5.518G         |
| 41   | 5.478G         | 42   | 5.428G         | 43   | 5.705G         | 44   | 5.574G         |
| 45   | 5.612G         | 46   | 5.377G         | 47   | 5.346G         | 48   | 5.356G         |
| 49   | 5.572G         | 50   | 5.720G         | 51   | 5.406G         | 52   | 5.510G         |
| 53   | 5.329G         | 54   | 5.301G         | 55   | 5.559G         | 56   | 5.621G         |
| 57   | 5.295G         | 58   | 5.692G         | 59   | 5.489G         | 60   | 5.668G         |
| 61   | 5.495G         | 62   | 5.493G         | 63   | 5.434G         | 64   | 5.358G         |
| 65   | 5.400G         | 66   | 5.353G         | 67   | 5.395G         | 68   | 5.535G         |
| 69   | 5.682G         | 70   | 5.411G         | 71   | 5.354G         | 72   | 5.595G         |
| 73   | 5.537G         | 74   | 5.695G         | 75   | 5.631G         | 76   | 5.701G         |
| 77   | 5.526G         | 78   | 5.582G         | 79   | 5.321G         | 80   | 5.504G         |
| 81   | 5.465G         | 82   | 5.700G         | 83   | 5.421G         | 84   | 5.432G         |
| 85   | 5.388G         | 86   | 5.360G         | 87   | 5.649G         | 88   | 5.672G         |
| 89   | 5.304G         | 90   | 5.469G         | 91   | 5.472G         | 92   | 5.361G         |
| 93   | 5.542G         | 94   | 5.509G         | 95   | 5.604G         | 96   | 5.587G         |
| 97   | 5.461G         | 98   | 5.323G         | 99   | 5.575G         | 100  | 5.619G         |





| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_04 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.315G         | 2    | 5.385G         | 3    | 5.544G         | 4    | 5.527G         |
| 5  | 5.637G         | 6    | 5.499G         | 7    | 5.405G         | 8    | 5.595G         |
| 9  | 5.382G         | 10   | 5.443G         | 11   | 5.423G         | 12   | 5.691G         |
| 13   | 5.380G         | 14   | 5.650G         | 15   | 5.305G         | 16   | 5.411G         |
| 17   | 5.294G         | 18   | 5.655G         | 19   | 5.398G         | 20   | 5.693G         |
| 21   | 5.474G         | 22   | 5.542G         | 23   | 5.337G         | 24   | 5.432G         |
| 25   | 5.555G         | 26   | 5.644G         | 27   | 5.625G         | 28   | 5.410G         |
| 29   | 5.379G         | 30   | 5.298G         | 31   | 5.682G         | 32   | 5.507G         |
| 33   | 5.275G         | 34   | 5.510G         | 35   | 5.310G         | 36   | 5.641G         |
| 37   | 5.616G         | 38   | 5.543G         | 39   | 5.512G         | 40   | 5.485G         |
| 41   | 5.401G         | 42   | 5.449G         | 43   | 5.434G         | 44   | 5.724G         |
| 45   | 5.472G         | 46   | 5.316G         | 47   | 5.416G         | 48   | 5.477G         |
| 49   | 5.273G         | 50   | 5.619G         | 51   | 5.351G         | 52   | 5.486G         |
| 53   | 5.672G         | 54   | 5.681G         | 55   | 5.712G         | 56   | 5.548G         |
| 57   | 5.465G         | 58   | 5.623G         | 59   | 5.500G         | 60   | 5.708G         |
| 61   | 5.626G         | 62   | 5.332G         | 63   | 5.348G         | 64   | 5.574G         |
| 65   | 5.367G         | 66   | 5.517G         | 67   | 5.400G         | 68   | 5.553G         |
| 69   | 5.592G         | 70   | 5.404G         | 71   | 5.353G         | 72   | 5.392G         |
| 73   | 5.513G         | 74   | 5.463G         | 75   | 5.349G         | 76   | 5.707G         |
| 77   | 5.547G         | 78   | 5.582G         | 79   | 5.440G         | 80   | 5.580G         |
| 81   | 5.551G         | 82   | 5.363G         | 83   | 5.593G         | 84   | 5.514G         |
| 85   | 5.277G         | 86   | 5.309G         | 87   | 5.578G         | 88   | 5.671G         |
| 89   | 5.678G         | 90   | 5.524G         | 91   | 5.424G         | 92   | 5.508G         |
| 93   | 5.594G         | 94   | 5.700G         | 95   | 5.652G         | 96   | 5.673G         |
| 97   | 5.662G         | 98   | 5.466G         | 99   | 5.614G         | 100  | 5.506G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_05 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.685G         | 2    | 5.319G         | 3    | 5.437G         | 4    | 5.701G         |
| 5  | 5.674G         | 6    | 5.702G         | 7    | 5.517G         | 8    | 5.404G         |
| 9  | 5.443G         | 10   | 5.471G         | 11   | 5.376G         | 12   | 5.614G         |
| 13   | 5.515G         | 14   | 5.411G         | 15   | 5.450G         | 16   | 5.469G         |
| 17   | 5.475G         | 18   | 5.661G         | 19   | 5.610G         | 20   | 5.412G         |
| 21   | 5.716G         | 22   | 5.694G         | 23   | 5.341G         | 24   | 5.389G         |
| 25   | 5.378G         | 26   | 5.539G         | 27   | 5.309G         | 28   | 5.544G         |
| 29   | 5.409G         | 30   | 5.422G         | 31   | 5.620G         | 32   | 5.687G         |
| 33   | 5.526G         | 34   | 5.704G         | 35   | 5.405G         | 36   | 5.644G         |
| 37   | 5.627G         | 38   | 5.359G         | 39   | 5.640G         | 40   | 5.424G         |
| 41   | 5.372G         | 42   | 5.532G         | 43   | 5.617G         | 44   | 5.353G         |
| 45   | 5.676G         | 46   | 5.690G         | 47   | 5.664G         | 48   | 5.688G         |
| 49   | 5.371G         | 50   | 5.419G         | 51   | 5.388G         | 52   | 5.671G         |
| 53   | 5.721G         | 54   | 5.507G         | 55   | 5.692G         | 56   | 5.714G         |
| 57   | 5.473G         | 58   | 5.303G         | 59   | 5.575G         | 60   | 5.703G         |
| 61   | 5.391G         | 62   | 5.635G         | 63   | 5.438G         | 64   | 5.533G         |
| 65   | 5.719G         | 66   | 5.428G         | 67   | 5.603G         | 68   | 5.658G         |
| 69   | 5.385G         | 70   | 5.589G         | 71   | 5.712G         | 72   | 5.569G         |
| 73   | 5.275G         | 74   | 5.529G         | 75   | 5.622G         | 76   | 5.447G         |
| 77   | 5.581G         | 78   | 5.588G         | 79   | 5.362G         | 80   | 5.655G         |
| 81   | 5.579G         | 82   | 5.407G         | 83   | 5.723G         | 84   | 5.461G         |
| 85   | 5.573G         | 86   | 5.384G         | 87   | 5.632G         | 88   | 5.675G         |
| 89   | 5.540G         | 90   | 5.478G         | 91   | 5.439G         | 92   | 5.619G         |
| 93   | 5.451G         | 94   | 5.310G         | 95   | 5.444G         | 96   | 5.541G         |
| 97   | 5.434G         | 98   | 5.325G         | 99   | 5.349G         | 100  | 5.491G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_06 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.566G         | 2    | 5.598G         | 3    | 5.575G         | 4    | 5.467G         |
| 5  | 5.513G         | 6    | 5.421G         | 7    | 5.440G         | 8    | 5.411G         |
| 9  | 5.536G         | 10   | 5.407G         | 11   | 5.550G         | 12   | 5.460G         |
| 13   | 5.540G         | 14   | 5.388G         | 15   | 5.339G         | 16   | 5.595G         |
| 17   | 5.308G         | 18   | 5.348G         | 19   | 5.643G         | 20   | 5.351G         |
| 21   | 5.383G         | 22   | 5.518G         | 23   | 5.581G         | 24   | 5.669G         |
| 25   | 5.614G         | 26   | 5.413G         | 27   | 5.370G         | 28   | 5.708G         |
| 29   | 5.477G         | 30   | 5.722G         | 31   | 5.679G         | 32   | 5.525G         |
| 33   | 5.340G         | 34   | 5.343G         | 35   | 5.320G         | 36   | 5.539G         |
| 37   | 5.710G         | 38   | 5.323G         | 39   | 5.396G         | 40   | 5.592G         |
| 41   | 5.603G         | 42   | 5.719G         | 43   | 5.636G         | 44   | 5.717G         |
| 45   | 5.649G         | 46   | 5.473G         | 47   | 5.577G         | 48   | 5.554G         |
| 49   | 5.633G         | 50   | 5.648G         | 51   | 5.362G         | 52   | 5.345G         |
| 53   | 5.622G         | 54   | 5.425G         | 55   | 5.700G         | 56   | 5.620G         |
| 57   | 5.452G         | 58   | 5.346G         | 59   | 5.470G         | 60   | 5.448G         |
| 61   | 5.533G         | 62   | 5.638G         | 63   | 5.580G         | 64   | 5.589G         |
| 65   | 5.501G         | 66   | 5.468G         | 67   | 5.441G         | 68   | 5.416G         |
| 69   | 5.269G         | 70   | 5.327G         | 71   | 5.318G         | 72   | 5.567G         |
| 73   | 5.627G         | 74   | 5.309G         | 75   | 5.672G         | 76   | 5.617G         |
| 77   | 5.445G         | 78   | 5.436G         | 79   | 5.355G         | 80   | 5.601G         |
| 81   | 5.446G         | 82   | 5.517G         | 83   | 5.682G         | 84   | 5.376G         |
| 85   | 5.605G         | 86   | 5.621G         | 87   | 5.686G         | 88   | 5.488G         |
| 89   | 5.500G         | 90   | 5.691G         | 91   | 5.604G         | 92   | 5.478G         |
| 93   | 5.480G         | 94   | 5.684G         | 95   | 5.514G         | 96   | 5.588G         |
| 97   | 5.693G         | 98   | 5.657G         | 99   | 5.393G         | 100  | 5.545G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_07 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.393G         | 2    | 5.522G         | 3    | 5.449G         | 4    | 5.692G         |
| 5  | 5.596G         | 6    | 5.723G         | 7    | 5.527G         | 8    | 5.624G         |
| 9  | 5.327G         | 10   | 5.681G         | 11   | 5.708G         | 12   | 5.441G         |
| 13   | 5.286G         | 14   | 5.724G         | 15   | 5.496G         | 16   | 5.695G         |
| 17   | 5.486G         | 18   | 5.360G         | 19   | 5.562G         | 20   | 5.487G         |
| 21   | 5.619G         | 22   | 5.689G         | 23   | 5.561G         | 24   | 5.584G         |
| 25   | 5.337G         | 26   | 5.675G         | 27   | 5.651G         | 28   | 5.450G         |
| 29   | 5.497G         | 30   | 5.354G         | 31   | 5.472G         | 32   | 5.557G         |
| 33   | 5.424G         | 34   | 5.608G         | 35   | 5.335G         | 36   | 5.539G         |
| 37   | 5.492G         | 38   | 5.503G         | 39   | 5.309G         | 40   | 5.364G         |
| 41   | 5.629G         | 42   | 5.667G         | 43   | 5.558G         | 44   | 5.410G         |
| 45   | 5.715G         | 46   | 5.478G         | 47   | 5.687G         | 48   | 5.688G         |
| 49   | 5.530G         | 50   | 5.618G         | 51   | 5.601G         | 52   | 5.707G         |
| 53   | 5.531G         | 54   | 5.617G         | 55   | 5.598G         | 56   | 5.710G         |
| 57   | 5.588G         | 58   | 5.501G         | 59   | 5.578G         | 60   | 5.633G         |
| 61   | 5.409G         | 62   | 5.703G         | 63   | 5.502G         | 64   | 5.397G         |
| 65   | 5.534G         | 66   | 5.606G         | 67   | 5.380G         | 68   | 5.454G         |
| 69   | 5.352G         | 70   | 5.533G         | 71   | 5.508G         | 72   | 5.525G         |
| 73   | 5.373G         | 74   | 5.705G         | 75   | 5.418G         | 76   | 5.528G         |
| 77   | 5.570G         | 78   | 5.552G         | 79   | 5.484G         | 80   | 5.604G         |
| 81   | 5.706G         | 82   | 5.551G         | 83   | 5.383G         | 84   | 5.361G         |
| 85   | 5.475G         | 86   | 5.625G         | 87   | 5.346G         | 88   | 5.614G         |
| 89   | 5.350G         | 90   | 5.328G         | 91   | 5.674G         | 92   | 5.586G         |
| 93   | 5.381G         | 94   | 5.512G         | 95   | 5.725G         | 96   | 5.390G         |
| 97   | 5.547G         | 98   | 5.429G         | 99   | 5.709G         | 100  | 5.662G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_08 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.536G         | 2    | 5.511G         | 3    | 5.483G         | 4    | 5.718G         |
| 5  | 5.682G         | 6    | 5.621G         | 7    | 5.326G         | 8    | 5.421G         |
| 9  | 5.503G         | 10   | 5.472G         | 11   | 5.325G         | 12   | 5.429G         |
| 13   | 5.357G         | 14   | 5.725G         | 15   | 5.471G         | 16   | 5.581G         |
| 17   | 5.659G         | 18   | 5.673G         | 19   | 5.724G         | 20   | 5.499G         |
| 21   | 5.303G         | 22   | 5.432G         | 23   | 5.412G         | 24   | 5.660G         |
| 25   | 5.482G         | 26   | 5.377G         | 27   | 5.465G         | 28   | 5.578G         |
| 29   | 5.469G         | 30   | 5.345G         | 31   | 5.473G         | 32   | 5.406G         |
| 33   | 5.717G         | 34   | 5.321G         | 35   | 5.420G         | 36   | 5.389G         |
| 37   | 5.597G         | 38   | 5.401G         | 39   | 5.358G         | 40   | 5.622G         |
| 41   | 5.519G         | 42   | 5.649G         | 43   | 5.528G         | 44   | 5.509G         |
| 45   | 5.470G         | 46   | 5.489G         | 47   | 5.573G         | 48   | 5.505G         |
| 49   | 5.589G         | 50   | 5.577G         | 51   | 5.512G         | 52   | 5.538G         |
| 53   | 5.569G         | 54   | 5.302G         | 55   | 5.722G         | 56   | 5.387G         |
| 57   | 5.566G         | 58   | 5.598G         | 59   | 5.664G         | 60   | 5.583G         |
| 61   | 5.385G         | 62   | 5.537G         | 63   | 5.507G         | 64   | 5.486G         |
| 65   | 5.594G         | 66   | 5.567G         | 67   | 5.632G         | 68   | 5.575G         |
| 69   | 5.366G         | 70   | 5.436G         | 71   | 5.368G         | 72   | 5.545G         |
| 73   | 5.694G         | 74   | 5.643G         | 75   | 5.356G         | 76   | 5.696G         |
| 77   | 5.669G         | 78   | 5.547G         | 79   | 5.692G         | 80   | 5.674G         |
| 81   | 5.610G         | 82   | 5.620G         | 83   | 5.531G         | 84   | 5.680G         |
| 85   | 5.382G         | 86   | 5.652G         | 87   | 5.376G         | 88   | 5.460G         |
| 89   | 5.497G         | 90   | 5.624G         | 91   | 5.375G         | 92   | 5.417G         |
| 93   | 5.491G         | 94   | 5.477G         | 95   | 5.488G         | 96   | 5.479G         |
| 97   | 5.689G         | 98   | 5.607G         | 99   | 5.380G         | 100  | 5.453G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_09 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.530G         | 2    | 5.461G         | 3    | 5.327G         | 4    | 5.559G         |
| 5  | 5.535G         | 6    | 5.660G         | 7    | 5.398G         | 8    | 5.549G         |
| 9  | 5.454G         | 10   | 5.499G         | 11   | 5.670G         | 12   | 5.594G         |
| 13   | 5.414G         | 14   | 5.545G         | 15   | 5.551G         | 16   | 5.657G         |
| 17   | 5.555G         | 18   | 5.497G         | 19   | 5.460G         | 20   | 5.610G         |
| 21   | 5.492G         | 22   | 5.341G         | 23   | 5.591G         | 24   | 5.576G         |
| 25   | 5.356G         | 26   | 5.508G         | 27   | 5.361G         | 28   | 5.553G         |
| 29   | 5.661G         | 30   | 5.556G         | 31   | 5.665G         | 32   | 5.366G         |
| 33   | 5.685G         | 34   | 5.371G         | 35   | 5.350G         | 36   | 5.579G         |
| 37   | 5.682G         | 38   | 5.686G         | 39   | 5.408G         | 40   | 5.709G         |
| 41   | 5.633G         | 42   | 5.547G         | 43   | 5.679G         | 44   | 5.656G         |
| 45   | 5.431G         | 46   | 5.628G         | 47   | 5.640G         | 48   | 5.450G         |
| 49   | 5.358G         | 50   | 5.596G         | 51   | 5.711G         | 52   | 5.712G         |
| 53   | 5.615G         | 54   | 5.412G         | 55   | 5.483G         | 56   | 5.675G         |
| 57   | 5.575G         | 58   | 5.624G         | 59   | 5.520G         | 60   | 5.382G         |
| 61   | 5.275G         | 62   | 5.484G         | 63   | 5.488G         | 64   | 5.415G         |
| 65   | 5.706G         | 66   | 5.562G         | 67   | 5.590G         | 68   | 5.567G         |
| 69   | 5.642G         | 70   | 5.481G         | 71   | 5.331G         | 72   | 5.516G         |
| 73   | 5.372G         | 74   | 5.395G         | 75   | 5.541G         | 76   | 5.518G         |
| 77   | 5.405G         | 78   | 5.598G         | 79   | 5.511G         | 80   | 5.654G         |
| 81   | 5.462G         | 82   | 5.574G         | 83   | 5.343G         | 84   | 5.458G         |
| 85   | 5.351G         | 86   | 5.716G         | 87   | 5.546G         | 88   | 5.379G         |
| 89   | 5.509G         | 90   | 5.319G         | 91   | 5.345G         | 92   | 5.680G         |
| 93   | 5.335G         | 94   | 5.424G         | 95   | 5.337G         | 96   | 5.600G         |
| 97   | 5.724G         | 98   | 5.416G         | 99   | 5.696G         | 100  | 5.564G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_10 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.488G         | 2    | 5.646G         | 3    | 5.471G         | 4    | 5.393G         |
| 5  | 5.724G         | 6    | 5.387G         | 7    | 5.642G         | 8    | 5.439G         |
| 9  | 5.671G         | 10   | 5.600G         | 11   | 5.339G         | 12   | 5.621G         |
| 13   | 5.360G         | 14   | 5.539G         | 15   | 5.369G         | 16   | 5.593G         |
| 17   | 5.291G         | 18   | 5.495G         | 19   | 5.427G         | 20   | 5.700G         |
| 21   | 5.499G         | 22   | 5.634G         | 23   | 5.649G         | 24   | 5.368G         |
| 25   | 5.661G         | 26   | 5.713G         | 27   | 5.325G         | 28   | 5.420G         |
| 29   | 5.588G         | 30   | 5.623G         | 31   | 5.631G         | 32   | 5.416G         |
| 33   | 5.639G         | 34   | 5.308G         | 35   | 5.364G         | 36   | 5.505G         |
| 37   | 5.391G         | 38   | 5.476G         | 39   | 5.388G         | 40   | 5.484G         |
| 41   | 5.501G         | 42   | 5.336G         | 43   | 5.395G         | 44   | 5.508G         |
| 45   | 5.711G         | 46   | 5.459G         | 47   | 5.521G         | 48   | 5.567G         |
| 49   | 5.601G         | 50   | 5.517G         | 51   | 5.725G         | 52   | 5.486G         |
| 53   | 5.624G         | 54   | 5.331G         | 55   | 5.419G         | 56   | 5.492G         |
| 57   | 5.516G         | 58   | 5.458G         | 59   | 5.438G         | 60   | 5.692G         |
| 61   | 5.479G         | 62   | 5.597G         | 63   | 5.478G         | 64   | 5.502G         |
| 65   | 5.481G         | 66   | 5.583G         | 67   | 5.614G         | 68   | 5.378G         |
| 69   | 5.346G         | 70   | 5.669G         | 71   | 5.523G         | 72   | 5.509G         |
| 73   | 5.358G         | 74   | 5.410G         | 75   | 5.643G         | 76   | 5.575G         |
| 77   | 5.640G         | 78   | 5.722G         | 79   | 5.557G         | 80   | 5.433G         |
| 81   | 5.490G         | 82   | 5.595G         | 83   | 5.674G         | 84   | 5.456G         |
| 85   | 5.443G         | 86   | 5.626G         | 87   | 5.560G         | 88   | 5.463G         |
| 89   | 5.553G         | 90   | 5.402G         | 91   | 5.656G         | 92   | 5.514G         |
| 93   | 5.535G         | 94   | 5.555G         | 95   | 5.694G         | 96   | 5.374G         |
| 97   | 5.319G         | 98   | 5.504G         | 99   | 5.633G         | 100  | 5.538G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_11 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.647G         | 2    | 5.436G         | 3    | 5.492G         | 4    | 5.404G         |
| 5  | 5.385G         | 6    | 5.336G         | 7    | 5.577G         | 8    | 5.497G         |
| 9  | 5.509G         | 10   | 5.478G         | 11   | 5.430G         | 12   | 5.374G         |
| 13   | 5.656G         | 14   | 5.680G         | 15   | 5.683G         | 16   | 5.407G         |
| 17   | 5.361G         | 18   | 5.455G         | 19   | 5.470G         | 20   | 5.475G         |
| 21   | 5.535G         | 22   | 5.717G         | 23   | 5.518G         | 24   | 5.573G         |
| 25   | 5.419G         | 26   | 5.662G         | 27   | 5.632G         | 28   | 5.363G         |
| 29   | 5.610G         | 30   | 5.381G         | 31   | 5.376G         | 32   | 5.706G         |
| 33   | 5.561G         | 34   | 5.307G         | 35   | 5.708G         | 36   | 5.453G         |
| 37   | 5.698G         | 38   | 5.701G         | 39   | 5.645G         | 40   | 5.445G         |
| 41   | 5.642G         | 42   | 5.525G         | 43   | 5.629G         | 44   | 5.344G         |
| 45   | 5.403G         | 46   | 5.523G         | 47   | 5.408G         | 48   | 5.580G         |
| 49   | 5.700G         | 50   | 5.584G         | 51   | 5.684G         | 52   | 5.501G         |
| 53   | 5.517G         | 54   | 5.703G         | 55   | 5.375G         | 56   | 5.482G         |
| 57   | 5.339G         | 58   | 5.410G         | 59   | 5.415G         | 60   | 5.592G         |
| 61   | 5.283G         | 62   | 5.365G         | 63   | 5.542G         | 64   | 5.434G         |
| 65   | 5.394G         | 66   | 5.370G         | 67   | 5.328G         | 68   | 5.712G         |
| 69   | 5.710G         | 70   | 5.620G         | 71   | 5.346G         | 72   | 5.526G         |
| 73   | 5.566G         | 74   | 5.456G         | 75   | 5.590G         | 76   | 5.655G         |
| 77   | 5.545G         | 78   | 5.461G         | 79   | 5.606G         | 80   | 5.624G         |
| 81   | 5.377G         | 82   | 5.529G         | 83   | 5.670G         | 84   | 5.556G         |
| 85   | 5.585G         | 86   | 5.393G         | 87   | 5.627G         | 88   | 5.654G         |
| 89   | 5.583G         | 90   | 5.302G         | 91   | 5.457G         | 92   | 5.543G         |
| 93   | 5.690G         | 94   | 5.630G         | 95   | 5.567G         | 96   | 5.507G         |
| 97   | 5.516G         | 98   | 5.447G         | 99   | 5.565G         | 100  | 5.520G         |





| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_12 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.511G         | 2    | 5.510G         | 3    | 5.605G         | 4    | 5.502G         |
| 5  | 5.703G         | 6    | 5.290G         | 7    | 5.512G         | 8    | 5.479G         |
| 9  | 5.629G         | 10   | 5.670G         | 11   | 5.359G         | 12   | 5.598G         |
| 13   | 5.552G         | 14   | 5.658G         | 15   | 5.551G         | 16   | 5.417G         |
| 17   | 5.312G         | 18   | 5.445G         | 19   | 5.665G         | 20   | 5.580G         |
| 21   | 5.698G         | 22   | 5.368G         | 23   | 5.684G         | 24   | 5.461G         |
| 25   | 5.613G         | 26   | 5.376G         | 27   | 5.693G         | 28   | 5.683G         |
| 29   | 5.274G         | 30   | 5.389G         | 31   | 5.533G         | 32   | 5.449G         |
| 33   | 5.546G         | 34   | 5.704G         | 35   | 5.488G         | 36   | 5.400G         |
| 37   | 5.303G         | 38   | 5.346G         | 39   | 5.362G         | 40   | 5.578G         |
| 41   | 5.373G         | 42   | 5.573G         | 43   | 5.603G         | 44   | 5.549G         |
| 45   | 5.432G         | 46   | 5.528G         | 47   | 5.525G         | 48   | 5.527G         |
| 49   | 5.633G         | 50   | 5.288G         | 51   | 5.386G         | 52   | 5.436G         |
| 53   | 5.537G         | 54   | 5.387G         | 55   | 5.583G         | 56   | 5.344G         |
| 57   | 5.422G         | 58   | 5.600G         | 59   | 5.720G         | 60   | 5.339G         |
| 61   | 5.385G         | 62   | 5.409G         | 63   | 5.639G         | 64   | 5.486G         |
| 65   | 5.357G         | 66   | 5.596G         | 67   | 5.360G         | 68   | 5.632G         |
| 69   | 5.705G         | 70   | 5.403G         | 71   | 5.544G         | 72   | 5.636G         |
| 73   | 5.388G         | 74   | 5.305G         | 75   | 5.638G         | 76   | 5.404G         |
| 77   | 5.570G         | 78   | 5.710G         | 79   | 5.365G         | 80   | 5.547G         |
| 81   | 5.685G         | 82   | 5.476G         | 83   | 5.451G         | 84   | 5.556G         |
| 85   | 5.348G         | 86   | 5.518G         | 87   | 5.536G         | 88   | 5.519G         |
| 89   | 5.686G         | 90   | 5.397G         | 91   | 5.456G         | 92   | 5.561G         |
| 93   | 5.647G         | 94   | 5.723G         | 95   | 5.624G         | 96   | 5.539G         |
| 97   | 5.426G         | 98   | 5.454G         | 99   | 5.501G         | 100  | 5.717G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_13 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.393G         | 2    | 5.419G         | 3    | 5.406G         | 4    | 5.503G         |
| 5  | 5.274G         | 6    | 5.473G         | 7    | 5.549G         | 8    | 5.358G         |
| 9  | 5.374G         | 10   | 5.426G         | 11   | 5.709G         | 12   | 5.636G         |
| 13   | 5.650G         | 14   | 5.569G         | 15   | 5.515G         | 16   | 5.630G         |
| 17   | 5.322G         | 18   | 5.302G         | 19   | 5.361G         | 20   | 5.684G         |
| 21   | 5.708G         | 22   | 5.280G         | 23   | 5.651G         | 24   | 5.626G         |
| 25   | 5.523G         | 26   | 5.724G         | 27   | 5.580G         | 28   | 5.410G         |
| 29   | 5.299G         | 30   | 5.583G         | 31   | 5.614G         | 32   | 5.653G         |
| 33   | 5.444G         | 34   | 5.402G         | 35   | 5.594G         | 36   | 5.713G         |
| 37   | 5.427G         | 38   | 5.498G         | 39   | 5.390G         | 40   | 5.520G         |
| 41   | 5.491G         | 42   | 5.640G         | 43   | 5.368G         | 44   | 5.693G         |
| 45   | 5.645G         | 46   | 5.488G         | 47   | 5.316G         | 48   | 5.559G         |
| 49   | 5.341G         | 50   | 5.463G         | 51   | 5.666G         | 52   | 5.540G         |
| 53   | 5.526G         | 54   | 5.365G         | 55   | 5.582G         | 56   | 5.680G         |
| 57   | 5.388G         | 58   | 5.466G         | 59   | 5.497G         | 60   | 5.431G         |
| 61   | 5.441G         | 62   | 5.364G         | 63   | 5.317G         | 64   | 5.545G         |
| 65   | 5.537G         | 66   | 5.670G         | 67   | 5.517G         | 68   | 5.673G         |
| 69   | 5.683G         | 70   | 5.624G         | 71   | 5.657G         | 72   | 5.521G         |
| 73   | 5.408G         | 74   | 5.586G         | 75   | 5.530G         | 76   | 5.660G         |
| 77   | 5.477G         | 78   | 5.552G         | 79   | 5.327G         | 80   | 5.353G         |
| 81   | 5.722G         | 82   | 5.538G         | 83   | 5.412G         | 84   | 5.403G         |
| 85   | 5.548G         | 86   | 5.326G         | 87   | 5.542G         | 88   | 5.672G         |
| 89   | 5.668G         | 90   | 5.539G         | 91   | 5.423G         | 92   | 5.534G         |
| 93   | 5.518G         | 94   | 5.401G         | 95   | 5.382G         | 96   | 5.644G         |
| 97   | 5.415G         | 98   | 5.336G         | 99   | 5.628G         | 100  | 5.581G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_14 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.456G         | 2    | 5.413G         | 3    | 5.672G         | 4    | 5.530G         |
| 5  | 5.702G         | 6    | 5.489G         | 7    | 5.633G         | 8    | 5.441G         |
| 9  | 5.458G         | 10   | 5.550G         | 11   | 5.676G         | 12   | 5.408G         |
| 13   | 5.600G         | 14   | 5.339G         | 15   | 5.657G         | 16   | 5.533G         |
| 17   | 5.562G         | 18   | 5.606G         | 19   | 5.551G         | 20   | 5.484G         |
| 21   | 5.474G         | 22   | 5.473G         | 23   | 5.440G         | 24   | 5.612G         |
| 25   | 5.260G         | 26   | 5.314G         | 27   | 5.340G         | 28   | 5.583G         |
| 29   | 5.618G         | 30   | 5.517G         | 31   | 5.604G         | 32   | 5.362G         |
| 33   | 5.312G         | 34   | 5.301G         | 35   | 5.411G         | 36   | 5.531G         |
| 37   | 5.321G         | 38   | 5.410G         | 39   | 5.617G         | 40   | 5.573G         |
| 41   | 5.522G         | 42   | 5.582G         | 43   | 5.454G         | 44   | 5.401G         |
| 45   | 5.399G         | 46   | 5.293G         | 47   | 5.553G         | 48   | 5.353G         |
| 49   | 5.324G         | 50   | 5.491G         | 51   | 5.592G         | 52   | 5.558G         |
| 53   | 5.709G         | 54   | 5.526G         | 55   | 5.434G         | 56   | 5.594G         |
| 57   | 5.561G         | 58   | 5.506G         | 59   | 5.364G         | 60   | 5.711G         |
| 61   | 5.291G         | 62   | 5.501G         | 63   | 5.667G         | 64   | 5.500G         |
| 65   | 5.691G         | 66   | 5.436G         | 67   | 5.420G         | 68   | 5.643G         |
| 69   | 5.563G         | 70   | 5.427G         | 71   | 5.696G         | 72   | 5.459G         |
| 73   | 5.532G         | 74   | 5.425G         | 75   | 5.378G         | 76   | 5.469G         |
| 77   | 5.651G         | 78   | 5.374G         | 79   | 5.359G         | 80   | 5.660G         |
| 81   | 5.387G         | 82   | 5.555G         | 83   | 5.624G         | 84   | 5.369G         |
| 85   | 5.285G         | 86   | 5.549G         | 87   | 5.615G         | 88   | 5.356G         |
| 89   | 5.712G         | 90   | 5.576G         | 91   | 5.482G         | 92   | 5.690G         |
| 93   | 5.278G         | 94   | 5.355G         | 95   | 5.323G         | 96   | 5.670G         |
| 97   | 5.580G         | 98   | 5.723G         | 99   | 5.540G         | 100  | 5.477G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_15 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.487G         | 2    | 5.593G         | 3    | 5.536G         | 4    | 5.422G         |
| 5  | 5.630G         | 6    | 5.302G         | 7    | 5.664G         | 8    | 5.499G         |
| 9  | 5.660G         | 10   | 5.364G         | 11   | 5.475G         | 12   | 5.408G         |
| 13   | 5.432G         | 14   | 5.429G         | 15   | 5.329G         | 16   | 5.562G         |
| 17   | 5.716G         | 18   | 5.474G         | 19   | 5.471G         | 20   | 5.409G         |
| 21   | 5.674G         | 22   | 5.591G         | 23   | 5.451G         | 24   | 5.550G         |
| 25   | 5.279G         | 26   | 5.346G         | 27   | 5.577G         | 28   | 5.587G         |
| 29   | 5.454G         | 30   | 5.725G         | 31   | 5.394G         | 32   | 5.410G         |
| 33   | 5.588G         | 34   | 5.463G         | 35   | 5.497G         | 36   | 5.378G         |
| 37   | 5.679G         | 38   | 5.418G         | 39   | 5.314G         | 40   | 5.526G         |
| 41   | 5.292G         | 42   | 5.366G         | 43   | 5.485G         | 44   | 5.720G         |
| 45   | 5.452G         | 46   | 5.702G         | 47   | 5.469G         | 48   | 5.441G         |
| 49   | 5.266G         | 50   | 5.703G         | 51   | 5.369G         | 52   | 5.345G         |
| 53   | 5.631G         | 54   | 5.333G         | 55   | 5.459G         | 56   | 5.342G         |
| 57   | 5.373G         | 58   | 5.424G         | 59   | 5.627G         | 60   | 5.483G         |
| 61   | 5.308G         | 62   | 5.698G         | 63   | 5.619G         | 64   | 5.625G         |
| 65   | 5.382G         | 66   | 5.448G         | 67   | 5.535G         | 68   | 5.673G         |
| 69   | 5.519G         | 70   | 5.426G         | 71   | 5.542G         | 72   | 5.467G         |
| 73   | 5.421G         | 74   | 5.691G         | 75   | 5.393G         | 76   | 5.495G         |
| 77   | 5.723G         | 78   | 5.532G         | 79   | 5.704G         | 80   | 5.383G         |
| 81   | 5.637G         | 82   | 5.445G         | 83   | 5.565G         | 84   | 5.527G         |
| 85   | 5.489G         | 86   | 5.583G         | 87   | 5.360G         | 88   | 5.374G         |
| 89   | 5.286G         | 90   | 5.655G         | 91   | 5.647G         | 92   | 5.602G         |
| 93   | 5.533G         | 94   | 5.620G         | 95   | 5.470G         | 96   | 5.554G         |
| 97   | 5.632G         | 98   | 5.661G         | 99   | 5.628G         | 100  | 5.368G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_16 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.537G         | 2    | 5.611G         | 3    | 5.651G         | 4    | 5.568G         |
| 5  | 5.518G         | 6    | 5.590G         | 7    | 5.512G         | 8    | 5.700G         |
| 9  | 5.351G         | 10   | 5.338G         | 11   | 5.591G         | 12   | 5.530G         |
| 13   | 5.618G         | 14   | 5.366G         | 15   | 5.543G         | 16   | 5.579G         |
| 17   | 5.522G         | 18   | 5.536G         | 19   | 5.594G         | 20   | 5.374G         |
| 21   | 5.393G         | 22   | 5.725G         | 23   | 5.659G         | 24   | 5.424G         |
| 25   | 5.352G         | 26   | 5.718G         | 27   | 5.724G         | 28   | 5.360G         |
| 29   | 5.720G         | 30   | 5.391G         | 31   | 5.348G         | 32   | 5.451G         |
| 33   | 5.686G         | 34   | 5.619G         | 35   | 5.504G         | 36   | 5.716G         |
| 37   | 5.377G         | 38   | 5.285G         | 39   | 5.436G         | 40   | 5.681G         |
| 41   | 5.407G         | 42   | 5.372G         | 43   | 5.498G         | 44   | 5.541G         |
| 45   | 5.520G         | 46   | 5.454G         | 47   | 5.383G         | 48   | 5.453G         |
| 49   | 5.329G         | 50   | 5.671G         | 51   | 5.558G         | 52   | 5.410G         |
| 53   | 5.596G         | 54   | 5.523G         | 55   | 5.547G         | 56   | 5.415G         |
| 57   | 5.563G         | 58   | 5.400G         | 59   | 5.460G         | 60   | 5.556G         |
| 61   | 5.653G         | 62   | 5.654G         | 63   | 5.656G         | 64   | 5.598G         |
| 65   | 5.574G         | 66   | 5.315G         | 67   | 5.437G         | 68   | 5.430G         |
| 69   | 5.466G         | 70   | 5.696G         | 71   | 5.447G         | 72   | 5.402G         |
| 73   | 5.440G         | 74   | 5.476G         | 75   | 5.624G         | 76   | 5.418G         |
| 77   | 5.286G         | 78   | 5.573G         | 79   | 5.608G         | 80   | 5.413G         |
| 81   | 5.306G         | 82   | 5.350G         | 83   | 5.513G         | 84   | 5.709G         |
| 85   | 5.421G         | 86   | 5.560G         | 87   | 5.511G         | 88   | 5.387G         |
| 89   | 5.632G         | 90   | 5.670G         | 91   | 5.342G         | 92   | 5.644G         |
| 93   | 5.678G         | 94   | 5.305G         | 95   | 5.426G         | 96   | 5.580G         |
| 97   | 5.324G         | 98   | 5.301G         | 99   | 5.546G         | 100  | 5.411G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_17 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.666G         | 2    | 5.702G         | 3    | 5.502G         | 4    | 5.364G         |
| 5  | 5.608G         | 6    | 5.432G         | 7    | 5.457G         | 8    | 5.641G         |
| 9  | 5.481G         | 10   | 5.306G         | 11   | 5.563G         | 12   | 5.425G         |
| 13   | 5.381G         | 14   | 5.322G         | 15   | 5.514G         | 16   | 5.372G         |
| 17   | 5.680G         | 18   | 5.506G         | 19   | 5.350G         | 20   | 5.579G         |
| 21   | 5.688G         | 22   | 5.397G         | 23   | 5.430G         | 24   | 5.532G         |
| 25   | 5.660G         | 26   | 5.523G         | 27   | 5.419G         | 28   | 5.437G         |
| 29   | 5.590G         | 30   | 5.471G         | 31   | 5.310G         | 32   | 5.545G         |
| 33   | 5.712G         | 34   | 5.708G         | 35   | 5.623G         | 36   | 5.536G         |
| 37   | 5.461G         | 38   | 5.607G         | 39   | 5.615G         | 40   | 5.614G         |
| 41   | 5.392G         | 42   | 5.653G         | 43   | 5.354G         | 44   | 5.569G         |
| 45   | 5.443G         | 46   | 5.547G         | 47   | 5.362G         | 48   | 5.459G         |
| 49   | 5.581G         | 50   | 5.538G         | 51   | 5.441G         | 52   | 5.395G         |
| 53   | 5.632G         | 54   | 5.692G         | 55   | 5.363G         | 56   | 5.357G         |
| 57   | 5.436G         | 58   | 5.542G         | 59   | 5.701G         | 60   | 5.410G         |
| 61   | 5.624G         | 62   | 5.628G         | 63   | 5.558G         | 64   | 5.374G         |
| 65   | 5.338G         | 66   | 5.722G         | 67   | 5.529G         | 68   | 5.595G         |
| 69   | 5.676G         | 70   | 5.458G         | 71   | 5.706G         | 72   | 5.442G         |
| 73   | 5.667G         | 74   | 5.477G         | 75   | 5.352G         | 76   | 5.582G         |
| 77   | 5.600G         | 78   | 5.431G         | 79   | 5.633G         | 80   | 5.719G         |
| 81   | 5.332G         | 82   | 5.413G         | 83   | 5.675G         | 84   | 5.399G         |
| 85   | 5.277G         | 86   | 5.500G         | 87   | 5.401G         | 88   | 5.360G         |
| 89   | 5.564G         | 90   | 5.341G         | 91   | 5.377G         | 92   | 5.424G         |
| 93   | 5.639G         | 94   | 5.586G         | 95   | 5.438G         | 96   | 5.593G         |
| 97   | 5.314G         | 98   | 5.635G         | 99   | 5.724G         | 100  | 5.515G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_18 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.713G         | 2    | 5.381G         | 3    | 5.665G         | 4    | 5.356G         |
| 5  | 5.413G         | 6    | 5.525G         | 7    | 5.383G         | 8    | 5.667G         |
| 9  | 5.685G         | 10   | 5.297G         | 11   | 5.639G         | 12   | 5.395G         |
| 13   | 5.365G         | 14   | 5.681G         | 15   | 5.579G         | 16   | 5.605G         |
| 17   | 5.557G         | 18   | 5.710G         | 19   | 5.516G         | 20   | 5.721G         |
| 21   | 5.268G         | 22   | 5.701G         | 23   | 5.438G         | 24   | 5.504G         |
| 25   | 5.718G         | 26   | 5.524G         | 27   | 5.464G         | 28   | 5.673G         |
| 29   | 5.638G         | 30   | 5.586G         | 31   | 5.670G         | 32   | 5.535G         |
| 33   | 5.606G         | 34   | 5.580G         | 35   | 5.675G         | 36   | 5.435G         |
| 37   | 5.357G         | 38   | 5.578G         | 39   | 5.645G         | 40   | 5.648G         |
| 41   | 5.432G         | 42   | 5.599G         | 43   | 5.552G         | 44   | 5.614G         |
| 45   | 5.574G         | 46   | 5.482G         | 47   | 5.660G         | 48   | 5.449G         |
| 49   | 5.641G         | 50   | 5.657G         | 51   | 5.470G         | 52   | 5.392G         |
| 53   | 5.360G         | 54   | 5.427G         | 55   | 5.330G         | 56   | 5.359G         |
| 57   | 5.316G         | 58   | 5.671G         | 59   | 5.500G         | 60   | 5.628G         |
| 61   | 5.659G         | 62   | 5.353G         | 63   | 5.664G         | 64   | 5.558G         |
| 65   | 5.453G         | 66   | 5.680G         | 67   | 5.662G         | 68   | 5.501G         |
| 69   | 5.545G         | 70   | 5.355G         | 71   | 5.377G         | 72   | 5.652G         |
| 73   | 5.590G         | 74   | 5.429G         | 75   | 5.390G         | 76   | 5.433G         |
| 77   | 5.272G         | 78   | 5.532G         | 79   | 5.534G         | 80   | 5.404G         |
| 81   | 5.371G         | 82   | 5.367G         | 83   | 5.627G         | 84   | 5.618G         |
| 85   | 5.289G         | 86   | 5.596G         | 87   | 5.704G         | 88   | 5.502G         |
| 89   | 5.287G         | 90   | 5.651G         | 91   | 5.490G         | 92   | 5.426G         |
| 93   | 5.709G         | 94   | 5.370G         | 95   | 5.589G         | 96   | 5.646G         |
| 97   | 5.281G         | 98   | 5.487G         | 99   | 5.602G         | 100  | 5.457G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_19 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.705G         | 2    | 5.339G         | 3    | 5.519G         | 4    | 5.458G         |
| 5  | 5.453G         | 6    | 5.421G         | 7    | 5.415G         | 8    | 5.542G         |
| 9  | 5.334G         | 10   | 5.680G         | 11   | 5.686G         | 12   | 5.629G         |
| 13   | 5.639G         | 14   | 5.313G         | 15   | 5.712G         | 16   | 5.536G         |
| 17   | 5.424G         | 18   | 5.391G         | 19   | 5.522G         | 20   | 5.523G         |
| 21   | 5.676G         | 22   | 5.390G         | 23   | 5.701G         | 24   | 5.588G         |
| 25   | 5.362G         | 26   | 5.613G         | 27   | 5.452G         | 28   | 5.704G         |
| 29   | 5.363G         | 30   | 5.491G         | 31   | 5.411G         | 32   | 5.367G         |
| 33   | 5.672G         | 34   | 5.513G         | 35   | 5.565G         | 36   | 5.502G         |
| 37   | 5.264G         | 38   | 5.440G         | 39   | 5.546G         | 40   | 5.350G         |
| 41   | 5.668G         | 42   | 5.611G         | 43   | 5.388G         | 44   | 5.640G         |
| 45   | 5.319G         | 46   | 5.706G         | 47   | 5.628G         | 48   | 5.505G         |
| 49   | 5.495G         | 50   | 5.584G         | 51   | 5.660G         | 52   | 5.435G         |
| 53   | 5.287G         | 54   | 5.326G         | 55   | 5.699G         | 56   | 5.579G         |
| 57   | 5.284G         | 58   | 5.295G         | 59   | 5.474G         | 60   | 5.651G         |
| 61   | 5.564G         | 62   | 5.487G         | 63   | 5.478G         | 64   | 5.551G         |
| 65   | 5.445G         | 66   | 5.413G         | 67   | 5.521G         | 68   | 5.365G         |
| 69   | 5.503G         | 70   | 5.404G         | 71   | 5.402G         | 72   | 5.645G         |
| 73   | 5.456G         | 74   | 5.436G         | 75   | 5.548G         | 76   | 5.568G         |
| 77   | 5.372G         | 78   | 5.692G         | 79   | 5.333G         | 80   | 5.571G         |
| 81   | 5.356G         | 82   | 5.422G         | 83   | 5.716G         | 84   | 5.608G         |
| 85   | 5.634G         | 86   | 5.625G         | 87   | 5.371G         | 88   | 5.635G         |
| 89   | 5.309G         | 90   | 5.358G         | 91   | 5.577G         | 92   | 5.427G         |
| 93   | 5.461G         | 94   | 5.377G         | 95   | 5.499G         | 96   | 5.504G         |
| 97   | 5.392G         | 98   | 5.648G         | 99   | 5.683G         | 100  | 5.417G         |





| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_20 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.472G         | 2    | 5.534G         | 3    | 5.632G         | 4    | 5.672G         |
| 5  | 5.284G         | 6    | 5.570G         | 7    | 5.567G         | 8    | 5.565G         |
| 9  | 5.584G         | 10   | 5.590G         | 11   | 5.621G         | 12   | 5.471G         |
| 13   | 5.585G         | 14   | 5.540G         | 15   | 5.696G         | 16   | 5.445G         |
| 17   | 5.269G         | 18   | 5.619G         | 19   | 5.332G         | 20   | 5.701G         |
| 21   | 5.330G         | 22   | 5.671G         | 23   | 5.640G         | 24   | 5.663G         |
| 25   | 5.642G         | 26   | 5.547G         | 27   | 5.530G         | 28   | 5.368G         |
| 29   | 5.616G         | 30   | 5.465G         | 31   | 5.607G         | 32   | 5.436G         |
| 33   | 5.648G         | 34   | 5.425G         | 35   | 5.488G         | 36   | 5.381G         |
| 37   | 5.414G         | 38   | 5.697G         | 39   | 5.421G         | 40   | 5.357G         |
| 41   | 5.355G         | 42   | 5.518G         | 43   | 5.310G         | 44   | 5.407G         |
| 45   | 5.334G         | 46   | 5.692G         | 47   | 5.684G         | 48   | 5.685G         |
| 49   | 5.350G         | 50   | 5.337G         | 51   | 5.611G         | 52   | 5.718G         |
| 53   | 5.526G         | 54   | 5.483G         | 55   | 5.695G         | 56   | 5.586G         |
| 57   | 5.474G         | 58   | 5.635G         | 59   | 5.336G         | 60   | 5.675G         |
| 61   | 5.435G         | 62   | 5.674G         | 63   | 5.325G         | 64   | 5.505G         |
| 65   | 5.615G         | 66   | 5.520G         | 67   | 5.416G         | 68   | 5.658G         |
| 69   | 5.305G         | 70   | 5.562G         | 71   | 5.542G         | 72   | 5.402G         |
| 73   | 5.639G         | 74   | 5.630G         | 75   | 5.419G         | 76   | 5.572G         |
| 77   | 5.494G         | 78   | 5.380G         | 79   | 5.427G         | 80   | 5.578G         |
| 81   | 5.403G         | 82   | 5.460G         | 83   | 5.449G         | 84   | 5.724G         |
| 85   | 5.554G         | 86   | 5.430G         | 87   | 5.691G         | 88   | 5.596G         |
| 89   | 5.660G         | 90   | 5.662G         | 91   | 5.643G         | 92   | 5.545G         |
| 93   | 5.647G         | 94   | 5.694G         | 95   | 5.625G         | 96   | 5.614G         |
| 97   | 5.426G         | 98   | 5.464G         | 99   | 5.558G         | 100  | 5.666G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_21 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.667G         | 2    | 5.359G         | 3    | 5.650G         | 4    | 5.433G         |
| 5  | 5.409G         | 6    | 5.572G         | 7    | 5.340G         | 8    | 5.436G         |
| 9  | 5.712G         | 10   | 5.325G         | 11   | 5.380G         | 12   | 5.631G         |
| 13   | 5.624G         | 14   | 5.450G         | 15   | 5.642G         | 16   | 5.349G         |
| 17   | 5.612G         | 18   | 5.697G         | 19   | 5.476G         | 20   | 5.559G         |
| 21   | 5.492G         | 22   | 5.426G         | 23   | 5.657G         | 24   | 5.669G         |
| 25   | 5.518G         | 26   | 5.294G         | 27   | 5.524G         | 28   | 5.455G         |
| 29   | 5.315G         | 30   | 5.311G         | 31   | 5.564G         | 32   | 5.574G         |
| 33   | 5.333G         | 34   | 5.662G         | 35   | 5.404G         | 36   | 5.576G         |
| 37   | 5.313G         | 38   | 5.582G         | 39   | 5.393G         | 40   | 5.412G         |
| 41   | 5.528G         | 42   | 5.640G         | 43   | 5.628G         | 44   | 5.672G         |
| 45   | 5.701G         | 46   | 5.444G         | 47   | 5.482G         | 48   | 5.651G         |
| 49   | 5.291G         | 50   | 5.725G         | 51   | 5.364G         | 52   | 5.373G         |
| 53   | 5.397G         | 54   | 5.653G         | 55   | 5.378G         | 56   | 5.346G         |
| 57   | 5.587G         | 58   | 5.549G         | 59   | 5.614G         | 60   | 5.396G         |
| 61   | 5.585G         | 62   | 5.299G         | 63   | 5.664G         | 64   | 5.480G         |
| 65   | 5.376G         | 66   | 5.301G         | 67   | 5.496G         | 68   | 5.428G         |
| 69   | 5.388G         | 70   | 5.410G         | 71   | 5.556G         | 72   | 5.389G         |
| 73   | 5.490G         | 74   | 5.675G         | 75   | 5.705G         | 76   | 5.629G         |
| 77   | 5.626G         | 78   | 5.342G         | 79   | 5.371G         | 80   | 5.526G         |
| 81   | 5.605G         | 82   | 5.477G         | 83   | 5.402G         | 84   | 5.690G         |
| 85   | 5.568G         | 86   | 5.513G         | 87   | 5.703G         | 88   | 5.451G         |
| 89   | 5.670G         | 90   | 5.550G         | 91   | 5.557G         | 92   | 5.719G         |
| 93   | 5.413G         | 94   | 5.553G         | 95   | 5.613G         | 96   | 5.500G         |
| 97   | 5.604G         | 98   | 5.303G         | 99   | 5.689G         | 100  | 5.661G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_22 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.605G         | 2    | 5.692G         | 3    | 5.596G         | 4    | 5.412G         |
| 5  | 5.577G         | 6    | 5.372G         | 7    | 5.320G         | 8    | 5.385G         |
| 9  | 5.509G         | 10   | 5.361G         | 11   | 5.406G         | 12   | 5.671G         |
| 13   | 5.449G         | 14   | 5.428G         | 15   | 5.588G         | 16   | 5.707G         |
| 17   | 5.543G         | 18   | 5.659G         | 19   | 5.632G         | 20   | 5.695G         |
| 21   | 5.649G         | 22   | 5.492G         | 23   | 5.446G         | 24   | 5.401G         |
| 25   | 5.416G         | 26   | 5.286G         | 27   | 5.506G         | 28   | 5.677G         |
| 29   | 5.400G         | 30   | 5.691G         | 31   | 5.655G         | 32   | 5.513G         |
| 33   | 5.493G         | 34   | 5.624G         | 35   | 5.636G         | 36   | 5.590G         |
| 37   | 5.585G         | 38   | 5.608G         | 39   | 5.518G         | 40   | 5.398G         |
| 41   | 5.456G         | 42   | 5.462G         | 43   | 5.650G         | 44   | 5.345G         |
| 45   | 5.524G         | 46   | 5.441G         | 47   | 5.500G         | 48   | 5.607G         |
| 49   | 5.499G         | 50   | 5.323G         | 51   | 5.348G         | 52   | 5.432G         |
| 53   | 5.303G         | 54   | 5.447G         | 55   | 5.610G         | 56   | 5.681G         |
| 57   | 5.473G         | 58   | 5.474G         | 59   | 5.668G         | 60   | 5.679G         |
| 61   | 5.705G         | 62   | 5.665G         | 63   | 5.498G         | 64   | 5.431G         |
| 65   | 5.443G         | 66   | 5.475G         | 67   | 5.480G         | 68   | 5.552G         |
| 69   | 5.402G         | 70   | 5.356G         | 71   | 5.688G         | 72   | 5.442G         |
| 73   | 5.660G         | 74   | 5.554G         | 75   | 5.631G         | 76   | 5.572G         |
| 77   | 5.536G         | 78   | 5.561G         | 79   | 5.528G         | 80   | 5.579G         |
| 81   | 5.430G         | 82   | 5.522G         | 83   | 5.724G         | 84   | 5.556G         |
| 85   | 5.501G         | 86   | 5.682G         | 87   | 5.581G         | 88   | 5.545G         |
| 89   | 5.461G         | 90   | 5.359G         | 91   | 5.658G         | 92   | 5.704G         |
| 93   | 5.380G         | 94   | 5.673G         | 95   | 5.669G         | 96   | 5.502G         |
| 97   | 5.301G         | 98   | 5.325G         | 99   | 5.369G         | 100  | 5.377G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_23 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.594G         | 2    | 5.527G         | 3    | 5.665G         | 4    | 5.458G         |
| 5  | 5.498G         | 6    | 5.510G         | 7    | 5.388G         | 8    | 5.441G         |
| 9  | 5.275G         | 10   | 5.654G         | 11   | 5.408G         | 12   | 5.650G         |
| 13   | 5.512G         | 14   | 5.612G         | 15   | 5.502G         | 16   | 5.334G         |
| 17   | 5.405G         | 18   | 5.500G         | 19   | 5.678G         | 20   | 5.370G         |
| 21   | 5.602G         | 22   | 5.306G         | 23   | 5.596G         | 24   | 5.522G         |
| 25   | 5.710G         | 26   | 5.331G         | 27   | 5.690G         | 28   | 5.669G         |
| 29   | 5.406G         | 30   | 5.329G         | 31   | 5.526G         | 32   | 5.340G         |
| 33   | 5.332G         | 34   | 5.718G         | 35   | 5.635G         | 36   | 5.342G         |
| 37   | 5.290G         | 38   | 5.547G         | 39   | 5.586G         | 40   | 5.562G         |
| 41   | 5.493G         | 42   | 5.686G         | 43   | 5.663G         | 44   | 5.598G         |
| 45   | 5.620G         | 46   | 5.401G         | 47   | 5.371G         | 48   | 5.434G         |
| 49   | 5.357G         | 50   | 5.708G         | 51   | 5.400G         | 52   | 5.711G         |
| 53   | 5.582G         | 54   | 5.443G         | 55   | 5.713G         | 56   | 5.343G         |
| 57   | 5.439G         | 58   | 5.575G         | 59   | 5.658G         | 60   | 5.397G         |
| 61   | 5.302G         | 62   | 5.558G         | 63   | 5.667G         | 64   | 5.697G         |
| 65   | 5.689G         | 66   | 5.378G         | 67   | 5.395G         | 68   | 5.628G         |
| 69   | 5.415G         | 70   | 5.322G         | 71   | 5.549G         | 72   | 5.546G         |
| 73   | 5.380G         | 74   | 5.348G         | 75   | 5.377G         | 76   | 5.442G         |
| 77   | 5.698G         | 78   | 5.438G         | 79   | 5.608G         | 80   | 5.576G         |
| 81   | 5.672G         | 82   | 5.477G         | 83   | 5.535G         | 84   | 5.682G         |
| 85   | 5.564G         | 86   | 5.555G         | 87   | 5.638G         | 88   | 5.482G         |
| 89   | 5.583G         | 90   | 5.455G         | 91   | 5.656G         | 92   | 5.707G         |
| 93   | 5.404G         | 94   | 5.384G         | 95   | 5.326G         | 96   | 5.679G         |
| 97   | 5.276G         | 98   | 5.376G         | 99   | 5.589G         | 100  | 5.369G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_24 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.485G         | 2    | 5.302G         | 3    | 5.450G         | 4    | 5.436G         |
| 5  | 5.688G         | 6    | 5.375G         | 7    | 5.492G         | 8    | 5.682G         |
| 9  | 5.467G         | 10   | 5.655G         | 11   | 5.391G         | 12   | 5.561G         |
| 13   | 5.395G         | 14   | 5.486G         | 15   | 5.452G         | 16   | 5.432G         |
| 17   | 5.412G         | 18   | 5.357G         | 19   | 5.327G         | 20   | 5.685G         |
| 21   | 5.347G         | 22   | 5.511G         | 23   | 5.582G         | 24   | 5.581G         |
| 25   | 5.632G         | 26   | 5.590G         | 27   | 5.529G         | 28   | 5.372G         |
| 29   | 5.416G         | 30   | 5.351G         | 31   | 5.547G         | 32   | 5.714G         |
| 33   | 5.438G         | 34   | 5.568G         | 35   | 5.681G         | 36   | 5.622G         |
| 37   | 5.273G         | 38   | 5.465G         | 39   | 5.505G         | 40   | 5.691G         |
| 41   | 5.305G         | 42   | 5.411G         | 43   | 5.342G         | 44   | 5.455G         |
| 45   | 5.530G         | 46   | 5.674G         | 47   | 5.358G         | 48   | 5.433G         |
| 49   | 5.266G         | 50   | 5.477G         | 51   | 5.680G         | 52   | 5.677G         |
| 53   | 5.603G         | 54   | 5.301G         | 55   | 5.623G         | 56   | 5.423G         |
| 57   | 5.466G         | 58   | 5.621G         | 59   | 5.546G         | 60   | 5.672G         |
| 61   | 5.393G         | 62   | 5.458G         | 63   | 5.370G         | 64   | 5.588G         |
| 65   | 5.631G         | 66   | 5.724G         | 67   | 5.427G         | 68   | 5.576G         |
| 69   | 5.593G         | 70   | 5.429G         | 71   | 5.533G         | 72   | 5.425G         |
| 73   | 5.687G         | 74   | 5.646G         | 75   | 5.562G         | 76   | 5.525G         |
| 77   | 5.535G         | 78   | 5.723G         | 79   | 5.703G         | 80   | 5.397G         |
| 81   | 5.369G         | 82   | 5.651G         | 83   | 5.647G         | 84   | 5.721G         |
| 85   | 5.392G         | 86   | 5.717G         | 87   | 5.441G         | 88   | 5.495G         |
| 89   | 5.488G         | 90   | 5.352G         | 91   | 5.440G         | 92   | 5.560G         |
| 93   | 5.545G         | 94   | 5.523G         | 95   | 5.354G         | 96   | 5.526G         |
| 97   | 5.587G         | 98   | 5.313G         | 99   | 5.567G         | 100  | 5.496G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_25 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.501G         | 2    | 5.332G         | 3    | 5.571G         | 4    | 5.686G         |
| 5  | 5.438G         | 6    | 5.529G         | 7    | 5.534G         | 8    | 5.693G         |
| 9  | 5.543G         | 10   | 5.723G         | 11   | 5.406G         | 12   | 5.455G         |
| 13   | 5.354G         | 14   | 5.540G         | 15   | 5.484G         | 16   | 5.604G         |
| 17   | 5.428G         | 18   | 5.444G         | 19   | 5.340G         | 20   | 5.549G         |
| 21   | 5.688G         | 22   | 5.283G         | 23   | 5.687G         | 24   | 5.351G         |
| 25   | 5.350G         | 26   | 5.434G         | 27   | 5.486G         | 28   | 5.451G         |
| 29   | 5.644G         | 30   | 5.365G         | 31   | 5.464G         | 32   | 5.708G         |
| 33   | 5.369G         | 34   | 5.319G         | 35   | 5.696G         | 36   | 5.372G         |
| 37   | 5.493G         | 38   | 5.650G         | 39   | 5.422G         | 40   | 5.640G         |
| 41   | 5.704G         | 42   | 5.496G         | 43   | 5.530G         | 44   | 5.586G         |
| 45   | 5.310G         | 46   | 5.634G         | 47   | 5.520G         | 48   | 5.559G         |
| 49   | 5.680G         | 50   | 5.603G         | 51   | 5.664G         | 52   | 5.513G         |
| 53   | 5.703G         | 54   | 5.408G         | 55   | 5.318G         | 56   | 5.576G         |
| 57   | 5.724G         | 58   | 5.511G         | 59   | 5.614G         | 60   | 5.683G         |
| 61   | 5.718G         | 62   | 5.294G         | 63   | 5.347G         | 64   | 5.466G         |
| 65   | 5.450G         | 66   | 5.448G         | 67   | 5.580G         | 68   | 5.446G         |
| 69   | 5.489G         | 70   | 5.447G         | 71   | 5.449G         | 72   | 5.574G         |
| 73   | 5.602G         | 74   | 5.312G         | 75   | 5.548G         | 76   | 5.584G         |
| 77   | 5.297G         | 78   | 5.582G         | 79   | 5.374G         | 80   | 5.516G         |
| 81   | 5.410G         | 82   | 5.555G         | 83   | 5.681G         | 84   | 5.398G         |
| 85   | 5.572G         | 86   | 5.522G         | 87   | 5.405G         | 88   | 5.441G         |
| 89   | 5.565G         | 90   | 5.592G         | 91   | 5.609G         | 92   | 5.689G         |
| 93   | 5.391G         | 94   | 5.333G         | 95   | 5.465G         | 96   | 5.507G         |
| 97   | 5.715G         | 98   | 5.394G         | 99   | 5.700G         | 100  | 5.356G         |



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_26

| SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
|------|----------------|------|----------------|------|----------------|------|----------------|
| 1    | 5.399G         | 2    | 5.652G         | 3    | 5.582G         | 4    | 5.697G         |
| 5    | 5.452G         | 6    | 5.545G         | 7    | 5.380G         | 8    | 5.343G         |
| 9    | 5.725G         | 10   | 5.592G         | 11   | 5.529G         | 12   | 5.405G         |
| 13   | 5.253G         | 14   | 5.643G         | 15   | 5.598G         | 16   | 5.617G         |
| 17   | 5.593G         | 18   | 5.560G         | 19   | 5.326G         | 20   | 5.534G         |
| 21   | 5.508G         | 22   | 5.372G         | 23   | 5.682G         | 24   | 5.491G         |
| 25   | 5.495G         | 26   | 5.396G         | 27   | 5.503G         | 28   | 5.477G         |
| 29   | 5.427G         | 30   | 5.501G         | 31   | 5.430G         | 32   | 5.589G         |
| 33   | 5.571G         | 34   | 5.712G         | 35   | 5.658G         | 36   | 5.665G         |
| 37   | 5.371G         | 38   | 5.553G         | 39   | 5.569G         | 40   | 5.717G         |
| 41   | 5.621G         | 42   | 5.517G         | 43   | 5.699G         | 44   | 5.566G         |
| 45   | 5.428G         | 46   | 5.627G         | 47   | 5.583G         | 48   | 5.688G         |
| 49   | 5.437G         | 50   | 5.448G         | 51   | 5.445G         | 52   | 5.570G         |
| 53   | 5.375G         | 54   | 5.562G         | 55   | 5.364G         | 56   | 5.488G         |
| 57   | 5.677G         | 58   | 5.403G         | 59   | 5.502G         | 60   | 5.523G         |
| 61   | 5.678G         | 62   | 5.536G         | 63   | 5.620G         | 64   | 5.466G         |
| 65   | 5.596G         | 66   | 5.454G         | 67   | 5.316G         | 68   | 5.673G         |
| 69   | 5.645G         | 70   | 5.357G         | 71   | 5.530G         | 72   | 5.378G         |
| 73   | 5.458G         | 74   | 5.511G         | 75   | 5.516G         | 76   | 5.440G         |
| 77   | 5.609G         | 78   | 5.702G         | 79   | 5.705G         | 80   | 5.494G         |
| 81   | 5.550G         | 82   | 5.515G         | 83   | 5.548G         | 84   | 5.547G         |
| 85   | 5.490G         | 86   | 5.676G         | 87   | 5.415G         | 88   | 5.684G         |
| 89   | 5.681G         | 90   | 5.659G         | 91   | 5.449G         | 92   | 5.576G         |
| 93   | 5.407G         | 94   | 5.351G         | 95   | 5.475G         | 96   | 5.376G         |
| 97   | 5.614G         | 98   | 5.637G         | 99   | 5.626G         | 100  | 5.470G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_27 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.677G         | 2    | 5.335G         | 3    | 5.532G         | 4    | 5.602G         |
| 5  | 5.509G         | 6    | 5.716G         | 7    | 5.607G         | 8    | 5.409G         |
| 9  | 5.486G         | 10   | 5.714G         | 11   | 5.619G         | 12   | 5.341G         |
| 13   | 5.424G         | 14   | 5.401G         | 15   | 5.723G         | 16   | 5.549G         |
| 17   | 5.407G         | 18   | 5.298G         | 19   | 5.681G         | 20   | 5.517G         |
| 21   | 5.488G         | 22   | 5.295G         | 23   | 5.387G         | 24   | 5.724G         |
| 25   | 5.468G         | 26   | 5.639G         | 27   | 5.597G         | 28   | 5.477G         |
| 29   | 5.462G         | 30   | 5.692G         | 31   | 5.332G         | 32   | 5.617G         |
| 33   | 5.334G         | 34   | 5.611G         | 35   | 5.574G         | 36   | 5.600G         |
| 37   | 5.637G         | 38   | 5.672G         | 39   | 5.711G         | 40   | 5.514G         |
| 41   | 5.627G         | 42   | 5.328G         | 43   | 5.493G         | 44   | 5.569G         |
| 45   | 5.715G         | 46   | 5.344G         | 47   | 5.508G         | 48   | 5.454G         |
| 49   | 5.541G         | 50   | 5.442G         | 51   | 5.423G         | 52   | 5.720G         |
| 53   | 5.542G         | 54   | 5.481G         | 55   | 5.684G         | 56   | 5.670G         |
| 57   | 5.675G         | 58   | 5.392G         | 59   | 5.479G         | 60   | 5.586G         |
| 61   | 5.435G         | 62   | 5.393G         | 63   | 5.550G         | 64   | 5.487G         |
| 65   | 5.430G         | 66   | 5.482G         | 67   | 5.444G         | 68   | 5.567G         |
| 69   | 5.311G         | 70   | 5.667G         | 71   | 5.377G         | 72   | 5.504G         |
| 73   | 5.301G         | 74   | 5.365G         | 75   | 5.626G         | 76   | 5.525G         |
| 77   | 5.632G         | 78   | 5.646G         | 79   | 5.445G         | 80   | 5.618G         |
| 81   | 5.548G         | 82   | 5.536G         | 83   | 5.350G         | 84   | 5.671G         |
| 85   | 5.421G         | 86   | 5.510G         | 87   | 5.582G         | 88   | 5.492G         |
| 89   | 5.461G         | 90   | 5.491G         | 91   | 5.397G         | 92   | 5.434G         |
| 93   | 5.357G         | 94   | 5.463G         | 95   | 5.609G         | 96   | 5.403G         |
| 97   | 5.661G         | 98   | 5.596G         | 99   | 5.469G         | 100  | 5.655G         |





| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_28 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.636G         | 2    | 5.408G         | 3    | 5.589G         | 4    | 5.353G         |
| 5  | 5.517G         | 6    | 5.280G         | 7    | 5.558G         | 8    | 5.723G         |
| 9  | 5.507G         | 10   | 5.522G         | 11   | 5.487G         | 12   | 5.406G         |
| 13   | 5.501G         | 14   | 5.513G         | 15   | 5.686G         | 16   | 5.581G         |
| 17   | 5.679G         | 18   | 5.300G         | 19   | 5.716G         | 20   | 5.469G         |
| 21   | 5.614G         | 22   | 5.465G         | 23   | 5.498G         | 24   | 5.381G         |
| 25   | 5.493G         | 26   | 5.326G         | 27   | 5.632G         | 28   | 5.494G         |
| 29   | 5.635G         | 30   | 5.335G         | 31   | 5.602G         | 32   | 5.525G         |
| 33   | 5.479G         | 34   | 5.388G         | 35   | 5.417G         | 36   | 5.639G         |
| 37   | 5.690G         | 38   | 5.462G         | 39   | 5.678G         | 40   | 5.569G         |
| 41   | 5.710G         | 42   | 5.472G         | 43   | 5.391G         | 44   | 5.572G         |
| 45   | 5.582G         | 46   | 5.500G         | 47   | 5.630G         | 48   | 5.364G         |
| 49   | 5.480G         | 50   | 5.442G         | 51   | 5.345G         | 52   | 5.458G         |
| 53   | 5.368G         | 54   | 5.689G         | 55   | 5.435G         | 56   | 5.369G         |
| 57   | 5.450G         | 58   | 5.299G         | 59   | 5.708G         | 60   | 5.637G         |
| 61   | 5.657G         | 62   | 5.698G         | 63   | 5.490G         | 64   | 5.565G         |
| 65   | 5.399G         | 66   | 5.365G         | 67   | 5.477G         | 68   | 5.631G         |
| 69   | 5.414G         | 70   | 5.685G         | 71   | 5.358G         | 72   | 5.483G         |
| 73   | 5.560G         | 74   | 5.473G         | 75   | 5.356G         | 76   | 5.576G         |
| 77   | 5.503G         | 78   | 5.379G         | 79   | 5.346G         | 80   | 5.570G         |
| 81   | 5.457G         | 82   | 5.382G         | 83   | 5.392G         | 84   | 5.523G         |
| 85   | 5.289G         | 86   | 5.423G         | 87   | 5.478G         | 88   | 5.376G         |
| 89   | 5.520G         | 90   | 5.644G         | 91   | 5.328G         | 92   | 5.419G         |
| 93   | 5.398G         | 94   | 5.360G         | 95   | 5.380G         | 96   | 5.384G         |
| 97   | 5.456G         | 98   | 5.583G         | 99   | 5.606G         | 100  | 5.431G         |



| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_29 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.378G         | 2    | 5.707G         | 3    | 5.336G         | 4    | 5.533G         |
| 5  | 5.678G         | 6    | 5.692G         | 7    | 5.391G         | 8    | 5.491G         |
| 9  | 5.652G         | 10   | 5.662G         | 11   | 5.455G         | 12   | 5.627G         |
| 13   | 5.384G         | 14   | 5.721G         | 15   | 5.686G         | 16   | 5.649G         |
| 17   | 5.633G         | 18   | 5.682G         | 19   | 5.314G         | 20   | 5.676G         |
| 21   | 5.392G         | 22   | 5.536G         | 23   | 5.617G         | 24   | 5.345G         |
| 25   | 5.429G         | 26   | 5.309G         | 27   | 5.725G         | 28   | 5.555G         |
| 29   | 5.368G         | 30   | 5.303G         | 31   | 5.313G         | 32   | 5.653G         |
| 33   | 5.501G         | 34   | 5.648G         | 35   | 5.618G         | 36   | 5.444G         |
| 37   | 5.606G         | 38   | 5.541G         | 39   | 5.591G         | 40   | 5.584G         |
| 41   | 5.548G         | 42   | 5.656G         | 43   | 5.684G         | 44   | 5.560G         |
| 45   | 5.671G         | 46   | 5.590G         | 47   | 5.428G         | 48   | 5.611G         |
| 49   | 5.435G         | 50   | 5.481G         | 51   | 5.420G         | 52   | 5.558G         |
| 53   | 5.667G         | 54   | 5.664G         | 55   | 5.494G         | 56   | 5.526G         |
| 57   | 5.502G         | 58   | 5.640G         | 59   | 5.403G         | 60   | 5.389G         |
| 61   | 5.365G         | 62   | 5.615G         | 63   | 5.569G         | 64   | 5.382G         |
| 65   | 5.413G         | 66   | 5.593G         | 67   | 5.321G         | 68   | 5.547G         |
| 69   | 5.412G         | 70   | 5.556G         | 71   | 5.724G         | 72   | 5.691G         |
| 73   | 5.426G         | 74   | 5.497G         | 75   | 5.621G         | 76   | 5.646G         |
| 77   | 5.390G         | 78   | 5.306G         | 79   | 5.634G         | 80   | 5.474G         |
| 81   | 5.610G         | 82   | 5.605G         | 83   | 5.544G         | 84   | 5.537G         |
| 85   | 5.409G         | 86   | 5.424G         | 87   | 5.438G         | 88   | 5.553G         |
| 89   | 5.425G         | 90   | 5.645G         | 91   | 5.351G         | 92   | 5.397G         |
| 93   | 5.399G         | 94   | 5.512G         | 95   | 5.469G         | 96   | 5.465G         |
| 97   | 5.575G         | 98   | 5.369G         | 99   | 5.717G         | 100  | 5.393G         |

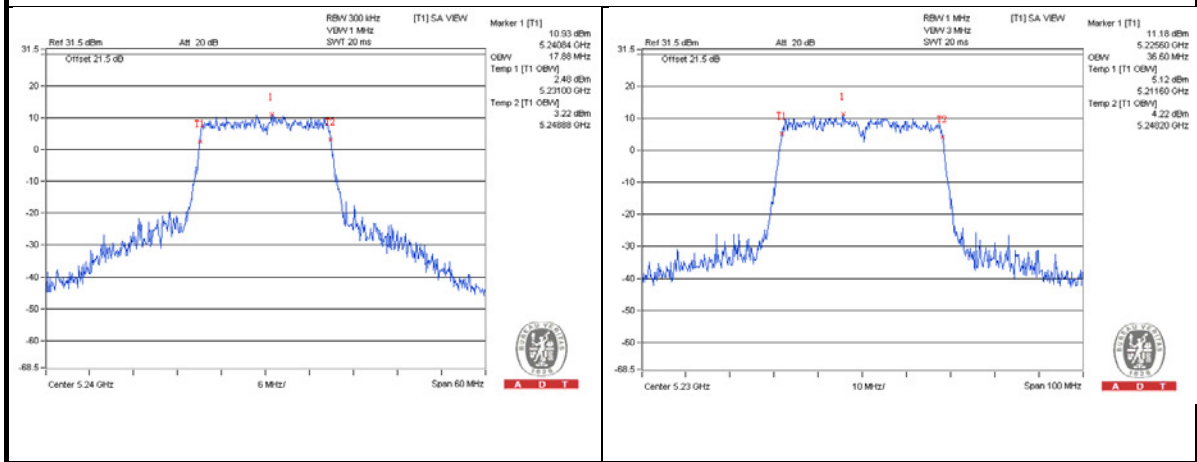


| Hopping Frequency Sequence Name: HOP_FREQ_SEQ_30 |                |      |                |      |                |      |                |
|--|----------------|------|----------------|------|----------------|------|----------------|
| SEQ#   | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) | SEQ# | Frequency (Hz) |
| 1  | 5.450G         | 2    | 5.707G         | 3    | 5.552G         | 4    | 5.661G         |
| 5  | 5.634G         | 6    | 5.557G         | 7    | 5.562G         | 8    | 5.421G         |
| 9  | 5.469G         | 10   | 5.614G         | 11   | 5.510G         | 12   | 5.522G         |
| 13   | 5.350G         | 14   | 5.711G         | 15   | 5.578G         | 16   | 5.519G         |
| 17   | 5.451G         | 18   | 5.463G         | 19   | 5.513G         | 20   | 5.453G         |
| 21   | 5.621G         | 22   | 5.668G         | 23   | 5.345G         | 24   | 5.341G         |
| 25   | 5.479G         | 26   | 5.426G         | 27   | 5.523G         | 28   | 5.628G         |
| 29   | 5.688G         | 30   | 5.491G         | 31   | 5.375G         | 32   | 5.433G         |
| 33   | 5.608G         | 34   | 5.560G         | 35   | 5.573G         | 36   | 5.480G         |
| 37   | 5.351G         | 38   | 5.535G         | 39   | 5.559G         | 40   | 5.666G         |
| 41   | 5.542G         | 42   | 5.329G         | 43   | 5.613G         | 44   | 5.691G         |
| 45   | 5.544G         | 46   | 5.347G         | 47   | 5.493G         | 48   | 5.492G         |
| 49   | 5.684G         | 50   | 5.401G         | 51   | 5.434G         | 52   | 5.658G         |
| 53   | 5.681G         | 54   | 5.572G         | 55   | 5.410G         | 56   | 5.394G         |
| 57   | 5.577G         | 58   | 5.495G         | 59   | 5.319G         | 60   | 5.384G         |
| 61   | 5.386G         | 62   | 5.662G         | 63   | 5.377G         | 64   | 5.484G         |
| 65   | 5.678G         | 66   | 5.364G         | 67   | 5.616G         | 68   | 5.460G         |
| 69   | 5.558G         | 70   | 5.419G         | 71   | 5.618G         | 72   | 5.629G         |
| 73   | 5.305G         | 74   | 5.471G         | 75   | 5.518G         | 76   | 5.541G         |
| 77   | 5.505G         | 78   | 5.567G         | 79   | 5.424G         | 80   | 5.565G         |
| 81   | 5.366G         | 82   | 5.644G         | 83   | 5.369G         | 84   | 5.462G         |
| 85   | 5.392G         | 86   | 5.397G         | 87   | 5.344G         | 88   | 5.598G         |
| 89   | 5.624G         | 90   | 5.556G         | 91   | 5.423G         | 92   | 5.509G         |
| 93   | 5.301G         | 94   | 5.379G         | 95   | 5.719G         | 96   | 5.663G         |
| 97   | 5.506G         | 98   | 5.532G         | 99   | 5.571G         | 100  | 5.709G         |

9. APPENDIX-B

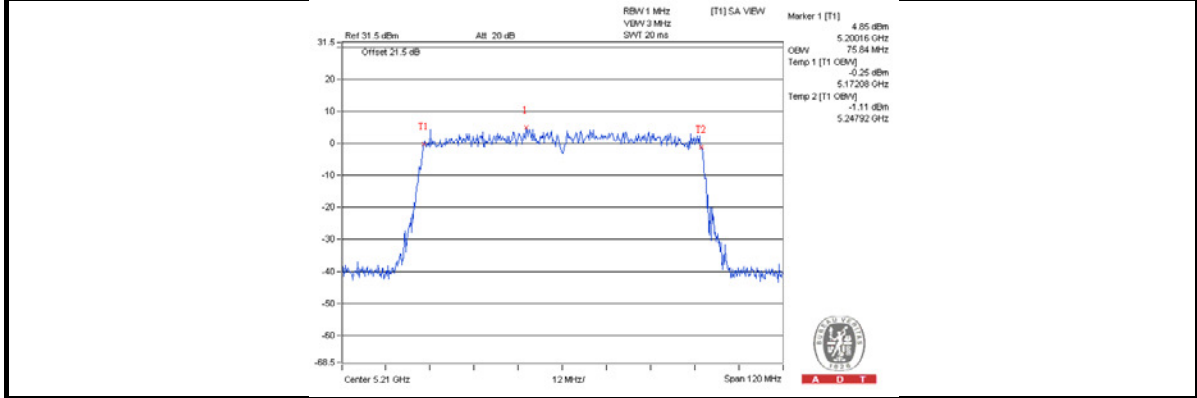
**BAND EDGE AT NEARBY DFS BAND**

1) Test results demonstrating last channel (99% OBW) shall not exceed the band edge on 5150~5250MHz.



**EUT (Master) links with client on 11ac (VHT20) mode**

**EUT (Master) links with client on 11ac (VHT40) mode**



**EUT (Master) links with client on 11ac (VHT80) mode**

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