



# DFS TEST REPORT

**REPORT NO.:** RF990714C11A-1

**MODEL NO.:** HB557, HSTNN-QR02

**FCC ID:** T5U-HB557

**RECEIVED:** Sep. 20, 2010

**TESTED:** Sep. 20 ~ Sep. 24, 2010

**ISSUED:** Sep. 27, 2010

**APPLICANT:** Quanta Microsystems, Inc.

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**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)  
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## 1. LAB DECLARATION

**PRODUCT:** Wireless HDMI Receiver, TV Adaptor

**MODEL:** HB557, HSTNN-QR02

**BRAND:** QMI, HP

**APPLICANT:** Quanta Microsystems, Inc.

**TEST SAMPLE:** ENGINEERING SAMPLE

**TESTED:** Sep. 20 ~ Sep. 24, 2010

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

**FCC 06-96**

The above equipment (Model: HB557) 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.

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**APPROVED BY** : Gary Chang , **DATE:** Sep. 27, 2010  
Gary Chang / Assistant 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	✓	✓

**NOTE:** The Radar detection function is implemented in Rx device and Tx will not initiate any transmission without the command from Rx device

### 2.2 EUT SOFTWARE AND FIRMWARE VERSION

**TABLE 2: THE EUT SOFTWARE/FIRMWARE VERSION**

NO.	PRODUCT	MODEL NO.	SOFTWARE/FIRMWARE VERSION
1	Wireless HDMI Receiver, TV Adaptor	HB557, HSTNN-QR02	MAC : 3.1.44 AMN : 1.5.23 QMI : 0.7.8.2

### 2.3 DESCRIPTION OF AVAILABLE ANTENNAS TO THE EUT

**TABLE 3: ANTENNA LIST**

Ant NO.	Antenna Type	Operation Frequency Range(MHz)	Max. Gain (dBi)	Remark
1	PRINTED	5250~5350	3.4	-
		5470~5725	3.5	

## 2.4 EUT MAXIMUM AND MINIMUM CONDUCTED POWER

**TABLE 4: THE MEASURED CONDUCTED OUTPUT POWER**

Transmission 40MHz

ANT NO.	FREQUENCY BAND (MHz)	MAX. POWER		MIN. POWER	
		OUTPUT POWER(dBm)	OUTPUT POWER(mW)	OUTPUT POWER(dBm)	OUTPUT POWER(mW)
1	5250~5350	13.2	20.9	10.0	10.0
1	5470~5725	13.2	20.9	10.0	10.0

## 2.5 EUT MAXIMUM AND MINIMUM E.I.R.P. POWER

**TABLE 5: THE E.I.R.P OUTPUT POWER LIST**

Transmission 40MHz

ANT NO.	FREQUENCY BAND (MHz)	MAX. POWER		MIN. POWER	
		OUTPUT POWER(dBm)	OUTPUT POWER(mW)	OUTPUT POWER(dBm)	OUTPUT POWER(mW)
1	5250~5350	16.6	45.7	13.4	21.9
1	5470~5725	16.7	46.8	13.5	22.4

## 2.6 STATEMENT OF MAUNFACTURER

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 1 and 2 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
Uniform Spreading	✓	Not required	Not required
U-NII Detection Bandwidth	✓	Not required	✓

**TABLE 7: APPLICABILITY OF DFS REQUIREMENTS DURING NORMAL OPERATION**

REQUIREMENT	OPERATIONAL MODE		
	MASTER	CLIENT WITHOUT RADAR DETECTION	CLIENT WITH RADAR DETECTION
DFS Detection Threshold	✓	Not required	✓
Channel Closing Transmission Time	✓	✓	✓
Channel Move Time	✓	✓	✓
U-NII Detection Bandwidth	✓	Not required	✓

### 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 (SEE Note 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm

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

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

**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 See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 80% of the UNII 99% transmission power bandwidth. See Note 3.

**Note 1:** The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows:

- For the Short Pulse Radar Test Signals this instant is the end of the Burst.
- For the Frequency Hopping radar Test Signal, this instant is the end of the last radar Burst generated.
- For the Long Pulse Radar Test Signal this instant is the end of the 12 second period defining the Radar Waveform.

**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 1 is used and 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
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

**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 1: TEST INSTRUMENTS LIST.**

DESCRIPTION & MANUFACTURER	MODEL NO.	BRAND	CALIBRATED UNTIL
R&S Spectrum analyzer	FSP40	R&S	Aug. 07, 2011
Signal generator	8645A	Agilent	Jun. 07, 2011
Oscilloscope	TDS 5104	Tektronix	Sep. 02, 2011
Control PC	Pavilion a320d	HP	--
Horn antenna	BBHA 9120D	SCHWARZBECK	Dec. 27, 2010
Horn antenna	BBHA 9120D	SCHWARZBECK	Jan. 04, 2011
TV	SMT-32KE5	SANYO	--
PLAYSTATION 3	Playstation 3	SONY	--

### 4.2 DESCRIPTION OF SUPPORT UNITS

**TABLE 2: SUPPORT UNIT INFORMATION**

NO.	PRODUCT	BRAND	MODEL NO.	ID	SPEC.
1	Wireless HDMI Transmitter	HP	HSTNN-QR01	T5U-HB556	ANT Gain : 5dB

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

**TABLE 3: SOFTWARE/FIRMWARE INFORMATION**

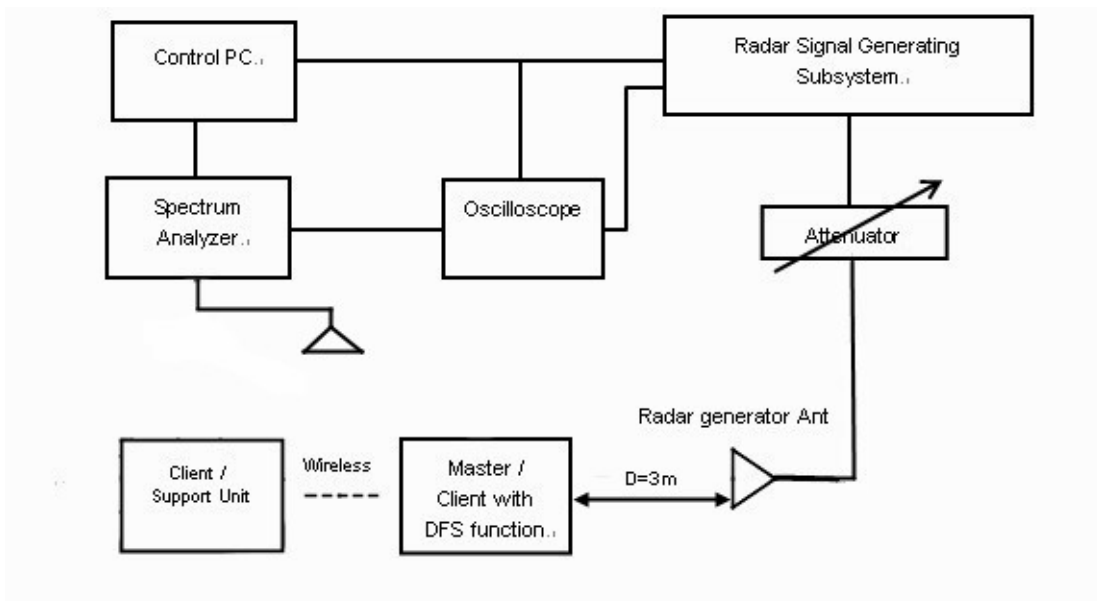
NO.	PRODUCT	MODEL NO.	SOFTWARE/FIRMWARE VERSION
1.	Wireless HDMI Transmitter	HSTNN-QR01	MAC : 3.1.44 APP : 1.5.23 QMI : 0.7.8.2

## 5. TEST PROCEDURE

### 5.1 BV ADT DFS MEASUREMENT SYSTEM:

A complete BV ADT DFS Measurement System consists of two subsystems: (1) the Radar Signal Generating Subsystem and (2) the Traffic Monitoring Subsystem. 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 BV ADT DFS Measurement System



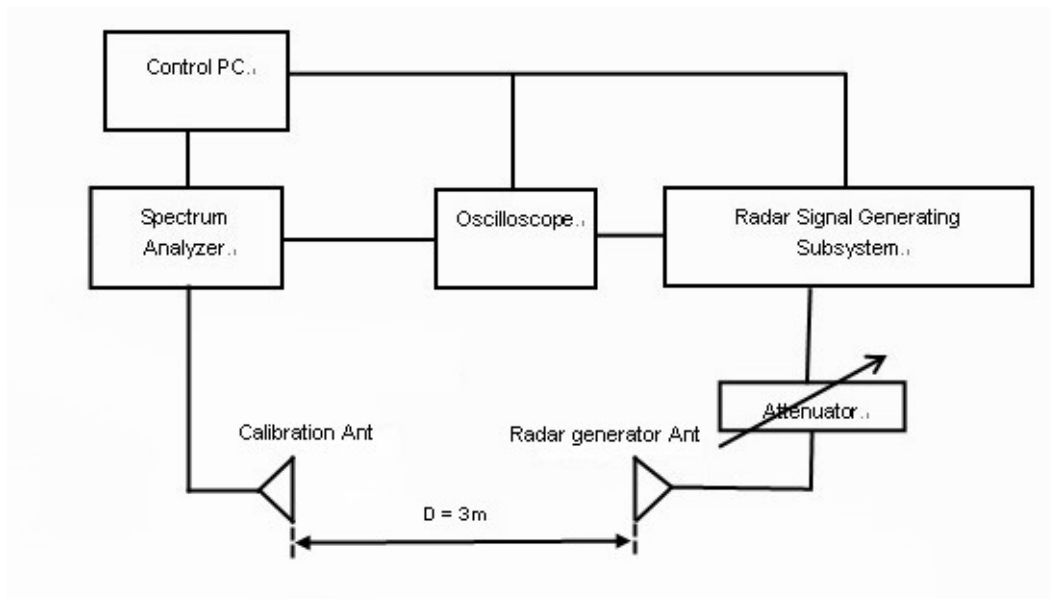
The test transmission will always be from the Master Device to the Client Device. While the Client device is set up to associate with the Master device and play the MPEG file (6  $\frac{1}{2}$  Magic Hours) from Master device, the designated MPEG test file and instructions are located at:

<http://ntiacsd.ntia.doc.gov/dfs/>.

## 5.2 CALIBRATION OF DFS DETECTION THRESHOLD LEVEL:

The measured channel is 5510MHz , The radar signal was the same as transmitted channels, and injected to Master or Client Device to measure Radar Detection, the channel closing transmission time and channel move time. The Calibration antenna gain is 13 dBi , cable loss is 2 dB and required detection threshold is -51 dBm.

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

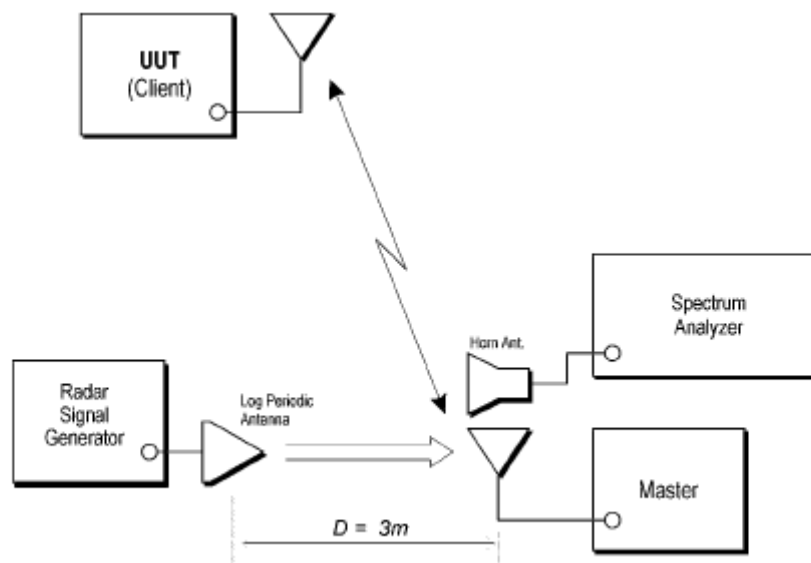


### 5.3 DEVIATION FROM TEST STANDARD

No deviation.

### 5.4 RADIATED TEST SETUP CONFIGURATION

Client with injection at the Master



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

## 6. TEST RESULTS

### 6.1 SUMMARY OF TEST RESULTS

CLAUSE	TEST PARAMETER	REMARKS	PASS/FAIL
15.407	DFS Detection Threshold	Applicable	Pass
15.407	U-NII Detection Bandwidth	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	Uniform Spreading	Applicable	Pass
15.407	DFS Detection Threshold	Applicable	Pass

## 6.2 DETELED TEST RESULTS

### 6.2.1 TEST MODE: DEVICE OPERATING IN CLIENT WITHOUT RADAR DETECTION MODE

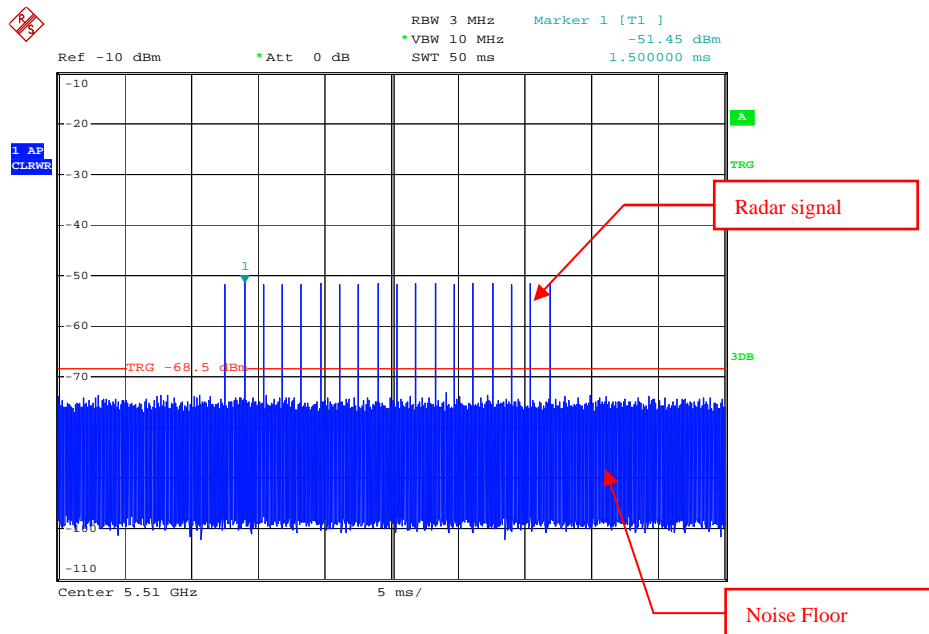
Master with injection at the Master. (Radar Test Waveforms are injected into the Master)

#### 6.2.1.1 DFS DETECTION THRESHOLD

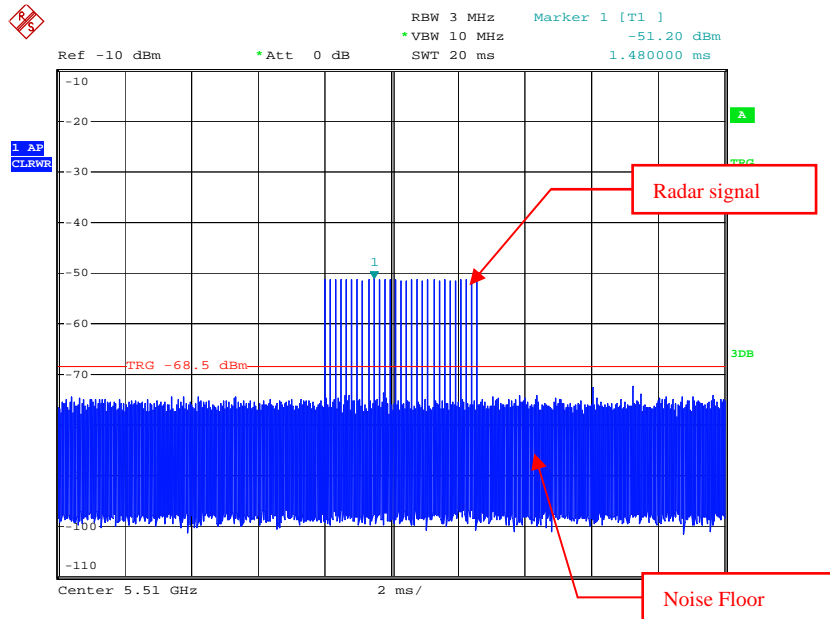
##### Calibration:

For a detection threshold level of  $-62\text{dBm}$  and the reference antenna gain is  $13\text{ dBi}$ , cable loss is  $2\text{ dB}$  and required detection threshold is  $-51\text{ dBm}$  ( $= -62-2+13$ ).

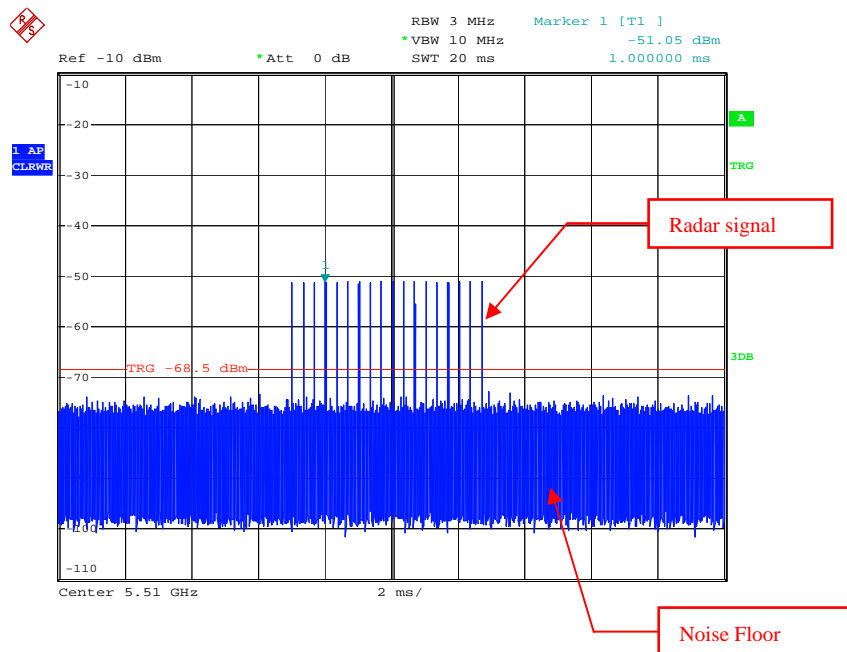
#### Radar Signal 1



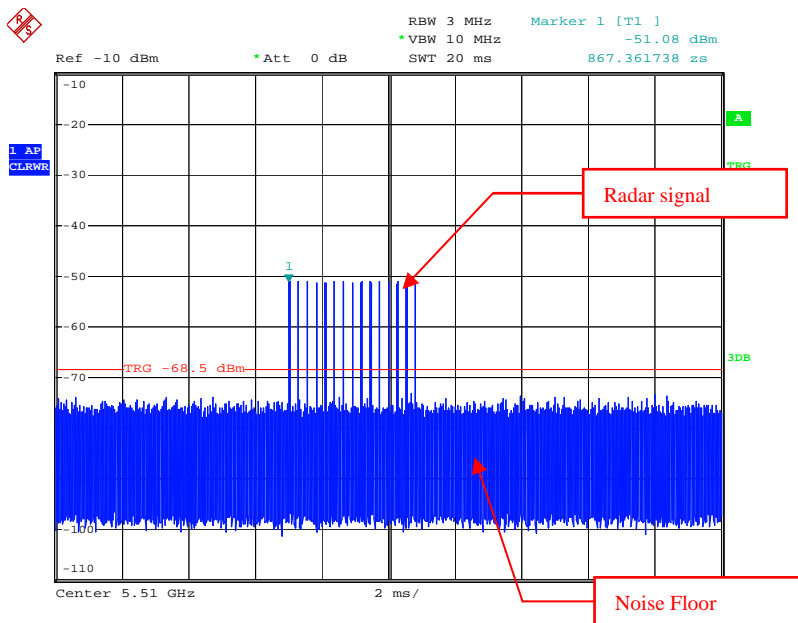
## Radar Signal 2



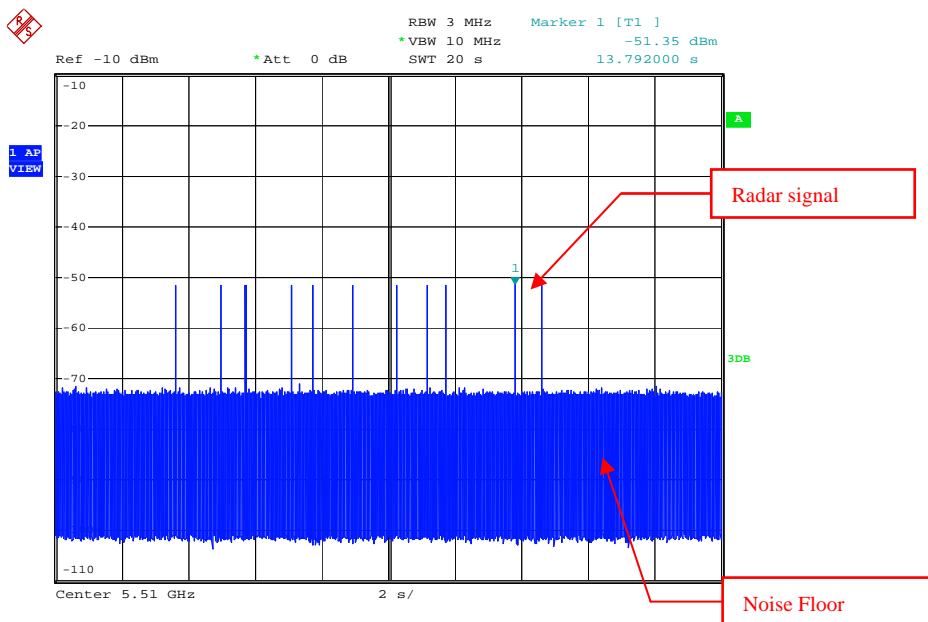
## Radar Signal 3



### Radar Signal 4

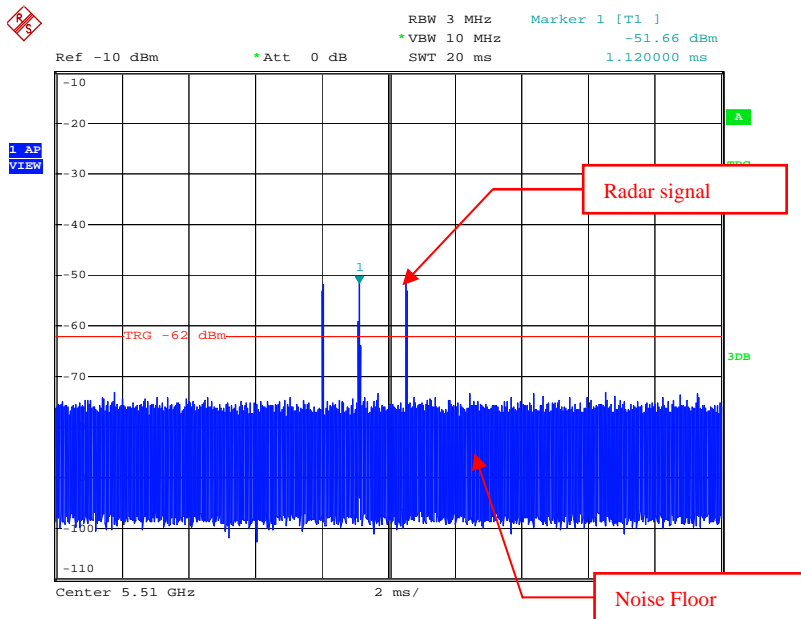


### Radar Signal 5

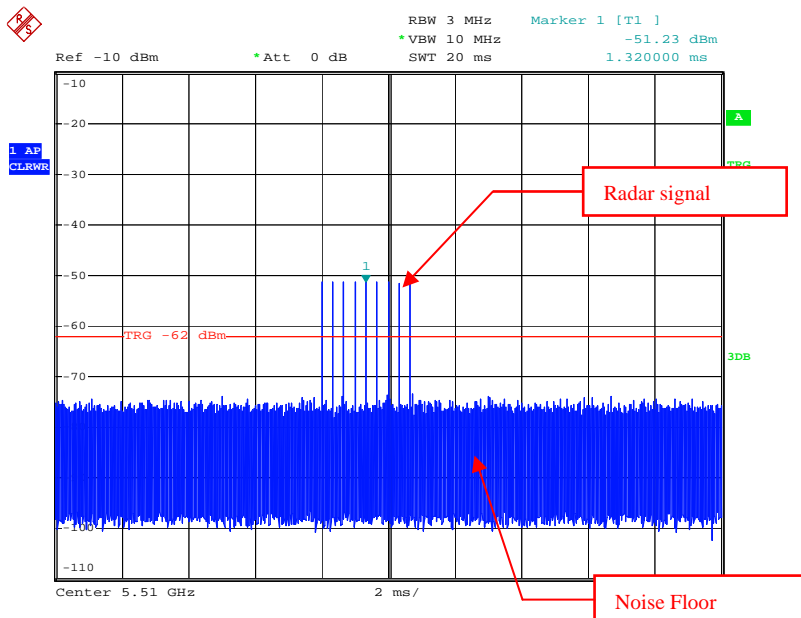




### Single Burst of Radar Signal 5

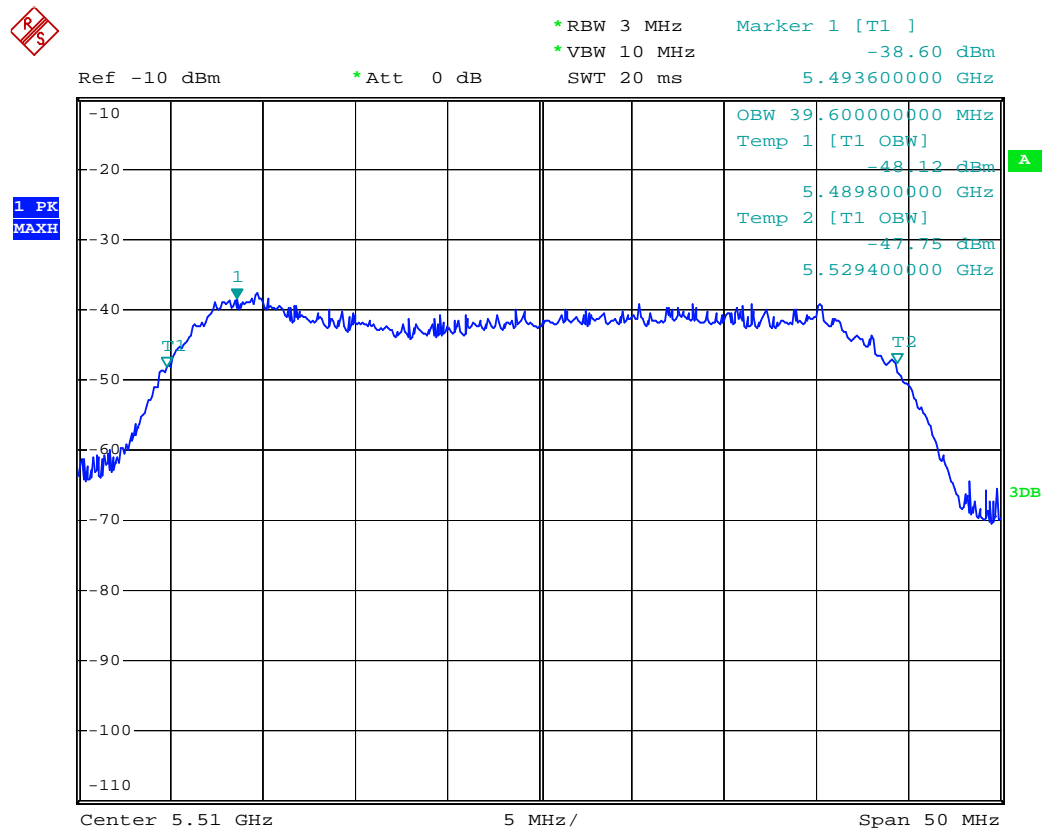


### Radar Signal 6



## 6.2.1.2 U-NII DETECTION BANDWIDTH

Transmission 40MHz



U-NII 99% Channel bandwidth

**Detection Bandwidth Test – Transmission 40MHz**

EUT Frequency: 5510MHz  
 EUT 99% Power bandwidth: 39.6MHz  
 Detection bandwidth limit (80% of EUT 99% Power bandwidth): 31.68MHz  
 Detection bandwidth (5530(FH) – 5490(FL)) : 40MHz  
 Test Result : PASS

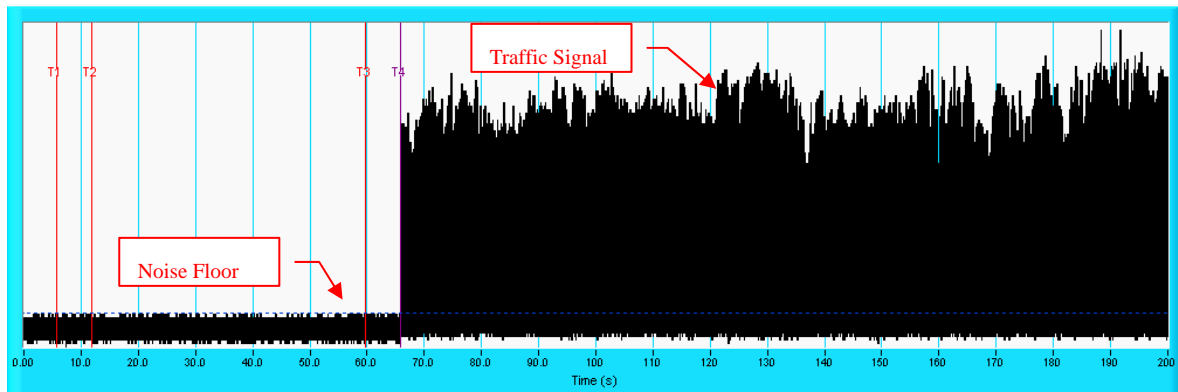
Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5489	N	N	Y	N	N	Y	N	N	Y	N	30
5490(FL)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5491	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5492	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5493	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5494	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5495	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5496	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5497	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5498	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5499	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5500	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5501	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5502	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5503	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5504	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5505	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5506	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5507	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5508	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5509	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5510	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5511	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5512	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5513	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5514	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5515	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5516	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5517	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5518	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5519	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5520	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5521	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5522	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5523	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5524	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5525	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5526	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5527	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5528	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5529	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
5530(FH)	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	90
5531	N	Y	Y	N	N	Y	N	Y	N	N	40

### 6.2.1.2 CHANNEL AVAILABILITY CHECK TIME

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

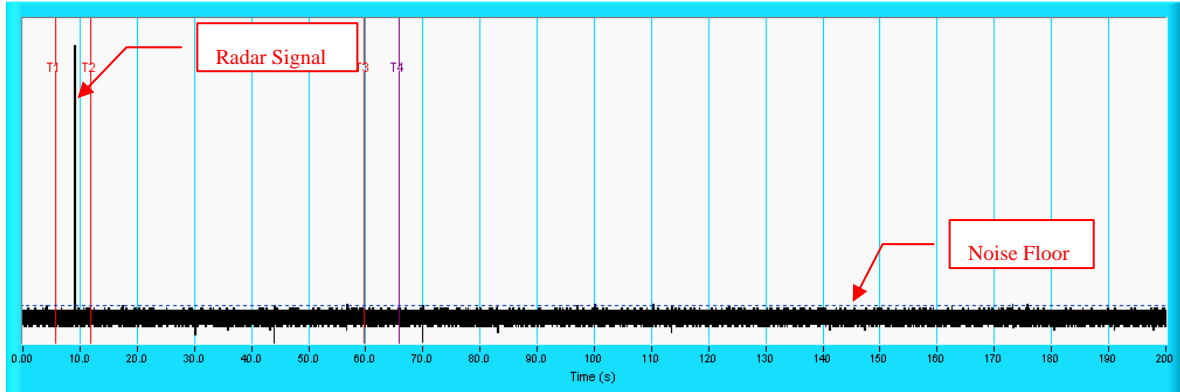
Timing of Radar Signal	Observation	
	UUT	Spectrum Analyzer
Within 1 to 6 second	Detected	No transmissions
Within 54 to 60 second	Detected	No transmissions

#### Initial Channel Availability Check Time



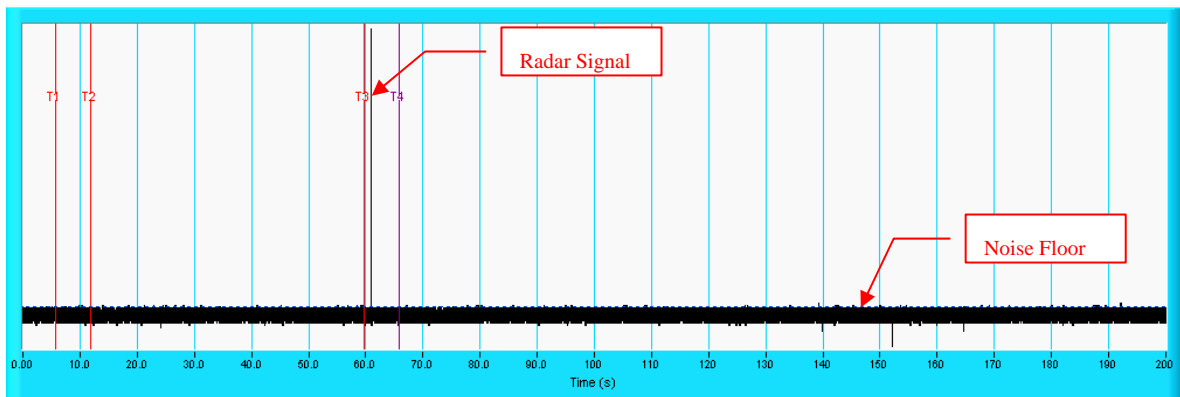
**NOTE:** T1 denotes the end of power-up time period is 6 second. T4 denotes the end of Channel Availability Check time is 66 second. Channel Availability Check time is equal to ( T4 – T1) 60 seconds.

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



**NOTE:** T1 denotes the end of power up time period is 6 second. T2 denotes 14 second , the radar burst was commenced within a 9 second window starting from the end of power-up sequence. T4 denotes the 66 second.

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

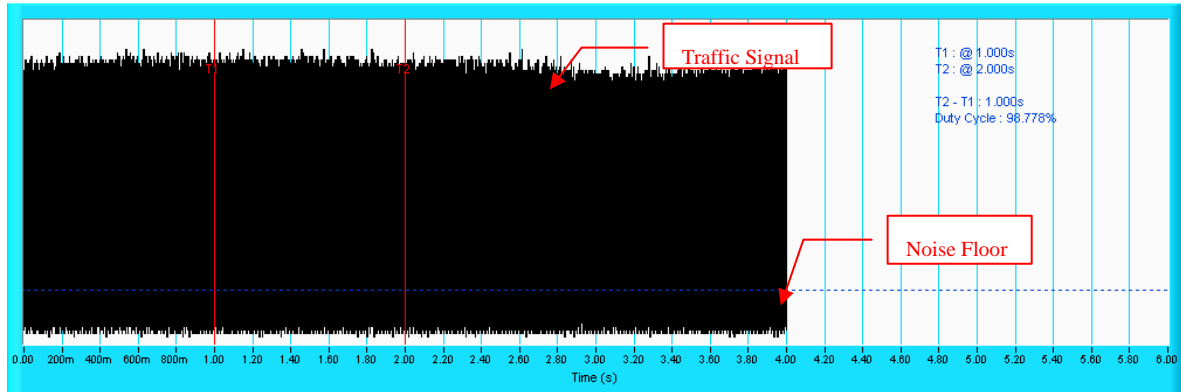


**NOTE:** T1 denotes the end of power up time period is 6 second. T3 denotes 61 second and radar burst was commenced within 54<sup>th</sup> second to 60<sup>th</sup> second window starting from the end of power-up sequence. T4 denotes the 66 second.

### 6.2.1.3 CHANNEL CLOSING TRANSMISSION AND CHANNEL MOVE TIME

#### WLAN TRAFFIC

Transmission 40MHz



## Transmission 40MHz

**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	1	1428	18	30	96.7
2	1-5	150-230	23-29	30	93.3
3	6-10	200-500	16-18	30	96.7
4	11-20	200-500	12-16	30	96.7
Aggregate (Radar Types 1-4)				120	95.8

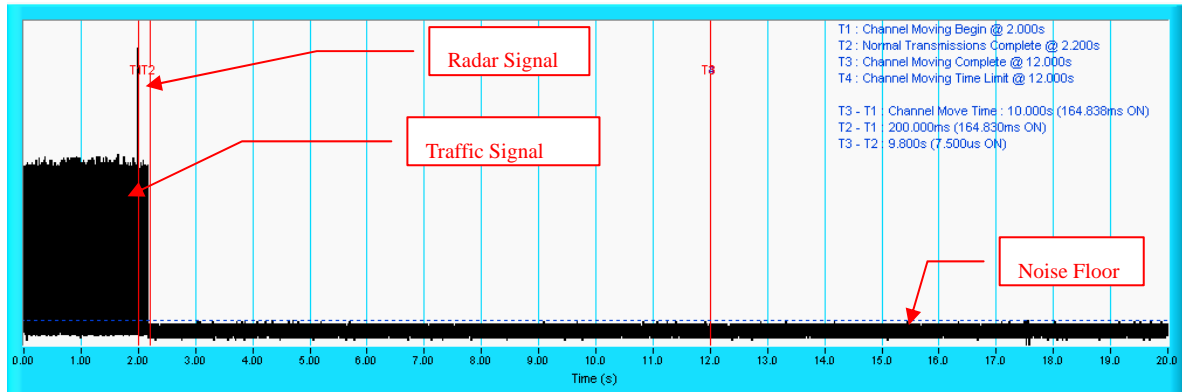
**Table 2: Long Pulse Radar Test Waveform**

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	100

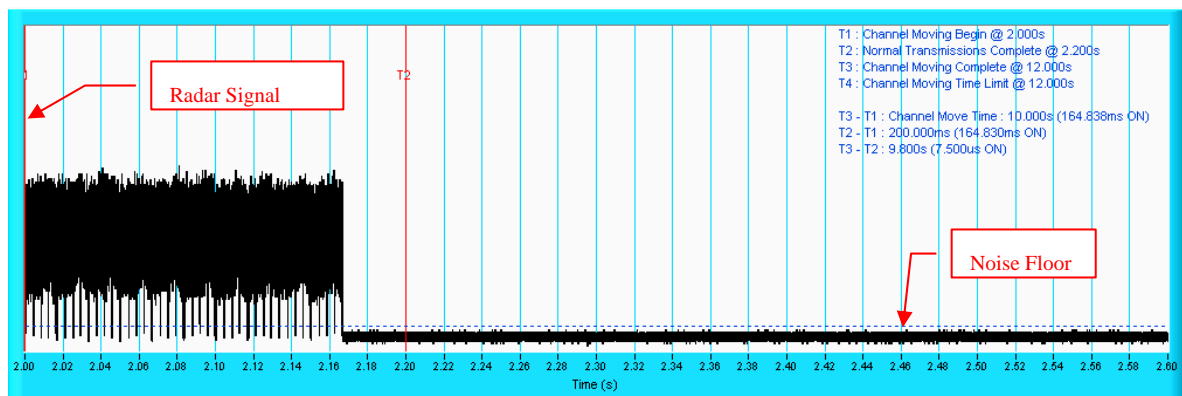
**Table 3: Frequency Hopping Radar Test Waveform**

Radar Type	Pulse Width (µsec)	PRI (µsec)	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	96.7

## Transmission 40MHz Radar signal 1



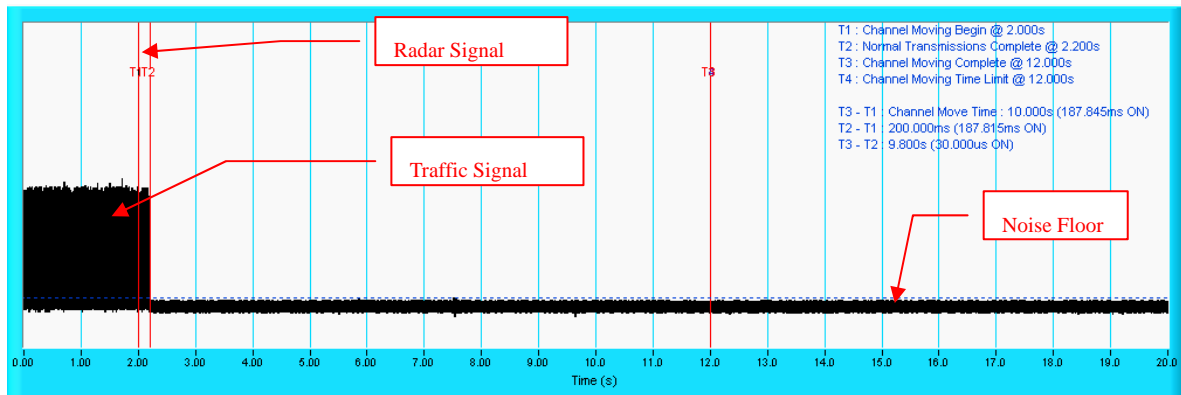
**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.



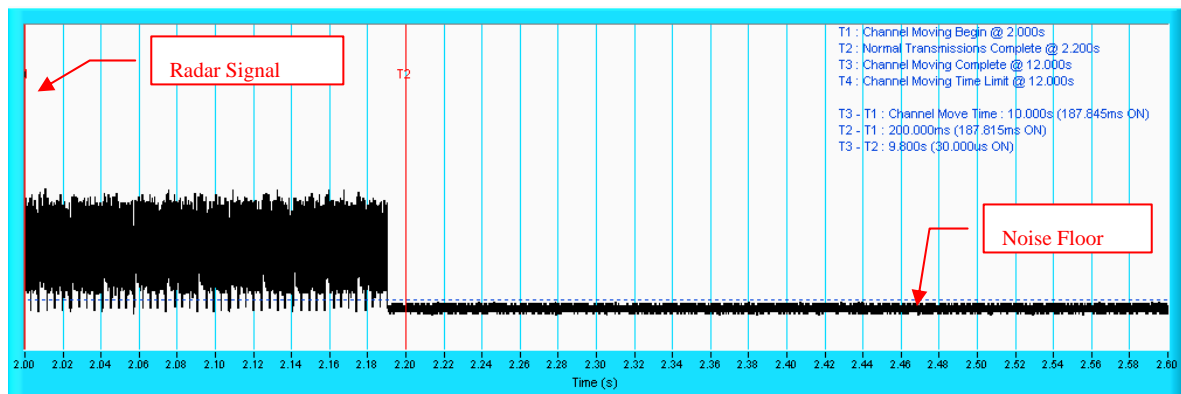
**NOTE:** An expanded plot for the device vacates the channel in the required 600ms



## Radar signal 2

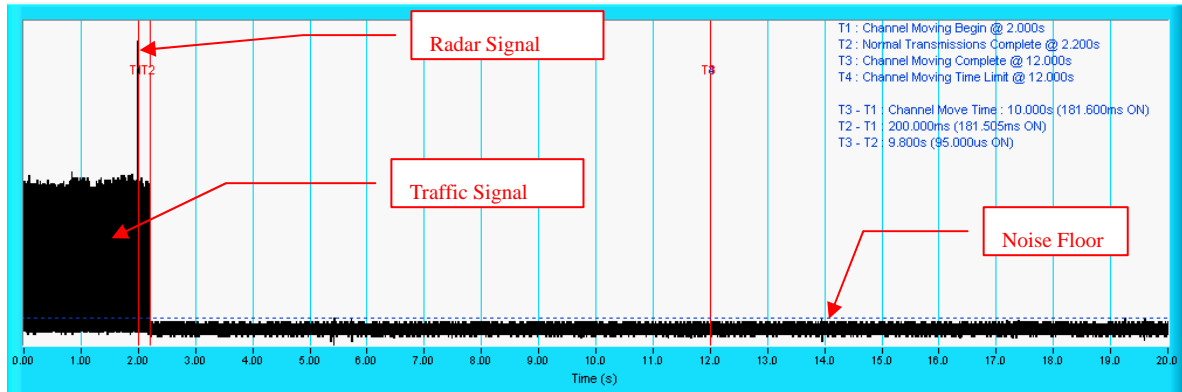


**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

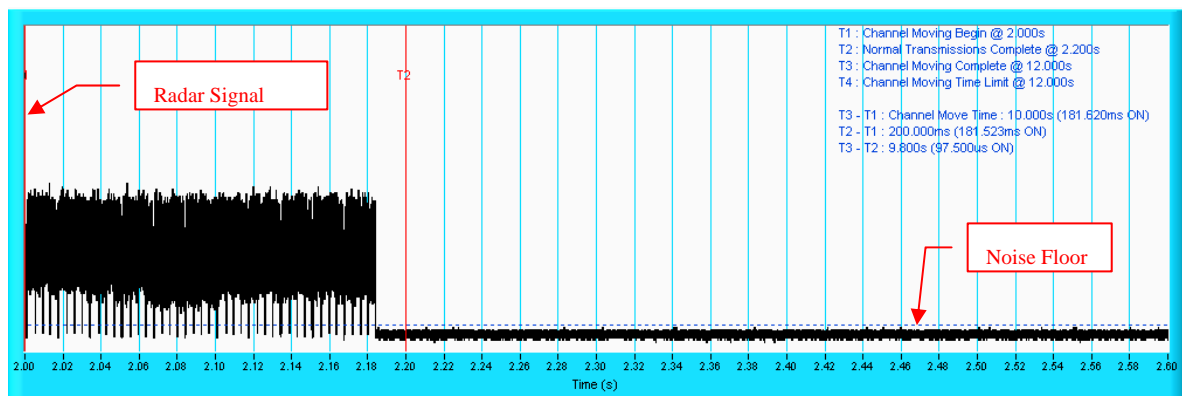


**NOTE:** An expanded plot for the device vacates the channel in the required 600ms

### Radar signal 3

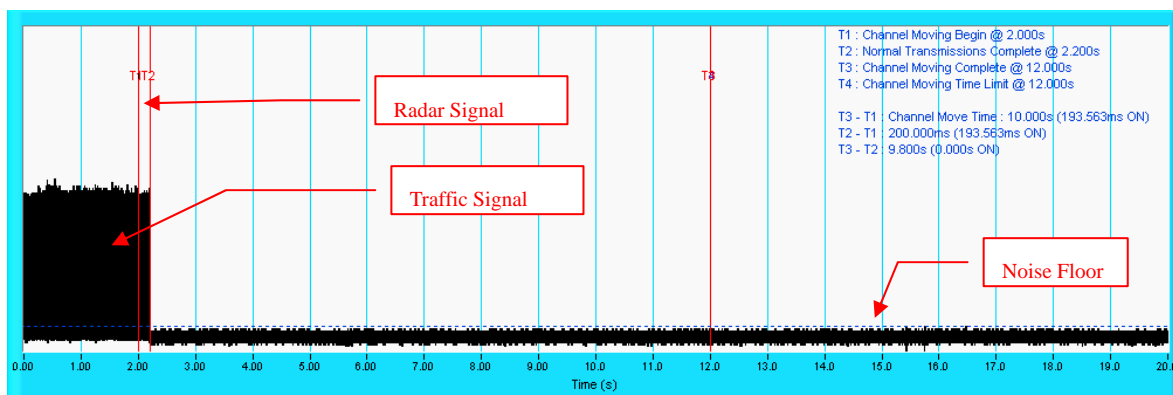


**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

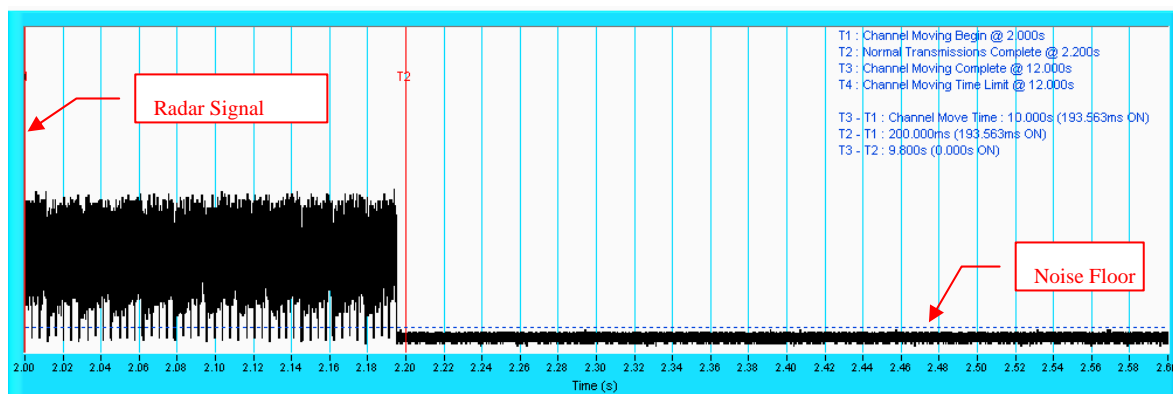


**NOTE:** An expanded plot for the device vacates the channel in the required 600ms

## Radar signal 4



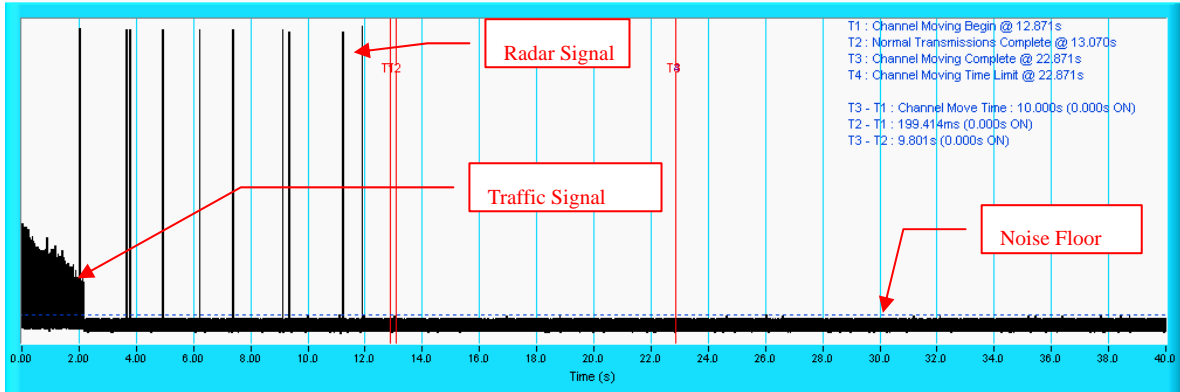
**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.



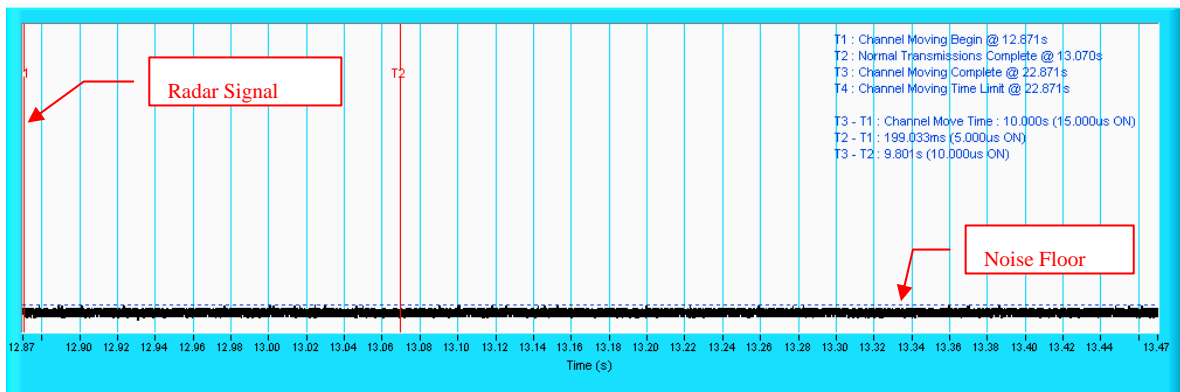
**NOTE:** An expanded plot for the device vacates the channel in the required 600ms

## Radar signal 5

I

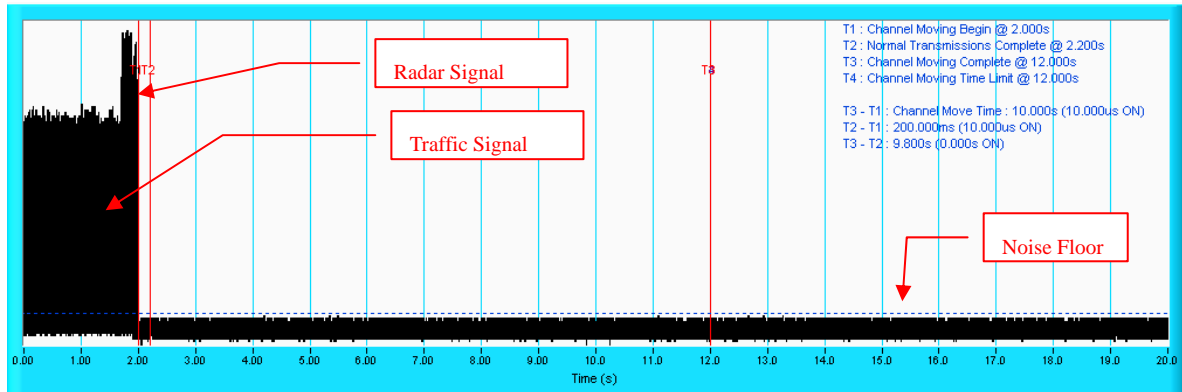


**NOTE:** T1 denotes the start of Channel Move Time upon the end of the last Radar burst. T2 denotes the data transmission time of 200ms from T1. T3 denotes the end of Channel Move Time. T4 denotes the 10 second from T1 to observe the aggregate duration of transmissions.

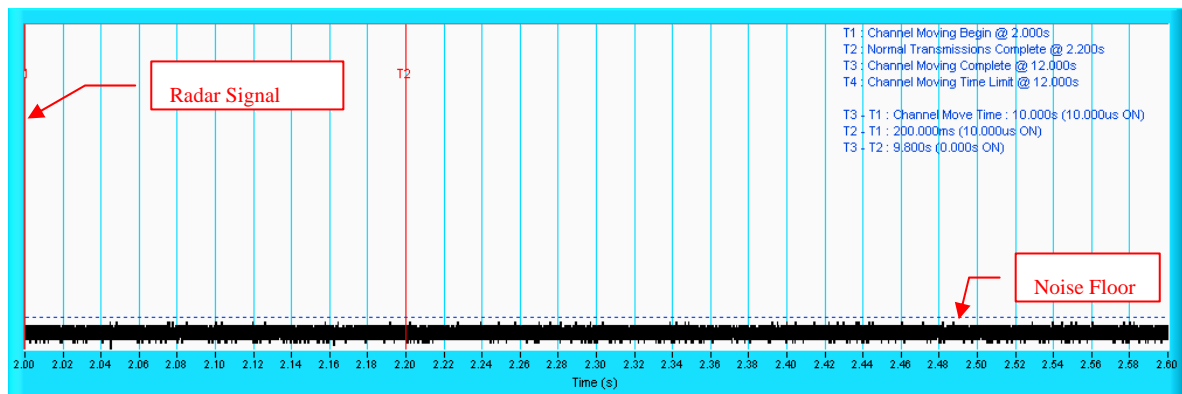


**NOTE:** An expanded plot for the device vacates the channel in the required 600ms

## Radar signal 6



**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.



**NOTE:** An expanded plot for the device vacates the channel in the required 600ms



### Transmission 40MHz

Type 1 Radar Statistical Performances				
Trial #	Pulses per Burst	Pulse Width (s)	PRI (s)	Detection
1	18	1.0u	1.428m	Yes
2	18	1.0u	1.428m	Yes
3	18	1.0u	1.428m	Yes
4	18	1.0u	1.428m	Yes
5	18	1.0u	1.428m	Yes
6	18	1.0u	1.428m	Yes
7	18	1.0u	1.428m	Yes
8	18	1.0u	1.428m	Yes
9	18	1.0u	1.428m	Yes
10	18	1.0u	1.428m	Yes
11	18	1.0u	1.428m	Yes
12	18	1.0u	1.428m	Yes
13	18	1.0u	1.428m	Yes
14	18	1.0u	1.428m	Yes
15	18	1.0u	1.428m	Yes
16	18	1.0u	1.428m	Yes
17	18	1.0u	1.428m	Yes
18	18	1.0u	1.428m	Yes
19	18	1.0u	1.428m	Yes
20	18	1.0u	1.428m	Yes
21	18	1.0u	1.428m	Yes
22	18	1.0u	1.428m	Yes
23	18	1.0u	1.428m	Yes
24	18	1.0u	1.428m	Yes
25	18	1.0u	1.428m	No
26	18	1.0u	1.428m	Yes
27	18	1.0u	1.428m	Yes
28	18	1.0u	1.428m	Yes
29	18	1.0u	1.428m	Yes
30	18	1.0u	1.428m	Yes

Detection Rate: 96.7 %



<b>Type 2 Radar Statistical Performances</b>				
<b>Trial #</b>	<b>Pulses per Burst</b>	<b>Pulse Width (s)</b>	<b>PRI (s)</b>	<b>Detection</b>
1	28	2.8u	195.0u	Yes
2	28	3.9u	170.0u	Yes
3	29	3.9u	184.0u	Yes
4	29	2.9u	184.0u	Yes
5	27	1.3u	198.0u	Yes
6	27	3.9u	180.0u	Yes
7	28	1.8u	157.0u	Yes
8	24	4.2u	159.0u	Yes
9	26	4.7u	198.0u	Yes
10	26	1.9u	191.0u	Yes
11	28	4.9u	153.0u	Yes
12	26	3.1u	175.0u	Yes
13	28	1.4u	202.0u	Yes
14	28	3.5u	191.0u	Yes
15	28	1.5u	185.0u	Yes
16	24	4.3u	155.0u	Yes
17	27	4.4u	230.0u	Yes
18	25	1.2u	194.0u	No
19	29	4.9u	206.0u	Yes
20	27	3.1u	178.0u	No
21	23	3.3u	167.0u	Yes
22	27	1.0u	227.0u	Yes
23	25	3.9u	190.0u	Yes
24	27	3.5u	188.0u	Yes
25	23	2.6u	172.0u	Yes
26	25	3.7u	155.0u	Yes
27	23	2.7u	155.0u	Yes
28	25	2.7u	168.0u	Yes
29	26	4.4u	162.0u	Yes
30	25	3.3u	169.0u	Yes
				Detection Rate: 93.3 %



<b>Type 3 Radar Statistical Performances</b>				
<b>Trial #</b>	<b>Pulses per Burst</b>	<b>Pulse Width (s)</b>	<b>PRI (s)</b>	<b>Detection</b>
1	18	6.3u	418.0u	Yes
2	16	9.9u	396.0u	Yes
3	17	9.6u	212.0u	Yes
4	18	9.9u	437.0u	No
5	17	8.6u	315.0u	Yes
6	18	6.1u	322.0u	Yes
7	16	9.0u	223.0u	Yes
8	17	8.3u	327.0u	Yes
9	16	6.8u	244.0u	Yes
10	17	6.2u	394.0u	Yes
11	16	9.4u	448.0u	Yes
12	17	9.8u	297.0u	Yes
13	18	7.0u	211.0u	Yes
14	17	6.4u	300.0u	Yes
15	17	9.0u	345.0u	Yes
16	17	7.5u	478.0u	Yes
17	17	7.5u	326.0u	Yes
18	17	9.2u	440.0u	Yes
19	17	7.8u	450.0u	Yes
20	18	8.2u	337.0u	Yes
21	18	7.6u	307.0u	Yes
22	18	10.0u	280.0u	Yes
23	16	8.7u	218.0u	Yes
24	18	8.8u	322.0u	Yes
25	17	7.8u	310.0u	Yes
26	17	6.9u	239.0u	Yes
27	16	7.5u	356.0u	Yes
28	18	9.5u	296.0u	Yes
29	17	8.6u	458.0u	Yes
30	17	9.2u	324.0u	Yes
				Detection Rate: 96.7 %





<b>Type 4 Radar Statistical Performances</b>				
<b>Trial #</b>	<b>Pulses per Burst</b>	<b>Pulse Width (s)</b>	<b>PRI (s)</b>	<b>Detection</b>
1	13	18.0u	331.0u	Yes
2	13	19.8u	271.0u	Yes
3	15	16.9u	387.0u	Yes
4	15	12.1u	496.0u	Yes
5	16	15.0u	334.0u	Yes
6	16	16.2u	369.0u	Yes
7	13	13.2u	269.0u	Yes
8	16	17.5u	242.0u	Yes
9	13	16.3u	434.0u	Yes
10	12	12.6u	444.0u	Yes
11	16	19.8u	439.0u	Yes
12	15	12.7u	300.0u	Yes
13	14	13.2u	467.0u	Yes
14	15	18.1u	409.0u	Yes
15	15	16.0u	478.0u	Yes
16	15	16.6u	319.0u	Yes
17	15	15.8u	285.0u	Yes
18	15	17.1u	219.0u	Yes
19	12	19.0u	213.0u	No
20	13	14.4u	372.0u	Yes
21	16	18.1u	410.0u	Yes
22	14	12.2u	353.0u	Yes
23	13	15.7u	482.0u	Yes
24	15	15.4u	316.0u	Yes
25	14	19.8u	334.0u	Yes
26	14	16.0u	213.0u	Yes
27	15	15.4u	295.0u	Yes
28	16	18.0u	402.0u	Yes
29	12	13.1u	361.0u	Yes
30	13	16.3u	400.0u	Yes
<b>Detection Rate: 96.7 %</b>				

<b>Type 5 Radar Statistical Performances</b>		
<b>Trial #</b>	<b>Test Signal Name</b>	<b>Detection</b>
1	LP_Signal_01	Yes
2	LP_Signal_02	Yes
3	LP_Signal_03	Yes
4	LP_Signal_04	Yes
5	LP_Signal_05	Yes
6	LP_Signal_06	Yes
7	LP_Signal_07	Yes
8	LP_Signal_08	Yes
9	LP_Signal_09	Yes
10	LP_Signal_10	Yes
11	LP_Signal_11	Yes
12	LP_Signal_12	Yes
13	LP_Signal_13	Yes
14	LP_Signal_14	Yes
15	LP_Signal_15	Yes
16	LP_Signal_16	Yes
17	LP_Signal_17	Yes
18	LP_Signal_18	Yes
19	LP_Signal_19	Yes
20	LP_Signal_20	Yes
21	LP_Signal_21	Yes
22	LP_Signal_22	Yes
23	LP_Signal_23	Yes
24	LP_Signal_24	Yes
25	LP_Signal_25	Yes
26	LP_Signal_26	Yes
27	LP_Signal_27	Yes
28	LP_Signal_28	Yes
29	LP_Signal_29	Yes
30	LP_Signal_30	Yes
		<b>Detection Rate: 100.0 %</b>

The Long Pulse Radar pattern shown in Annex A.1

<b>Type 6 Radar Statistical Performances</b>		
<b>Trial #</b>	<b>Hopping Frequency Sequence Name</b>	<b>Detection</b>
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	Yes
18	HOP_FREQ_SEQ_18	Yes
19	HOP_FREQ_SEQ_19	Yes
20	HOP_FREQ_SEQ_20	Yes
21	HOP_FREQ_SEQ_21	No
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	Yes
30	HOP_FREQ_SEQ_30	Yes
		<b>Detection Rate: 96.7 %</b>

The Frequency Hopping Radar pattern shown in Annex A.2

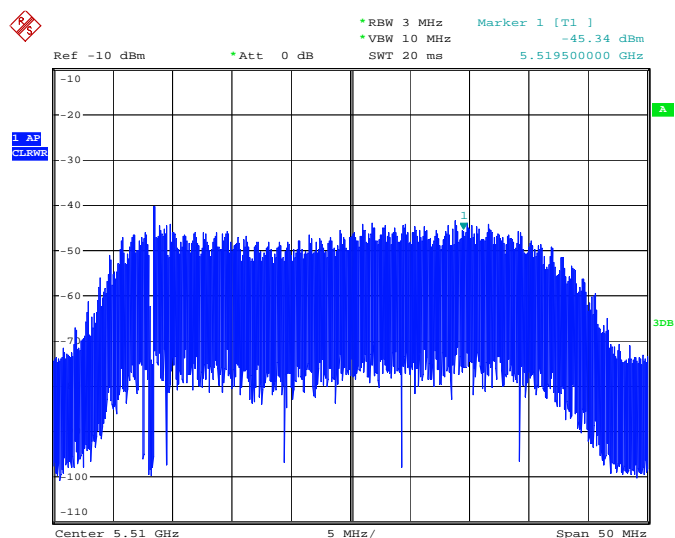
### 6.2.1.5 NON- OCCUPANCY PERIOD

#### Associate test:

During the 30 minutes observation time, UUT did not make any transmissions on a channel after a radar signal was detected on that channel by either the Channel Availability Check or the In-Service Monitoring.

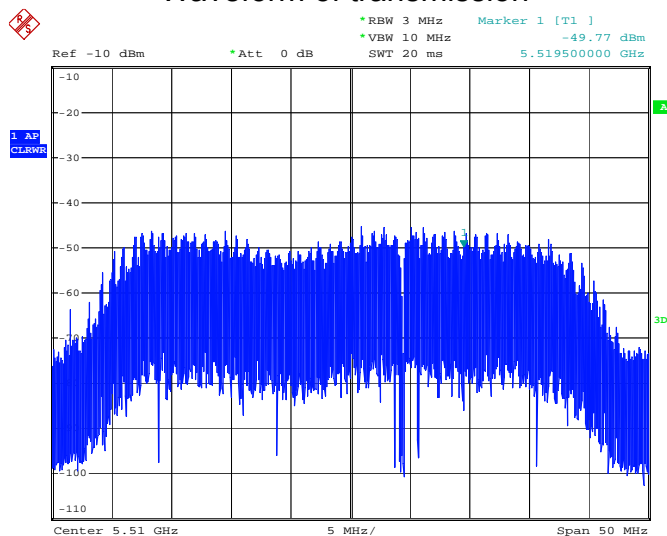
- 1) EUT links up with Client at 5510MHz.

Waveform of EUT links up with Client

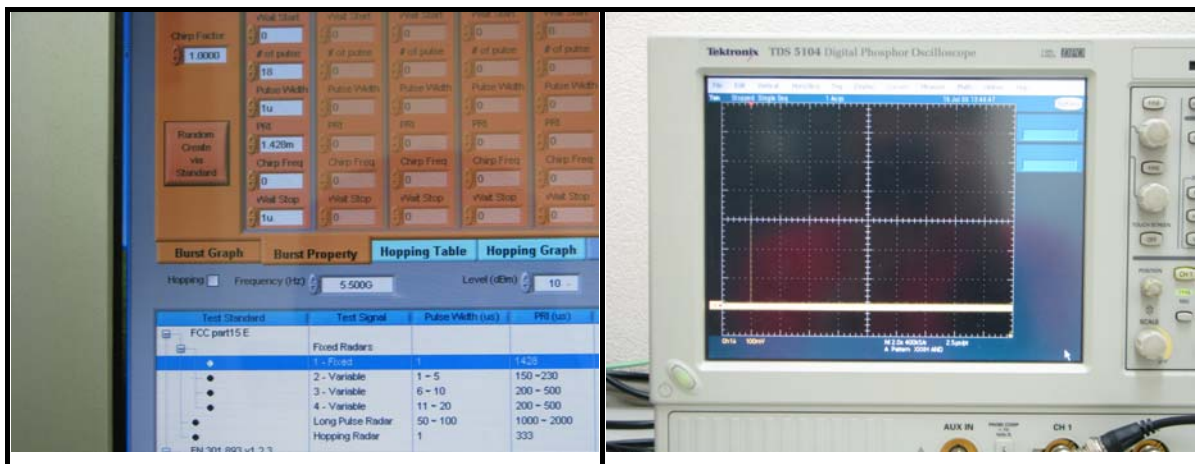


- 2) EUT plays test movie from Client.

Waveform of transmission

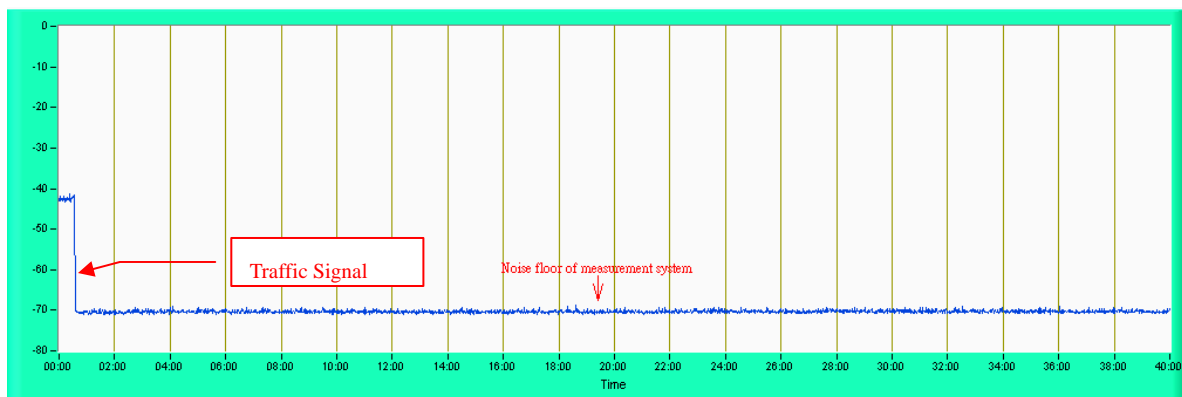


3) Radar 1~6 is used for DFS testing



4) 5510MHz has been monitored in 30 minutes period. In this period, no any transmission occurs.

Plot of 30minutes period



**NOTE:** Test setup are shown on TSup\_T5U-HB557.pdf

### **6.2.1.6 UNIFORM SPREADING**

The intention of the uniform spreading is to provide, on aggregate, a uniform loading of the spectrum. The UUT using the bands 5250 to 5350MHz, 5470 to 5600 MHz, 5650 to 5725 MHz channels so that the probability of selecting a given channel shall be the same for channels.

The UUT will select channel by random mode and remember this channel when detect radar signal, so that will select unused channel by random mode.

### **6.2.1.7 TRANSMIT POWER CONTROL (TPC)**

According to FCC 15.407(h)(1) the TPC mechanism is not required for system with an e.i.r.p. of less 500mW.



## 7. TESTING LABORATORIES INFORMATION

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.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

[www.adt.com.tw/index.5/phtml](http://www.adt.com.tw/index.5/phtml). If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab:**

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Fax: 886-2-26051924

**Hsin Chu EMC/RF Lab:**

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

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

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## 8. APPENDIX-A

### RADAR TEST SIGNAL

#### A.1 The Long Pulse Radar Pattern

Transmission 40MHz

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_01						
Number of Bursts in Trial: 18						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	19M	88.7u	-	-	77.93m
2	2	8M	85.8u	1.382m	-	118.8m
3	2	7M	86.6u	1.525m	-	433.8m
4	2	19M	87.9u	1.756m	-	549.1m
5	3	10M	93.4u	1.058m	1.443m	558.4m
6	2	10M	52.1u	1.367m	-	658.8m
7	2	17M	66.0u	1.310m	-	181.9m
8	1	11M	83.6u	-	-	468.1m
9	3	18M	84.9u	983.1u	1.669m	140.2m
10	2	18M	98.3u	1.480m	-	324.8m
11	3	20M	70.5u	1.667m	1.744m	369.6m
12	2	9M	74.1u	1.687m	-	429.0m
13	3	13M	94.6u	1.197m	1.115m	252.1m
14	2	8M	59.6u	1.382m	-	33.73m
15	2	10M	79.8u	1.492m	-	35.14m
16	2	20M	58.3u	1.504m	-	535.6m
17	1	7M	66.5u	-	-	392.6m
18	3	9M	51.0u	1.854m	1.136m	62.91m





Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_02  
 Number of Bursts in Trial: 16

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	10M	69.1u	1.154m	-	556.3m
2	3	19M	98.0u	1.162m	1.736m	36.28m
3	2	6M	65.4u	1.008m	-	291.4m
4	2	13M	51.1u	1.632m	-	427.6m
5	2	5M	51.0u	1.069m	-	387.9m
6	2	14M	59.8u	1.899m	-	44.85m
7	2	19M	69.3u	1.413m	-	461.4m
8	1	8M	97.1u	-	-	625.5m
9	3	13M	88.4u	1.535m	1.243m	409.9m
10	2	6M	87.1u	1.693m	-	71.19m
11	2	20M	59.5u	1.124m	-	368.3m
12	2	20M	79.4u	1.280m	-	8.892m
13	3	5M	55.4u	1.005m	1.797m	156.5m
14	1	14M	76.7u	-	-	254.1m
15	1	15M	63.7u	-	-	184.7m
16	2	17M	74.6u	1.661m	-	552.3m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_03  
 Number of Bursts in Trial: 9

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	14M	93.6u	1.644m	-	84.14m
2	2	13M	81.4u	1.238m	-	679.9m
3	1	16M	91.5u	-	-	570.8m
4	2	17M	59.3u	1.847m	-	919.9m
5	3	12M	85.2u	1.506m	1.870m	925.2m
6	3	8M	96.1u	1.877m	1.774m	834.7m
7	1	13M	75.9u	-	-	939.7m
8	2	9M	77.8u	1.783m	-	547.6m
9	2	11M	75.1u	1.311m	-	559.2m



Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_04  
Number of Bursts in Trial: 9

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	10M	56.6u	-	-	1.240
2	3	13M	74.0u	1.311m	932.0u	855.8m
3	2	11M	93.8u	1.017m	-	836.2m
4	2	18M	57.4u	1.106m	-	897.0m
5	2	16M	94.0u	1.740m	-	345.4m
6	1	17M	97.9u	-	-	10.20m
7	2	9M	98.3u	1.656m	-	1.198
8	2	8M	66.9u	1.509m	-	279.6m
9	2	10M	93.8u	1.356m	-	1.133

Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_05  
Number of Bursts in Trial: 10

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	16M	90.7u	1.019m	-	895.5m
2	1	15M	87.9u	-	-	467.8m
3	1	6M	78.1u	-	-	283.5m
4	3	6M	55.1u	1.364m	1.136m	426.2m
5	2	11M	65.7u	1.277m	-	1.136
6	3	5M	70.7u	1.837m	1.058m	671.8m
7	2	9M	67.1u	1.804m	-	1.153
8	2	13M	63.0u	1.668m	-	870.6m
9	3	6M	62.3u	1.063m	1.793m	646.1m
10	1	13M	57.0u	-	-	504.2m



Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_06  
 Number of Bursts in Trial: 10

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	11M	79.2u	-	-	1.186
2	1	7M	81.7u	-	-	426.3m
3	2	7M	90.2u	1.338m	-	110.2m
4	1	17M	82.7u	-	-	474.8m
5	2	13M	53.4u	1.300m	-	667.8m
6	3	13M	93.2u	1.883m	1.371m	1.043
7	2	20M	90.1u	1.904m	-	396.1m
8	3	10M	86.4u	938.6u	1.841m	1.093
9	2	6M	75.8u	1.090m	-	264.7m
10	2	14M	83.0u	1.145m	-	385.7m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_07  
 Number of Bursts in Trial: 19

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	17M	73.4u	-	-	225.7m
2	2	16M	95.2u	1.674m	-	608.5m
3	2	15M	67.8u	1.734m	-	605.4m
4	1	12M	52.0u	-	-	364.4m
5	2	13M	93.4u	1.138m	-	375.2m
6	2	6M	82.0u	1.787m	-	289.9m
7	3	13M	70.9u	1.398m	1.052m	461.1m
8	2	9M	60.0u	1.227m	-	625.0m
9	2	18M	75.0u	947.0u	-	414.6m
10	3	8M	99.3u	1.213m	1.380m	287.7m
11	2	15M	77.5u	1.428m	-	288.2m
12	2	19M	76.9u	1.821m	-	94.28m
13	1	13M	83.8u	-	-	182.7m
14	2	18M	54.5u	1.041m	-	319.6m
15	3	17M	98.4u	1.044m	1.356m	543.9m
16	3	18M	91.6u	1.158m	1.418m	68.39m
17	3	15M	68.5u	1.135m	1.143m	58.10m
18	2	6M	67.8u	1.635m	-	351.9m
19	1	16M	66.8u	-	-	567.3m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_08  
 Number of Bursts in Trial: 18

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	19M	65.9u	1.684m	-	528.5m
2	2	6M	81.8u	1.311m	-	379.2m
3	3	5M	97.0u	1.440m	1.387m	142.3m
4	1	7M	62.3u	-	-	24.01m
5	2	11M	100.0u	1.886m	-	192.5m
6	3	7M	82.3u	1.113m	1.432m	551.3m
7	1	13M	63.5u	-	-	473.2m
8	2	6M	65.8u	1.121m	-	212.7m
9	2	19M	57.8u	988.2u	-	122.7m
10	2	10M	57.3u	1.072m	-	536.4m
11	1	7M	93.4u	-	-	250.5m
12	3	11M	61.7u	1.175m	1.717m	294.1m
13	3	10M	97.6u	1.830m	1.006m	22.32m
14	3	9M	78.6u	1.595m	926.4u	448.3m
15	3	13M	50.4u	1.335m	1.892m	195.6m
16	2	8M	93.7u	1.121m	-	184.9m
17	2	10M	99.0u	1.318m	-	76.38m
18	1	7M	68.2u	-	-	290.2m



Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_09  
Number of Bursts in Trial: 19

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	11M	69.1u	1.804m	1.685m	555.5m
2	2	10M	72.9u	1.004m	-	173.4m
3	2	20M	77.8u	964.2u	-	327.6m
4	2	17M	54.8u	1.390m	-	321.0m
5	2	12M	56.1u	1.220m	-	290.6m
6	2	18M	57.1u	1.586m	-	590.2m
7	3	11M	81.0u	1.205m	1.202m	56.62m
8	2	11M	75.5u	1.737m	-	573.6m
9	1	11M	68.1u	-	-	525.0m
10	2	11M	50.0u	1.098m	-	574.5m
11	2	16M	84.5u	1.692m	-	11.10m
12	2	20M	55.1u	1.423m	-	119.7m
13	2	16M	60.5u	1.722m	-	404.6m
14	3	5M	99.2u	998.8u	1.139m	379.8m
15	2	14M	55.8u	1.377m	-	456.6m
16	3	16M	65.2u	1.794m	1.550m	428.6m
17	1	12M	96.8u	-	-	529.6m
18	1	9M	74.0u	-	-	519.7m
19	3	16M	94.0u	1.573m	1.791m	308.5m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_10  
 Number of Bursts in Trial: 14

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	9M	83.9u	940.1u	-	344.5m
2	1	9M	96.4u	-	-	9.724m
3	3	14M	87.3u	1.679m	1.371m	472.0m
4	2	16M	62.7u	1.811m	-	451.8m
5	2	15M	68.9u	1.232m	-	264.9m
6	2	6M	76.1u	1.048m	-	188.6m
7	2	19M	97.9u	985.1u	-	216.6m
8	3	20M	61.9u	1.719m	1.480m	33.31m
9	2	19M	85.7u	1.139m	-	673.7m
10	2	19M	65.4u	1.591m	-	836.2m
11	2	7M	57.9u	1.164m	-	535.6m
12	3	18M	75.3u	1.800m	1.292m	779.8m
13	3	11M	92.2u	1.412m	1.574m	737.2m
14	3	17M	74.0u	1.509m	1.724m	520.1m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_11  
 Number of Bursts in Trial: 10

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	18M	61.3u	1.353m	-	984.7m
2	1	13M	65.8u	-	-	23.80m
3	3	7M	91.1u	1.640m	1.450m	1.189
4	1	8M	91.2u	-	-	562.0m
5	1	7M	89.0u	-	-	1.132
6	2	17M	87.1u	1.282m	-	815.4m
7	2	9M	60.2u	1.309m	-	268.9m
8	3	19M	66.0u	956.0u	1.266m	580.2m
9	3	11M	96.3u	1.844m	1.388m	574.9m
10	2	10M	69.8u	1.763m	-	953.1m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_12  
 Number of Bursts in Trial: 17

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	15M	68.0u	1.081m	1.597m	534.4m
2	1	11M	71.0u	-	-	168.7m
3	1	19M	79.5u	-	-	690.7m
4	2	11M	57.1u	1.190m	-	691.3m
5	1	17M	59.0u	-	-	522.3m
6	1	14M	58.4u	-	-	33.15m
7	2	15M	50.4u	1.204m	-	121.4m
8	1	16M	96.6u	-	-	627.7m
9	1	9M	78.9u	-	-	294.4m
10	2	12M	87.5u	1.071m	-	34.63m
11	3	14M	64.7u	1.819m	1.638m	370.0m
12	3	8M	50.3u	1.708m	1.389m	524.3m
13	3	18M	70.9u	1.401m	1.222m	335.0m
14	3	15M	93.6u	1.856m	1.109m	314.0m
15	2	11M	61.9u	1.208m	-	498.8m
16	3	16M	82.7u	1.406m	1.067m	563.3m
17	2	15M	99.8u	1.837m	-	490.4m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_13  
 Number of Bursts in Trial: 13

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	10M	70.7u	1.341m	-	59.80m
2	3	14M	60.0u	1.020m	1.790m	873.2m
3	3	6M	87.6u	1.327m	1.214m	112.8m
4	1	16M	84.2u	-	-	822.3m
5	1	18M	92.7u	-	-	360.4m
6	2	20M	74.9u	1.331m	-	222.6m
7	1	7M	78.0u	-	-	399.1m
8	1	9M	57.8u	-	-	7.958m
9	3	19M	72.9u	964.1u	1.214m	36.81m
10	3	5M	99.6u	1.346m	1.534m	352.3m
11	2	17M	86.0u	1.212m	-	179.2m
12	2	14M	68.9u	991.1u	-	790.4m
13	1	20M	51.0u	-	-	906.2m







Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_14  
Number of Bursts in Trial: 13

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	11M	57.2u	996.8u	-	865.6m
2	2	8M	69.3u	1.652m	-	707.7m
3	3	13M	77.7u	1.097m	1.663m	431.6m
4	2	14M	61.0u	1.417m	-	528.9m
5	1	14M	86.5u	-	-	668.5m
6	2	6M	96.0u	1.117m	-	348.6m
7	1	13M	85.9u	-	-	522.7m
8	2	11M	63.5u	1.667m	-	460.6m
9	2	13M	79.8u	1.253m	-	466.7m
10	2	16M	50.6u	1.075m	-	788.1m
11	2	17M	60.9u	1.086m	-	684.0m
12	1	10M	88.0u	-	-	720.2m
13	3	10M	92.0u	1.472m	1.796m	145.5m

Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_15  
Number of Bursts in Trial: 16

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	12M	67.0u	-	-	493.2m
2	3	9M	75.2u	1.546m	1.862m	653.5m
3	2	15M	56.7u	1.406m	-	407.1m
4	3	6M	67.3u	1.061m	950.7u	239.4m
5	1	19M	91.1u	-	-	470.7m
6	3	18M	85.0u	1.195m	1.267m	212.8m
7	2	7M	63.3u	975.7u	-	49.52m
8	2	17M	77.0u	1.564m	-	627.8m
9	2	18M	96.0u	1.386m	-	627.2m
10	2	10M	81.0u	1.682m	-	587.6m
11	1	15M	99.0u	-	-	213.4m
12	2	18M	95.9u	1.056m	-	452.3m
13	2	12M	85.0u	1.048m	-	347.1m
14	2	16M	88.2u	1.794m	-	261.2m
15	2	7M	86.2u	1.190m	-	676.5m
16	2	19M	60.3u	1.515m	-	157.4m



Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_16						
Number of Bursts in Trial: 13						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	12M	56.6u	1.500m	-	545.6m
2	2	6M	78.9u	1.264m	-	313.5m
3	2	8M	84.8u	1.167m	-	695.3m
4	1	13M	97.1u	-	-	715.0m
5	2	10M	66.6u	1.636m	-	807.0m
6	2	10M	52.1u	1.719m	-	901.8m
7	3	18M	84.2u	1.367m	1.304m	910.8m
8	3	19M	61.9u	1.802m	1.273m	801.7m
9	1	11M	82.7u	-	-	347.8m
10	3	8M	61.5u	1.419m	1.056m	42.58m
11	3	19M	90.9u	1.460m	1.894m	325.6m
12	2	5M	96.4u	1.428m	-	521.9m
13	2	7M	60.7u	1.267m	-	873.6m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_17						
Number of Bursts in Trial: 11						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	11M	65.3u	1.123m	-	949.9m
2	1	11M	84.2u	-	-	452.7m
3	2	12M	98.0u	1.313m	-	289.3m
4	1	6M	91.8u	-	-	692.7m
5	2	8M	72.7u	1.404m	-	888.9m
6	2	10M	71.4u	1.032m	-	991.2m
7	1	14M	84.6u	-	-	766.5m
8	1	6M	64.0u	-	-	1.003
9	2	17M	59.4u	1.925m	-	622.4m
10	3	6M	98.1u	1.619m	1.295m	934.7m
11	2	13M	54.5u	1.481m	-	1.008



Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_18						
Number of Bursts in Trial: 10						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	16M	59.1u	1.108m	-	469.3m
2	1	12M	56.3u	-	-	141.9m
3	1	5M	91.6u	-	-	994.3m
4	2	20M	71.3u	975.7u	-	884.4m
5	1	12M	58.5u	-	-	297.2m
6	2	7M	66.9u	1.528m	-	1.078
7	1	17M	72.5u	-	-	272.1m
8	2	10M	91.8u	1.263m	-	27.64m
9	3	13M	57.0u	987.0u	1.016m	433.6m
10	2	19M	51.8u	1.195m	-	503.5m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_19						
Number of Bursts in Trial: 18						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	14M	89.9u	1.834m	-	558.6m
2	3	16M	90.1u	1.083m	1.047m	282.8m
3	2	11M	71.8u	1.482m	-	59.53m
4	2	20M	84.9u	1.195m	-	504.0m
5	2	20M	72.1u	1.345m	-	157.0m
6	1	6M	60.9u	-	-	555.5m
7	2	11M	66.8u	1.837m	-	608.2m
8	2	11M	79.0u	1.455m	-	534.6m
9	1	11M	76.3u	-	-	336.6m
10	3	6M	53.1u	1.642m	954.9u	562.0m
11	1	9M	64.3u	-	-	333.3m
12	1	9M	53.6u	-	-	257.6m
13	3	17M	50.2u	1.125m	1.511m	291.7m
14	2	17M	72.1u	1.558m	-	226.6m
15	1	7M	77.7u	-	-	179.7m
16	3	16M	80.0u	1.644m	1.485m	632.9m
17	3	5M	92.8u	1.783m	1.210m	137.0m
18	3	13M	68.9u	1.165m	1.913m	399.6m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_20  
 Number of Bursts in Trial: 8

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	14M	52.0u	1.907m	1.288m	332.8m
2	1	11M	64.8u	-	-	1.060
3	2	14M	60.3u	1.251m	-	1.362
4	3	13M	79.6u	1.598m	1.203m	948.6m
5	3	7M	92.8u	1.709m	1.799m	936.3m
6	2	7M	77.9u	1.023m	-	1.123
7	1	17M	57.0u	-	-	82.22m
8	2	14M	60.5u	1.270m	-	1.090

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_21  
 Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	7M	69.1u	1.072m	1.529m	301.2m
2	2	10M	75.0u	1.087m	-	664.1m
3	3	7M	59.5u	1.128m	1.435m	756.1m
4	2	14M	50.7u	1.705m	-	87.06m
5	3	18M	84.0u	1.325m	970.0u	775.7m
6	1	18M	70.9u	-	-	301.9m
7	3	18M	76.7u	1.393m	926.3u	388.0m
8	2	19M	54.4u	1.201m	-	451.3m
9	3	12M	73.2u	1.891m	1.177m	70.99m
10	2	16M	79.0u	1.306m	-	150.5m
11	1	19M	85.1u	-	-	736.7m
12	2	16M	83.4u	917.6u	-	483.9m
13	1	15M	70.0u	-	-	510.6m
14	1	13M	64.3u	-	-	26.32m
15	3	11M	98.4u	1.627m	1.603m	514.7m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_22						
Number of Bursts in Trial: 17						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	17M	59.5u	1.441m	-	345.7m
2	2	7M	99.8u	1.643m	-	687.8m
3	2	6M	57.5u	1.690m	-	33.25m
4	1	14M	70.9u	-	-	682.6m
5	2	6M	91.4u	923.6u	-	64.83m
6	3	19M	79.9u	963.1u	1.644m	348.5m
7	2	14M	89.3u	1.099m	-	122.5m
8	3	12M	50.2u	1.609m	1.493m	409.9m
9	1	6M	68.5u	-	-	12.55m
10	1	17M	68.1u	-	-	448.3m
11	2	15M	92.7u	1.153m	-	253.4m
12	3	10M	92.2u	1.175m	1.218m	343.9m
13	2	6M	66.8u	1.595m	-	86.69m
14	2	14M	80.6u	1.722m	-	177.4m
15	2	10M	71.3u	1.335m	-	355.8m
16	2	14M	55.8u	1.649m	-	476.3m
17	3	8M	66.9u	1.650m	951.1u	533.5m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_23						
Number of Bursts in Trial: 16						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	10M	77.5u	1.702m	-	354.4m
2	1	11M	83.3u	-	-	496.7m
3	2	19M	78.5u	1.698m	-	537.9m
4	2	18M	81.6u	1.054m	-	641.8m
5	2	18M	92.1u	1.591m	-	478.9m
6	1	6M	64.3u	-	-	451.1m
7	2	18M	64.1u	1.674m	-	173.4m
8	2	9M	77.7u	962.3u	-	424.5m
9	2	9M	65.3u	1.180m	-	713.3m
10	3	6M	59.5u	1.498m	1.563m	195.2m
11	2	10M	51.3u	1.253m	-	95.29m
12	1	12M	99.5u	-	-	452.6m
13	2	20M	68.6u	954.4u	-	681.3m
14	2	10M	97.5u	1.649m	-	240.8m
15	3	15M	79.9u	1.598m	985.1u	700.1m
16	2	7M	62.5u	1.730m	-	87.24m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_24						
Number of Bursts in Trial: 16						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	8M	70.8u	1.503m	-	333.3m
2	1	17M	88.9u	-	-	169.2m
3	1	15M	71.0u	-	-	694.1m
4	1	11M	78.6u	-	-	619.7m
5	3	15M	97.1u	1.394m	1.762m	324.5m
6	2	10M	81.7u	1.870m	-	46.45m
7	2	19M	73.7u	1.798m	-	274.2m
8	3	17M	90.5u	1.273m	1.751m	459.6m
9	3	18M	78.6u	1.549m	1.737m	623.9m
10	1	16M	81.5u	-	-	139.4m
11	2	10M	55.4u	1.626m	-	602.6m
12	1	14M	70.1u	-	-	219.8m
13	2	6M	60.0u	1.705m	-	181.8m
14	2	10M	68.7u	966.3u	-	567.2m
15	1	18M	62.9u	-	-	481.5m
16	2	8M	55.3u	1.574m	-	627.2m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_25  
 Number of Bursts in Trial: 16

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	20M	52.3u	1.904m	1.917m	652.7m
2	2	18M	90.9u	1.828m	-	251.7m
3	2	10M	78.1u	1.426m	-	691.6m
4	2	14M	95.1u	1.450m	-	704.2m
5	2	8M	82.4u	1.577m	-	274.7m
6	3	6M	93.1u	1.140m	914.9u	496.1m
7	2	19M	90.6u	1.146m	-	263.6m
8	2	11M	62.2u	1.491m	-	438.6m
9	1	16M	93.9u	-	-	235.4m
10	1	12M	78.1u	-	-	437.2m
11	1	10M	71.7u	-	-	209.5m
12	3	9M	63.2u	1.911m	1.634m	55.38m
13	1	15M	97.8u	-	-	240.5m
14	3	10M	70.8u	1.723m	1.115m	373.2m
15	2	19M	66.8u	1.079m	-	653.1m
16	1	19M	97.7u	-	-	198.1m





Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_26  
Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	15M	91.4u	-	-	595.4m
2	1	19M	93.9u	-	-	608.3m
3	1	20M	57.1u	-	-	99.33m
4	1	7M	98.1u	-	-	362.8m
5	1	12M	69.0u	-	-	608.0m
6	2	11M	93.0u	1.003m	-	580.8m
7	3	14M	81.9u	1.217m	1.061m	672.3m
8	2	9M	87.5u	1.489m	-	757.6m
9	1	9M	93.9u	-	-	602.1m
10	2	19M	89.4u	1.290m	-	186.0m
11	2	5M	77.6u	1.451m	-	670.8m
12	2	6M	84.0u	951.0u	-	271.0m
13	2	13M	57.9u	1.928m	-	270.5m
14	3	10M	74.6u	1.376m	1.563m	610.4m
15	2	18M	72.8u	1.085m	-	331.9m

Long Pulse Radar Test Signal  
Test Signal Name: LP\_Signal\_27  
Number of Bursts in Trial: 14

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	19M	59.9u	-	-	434.4m
2	1	16M	65.6u	-	-	97.12m
3	1	16M	87.6u	-	-	703.7m
4	2	14M	59.9u	1.827m	-	579.0m
5	3	16M	97.7u	1.826m	1.758m	418.4m
6	2	12M	50.1u	1.168m	-	847.6m
7	3	20M	87.0u	1.059m	1.107m	640.2m
8	3	13M	56.1u	1.416m	1.880m	641.6m
9	3	13M	95.4u	1.842m	997.6u	563.6m
10	2	14M	53.1u	1.274m	-	470.2m
11	3	7M	100.0u	1.650m	1.098m	62.83m
12	1	8M	99.2u	-	-	578.9m
13	2	8M	65.6u	1.651m	-	714.0m
14	2	5M	80.4u	1.194m	-	179.9m



Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_28  
 Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	2	8M	64.7u	944.3u	-	233.9m
2	2	7M	86.1u	1.493m	-	747.1m
3	2	17M	73.2u	945.8u	-	181.9m
4	1	10M	89.0u	-	-	425.2m
5	1	10M	87.0u	-	-	410.0m
6	2	19M	61.0u	1.440m	-	360.5m
7	1	11M	55.5u	-	-	448.0m
8	2	6M	64.4u	1.824m	-	407.7m
9	2	11M	80.8u	983.2u	-	304.3m
10	1	18M	77.9u	-	-	516.9m
11	3	17M	57.7u	1.412m	1.829m	207.3m
12	3	6M	100.0u	1.614m	1.041m	113.8m
13	2	8M	73.6u	1.528m	-	44.89m
14	1	9M	81.8u	-	-	479.0m
15	2	9M	98.6u	1.649m	-	325.2m

Long Pulse Radar Test Signal  
 Test Signal Name: LP\_Signal\_29  
 Number of Bursts in Trial: 12

Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	1	16M	95.8u	-	-	689.8m
2	1	18M	66.9u	-	-	761.3m
3	2	11M	55.9u	1.020m	-	909.0m
4	3	10M	99.5u	1.506m	1.378m	205.8m
5	1	12M	69.3u	-	-	942.5m
6	3	10M	52.2u	1.068m	1.271m	181.3m
7	2	10M	65.2u	1.232m	-	204.5m
8	3	7M	60.7u	1.806m	1.585m	824.5m
9	2	9M	96.5u	1.434m	-	802.8m
10	2	17M	74.0u	1.261m	-	168.4m
11	3	17M	55.3u	1.819m	1.208m	96.80m
12	2	16M	51.3u	977.7u	-	762.7m

Long Pulse Radar Test Signal						
Test Signal Name: LP_Signal_30						
Number of Bursts in Trial: 11						
Burst	Pulses per Burst	Chrip (Hz)	Pulse Width (s)	Pulse 1 to 2 Spacing (s)	Pulse 2 to 3 Spacing (s)	Start Location (s)
1	3	7M	88.7u	1.322m	1.884m	654.3m
2	3	8M	53.7u	1.818m	1.873m	644.4m
3	3	7M	67.3u	1.496m	1.319m	535.0m
4	2	7M	76.0u	1.529m	-	81.99m
5	1	13M	63.7u	-	-	768.1m
6	2	12M	83.8u	1.649m	-	653.7m
7	3	6M	87.0u	1.184m	1.695m	493.4m
8	1	14M	86.3u	-	-	1.071
9	1	9M	85.4u	-	-	372.5m
10	2	10M	68.6u	1.677m	-	644.2m
11	1	11M	83.1u	-	-	762.5m

## A.2 The Frequency Hopping Radar Pattern

Transmission 40MHz

Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_01

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.376G	2	5.449G	3	5.599G	4	5.645G
5	5.508G	6	5.654G	7	5.543G	8	5.549G
9	5.382G	10	5.361G	11	5.433G	12	5.372G
13	5.340G	14	5.529G	15	5.680G	16	5.582G
17	5.445G	18	5.302G	19	5.666G	20	5.527G
21	5.288G	22	5.392G	23	5.641G	24	5.388G
25	5.507G	26	5.434G	27	5.601G	28	5.596G
29	5.329G	30	5.304G	31	5.309G	32	5.333G
33	5.532G	34	5.585G	35	5.558G	36	5.665G
37	5.657G	38	5.718G	39	5.447G	40	5.324G
41	5.323G	42	5.267G	43	5.254G	44	5.406G
45	5.394G	46	5.273G	47	5.419G	48	5.519G
49	5.690G	50	5.595G	51	5.384G	52	5.360G
53	5.487G	54	5.498G	55	5.467G	56	5.314G
57	5.306G	58	5.572G	59	5.678G	60	5.385G
61	5.676G	62	5.265G	63	5.399G	64	5.440G
65	5.685G	66	5.355G	67	5.485G	68	5.469G
69	5.698G	70	5.579G	71	5.332G	72	5.277G
73	5.716G	74	5.351G	75	5.555G	76	5.587G
77	5.530G	78	5.603G	79	5.610G	80	5.477G
81	5.649G	82	5.661G	83	5.290G	84	5.291G
85	5.704G	86	5.325G	87	5.377G	88	5.251G
89	5.517G	90	5.544G	91	5.289G	92	5.523G
93	5.677G	94	5.574G	95	5.276G	96	5.542G
97	5.720G	98	5.628G	99	5.412G	100	5.258G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_02							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.403G	2	5.442G	3	5.675G	4	5.518G
5	5.302G	6	5.273G	7	5.656G	8	5.361G
9	5.430G	10	5.524G	11	5.554G	12	5.569G
13	5.491G	14	5.501G	15	5.630G	16	5.298G
17	5.459G	18	5.445G	19	5.418G	20	5.281G
21	5.635G	22	5.377G	23	5.596G	24	5.253G
25	5.385G	26	5.457G	27	5.646G	28	5.601G
29	5.341G	30	5.550G	31	5.528G	32	5.284G
33	5.354G	34	5.332G	35	5.314G	36	5.468G
37	5.455G	38	5.435G	39	5.605G	40	5.365G
41	5.343G	42	5.456G	43	5.583G	44	5.494G
45	5.326G	46	5.559G	47	5.629G	48	5.264G
49	5.396G	50	5.611G	51	5.395G	52	5.288G
53	5.330G	54	5.283G	55	5.337G	56	5.500G
57	5.595G	58	5.688G	59	5.295G	60	5.254G
61	5.382G	62	5.495G	63	5.391G	64	5.623G
65	5.579G	66	5.525G	67	5.560G	68	5.516G
69	5.639G	70	5.410G	71	5.633G	72	5.477G
73	5.662G	74	5.683G	75	5.589G	76	5.703G
77	5.425G	78	5.413G	79	5.322G	80	5.624G
81	5.484G	82	5.547G	83	5.664G	84	5.632G
85	5.401G	86	5.383G	87	5.670G	88	5.397G
89	5.489G	90	5.553G	91	5.617G	92	5.584G
93	5.289G	94	5.672G	95	5.647G	96	5.291G
97	5.467G	98	5.692G	99	5.304G	100	5.562G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_03

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.695G	2	5.469G	3	5.548G	4	5.481G
5	5.498G	6	5.360G	7	5.492G	8	5.669G
9	5.323G	10	5.655G	11	5.386G	12	5.425G
13	5.491G	14	5.431G	15	5.557G	16	5.660G
17	5.541G	18	5.275G	19	5.253G	20	5.525G
21	5.549G	22	5.437G	23	5.430G	24	5.279G
25	5.719G	26	5.452G	27	5.387G	28	5.270G
29	5.344G	30	5.722G	31	5.396G	32	5.433G
33	5.519G	34	5.609G	35	5.628G	36	5.552G
37	5.512G	38	5.507G	39	5.361G	40	5.594G
41	5.313G	42	5.314G	43	5.500G	44	5.304G
45	5.449G	46	5.590G	47	5.291G	48	5.316G
49	5.259G	50	5.285G	51	5.515G	52	5.459G
53	5.422G	54	5.605G	55	5.362G	56	5.570G
57	5.400G	58	5.703G	59	5.524G	60	5.415G
61	5.311G	62	5.258G	63	5.374G	64	5.395G
65	5.531G	66	5.373G	67	5.510G	68	5.539G
69	5.615G	70	5.366G	71	5.564G	72	5.450G
73	5.262G	74	5.596G	75	5.572G	76	5.448G
77	5.704G	78	5.389G	79	5.379G	80	5.689G
81	5.442G	82	5.284G	83	5.527G	84	5.544G
85	5.499G	86	5.261G	87	5.441G	88	5.321G
89	5.468G	90	5.358G	91	5.595G	92	5.393G
93	5.380G	94	5.462G	95	5.644G	96	5.698G
97	5.357G	98	5.348G	99	5.352G	100	5.268G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_04

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.692G	2	5.545G	3	5.420G	4	5.614G
5	5.331G	6	5.570G	7	5.489G	8	5.253G
9	5.407G	10	5.537G	11	5.654G	12	5.293G
13	5.509G	14	5.691G	15	5.496G	16	5.312G
17	5.394G	18	5.352G	19	5.719G	20	5.482G
21	5.596G	22	5.295G	23	5.630G	24	5.422G
25	5.350G	26	5.481G	27	5.600G	28	5.650G
29	5.583G	30	5.576G	31	5.277G	32	5.468G
33	5.494G	34	5.635G	35	5.611G	36	5.316G
37	5.257G	38	5.335G	39	5.252G	40	5.358G
41	5.315G	42	5.648G	43	5.536G	44	5.269G
45	5.342G	46	5.327G	47	5.637G	48	5.473G
49	5.326G	50	5.657G	51	5.392G	52	5.436G
53	5.610G	54	5.485G	55	5.456G	56	5.508G
57	5.454G	58	5.275G	59	5.688G	60	5.684G
61	5.487G	62	5.378G	63	5.620G	64	5.585G
65	5.418G	66	5.435G	67	5.675G	68	5.458G
69	5.451G	70	5.452G	71	5.341G	72	5.599G
73	5.279G	74	5.498G	75	5.720G	76	5.672G
77	5.465G	78	5.260G	79	5.355G	80	5.441G
81	5.381G	82	5.411G	83	5.413G	84	5.554G
85	5.459G	86	5.598G	87	5.410G	88	5.297G
89	5.303G	90	5.559G	91	5.414G	92	5.556G
93	5.362G	94	5.530G	95	5.632G	96	5.531G
97	5.534G	98	5.479G	99	5.499G	100	5.270G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_05							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.452G	2	5.266G	3	5.468G	4	5.557G
5	5.277G	6	5.333G	7	5.253G	8	5.477G
9	5.559G	10	5.487G	11	5.662G	12	5.653G
13	5.411G	14	5.619G	15	5.429G	16	5.267G
17	5.572G	18	5.526G	19	5.409G	20	5.589G
21	5.657G	22	5.425G	23	5.467G	24	5.357G
25	5.284G	26	5.704G	27	5.450G	28	5.301G
29	5.515G	30	5.461G	31	5.639G	32	5.516G
33	5.460G	34	5.511G	35	5.541G	36	5.493G
37	5.280G	38	5.534G	39	5.509G	40	5.713G
41	5.470G	42	5.617G	43	5.533G	44	5.456G
45	5.627G	46	5.576G	47	5.260G	48	5.668G
49	5.602G	50	5.275G	51	5.588G	52	5.430G
53	5.633G	54	5.263G	55	5.329G	56	5.440G
57	5.344G	58	5.340G	59	5.442G	60	5.693G
61	5.683G	62	5.690G	63	5.600G	64	5.472G
65	5.336G	66	5.684G	67	5.574G	68	5.380G
69	5.715G	70	5.565G	71	5.697G	72	5.646G
73	5.421G	74	5.379G	75	5.304G	76	5.500G
77	5.503G	78	5.342G	79	5.302G	80	5.610G
81	5.689G	82	5.636G	83	5.676G	84	5.305G
85	5.328G	86	5.326G	87	5.554G	88	5.322G
89	5.368G	90	5.519G	91	5.578G	92	5.583G
93	5.606G	94	5.389G	95	5.570G	96	5.258G
97	5.553G	98	5.656G	99	5.716G	100	5.568G





Hopping Frequency Sequence Name: HOP_FREQ_SEQ_06							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.295G	2	5.432G	3	5.544G	4	5.285G
5	5.358G	6	5.486G	7	5.464G	8	5.274G
9	5.399G	10	5.651G	11	5.343G	12	5.484G
13	5.461G	14	5.279G	15	5.474G	16	5.494G
17	5.605G	18	5.296G	19	5.584G	20	5.465G
21	5.258G	22	5.534G	23	5.298G	24	5.529G
25	5.540G	26	5.672G	27	5.357G	28	5.407G
29	5.332G	30	5.270G	31	5.347G	32	5.271G
33	5.602G	34	5.653G	35	5.555G	36	5.313G
37	5.284G	38	5.538G	39	5.417G	40	5.565G
41	5.456G	42	5.280G	43	5.275G	44	5.606G
45	5.363G	46	5.647G	47	5.286G	48	5.450G
49	5.290G	50	5.669G	51	5.718G	52	5.256G
53	5.369G	54	5.569G	55	5.709G	56	5.590G
57	5.339G	58	5.570G	59	5.533G	60	5.373G
61	5.475G	62	5.711G	63	5.469G	64	5.667G
65	5.679G	66	5.587G	67	5.481G	68	5.643G
69	5.288G	70	5.612G	71	5.368G	72	5.414G
73	5.479G	74	5.693G	75	5.550G	76	5.500G
77	5.377G	78	5.376G	79	5.592G	80	5.564G
81	5.697G	82	5.307G	83	5.255G	84	5.595G
85	5.342G	86	5.418G	87	5.558G	88	5.591G
89	5.641G	90	5.655G	91	5.618G	92	5.589G
93	5.355G	94	5.306G	95	5.321G	96	5.310G
97	5.334G	98	5.402G	99	5.624G	100	5.266G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_07							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.662G	2	5.292G	3	5.261G	4	5.524G
5	5.604G	6	5.263G	7	5.529G	8	5.545G
9	5.442G	10	5.666G	11	5.629G	12	5.591G
13	5.297G	14	5.499G	15	5.362G	16	5.601G
17	5.495G	18	5.483G	19	5.458G	20	5.717G
21	5.336G	22	5.515G	23	5.490G	24	5.685G
25	5.366G	26	5.572G	27	5.504G	28	5.427G
29	5.288G	30	5.489G	31	5.670G	32	5.654G
33	5.581G	34	5.463G	35	5.646G	36	5.331G
37	5.351G	38	5.633G	39	5.609G	40	5.360G
41	5.353G	42	5.676G	43	5.699G	44	5.502G
45	5.586G	46	5.631G	47	5.716G	48	5.399G
49	5.707G	50	5.473G	51	5.280G	52	5.426G
53	5.251G	54	5.356G	55	5.394G	56	5.419G
57	5.339G	58	5.482G	59	5.298G	60	5.375G
61	5.506G	62	5.352G	63	5.365G	64	5.625G
65	5.605G	66	5.684G	67	5.526G	68	5.418G
69	5.598G	70	5.686G	71	5.411G	72	5.544G
73	5.346G	74	5.718G	75	5.617G	76	5.484G
77	5.268G	78	5.252G	79	5.315G	80	5.253G
81	5.338G	82	5.721G	83	5.348G	84	5.517G
85	5.287G	86	5.272G	87	5.509G	88	5.274G
89	5.314G	90	5.642G	91	5.290G	92	5.652G
93	5.381G	94	5.382G	95	5.477G	96	5.691G
97	5.359G	98	5.675G	99	5.582G	100	5.401G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_08							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.356G	2	5.719G	3	5.651G	4	5.378G
5	5.400G	6	5.591G	7	5.406G	8	5.335G
9	5.482G	10	5.634G	11	5.558G	12	5.504G
13	5.345G	14	5.420G	15	5.687G	16	5.442G
17	5.672G	18	5.662G	19	5.528G	20	5.426G
21	5.452G	22	5.408G	23	5.711G	24	5.667G
25	5.620G	26	5.383G	27	5.507G	28	5.348G
29	5.563G	30	5.287G	31	5.549G	32	5.409G
33	5.648G	34	5.664G	35	5.724G	36	5.455G
37	5.516G	38	5.688G	39	5.416G	40	5.529G
41	5.571G	42	5.270G	43	5.506G	44	5.697G
45	5.397G	46	5.607G	47	5.622G	48	5.365G
49	5.334G	50	5.494G	51	5.487G	52	5.588G
53	5.430G	54	5.311G	55	5.398G	56	5.706G
57	5.385G	58	5.675G	59	5.647G	60	5.484G
61	5.521G	62	5.556G	63	5.310G	64	5.637G
65	5.366G	66	5.655G	67	5.480G	68	5.289G
69	5.275G	70	5.708G	71	5.353G	72	5.458G
73	5.642G	74	5.509G	75	5.564G	76	5.274G
77	5.685G	78	5.436G	79	5.352G	80	5.580G
81	5.598G	82	5.477G	83	5.499G	84	5.302G
85	5.500G	86	5.390G	87	5.638G	88	5.395G
89	5.322G	90	5.576G	91	5.578G	92	5.422G
93	5.446G	94	5.583G	95	5.386G	96	5.313G
97	5.303G	98	5.286G	99	5.341G	100	5.254G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_09							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.572G	2	5.606G	3	5.386G	4	5.538G
5	5.458G	6	5.377G	7	5.379G	8	5.541G
9	5.529G	10	5.720G	11	5.384G	12	5.587G
13	5.316G	14	5.575G	15	5.422G	16	5.457G
17	5.486G	18	5.602G	19	5.443G	20	5.670G
21	5.330G	22	5.577G	23	5.668G	24	5.324G
25	5.528G	26	5.544G	27	5.327G	28	5.352G
29	5.527G	30	5.276G	31	5.360G	32	5.607G
33	5.261G	34	5.590G	35	5.617G	36	5.596G
37	5.594G	38	5.543G	39	5.405G	40	5.315G
41	5.622G	42	5.311G	43	5.497G	44	5.481G
45	5.611G	46	5.506G	47	5.423G	48	5.605G
49	5.534G	50	5.724G	51	5.509G	52	5.267G
53	5.354G	54	5.682G	55	5.339G	56	5.621G
57	5.435G	58	5.638G	59	5.709G	60	5.298G
61	5.570G	62	5.519G	63	5.456G	64	5.359G
65	5.704G	66	5.355G	67	5.692G	68	5.669G
69	5.284G	70	5.705G	71	5.364G	72	5.348G
73	5.259G	74	5.297G	75	5.631G	76	5.466G
77	5.283G	78	5.367G	79	5.353G	80	5.693G
81	5.398G	82	5.710G	83	5.253G	84	5.512G
85	5.582G	86	5.616G	87	5.558G	88	5.322G
89	5.393G	90	5.510G	91	5.369G	92	5.424G
93	5.505G	94	5.480G	95	5.410G	96	5.460G
97	5.459G	98	5.319G	99	5.448G	100	5.272G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_10							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.474G	2	5.258G	3	5.331G	4	5.678G
5	5.717G	6	5.602G	7	5.295G	8	5.431G
9	5.552G	10	5.252G	11	5.561G	12	5.521G
13	5.422G	14	5.430G	15	5.370G	16	5.480G
17	5.371G	18	5.693G	19	5.689G	20	5.462G
21	5.305G	22	5.314G	23	5.466G	24	5.348G
25	5.540G	26	5.517G	27	5.643G	28	5.256G
29	5.391G	30	5.332G	31	5.636G	32	5.352G
33	5.610G	34	5.414G	35	5.688G	36	5.397G
37	5.273G	38	5.353G	39	5.529G	40	5.445G
41	5.417G	42	5.633G	43	5.560G	44	5.649G
45	5.499G	46	5.631G	47	5.315G	48	5.460G
49	5.639G	50	5.360G	51	5.396G	52	5.459G
53	5.380G	54	5.532G	55	5.614G	56	5.405G
57	5.436G	58	5.479G	59	5.596G	60	5.623G
61	5.293G	62	5.379G	63	5.687G	64	5.658G
65	5.706G	66	5.447G	67	5.510G	68	5.463G
69	5.433G	70	5.582G	71	5.724G	72	5.556G
73	5.504G	74	5.333G	75	5.482G	76	5.419G
77	5.440G	78	5.613G	79	5.264G	80	5.354G
81	5.392G	82	5.586G	83	5.439G	84	5.718G
85	5.343G	86	5.361G	87	5.324G	88	5.620G
89	5.562G	90	5.544G	91	5.375G	92	5.568G
93	5.663G	94	5.470G	95	5.539G	96	5.565G
97	5.318G	98	5.443G	99	5.594G	100	5.260G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_11							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.474G	2	5.251G	3	5.664G	4	5.463G
5	5.522G	6	5.678G	7	5.539G	8	5.393G
9	5.291G	10	5.624G	11	5.536G	12	5.274G
13	5.313G	14	5.422G	15	5.264G	16	5.485G
17	5.360G	18	5.320G	19	5.314G	20	5.482G
21	5.465G	22	5.593G	23	5.493G	24	5.681G
25	5.376G	26	5.488G	27	5.394G	28	5.661G
29	5.553G	30	5.432G	31	5.305G	32	5.252G
33	5.689G	34	5.453G	35	5.690G	36	5.588G
37	5.342G	38	5.657G	39	5.662G	40	5.377G
41	5.672G	42	5.330G	43	5.437G	44	5.282G
45	5.479G	46	5.697G	47	5.341G	48	5.615G
49	5.528G	50	5.567G	51	5.412G	52	5.381G
53	5.420G	54	5.547G	55	5.268G	56	5.721G
57	5.519G	58	5.530G	59	5.535G	60	5.623G
61	5.294G	62	5.410G	63	5.397G	64	5.337G
65	5.418G	66	5.298G	67	5.273G	68	5.336G
69	5.475G	70	5.517G	71	5.327G	72	5.655G
73	5.501G	74	5.280G	75	5.614G	76	5.483G
77	5.477G	78	5.548G	79	5.680G	80	5.711G
81	5.668G	82	5.358G	83	5.685G	84	5.648G
85	5.335G	86	5.646G	87	5.665G	88	5.315G
89	5.296G	90	5.708G	91	5.416G	92	5.569G
93	5.575G	94	5.706G	95	5.270G	96	5.321G
97	5.409G	98	5.304G	99	5.651G	100	5.374G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_12							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.260G	2	5.505G	3	5.569G	4	5.450G
5	5.368G	6	5.307G	7	5.574G	8	5.686G
9	5.430G	10	5.278G	11	5.608G	12	5.370G
13	5.362G	14	5.507G	15	5.352G	16	5.501G
17	5.256G	18	5.322G	19	5.424G	20	5.643G
21	5.349G	22	5.422G	23	5.420G	24	5.263G
25	5.417G	26	5.440G	27	5.680G	28	5.681G
29	5.519G	30	5.383G	31	5.600G	32	5.375G
33	5.530G	34	5.469G	35	5.560G	36	5.716G
37	5.393G	38	5.313G	39	5.283G	40	5.273G
41	5.277G	42	5.346G	43	5.542G	44	5.305G
45	5.573G	46	5.524G	47	5.712G	48	5.629G
49	5.357G	50	5.544G	51	5.547G	52	5.606G
53	5.435G	54	5.410G	55	5.301G	56	5.577G
57	5.662G	58	5.620G	59	5.458G	60	5.279G
61	5.688G	62	5.275G	63	5.434G	64	5.347G
65	5.317G	66	5.296G	67	5.303G	68	5.572G
69	5.319G	70	5.555G	71	5.479G	72	5.568G
73	5.696G	74	5.493G	75	5.496G	76	5.589G
77	5.274G	78	5.442G	79	5.382G	80	5.311G
81	5.444G	82	5.657G	83	5.456G	84	5.647G
85	5.325G	86	5.556G	87	5.597G	88	5.509G
89	5.715G	90	5.562G	91	5.412G	92	5.678G
93	5.473G	94	5.371G	95	5.644G	96	5.504G
97	5.264G	98	5.529G	99	5.323G	100	5.634G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_13

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.636G	2	5.597G	3	5.378G	4	5.641G
5	5.575G	6	5.407G	7	5.682G	8	5.600G
9	5.538G	10	5.557G	11	5.712G	12	5.580G
13	5.558G	14	5.713G	15	5.539G	16	5.387G
17	5.418G	18	5.584G	19	5.268G	20	5.707G
21	5.508G	22	5.385G	23	5.356G	24	5.258G
25	5.285G	26	5.498G	27	5.411G	28	5.607G
29	5.486G	30	5.622G	31	5.549G	32	5.305G
33	5.568G	34	5.561G	35	5.311G	36	5.579G
37	5.604G	38	5.278G	39	5.271G	40	5.587G
41	5.675G	42	5.552G	43	5.308G	44	5.256G
45	5.627G	46	5.565G	47	5.694G	48	5.567G
49	5.291G	50	5.609G	51	5.263G	52	5.286G
53	5.354G	54	5.400G	55	5.260G	56	5.417G
57	5.398G	58	5.666G	59	5.368G	60	5.280G
61	5.318G	62	5.610G	63	5.326G	64	5.364G
65	5.430G	66	5.603G	67	5.420G	68	5.438G
69	5.465G	70	5.570G	71	5.355G	72	5.261G
73	5.339G	74	5.548G	75	5.295G	76	5.459G
77	5.455G	78	5.416G	79	5.343G	80	5.477G
81	5.618G	82	5.429G	83	5.396G	84	5.513G
85	5.573G	86	5.689G	87	5.642G	88	5.383G
89	5.485G	90	5.683G	91	5.623G	92	5.274G
93	5.520G	94	5.662G	95	5.334G	96	5.501G
97	5.321G	98	5.655G	99	5.370G	100	5.376G





Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_14

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.495G	2	5.565G	3	5.337G	4	5.460G
5	5.434G	6	5.368G	7	5.265G	8	5.667G
9	5.262G	10	5.354G	11	5.576G	12	5.376G
13	5.287G	14	5.509G	15	5.401G	16	5.571G
17	5.352G	18	5.581G	19	5.555G	20	5.398G
21	5.688G	22	5.471G	23	5.463G	24	5.546G
25	5.468G	26	5.476G	27	5.649G	28	5.519G
29	5.549G	30	5.703G	31	5.320G	32	5.723G
33	5.566G	34	5.537G	35	5.467G	36	5.556G
37	5.276G	38	5.585G	39	5.605G	40	5.273G
41	5.577G	42	5.496G	43	5.661G	44	5.616G
45	5.282G	46	5.680G	47	5.390G	48	5.340G
49	5.645G	50	5.314G	51	5.693G	52	5.437G
53	5.382G	54	5.427G	55	5.619G	56	5.598G
57	5.472G	58	5.330G	59	5.641G	60	5.501G
61	5.628G	62	5.312G	63	5.361G	64	5.594G
65	5.611G	66	5.452G	67	5.375G	68	5.717G
69	5.417G	70	5.271G	71	5.396G	72	5.319G
73	5.348G	74	5.364G	75	5.424G	76	5.564G
77	5.260G	78	5.706G	79	5.613G	80	5.541G
81	5.617G	82	5.326G	83	5.328G	84	5.676G
85	5.432G	86	5.298G	87	5.339G	88	5.532G
89	5.705G	90	5.291G	91	5.294G	92	5.662G
93	5.597G	94	5.335G	95	5.311G	96	5.469G
97	5.714G	98	5.550G	99	5.284G	100	5.411G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_15

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.589G	2	5.582G	3	5.275G	4	5.491G
5	5.452G	6	5.670G	7	5.386G	8	5.661G
9	5.557G	10	5.533G	11	5.470G	12	5.678G
13	5.449G	14	5.562G	15	5.704G	16	5.654G
17	5.448G	18	5.555G	19	5.401G	20	5.542G
21	5.667G	22	5.548G	23	5.496G	24	5.585G
25	5.273G	26	5.600G	27	5.563G	28	5.293G
29	5.277G	30	5.511G	31	5.359G	32	5.465G
33	5.350G	34	5.703G	35	5.409G	36	5.304G
37	5.550G	38	5.394G	39	5.301G	40	5.595G
41	5.469G	42	5.423G	43	5.385G	44	5.253G
45	5.705G	46	5.628G	47	5.310G	48	5.476G
49	5.699G	50	5.421G	51	5.291G	52	5.435G
53	5.283G	54	5.558G	55	5.453G	56	5.630G
57	5.336G	58	5.693G	59	5.360G	60	5.698G
61	5.686G	62	5.629G	63	5.679G	64	5.509G
65	5.524G	66	5.446G	67	5.377G	68	5.507G
69	5.501G	70	5.335G	71	5.370G	72	5.497G
73	5.611G	74	5.267G	75	5.674G	76	5.372G
77	5.284G	78	5.541G	79	5.403G	80	5.343G
81	5.530G	82	5.508G	83	5.378G	84	5.651G
85	5.311G	86	5.328G	87	5.645G	88	5.309G
89	5.590G	90	5.282G	91	5.526G	92	5.636G
93	5.597G	94	5.602G	95	5.579G	96	5.588G
97	5.357G	98	5.529G	99	5.384G	100	5.569G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_16							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.611G	2	5.666G	3	5.513G	4	5.504G
5	5.464G	6	5.486G	7	5.603G	8	5.440G
9	5.539G	10	5.314G	11	5.280G	12	5.449G
13	5.615G	14	5.675G	15	5.555G	16	5.466G
17	5.427G	18	5.661G	19	5.506G	20	5.301G
21	5.613G	22	5.458G	23	5.361G	24	5.658G
25	5.533G	26	5.616G	27	5.308G	28	5.332G
29	5.386G	30	5.519G	31	5.259G	32	5.274G
33	5.366G	34	5.381G	35	5.320G	36	5.467G
37	5.459G	38	5.550G	39	5.406G	40	5.684G
41	5.588G	42	5.592G	43	5.543G	44	5.584G
45	5.422G	46	5.424G	47	5.489G	48	5.315G
49	5.676G	50	5.339G	51	5.251G	52	5.331G
53	5.651G	54	5.343G	55	5.493G	56	5.690G
57	5.269G	58	5.534G	59	5.573G	60	5.596G
61	5.392G	62	5.568G	63	5.338G	64	5.515G
65	5.425G	66	5.430G	67	5.490G	68	5.538G
69	5.389G	70	5.311G	71	5.402G	72	5.345G
73	5.443G	74	5.415G	75	5.669G	76	5.262G
77	5.572G	78	5.561G	79	5.681G	80	5.437G
81	5.508G	82	5.558G	83	5.341G	84	5.628G
85	5.266G	86	5.502G	87	5.442G	88	5.482G
89	5.474G	90	5.642G	91	5.614G	92	5.692G
93	5.703G	94	5.714G	95	5.708G	96	5.565G
97	5.272G	98	5.410G	99	5.399G	100	5.546G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_17							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.288G	2	5.390G	3	5.396G	4	5.327G
5	5.719G	6	5.605G	7	5.524G	8	5.319G
9	5.285G	10	5.421G	11	5.433G	12	5.525G
13	5.680G	14	5.533G	15	5.631G	16	5.587G
17	5.546G	18	5.634G	19	5.650G	20	5.562G
21	5.379G	22	5.645G	23	5.571G	24	5.621G
25	5.554G	26	5.354G	27	5.372G	28	5.536G
29	5.692G	30	5.312G	31	5.477G	32	5.315G
33	5.352G	34	5.462G	35	5.383G	36	5.479G
37	5.464G	38	5.341G	39	5.480G	40	5.255G
41	5.471G	42	5.649G	43	5.279G	44	5.641G
45	5.674G	46	5.718G	47	5.263G	48	5.366G
49	5.265G	50	5.560G	51	5.454G	52	5.688G
53	5.635G	54	5.690G	55	5.345G	56	5.446G
57	5.333G	58	5.685G	59	5.659G	60	5.322G
61	5.304G	62	5.660G	63	5.449G	64	5.335G
65	5.398G	66	5.424G	67	5.570G	68	5.330G
69	5.569G	70	5.604G	71	5.682G	72	5.591G
73	5.520G	74	5.531G	75	5.385G	76	5.637G
77	5.359G	78	5.434G	79	5.585G	80	5.552G
81	5.626G	82	5.414G	83	5.415G	84	5.402G
85	5.257G	86	5.609G	87	5.534G	88	5.526G
89	5.646G	90	5.259G	91	5.459G	92	5.689G
93	5.613G	94	5.466G	95	5.410G	96	5.347G
97	5.638G	98	5.258G	99	5.305G	100	5.411G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_18							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.373G	2	5.356G	3	5.429G	4	5.414G
5	5.564G	6	5.617G	7	5.719G	8	5.541G
9	5.599G	10	5.324G	11	5.542G	12	5.566G
13	5.692G	14	5.538G	15	5.349G	16	5.597G
17	5.686G	18	5.546G	19	5.256G	20	5.312G
21	5.604G	22	5.678G	23	5.425G	24	5.616G
25	5.381G	26	5.397G	27	5.634G	28	5.491G
29	5.672G	30	5.641G	31	5.260G	32	5.658G
33	5.643G	34	5.572G	35	5.722G	36	5.501G
37	5.593G	38	5.517G	39	5.394G	40	5.528G
41	5.288G	42	5.529G	43	5.466G	44	5.345G
45	5.382G	46	5.607G	47	5.628G	48	5.334G
49	5.386G	50	5.445G	51	5.503G	52	5.691G
53	5.266G	54	5.472G	55	5.310G	56	5.683G
57	5.408G	58	5.319G	59	5.362G	60	5.537G
61	5.308G	62	5.393G	63	5.511G	64	5.581G
65	5.279G	66	5.444G	67	5.611G	68	5.407G
69	5.569G	70	5.259G	71	5.254G	72	5.559G
73	5.427G	74	5.647G	75	5.303G	76	5.702G
77	5.337G	78	5.694G	79	5.608G	80	5.377G
81	5.720G	82	5.648G	83	5.706G	84	5.508G
85	5.257G	86	5.296G	87	5.302G	88	5.622G
89	5.315G	90	5.688G	91	5.467G	92	5.309G
93	5.601G	94	5.461G	95	5.297G	96	5.338G
97	5.366G	98	5.423G	99	5.313G	100	5.267G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_19

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.287G	2	5.477G	3	5.575G	4	5.402G
5	5.717G	6	5.534G	7	5.313G	8	5.544G
9	5.678G	10	5.321G	11	5.533G	12	5.480G
13	5.505G	14	5.443G	15	5.401G	16	5.723G
17	5.373G	18	5.435G	19	5.669G	20	5.411G
21	5.522G	22	5.277G	23	5.702G	24	5.446G
25	5.436G	26	5.353G	27	5.639G	28	5.468G
29	5.528G	30	5.485G	31	5.370G	32	5.675G
33	5.303G	34	5.386G	35	5.555G	36	5.312G
37	5.542G	38	5.714G	39	5.613G	40	5.652G
41	5.691G	42	5.706G	43	5.546G	44	5.502G
45	5.473G	46	5.527G	47	5.305G	48	5.719G
49	5.602G	50	5.351G	51	5.257G	52	5.476G
53	5.295G	54	5.709G	55	5.449G	56	5.547G
57	5.414G	58	5.543G	59	5.325G	60	5.565G
61	5.634G	62	5.396G	63	5.388G	64	5.419G
65	5.611G	66	5.512G	67	5.409G	68	5.608G
69	5.423G	70	5.660G	71	5.256G	72	5.632G
73	5.269G	74	5.665G	75	5.261G	76	5.532G
77	5.627G	78	5.676G	79	5.354G	80	5.603G
81	5.666G	82	5.715G	83	5.429G	84	5.453G
85	5.623G	86	5.596G	87	5.537G	88	5.311G
89	5.614G	90	5.554G	91	5.359G	92	5.466G
93	5.393G	94	5.520G	95	5.549G	96	5.279G
97	5.322G	98	5.430G	99	5.483G	100	5.348G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_20							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.559G	2	5.369G	3	5.482G	4	5.545G
5	5.342G	6	5.608G	7	5.599G	8	5.505G
9	5.480G	10	5.493G	11	5.278G	12	5.675G
13	5.541G	14	5.544G	15	5.569G	16	5.288G
17	5.427G	18	5.254G	19	5.582G	20	5.320G
21	5.723G	22	5.250G	23	5.571G	24	5.672G
25	5.698G	26	5.440G	27	5.570G	28	5.527G
29	5.503G	30	5.703G	31	5.414G	32	5.351G
33	5.262G	34	5.609G	35	5.588G	36	5.458G
37	5.579G	38	5.439G	39	5.263G	40	5.573G
41	5.564G	42	5.721G	43	5.537G	44	5.483G
45	5.580G	46	5.572G	47	5.381G	48	5.289G
49	5.380G	50	5.259G	51	5.629G	52	5.615G
53	5.324G	54	5.710G	55	5.348G	56	5.321G
57	5.291G	58	5.648G	59	5.522G	60	5.454G
61	5.411G	62	5.308G	63	5.470G	64	5.695G
65	5.269G	66	5.295G	67	5.388G	68	5.567G
69	5.412G	70	5.488G	71	5.434G	72	5.611G
73	5.565G	74	5.606G	75	5.661G	76	5.553G
77	5.384G	78	5.630G	79	5.354G	80	5.444G
81	5.706G	82	5.521G	83	5.283G	84	5.328G
85	5.438G	86	5.578G	87	5.329G	88	5.645G
89	5.294G	90	5.618G	91	5.691G	92	5.516G
93	5.255G	94	5.681G	95	5.720G	96	5.296G
97	5.258G	98	5.603G	99	5.616G	100	5.517G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_21							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.694G	2	5.416G	3	5.542G	4	5.410G
5	5.669G	6	5.581G	7	5.362G	8	5.297G
9	5.606G	10	5.626G	11	5.517G	12	5.480G
13	5.588G	14	5.328G	15	5.607G	16	5.723G
17	5.595G	18	5.303G	19	5.507G	20	5.465G
21	5.652G	22	5.518G	23	5.570G	24	5.386G
25	5.261G	26	5.533G	27	5.302G	28	5.430G
29	5.395G	30	5.307G	31	5.318G	32	5.259G
33	5.651G	34	5.399G	35	5.435G	36	5.258G
37	5.396G	38	5.541G	39	5.527G	40	5.599G
41	5.376G	42	5.479G	43	5.432G	44	5.565G
45	5.407G	46	5.400G	47	5.636G	48	5.519G
49	5.278G	50	5.405G	51	5.528G	52	5.349G
53	5.264G	54	5.462G	55	5.621G	56	5.628G
57	5.353G	58	5.614G	59	5.584G	60	5.505G
61	5.316G	62	5.510G	63	5.493G	64	5.437G
65	5.657G	66	5.520G	67	5.585G	68	5.265G
69	5.289G	70	5.285G	71	5.269G	72	5.439G
73	5.511G	74	5.661G	75	5.561G	76	5.442G
77	5.417G	78	5.350G	79	5.357G	80	5.252G
81	5.461G	82	5.550G	83	5.330G	84	5.523G
85	5.501G	86	5.673G	87	5.646G	88	5.446G
89	5.615G	90	5.325G	91	5.664G	92	5.483G
93	5.463G	94	5.306G	95	5.291G	96	5.286G
97	5.257G	98	5.719G	99	5.699G	100	5.418G





Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_22

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.575G	2	5.454G	3	5.651G	4	5.286G
5	5.368G	6	5.278G	7	5.625G	8	5.455G
9	5.671G	10	5.370G	11	5.435G	12	5.270G
13	5.450G	14	5.304G	15	5.476G	16	5.340G
17	5.388G	18	5.531G	19	5.568G	20	5.250G
21	5.675G	22	5.371G	23	5.655G	24	5.303G
25	5.310G	26	5.338G	27	5.617G	28	5.385G
29	5.401G	30	5.567G	31	5.414G	32	5.588G
33	5.528G	34	5.506G	35	5.311G	36	5.287G
37	5.712G	38	5.676G	39	5.430G	40	5.616G
41	5.358G	42	5.493G	43	5.636G	44	5.262G
45	5.354G	46	5.589G	47	5.267G	48	5.615G
49	5.494G	50	5.372G	51	5.683G	52	5.282G
53	5.622G	54	5.258G	55	5.475G	56	5.420G
57	5.323G	58	5.285G	59	5.690G	60	5.516G
61	5.689G	62	5.679G	63	5.275G	64	5.644G
65	5.574G	66	5.543G	67	5.412G	68	5.552G
69	5.327G	70	5.399G	71	5.477G	72	5.293G
73	5.465G	74	5.474G	75	5.512G	76	5.492G
77	5.380G	78	5.360G	79	5.554G	80	5.488G
81	5.602G	82	5.535G	83	5.495G	84	5.459G
85	5.509G	86	5.307G	87	5.646G	88	5.314G
89	5.461G	90	5.557G	91	5.353G	92	5.484G
93	5.660G	94	5.383G	95	5.313G	96	5.396G
97	5.403G	98	5.624G	99	5.422G	100	5.428G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_23							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.487G	2	5.595G	3	5.276G	4	5.330G
5	5.682G	6	5.664G	7	5.438G	8	5.583G
9	5.386G	10	5.339G	11	5.483G	12	5.356G
13	5.291G	14	5.324G	15	5.446G	16	5.604G
17	5.542G	18	5.646G	19	5.451G	20	5.367G
21	5.297G	22	5.626G	23	5.688G	24	5.286G
25	5.349G	26	5.494G	27	5.309G	28	5.650G
29	5.645G	30	5.332G	31	5.314G	32	5.704G
33	5.721G	34	5.660G	35	5.669G	36	5.575G
37	5.403G	38	5.271G	39	5.426G	40	5.469G
41	5.268G	42	5.703G	43	5.528G	44	5.464G
45	5.313G	46	5.512G	47	5.711G	48	5.510G
49	5.523G	50	5.576G	51	5.630G	52	5.691G
53	5.385G	54	5.282G	55	5.417G	56	5.517G
57	5.622G	58	5.621G	59	5.315G	60	5.436G
61	5.502G	62	5.661G	63	5.325G	64	5.499G
65	5.648G	66	5.634G	67	5.663G	68	5.607G
69	5.702G	70	5.424G	71	5.676G	72	5.393G
73	5.611G	74	5.489G	75	5.384G	76	5.381G
77	5.724G	78	5.713G	79	5.540G	80	5.644G
81	5.378G	82	5.716G	83	5.399G	84	5.485G
85	5.624G	86	5.692G	87	5.290G	88	5.668G
89	5.708G	90	5.532G	91	5.694G	92	5.503G
93	5.365G	94	5.651G	95	5.628G	96	5.636G
97	5.584G	98	5.364G	99	5.423G	100	5.477G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_24

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.396G	2	5.620G	3	5.651G	4	5.590G
5	5.500G	6	5.368G	7	5.353G	8	5.591G
9	5.702G	10	5.344G	11	5.264G	12	5.506G
13	5.272G	14	5.450G	15	5.617G	16	5.290G
17	5.467G	18	5.490G	19	5.435G	20	5.671G
21	5.400G	22	5.640G	23	5.364G	24	5.383G
25	5.711G	26	5.420G	27	5.455G	28	5.541G
29	5.514G	30	5.610G	31	5.448G	32	5.509G
33	5.425G	34	5.287G	35	5.479G	36	5.411G
37	5.463G	38	5.599G	39	5.507G	40	5.609G
41	5.642G	42	5.388G	43	5.382G	44	5.255G
45	5.571G	46	5.715G	47	5.481G	48	5.665G
49	5.584G	50	5.405G	51	5.406G	52	5.328G
53	5.632G	54	5.583G	55	5.505G	56	5.301G
57	5.394G	58	5.587G	59	5.409G	60	5.655G
61	5.380G	62	5.414G	63	5.714G	64	5.367G
65	5.327G	66	5.606G	67	5.627G	68	5.673G
69	5.438G	70	5.494G	71	5.698G	72	5.437G
73	5.331G	74	5.526G	75	5.386G	76	5.266G
77	5.275G	78	5.592G	79	5.670G	80	5.542G
81	5.268G	82	5.716G	83	5.454G	84	5.654G
85	5.433G	86	5.323G	87	5.474G	88	5.308G
89	5.527G	90	5.485G	91	5.585G	92	5.325G
93	5.281G	94	5.370G	95	5.378G	96	5.662G
97	5.497G	98	5.428G	99	5.447G	100	5.310G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_25							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.638G	2	5.601G	3	5.429G	4	5.553G
5	5.561G	6	5.529G	7	5.262G	8	5.516G
9	5.544G	10	5.331G	11	5.376G	12	5.440G
13	5.354G	14	5.534G	15	5.656G	16	5.367G
17	5.292G	18	5.393G	19	5.522G	20	5.547G
21	5.251G	22	5.374G	23	5.317G	24	5.412G
25	5.566G	26	5.614G	27	5.531G	28	5.288G
29	5.712G	30	5.257G	31	5.484G	32	5.618G
33	5.456G	34	5.542G	35	5.540G	36	5.452G
37	5.511G	38	5.399G	39	5.460G	40	5.312G
41	5.356G	42	5.577G	43	5.650G	44	5.281G
45	5.252G	46	5.394G	47	5.720G	48	5.253G
49	5.517G	50	5.421G	51	5.588G	52	5.470G
53	5.259G	54	5.572G	55	5.264G	56	5.500G
57	5.282G	58	5.505G	59	5.545G	60	5.621G
61	5.596G	62	5.271G	63	5.336G	64	5.530G
65	5.710G	66	5.472G	67	5.696G	68	5.565G
69	5.527G	70	5.409G	71	5.420G	72	5.485G
73	5.642G	74	5.341G	75	5.509G	76	5.515G
77	5.569G	78	5.697G	79	5.363G	80	5.576G
81	5.424G	82	5.474G	83	5.371G	84	5.582G
85	5.469G	86	5.487G	87	5.315G	88	5.598G
89	5.364G	90	5.426G	91	5.634G	92	5.307G
93	5.323G	94	5.387G	95	5.636G	96	5.305G
97	5.513G	98	5.594G	99	5.607G	100	5.560G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_26							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.426G	2	5.626G	3	5.357G	4	5.472G
5	5.356G	6	5.283G	7	5.531G	8	5.420G
9	5.560G	10	5.365G	11	5.616G	12	5.453G
13	5.496G	14	5.367G	15	5.670G	16	5.451G
17	5.455G	18	5.334G	19	5.619G	20	5.452G
21	5.609G	22	5.397G	23	5.576G	24	5.429G
25	5.416G	26	5.716G	27	5.603G	28	5.322G
29	5.606G	30	5.458G	31	5.317G	32	5.714G
33	5.488G	34	5.432G	35	5.536G	36	5.371G
37	5.644G	38	5.665G	39	5.517G	40	5.587G
41	5.721G	42	5.342G	43	5.518G	44	5.466G
45	5.265G	46	5.366G	47	5.586G	48	5.461G
49	5.340G	50	5.425G	51	5.552G	52	5.509G
53	5.567G	54	5.595G	55	5.533G	56	5.440G
57	5.580G	58	5.351G	59	5.400G	60	5.516G
61	5.290G	62	5.684G	63	5.369G	64	5.693G
65	5.687G	66	5.441G	67	5.332G	68	5.298G
69	5.653G	70	5.394G	71	5.457G	72	5.526G
73	5.463G	74	5.418G	75	5.383G	76	5.695G
77	5.348G	78	5.548G	79	5.663G	80	5.315G
81	5.434G	82	5.558G	83	5.413G	84	5.433G
85	5.478G	86	5.304G	87	5.697G	88	5.359G
89	5.270G	90	5.677G	91	5.596G	92	5.638G
93	5.489G	94	5.691G	95	5.402G	96	5.269G
97	5.411G	98	5.347G	99	5.296G	100	5.534G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_27

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.714G	2	5.443G	3	5.584G	4	5.635G
5	5.566G	6	5.293G	7	5.457G	8	5.576G
9	5.703G	10	5.499G	11	5.461G	12	5.512G
13	5.661G	14	5.309G	15	5.719G	16	5.530G
17	5.603G	18	5.684G	19	5.317G	20	5.587G
21	5.476G	22	5.696G	23	5.597G	24	5.665G
25	5.480G	26	5.534G	27	5.283G	28	5.289G
29	5.281G	30	5.392G	31	5.445G	32	5.267G
33	5.607G	34	5.624G	35	5.251G	36	5.723G
37	5.253G	38	5.275G	39	5.456G	40	5.646G
41	5.311G	42	5.424G	43	5.366G	44	5.594G
45	5.628G	46	5.324G	47	5.640G	48	5.381G
49	5.616G	50	5.588G	51	5.644G	52	5.682G
53	5.716G	54	5.320G	55	5.713G	56	5.356G
57	5.552G	58	5.346G	59	5.441G	60	5.612G
61	5.327G	62	5.373G	63	5.525G	64	5.272G
65	5.306G	66	5.539G	67	5.263G	68	5.560G
69	5.593G	70	5.493G	71	5.425G	72	5.558G
73	5.377G	74	5.417G	75	5.605G	76	5.613G
77	5.707G	78	5.370G	79	5.608G	80	5.318G
81	5.672G	82	5.641G	83	5.689G	84	5.489G
85	5.307G	86	5.268G	87	5.611G	88	5.399G
89	5.681G	90	5.706G	91	5.649G	92	5.537G
93	5.678G	94	5.674G	95	5.397G	96	5.657G
97	5.340G	98	5.387G	99	5.595G	100	5.718G



Hopping Frequency Sequence Name: HOP\_FREQ\_SEQ\_28

SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.474G	2	5.669G	3	5.516G	4	5.396G
5	5.395G	6	5.494G	7	5.495G	8	5.452G
9	5.724G	10	5.357G	11	5.435G	12	5.668G
13	5.433G	14	5.420G	15	5.538G	16	5.377G
17	5.399G	18	5.550G	19	5.492G	20	5.612G
21	5.458G	22	5.293G	23	5.697G	24	5.274G
25	5.683G	26	5.625G	27	5.279G	28	5.595G
29	5.508G	30	5.489G	31	5.652G	32	5.352G
33	5.496G	34	5.582G	35	5.570G	36	5.698G
37	5.686G	38	5.320G	39	5.571G	40	5.676G
41	5.440G	42	5.280G	43	5.640G	44	5.649G
45	5.720G	46	5.287G	47	5.681G	48	5.361G
49	5.535G	50	5.593G	51	5.387G	52	5.355G
53	5.275G	54	5.349G	55	5.378G	56	5.311G
57	5.392G	58	5.639G	59	5.491G	60	5.335G
61	5.457G	62	5.645G	63	5.506G	64	5.714G
65	5.294G	66	5.261G	67	5.351G	68	5.631G
69	5.487G	70	5.653G	71	5.359G	72	5.637G
73	5.408G	74	5.413G	75	5.584G	76	5.292G
77	5.398G	78	5.322G	79	5.715G	80	5.290G
81	5.308G	82	5.345G	83	5.324G	84	5.529G
85	5.302G	86	5.285G	87	5.620G	88	5.410G
89	5.443G	90	5.284G	91	5.394G	92	5.488G
93	5.654G	94	5.254G	95	5.504G	96	5.587G
97	5.607G	98	5.343G	99	5.278G	100	5.250G



Hopping Frequency Sequence Name: HOP_FREQ_SEQ_29							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.619G	2	5.636G	3	5.554G	4	5.588G
5	5.426G	6	5.677G	7	5.306G	8	5.713G
9	5.692G	10	5.478G	11	5.411G	12	5.631G
13	5.460G	14	5.507G	15	5.540G	16	5.511G
17	5.374G	18	5.644G	19	5.285G	20	5.629G
21	5.468G	22	5.309G	23	5.556G	24	5.611G
25	5.297G	26	5.287G	27	5.567G	28	5.327G
29	5.261G	30	5.267G	31	5.354G	32	5.344G
33	5.269G	34	5.424G	35	5.440G	36	5.577G
37	5.675G	38	5.476G	39	5.718G	40	5.530G
41	5.622G	42	5.378G	43	5.364G	44	5.436G
45	5.311G	46	5.403G	47	5.489G	48	5.396G
49	5.560G	50	5.657G	51	5.557G	52	5.451G
53	5.714G	54	5.647G	55	5.599G	56	5.658G
57	5.693G	58	5.360G	59	5.351G	60	5.288G
61	5.648G	62	5.607G	63	5.266G	64	5.579G
65	5.406G	66	5.290G	67	5.580G	68	5.690G
69	5.425G	70	5.276G	71	5.703G	72	5.496G
73	5.638G	74	5.257G	75	5.510G	76	5.427G
77	5.649G	78	5.568G	79	5.434G	80	5.608G
81	5.683G	82	5.593G	83	5.601G	84	5.316G
85	5.566G	86	5.318G	87	5.324G	88	5.594G
89	5.555G	90	5.439G	91	5.466G	92	5.380G
93	5.614G	94	5.397G	95	5.265G	96	5.280G
97	5.357G	98	5.531G	99	5.561G	100	5.292G





Hopping Frequency Sequence Name: HOP_FREQ_SEQ_30							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.611G	2	5.539G	3	5.509G	4	5.687G
5	5.505G	6	5.657G	7	5.449G	8	5.285G
9	5.608G	10	5.581G	11	5.429G	12	5.461G
13	5.579G	14	5.503G	15	5.686G	16	5.259G
17	5.252G	18	5.710G	19	5.563G	20	5.472G
21	5.389G	22	5.464G	23	5.629G	24	5.492G
25	5.484G	26	5.614G	27	5.418G	28	5.599G
29	5.469G	30	5.458G	31	5.609G	32	5.706G
33	5.688G	34	5.669G	35	5.312G	36	5.339G
37	5.495G	38	5.518G	39	5.632G	40	5.450G
41	5.274G	42	5.591G	43	5.537G	44	5.366G
45	5.384G	46	5.643G	47	5.635G	48	5.445G
49	5.272G	50	5.479G	51	5.283G	52	5.439G
53	5.573G	54	5.601G	55	5.625G	56	5.720G
57	5.673G	58	5.604G	59	5.373G	60	5.511G
61	5.680G	62	5.540G	63	5.427G	64	5.321G
65	5.523G	66	5.273G	67	5.656G	68	5.406G
69	5.715G	70	5.370G	71	5.412G	72	5.297G
73	5.666G	74	5.694G	75	5.526G	76	5.678G
77	5.551G	78	5.574G	79	5.605G	80	5.349G
81	5.411G	82	5.516G	83	5.499G	84	5.428G
85	5.390G	86	5.483G	87	5.408G	88	5.416G
89	5.541G	90	5.528G	91	5.426G	92	5.380G
93	5.538G	94	5.344G	95	5.533G	96	5.414G
97	5.258G	98	5.278G	99	5.424G	100	5.616G