

Report No.: RF171024E05-3

FCC ID: KA2AP2680A1

Test Model: DAP-2680

Received Date: Oct. 24, 2017

Test Date: Nov 14 to 20, 2017

Issued Date: Jan. 25, 2018

Applicant: D-Link Corporation

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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RF171024E05-3	Original release.	Jan. 25, 2018

1 Certificate of Conformity

Product: Wireless AC1750 Wave 2 Dual-Band PoE Access Point

Brand: D-Link

Test Model: DAP-2680

Sample Status: ENGINEERING SAMPLE

Applicant: D-Link Corporation

Test Date: Nov 14 to 20, 2017

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

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

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 : Wendy Wu , **Date:** Jan. 25, 2018
Wendy Wu / Specialist

Approved by : May Chen , **Date:** Jan. 25, 2018
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	Wireless AC1750 Wave 2 Dual-Band PoE Access Point	DAP-2680	1.00 12:35:39 11/10/2017

2.3 Description of Available Antennas to the EUT

Table 3: Antenna List

Antenna No.	Model	Antenna Net Gain (dBi)	Frequency range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	NYS3072	3.6	2.4~2.4835	PIFA	i-pex (MHF)	60
		4.2	5.15~5.85			
2	NYS3073	3.6	2.4~2.4835	PIFA	i-pex (MHF)	70
		4.2	5.15~5.85			
3	NYS3074	3.5	2.4~2.4835	PIFA	i-pex (MHF)	160
		4	5.15~5.85			

2.4 EUT Maximum and Minimum Conducted Power

Table 4: The Measured Conducted Output Power

802.11a

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	127.854	21.07	32.137	15.07
5470~5725	127.395	21.05	31.989	15.05

802.11ac (VHT20)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	128.09	21.08	32.211	15.08
5470~5725	127.968	21.07	32.137	15.07

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	128.09	21.08	32.211	15.08
5470~5725	127.968	21.07	32.137	15.07

802.11ac (VHT40)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	246.757	23.92	61.944	17.92
5470~5725	246.496	23.92	61.944	17.92

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	123.671	20.92	31.046	14.92
5470~5725	125.318	20.98	31.477	14.98

802.11ac (VHT80)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	214.544	23.32	53.951	17.32
5470~5725	184.493	22.66	46.345	16.66

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	120.646	20.82	30.339	14.82
5470~5725	116.407	20.66	29.242	14.66

2.5 EUT Maximum and Minimum EIRP Power

Table 5: The EIRP Output Power List

802.11a

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	336.290	25.27	84.528	19.27
5470~5725	335.083	25.25	84.140	19.25

802.11ac (VHT20)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	336.911	25.28	84.723	19.28
5470~5725	336.590	25.27	84.528	19.27

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	996.587	29.99	250.611	23.99
5470~5725	995.638	29.98	250.035	23.98

802.11ac (VHT40)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	649.037	28.12	162.930	22.12
5470~5725	648.351	28.12	162.930	22.12

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	962.206	29.83	241.546	23.83
5470~5725	975.020	29.89	244.906	23.89

802.11ac (VHT80)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	564.308	27.52	141.906	21.52
5470~5725	485.266	26.86	121.899	20.86

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(mW)	Output Power(dBm)	Output Power(mW)	Output Power(dBm)
5250~5350	938.670	29.73	236.048	23.73
5470~5725	905.689	29.57	227.510	23.57

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.

Applicable	EIRP	FCC 15.407 (h)(1)
√	>500mW	The TPC mechanism is required for system with an EIRP of above 500mW
	<500mW	The TPC mechanism is not required for system with an EIRP of less 500mW

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	✓	✓ note	✓
DFS Detection Threshold	✓	Not required	✓
Channel Availability Check Time	✓	Not required	Not required
U-NII Detection Bandwidth	✓	Not required	✓

Note: Per KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02 section (b)(5/6), 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. An analyzer plot that contains a single 30-minute sweep on the original channel.

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

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

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

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 See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission 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 Test B: 15 unique PRI values randomly selected within the range of 518-3066μ sec, with a minimum increment of 1μ sec, excluding PRI values selected in Test A	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\text{min}} \text{ sec}} \right) \right\}$	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

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

Three subsets of trials will be performed with a minimum of ten trials per subset. The subset of trials differ in where the Long Pulse Type 5 Signal is tuned in frequency.

a) the Channel center frequency
b) tuned frequencies such that 90% of the Long Pulse Type 5 frequency modulation is within the low edge of the UUT Occupied Bandwidth
c) tuned frequencies such that 90% of the Long Pulse Type 5 frequency modulation is within the high edge of the UUT Occupied Bandwidth

It include 10 trails for every subset, the formula as below,

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

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

$$FL + (0.4 * \text{Chirp Width [in MHz]})$$

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

$$FH - (0.4 * \text{Chirp Width [in MHz]})$$

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.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer PXA	N9030A	MY54490520	Aug. 9, 2017	Aug. 8, 2018
Vector Signal Generator Agilent	N5182B	MY53051263	Sep.13 , 2017	Sep. 13, 2018
Horn_Antenna EMCO	1018G	0001	Dec 15, 2016	Dec. 14, 2017
DFS Control Box	BV-DFS-CB	001	Sep. 18, 2017	Sep. 17, 2018

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

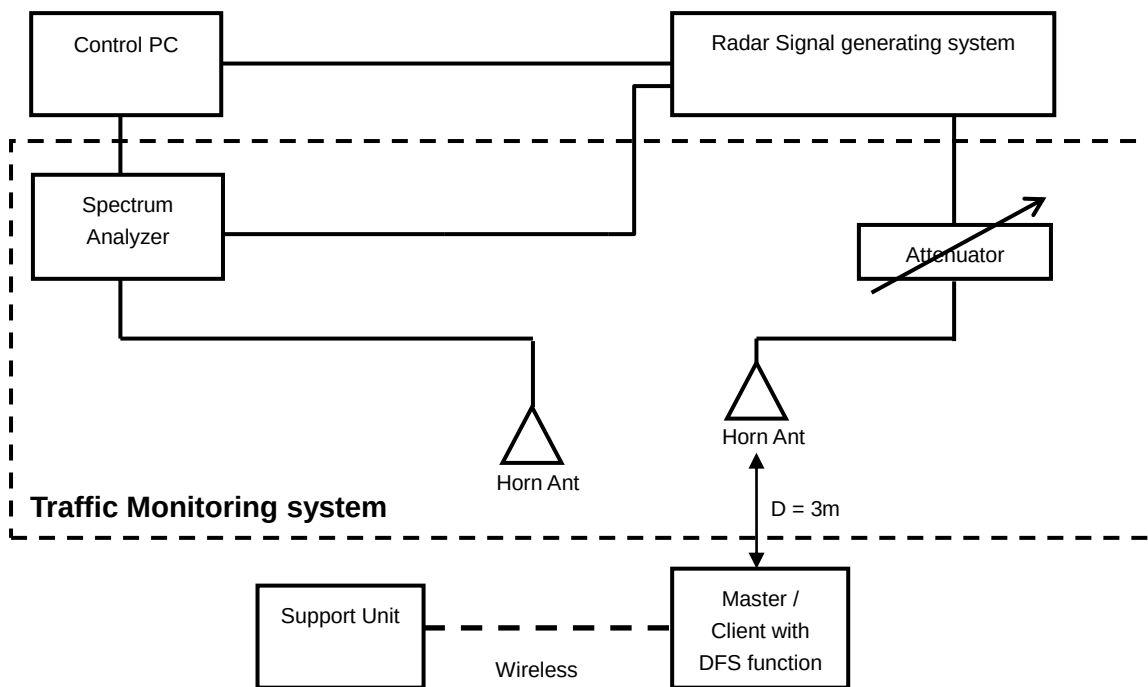
No.	Product	Model No.	Software/Firmware Version
1	Wireless LAN Unit	NP05LM	Driver Version: 06/18/2014, 1026.12.606.2014

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:

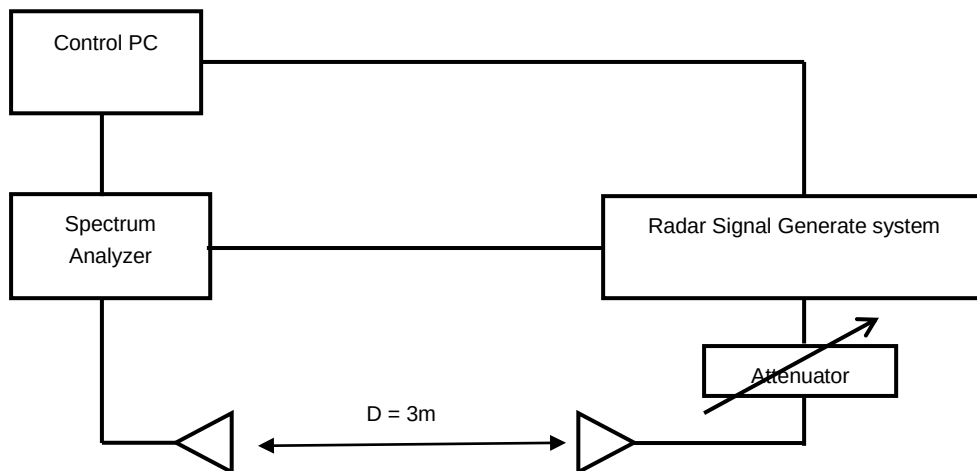
a)	The data file must be of a type that is typical for the device (i.e., MPEG-2, MPEG-4, WAV, MP3, MP4, AVI, etc.) and must generally be transmitting in a streaming mode.	
b)	Software to ping the client is permitted to simulate data transfer but must have random ping intervals.	
c)	Timing plots are required 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.



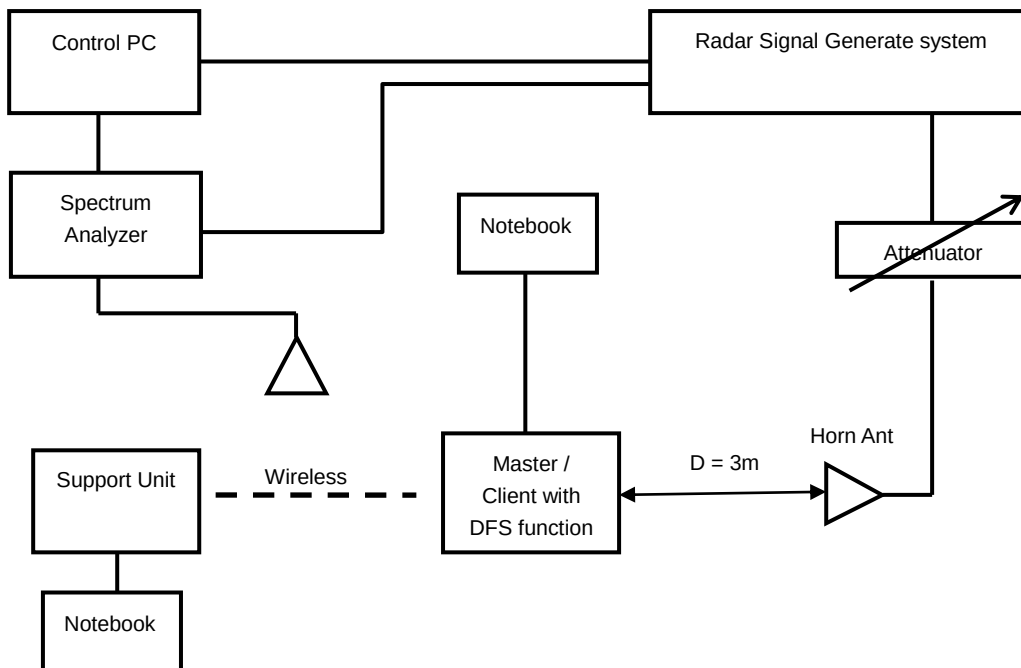
5.3 Deviation from Test Standard

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.



Note: The UUT main beam of the antenna is directly toward the radar emitter during testing.

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

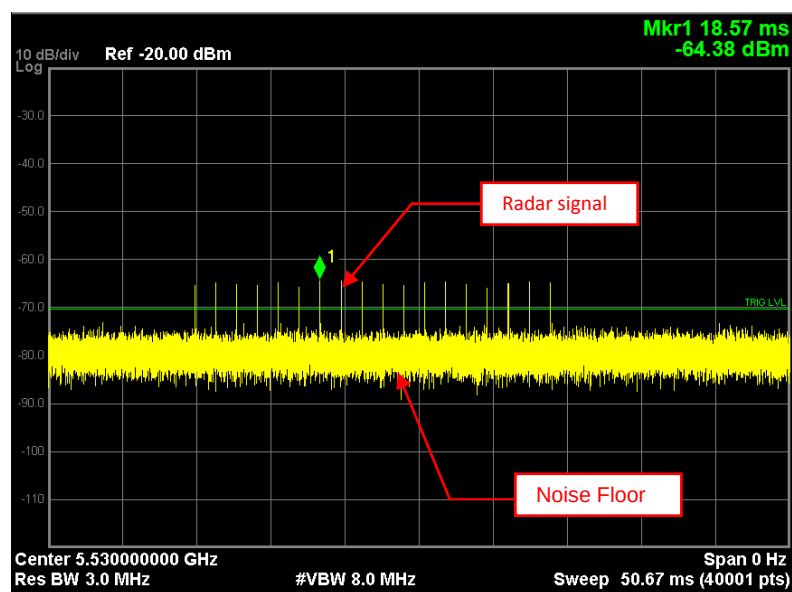
6.2 Test Results

6.2.1 Test Mode: Device Operating In Master Mode.

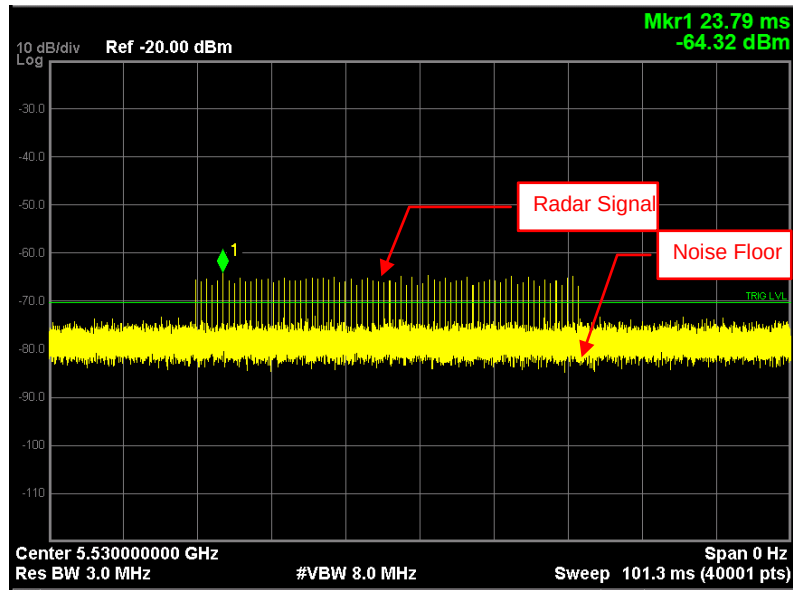
The radar test waveforms are injected into the Master.
 This test was investigated for different bandwidth (20MHz, 40MHz and 80MHz).
 The following plots were done on 80MHz as a representative

DFS Detection Threshold

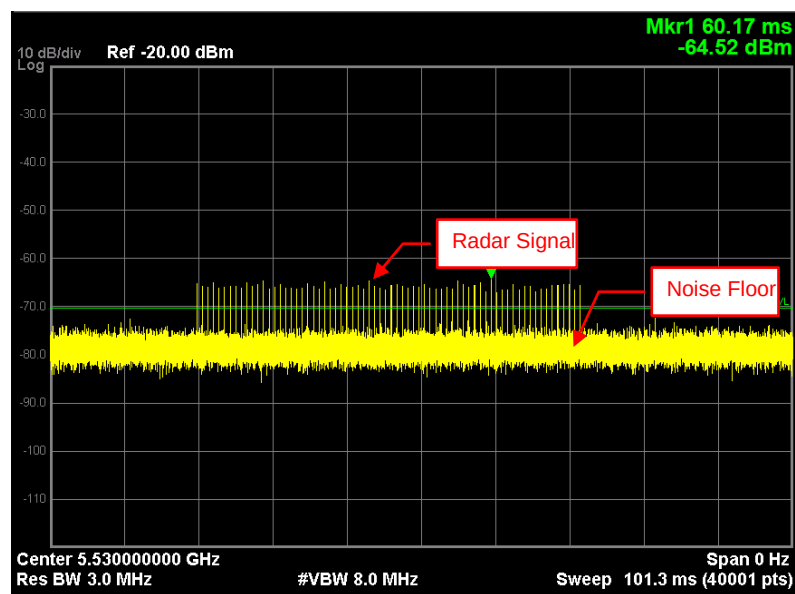
For detection threshold level of -64dBm, the tested level is lower than required level for 1dB, hence it provides margin to the limit.



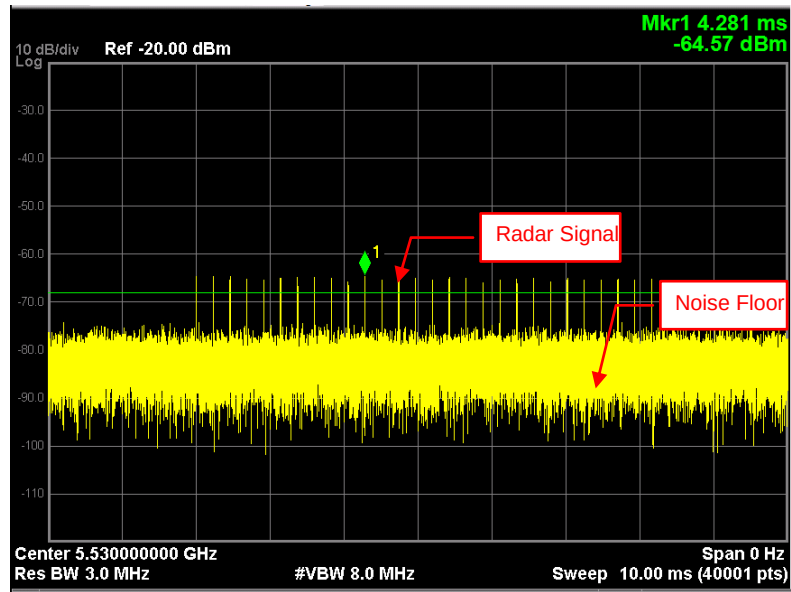
Radar Signal 0



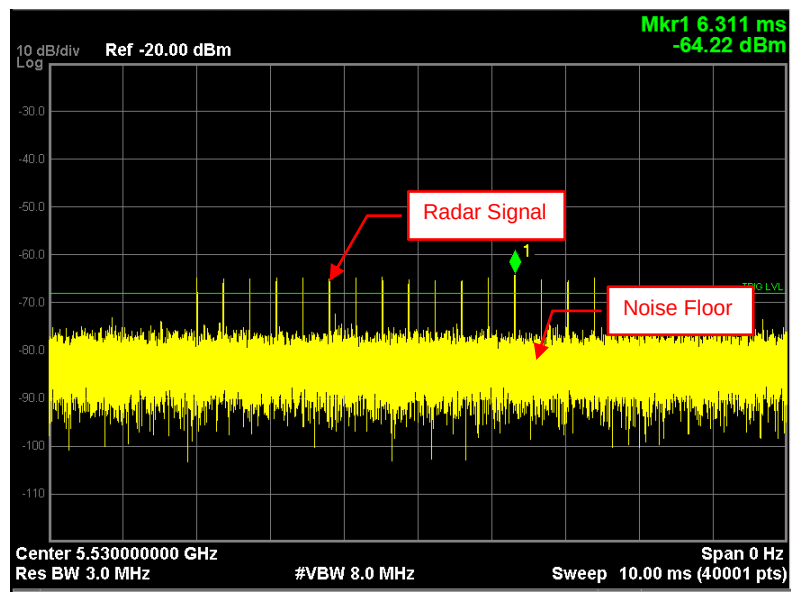
Radar Signal 1 (Test A)



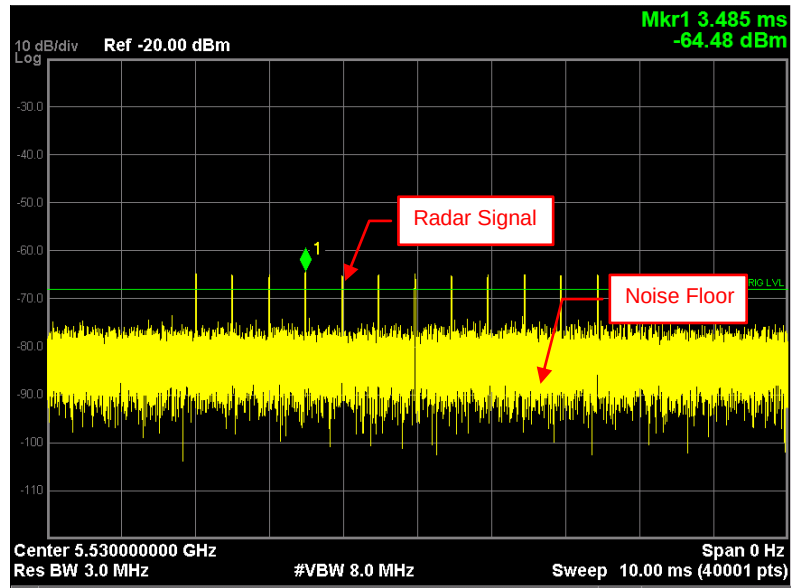
Radar Signal 1 (Test B)



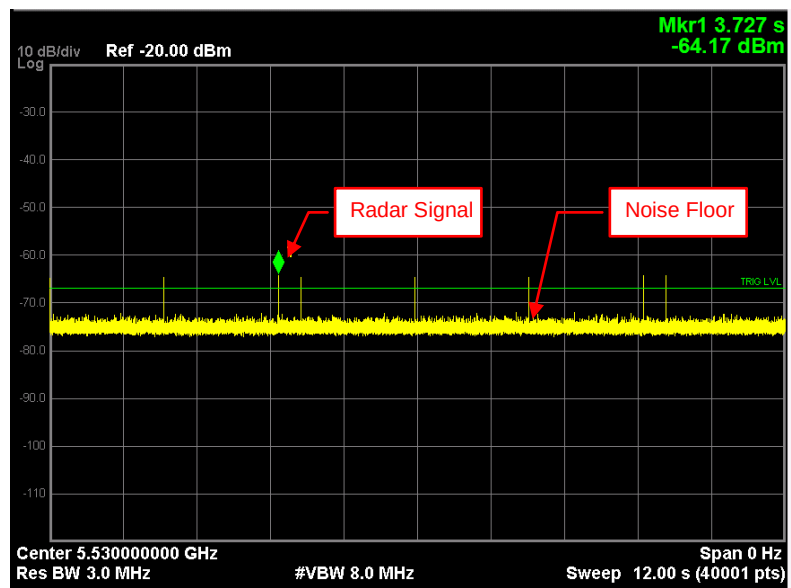
Radar Signal 2



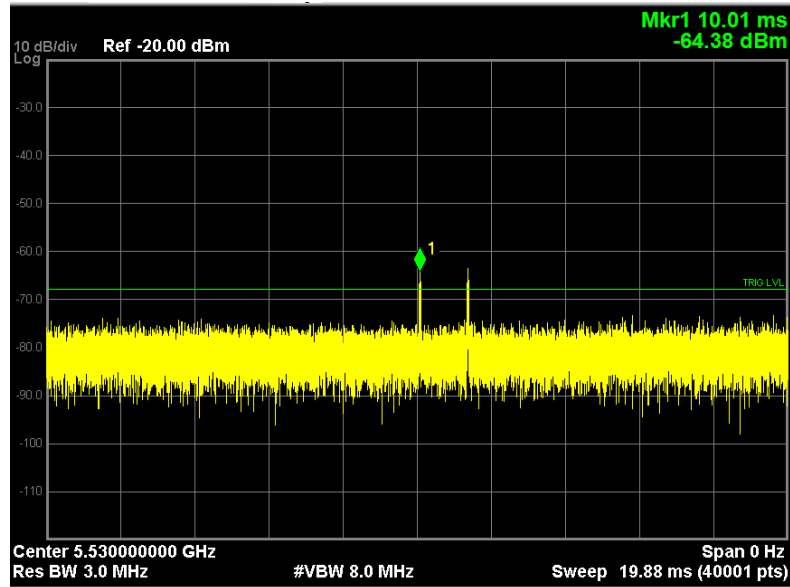
Radar Signal 3



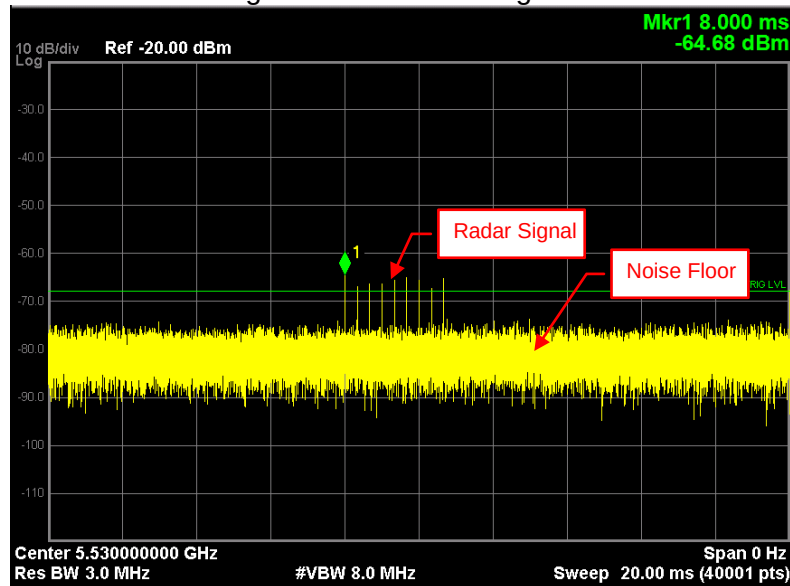
Single Burst of Radar Signal 4



Radar Signal 5



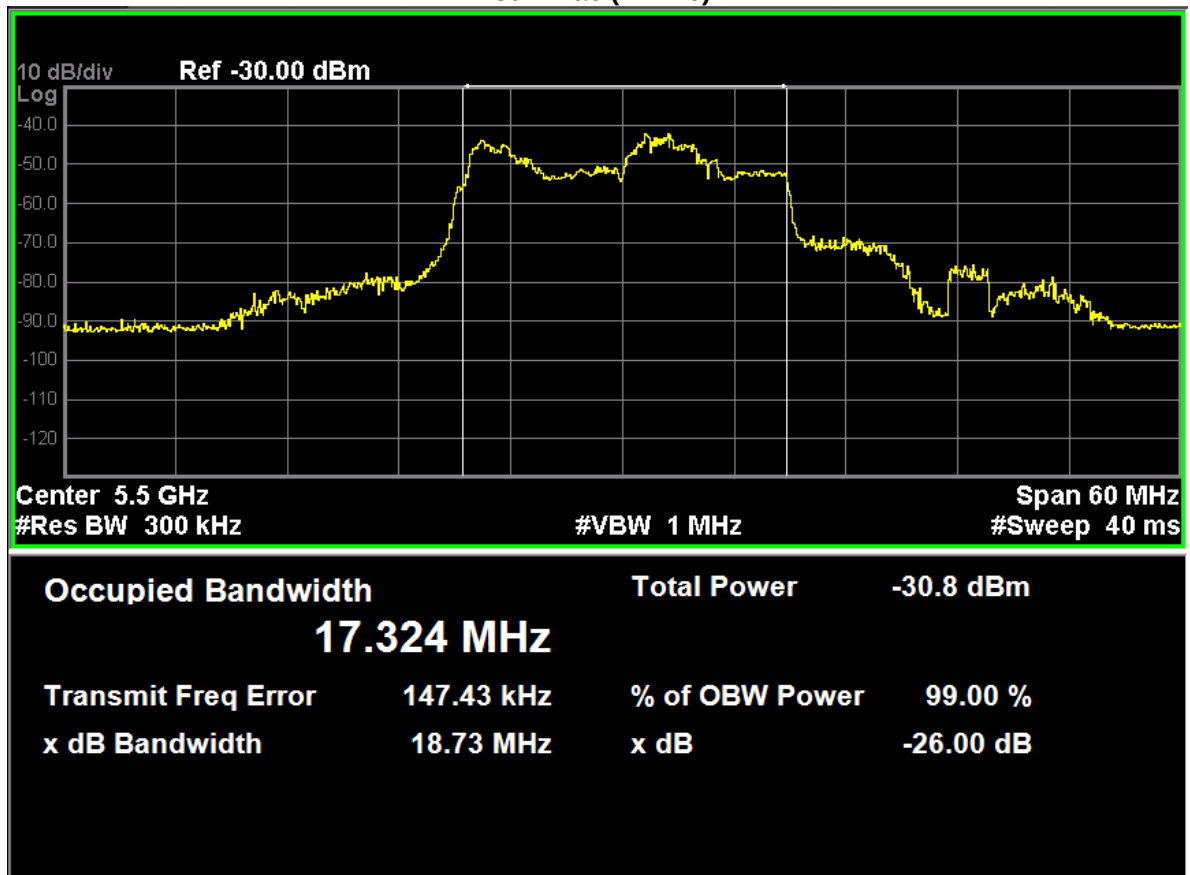
Single Burst of Radar Signal 5



Radar Signal 6

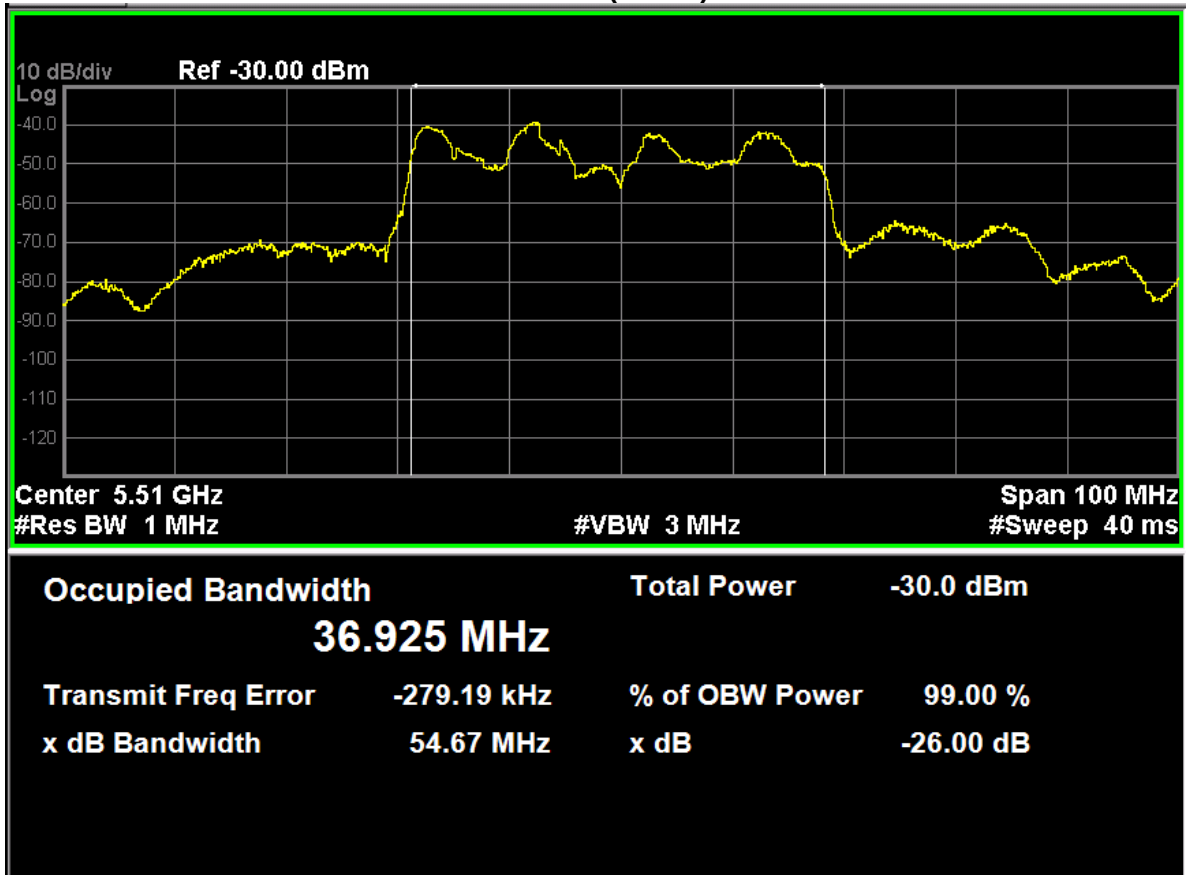
6.2.2 U-NII Detection Bandwidth

802.11ac (VHT20)



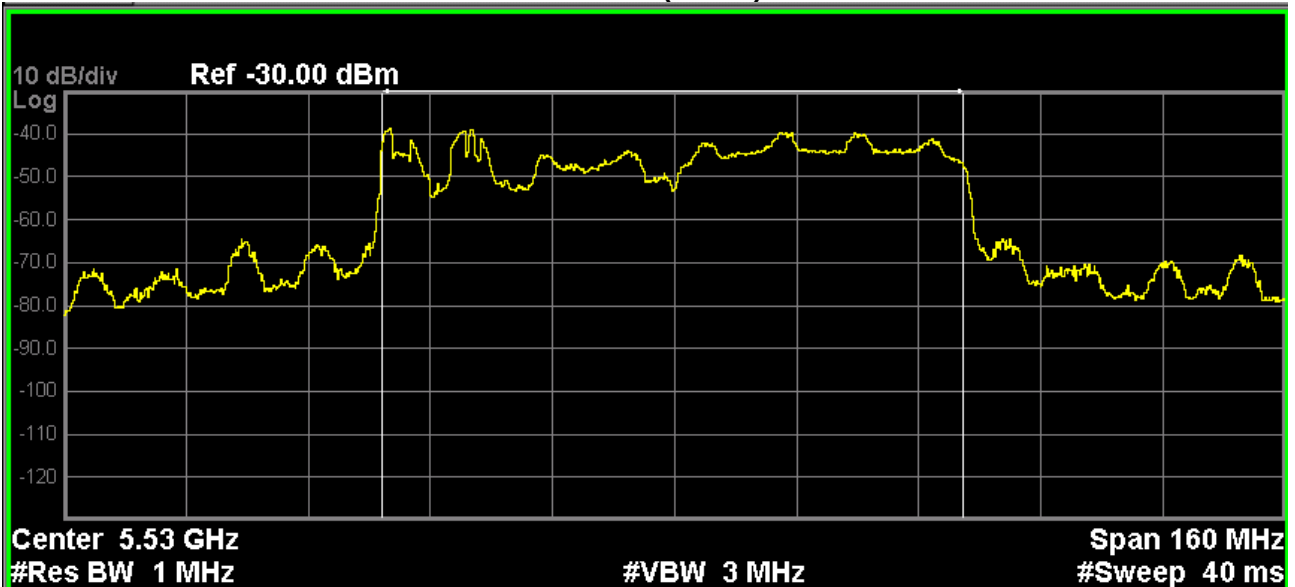
U-NII 99% Channel bandwidth

802.11ac (VHT40)



U-NII 99% Channel bandwidth

802.11ac (VHT80)



Occupied Bandwidth

Total Power

-25.8 dBm

76.103 MHz

Transmit Freq Error

-210.52 kHz

% of OBW Power

99.00 %

x dB Bandwidth

96.30 MHz

x dB

-26.00 dB

U-NII 99% Channel bandwidth

Detection Bandwidth Test - 802.11ac (VHT20)

Radar Type 0

EUT Frequency: 5500MHz

EUT 99% Power bandwidth: 17.324MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 17.324MHz

Detection bandwidth (5509(FH) – 5491(FL)) : 18MHz

Test Result : PASS

Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5491(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5496	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5497	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5498	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5499	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5501	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5502	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5503	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5504	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5506	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5507	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5508	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5509(FH)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90

Detection Bandwidth Test - 802.11ac (VHT40)

Radar Type 0

EUT Frequency: 5510MHz

EUT 99% Power bandwidth: 36.925MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 36.925MHz

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	
5491(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5496	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5497	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5498	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5499	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5501	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5502	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5503	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5504	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5506	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5507	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5508	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5509	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5510	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5511	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5512	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5513	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5514	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5515	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5516	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5517	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5518	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5519	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5520	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5521	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5522	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5523	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5524	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5525	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5526	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5527	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5528	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5529(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	90

Detection Bandwidth Test - 802.11ac (VHT80)

Radar Type 0

EUT Frequency: 5530MHz

EUT 99% Power bandwidth: 76.103MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 76.103MHz

Detection bandwidth (5569(FH) – 5491(FL)) : 78MHz

Test Result : PASS

Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5491(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5496	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5497	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5498	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5499	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5501	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5502	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5503	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5504	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5506	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5507	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5508	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5509	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5510	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5511	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5512	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5513	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5514	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5515	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5516	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5517	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5518	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5519	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5520	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5521	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5522	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5523	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5524	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5525	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5526	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5527	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5528	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5529	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5530	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5531	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5532	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5533	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5534	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5535	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100

5536	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5537	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5538	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5539	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5540	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5541	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5542	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5543	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5544	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5545	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5546	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5547	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5548	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5549	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5550	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5551	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5552	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5553	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5554	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5555	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5556	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5557	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5558	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5559	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5560	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5561	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5562	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5563	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5564	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5565	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5566	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5567	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5568	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5569(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100

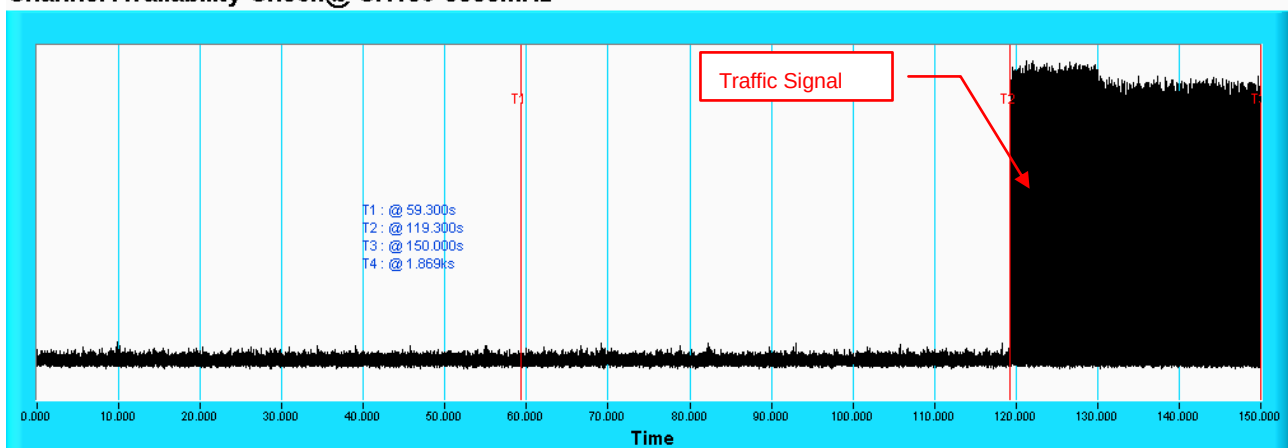
6.2.3 Channel Availability Check Time

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

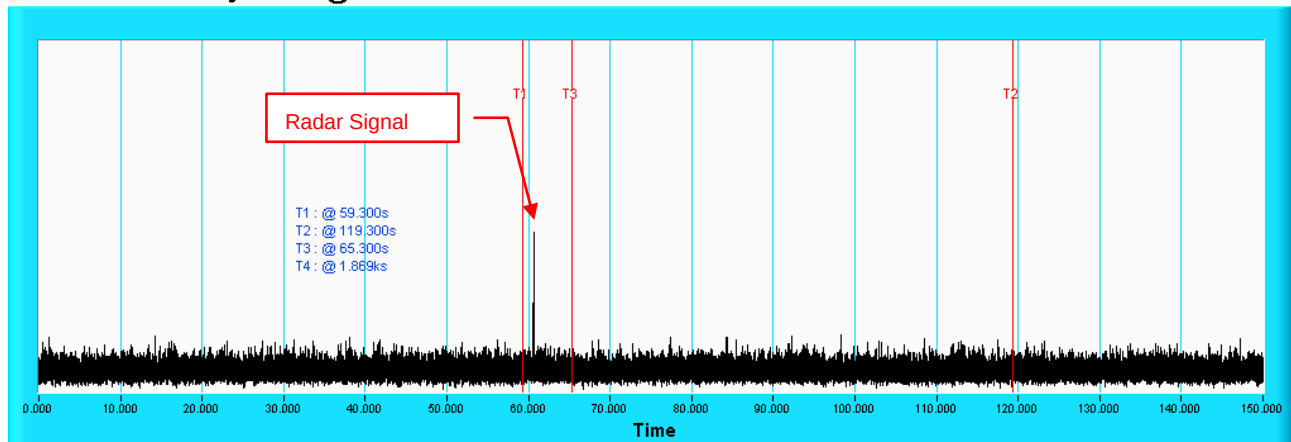
Channel Availability Check@ CH106-5530MHz



NOTE: T1 denotes the end of power-up time period is 59.3th second. T2 denotes the end of Channel Availability Check time is 119.3th second. Channel Availability Check time is equal to (T2 – T1) 60 seconds.

Radar Burst at the Beginning of the Channel Availability Check Time

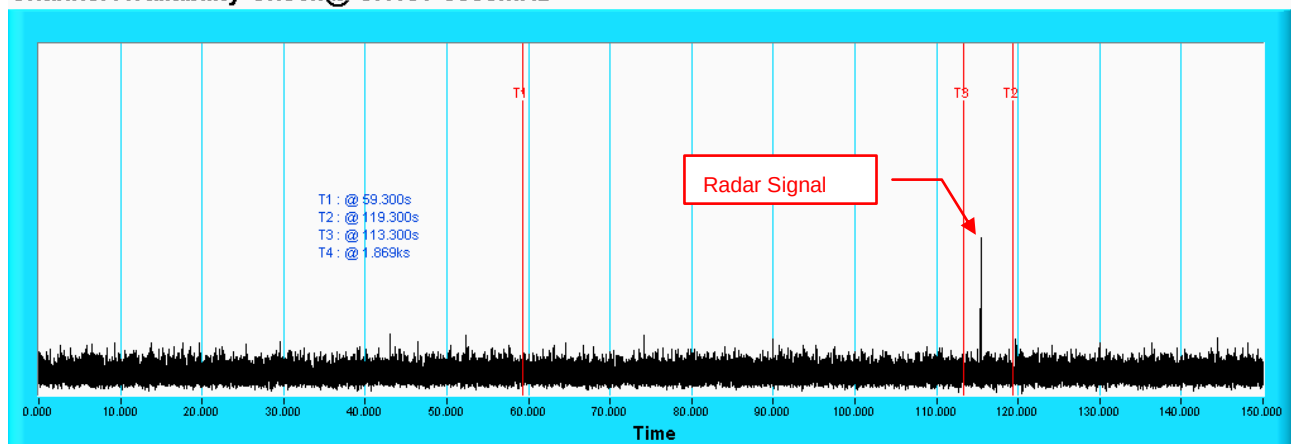
Channel Availability Check@ CH106-5530MHz



NOTE: T1 denotes the end of power up time period is 59.3th second. T3 denotes 65.3th second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T2 denotes the 119.3th second.

Radar Burst at the End of the Channel Availability Check Time

Channel Availability Check@ CH106-5530MHz



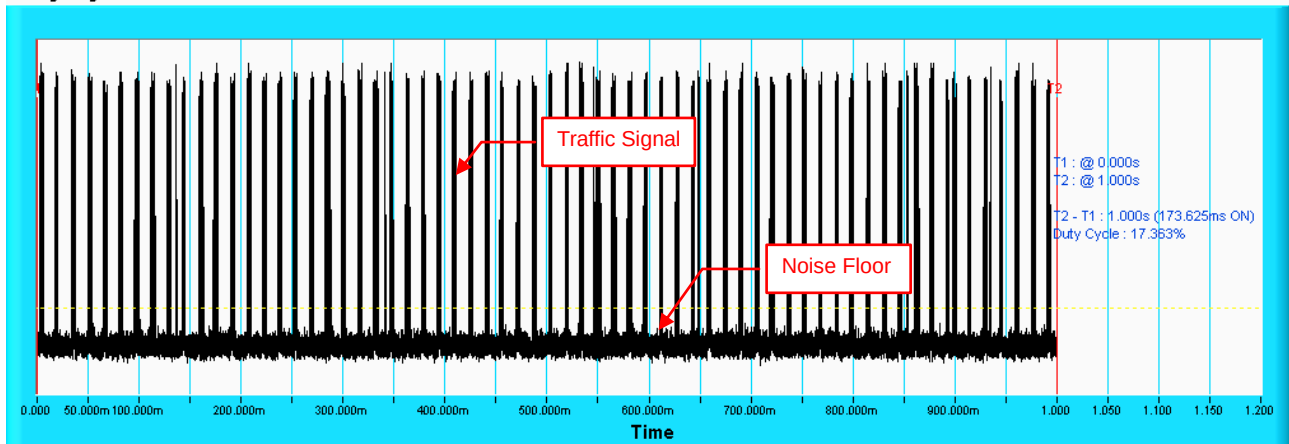
NOTE: T1 denotes the end of power up time period is 59.3th second. T3 denotes 113.3th second and the radar burst was commenced within 54th second to 60th second window starting from the end of power-up sequence. T2 denotes the 119.3th second.

6.2.4 Channel Closing Transmission and Channel Move Time

Wireless Traffic Loading

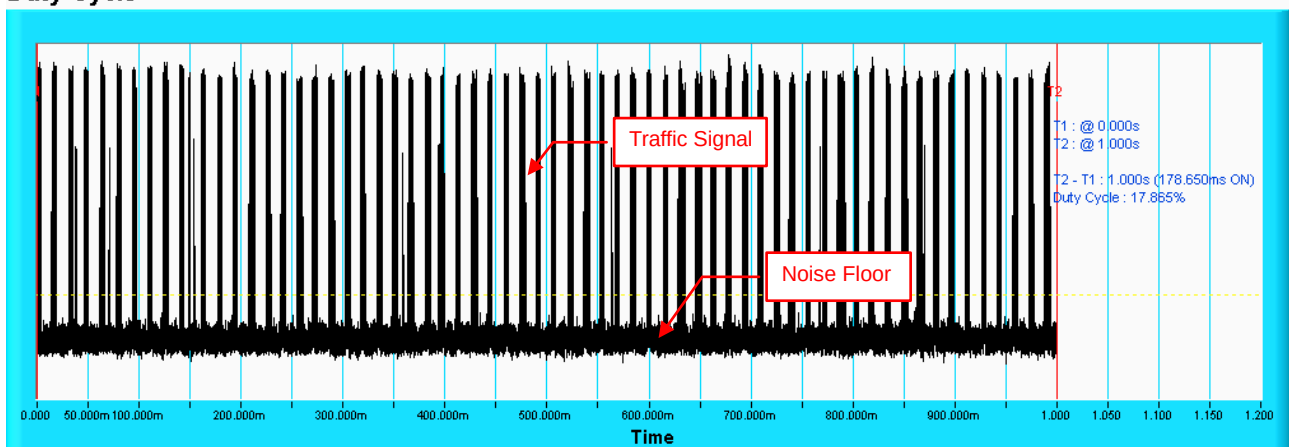
802.11ac (VHT20)

Duty Cycle



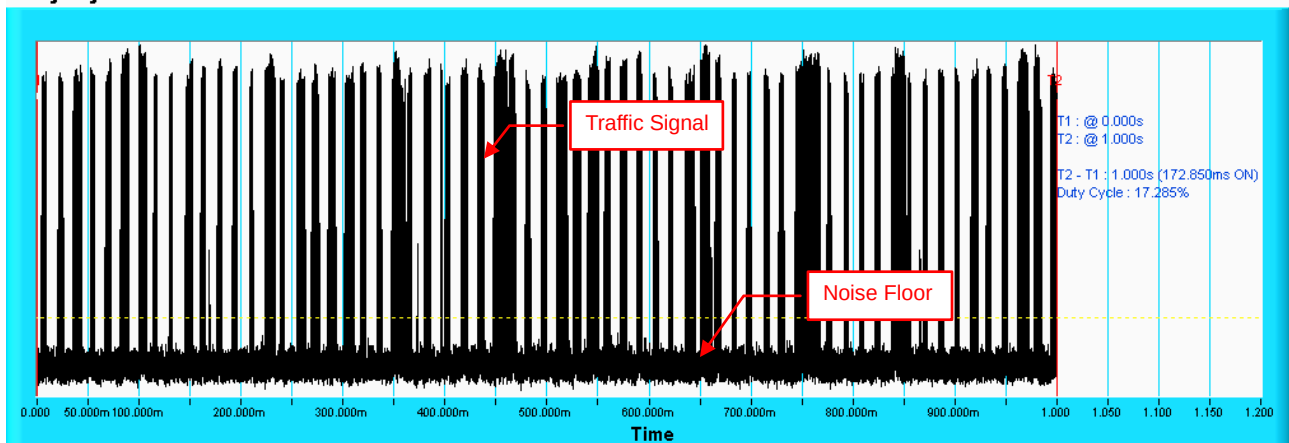
802.11ac (VHT40)

Duty Cycle



802.11ac (VHT80)

Duty Cycle



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	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right) \right\}$	18	30	96.7
	Test B: 15 unique PRI values randomly selected within the range of 518~3066μ sec with a minimum of 1μ sec, excluding PRI values selected in Test A				
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	90
Aggregate (Radar Types 1-4)				120	94.2

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	90

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	93.3

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	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{ \left\lceil \frac{1}{360} \right\rceil \cdot \left\lceil \frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right\rceil \right\}$	18	30	100
	Test B: 15 unique PRI values randomly selected within the range of 518~3066μ sec with a minimum of 1μ sec, excluding PRI values selected in Test A				
2	1-5	150-230	23-29	30	96.7
3	6-10	200-500	16-18	30	93.3
4	11-20	200-500	12-16	30	73.3
Aggregate (Radar Types 1-4)				120	90.8

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	96.7

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

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	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right) \right\}$	18	30	100
	Test B: 15 unique PRI values randomly selected within the range of 518~3066μ sec with a minimum of 1μ sec, excluding PRI values selected in Test A				
2	1-5	150-230	23-29	30	96.7
3	6-10	200-500	16-18	30	86.7
4	11-20	200-500	12-16	30	86.7
Aggregate (Radar Types 1-4)				120	92.5

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	96.7

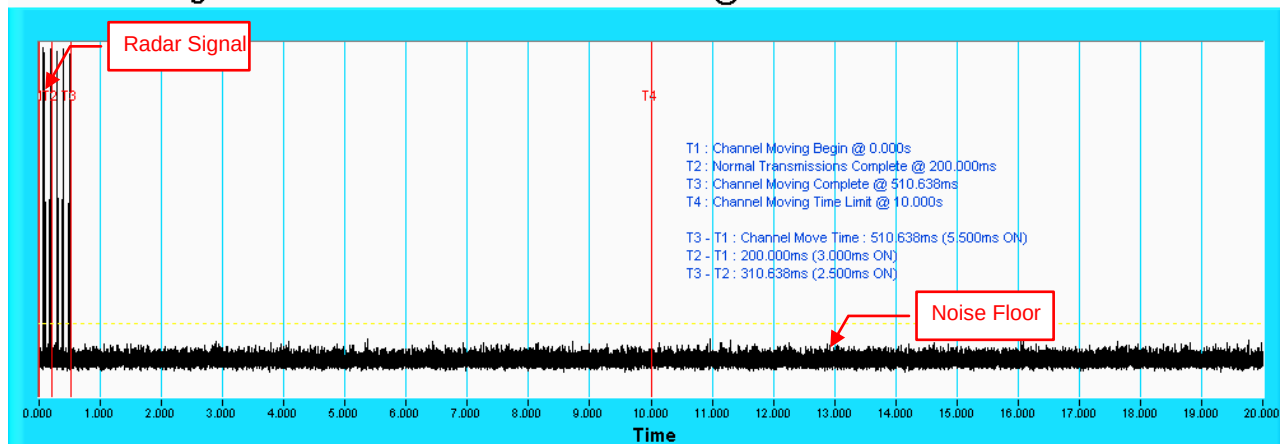
Table 3: Frequency Hopping Radar Test Waveform

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	100

Radar signal 0

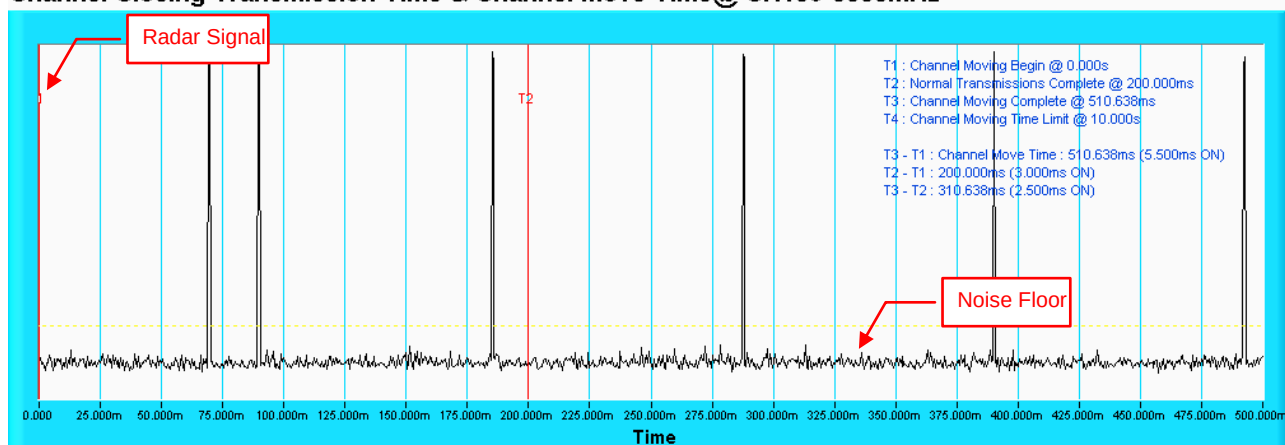
802.11ac (VHT80)

Channel Closing Transmission Time & Channel Move Time@ CH106-5530MHz



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@ CH106-5530MHz

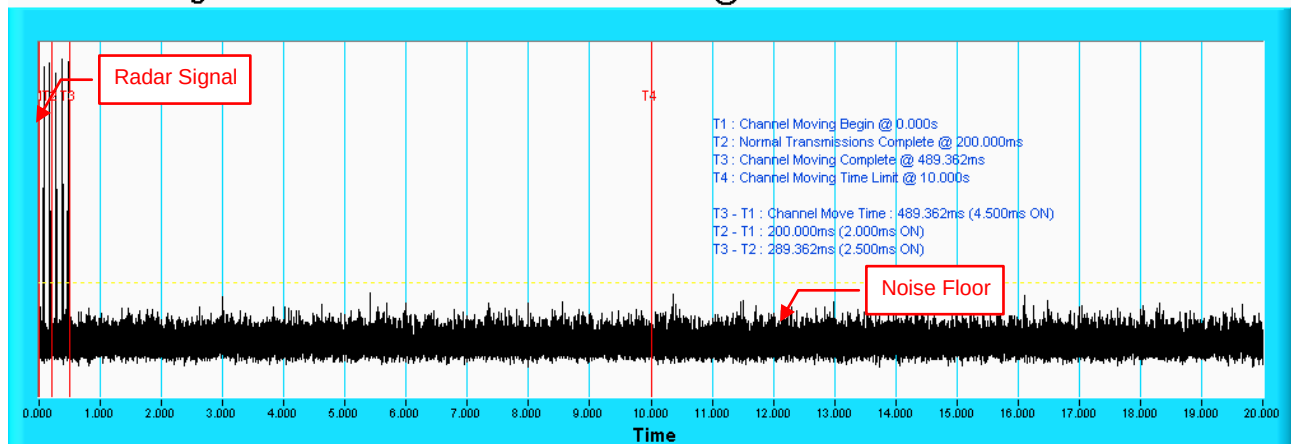


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 1

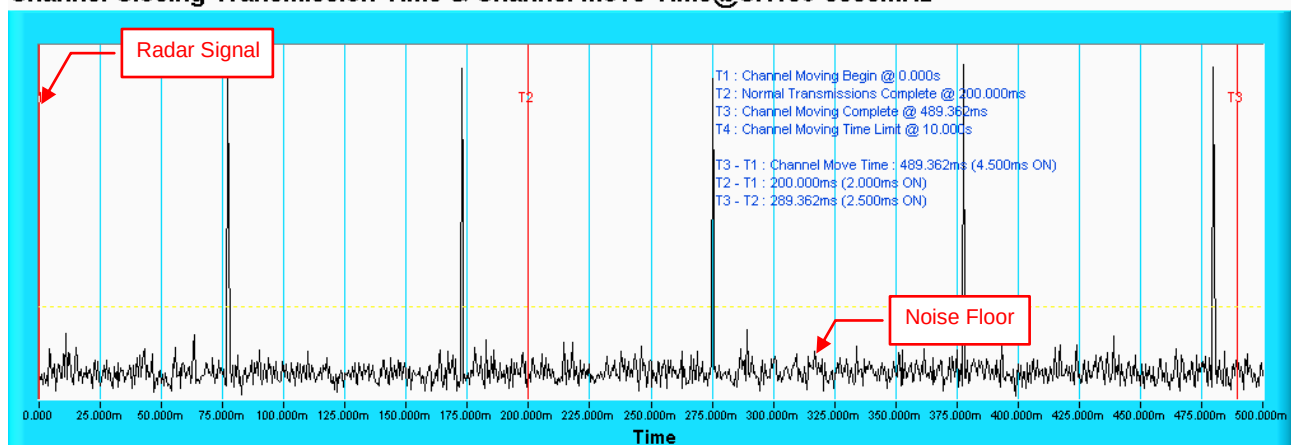
802.11ac (VHT80)

Channel Closing Transmission Time & Channel Move Time@CH106-5530MHz



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@CH106-5530MHz

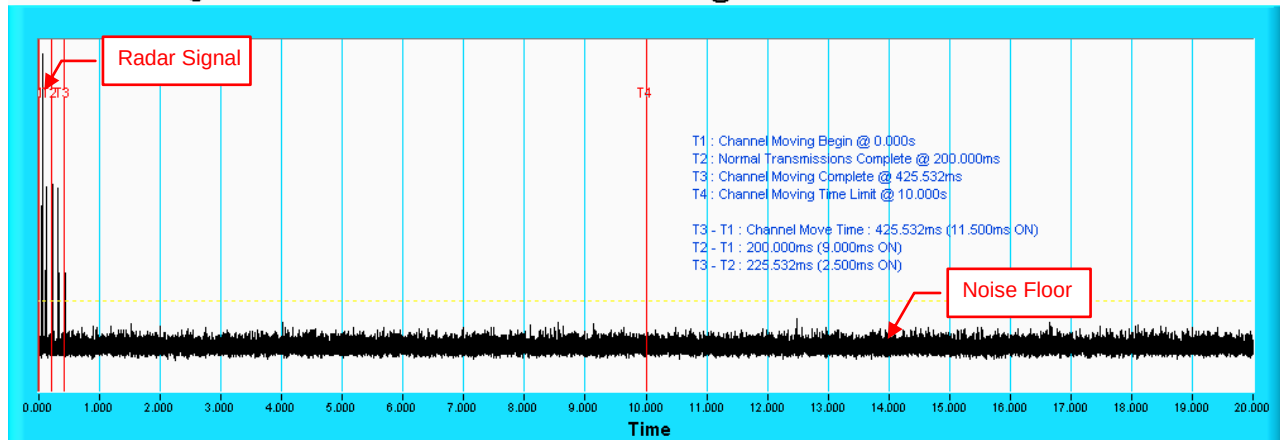


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 2

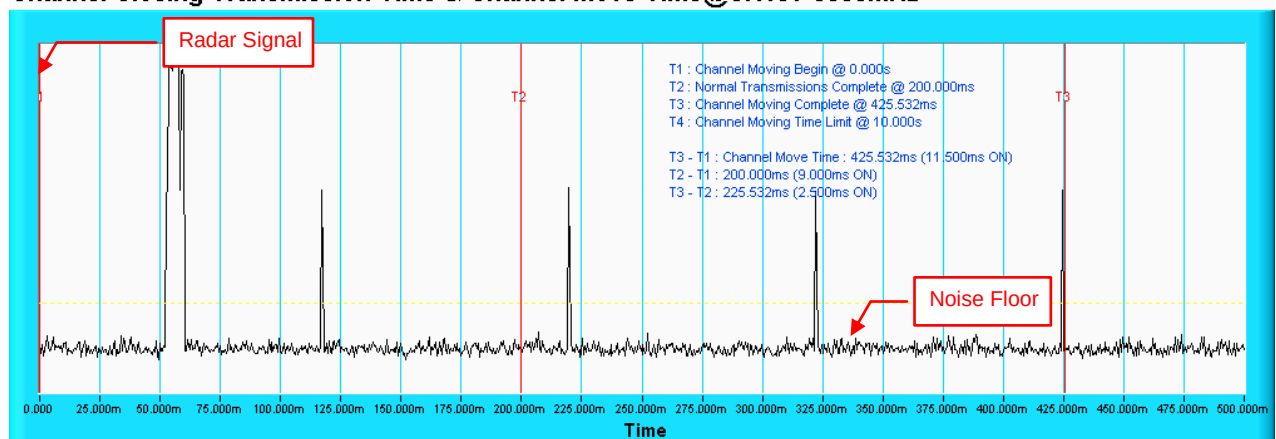
802.11ac (VHT80)

Channel Closing Transmission Time & Channel Move Time@CH106-5530MHz



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@CH106-5530MHz

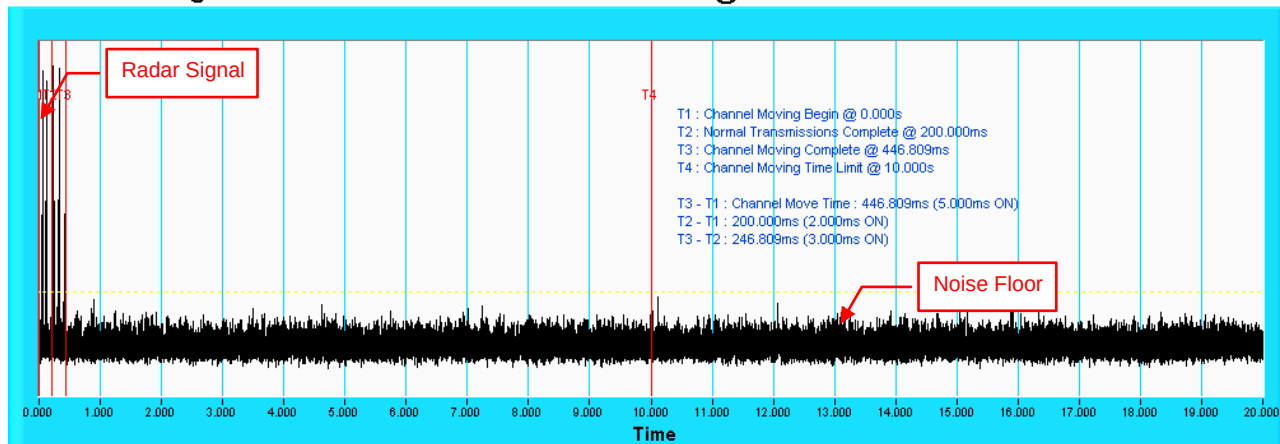


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 3

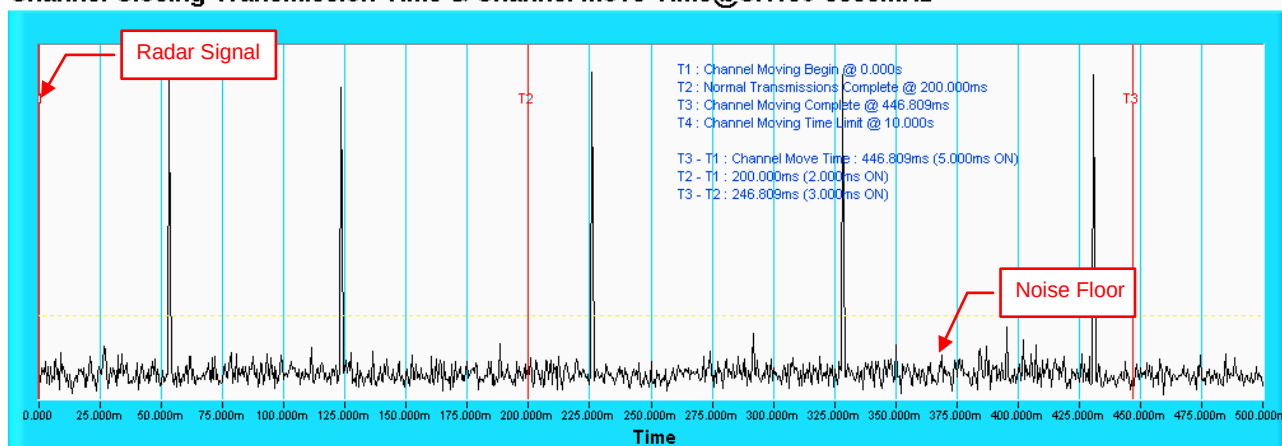
802.11ac (VHT80)

Channel Closing Transmission Time & Channel Move Time@CH106-5530MHz



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@CH106-5530MHz

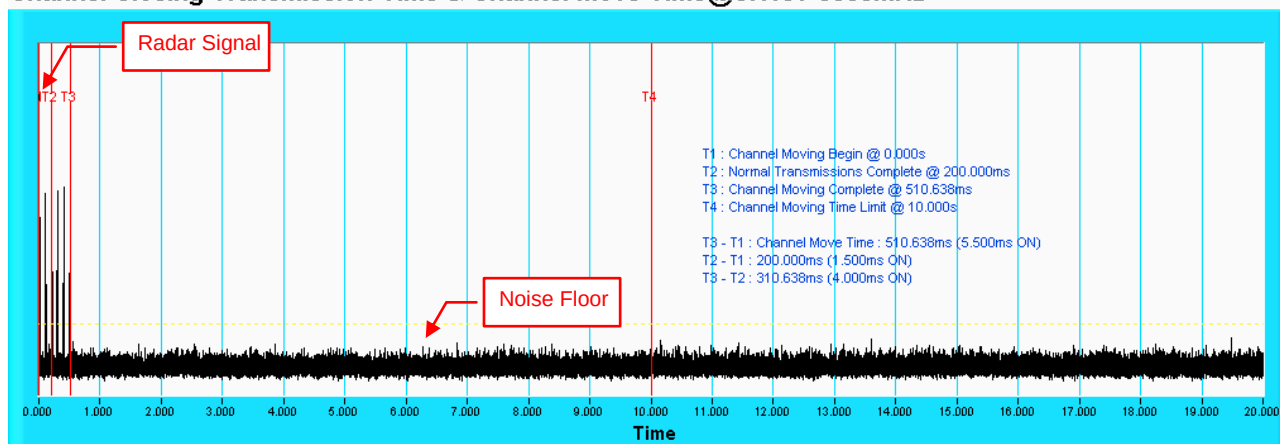


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 4

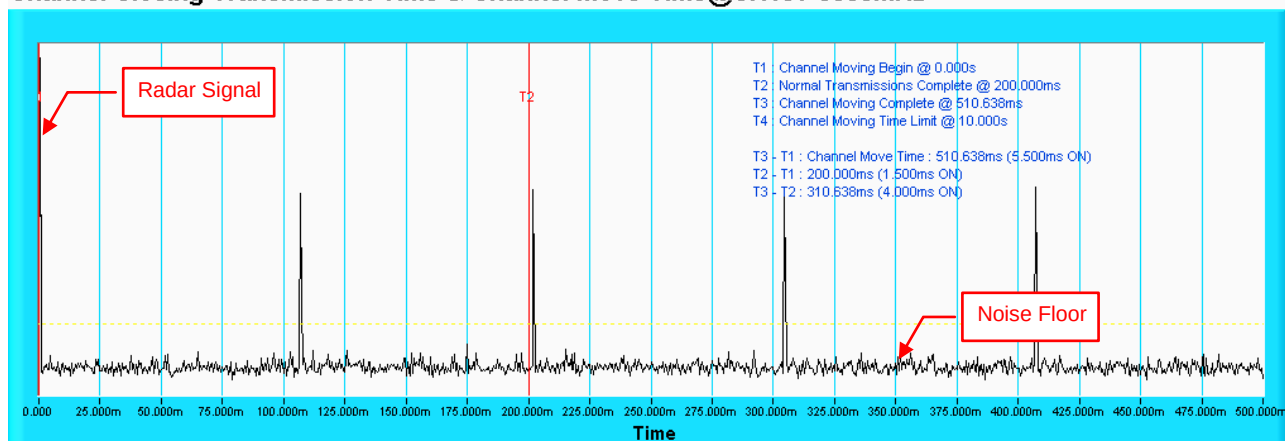
802.11ac (VHT80)

Channel Closing Transmission Time & Channel Move Time@CH106-5530MHz



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@CH106-5530MHz



NOTE: Zoom in of the first 500ms after radar signal applied.

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	17	1193	63	838	Yes
2	5507	22	1066	57	938	Yes
3	5503	10	1433	76	698	Yes
4	5497	2	1859	99	538	Yes
5	5495	20	1114	59	898	Yes
6	5504	19	1139	61	878	Yes
7	5494	6	1618	86	618	Yes
8	5508	21	1089	58	918	Yes
9	5500	5	1672	89	598	Yes
10	5496	1	1931	102	518	Yes
11	5504	12	1355	72	738	Yes
12	5503	14	1285	68	778	Yes
13	5493	16	1223	65	818	Yes
14	5500	4	1730	92	578	Yes
15	5494	15	1253	67	798	Yes
16	5497		565.6	30	1768	Yes
17	5506		393.9	21	2539	No
18	5492		513.3	28	1948	Yes
19	5495		391.7	21	2553	Yes
20	5504		424.1	23	2358	Yes
21	5505		1431	76	699	Yes
22	5494		862.8	46	1159	Yes
23	5492		460.4	25	2172	Yes
24	5504		433.5	23	2307	Yes
25	5504		575	31	1739	Yes
26	5502		474.2	26	2109	Yes
27	5493		435.2	23	2298	Yes
28	5503		912.4	49	1096	Yes
29	5509		399.2	22	2505	Yes
30	5503		471.7	25	2120	Yes
Detection Rate: 96.7 %						

802.11ac (VHT20)

Type 2 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	26	2.9	215	Yes
2	5493	23	1.1	205	Yes
3	5495	26	2.8	221	Yes
4	5500	29	4.7	192	Yes
5	5496	24	1.7	152	Yes
6	5504	24	1.7	193	Yes
7	5496	28	4.4	184	Yes
8	5505	29	4.9	190	Yes
9	5499	25	2.3	161	Yes
10	5506	25	2.3	178	Yes
11	5500	25	2.6	171	Yes
12	5508	23	1.2	167	Yes
13	5505	24	1.7	159	No
14	5491	24	1.7	214	Yes
15	5502	27	3.7	209	Yes
16	5495	29	4.6	182	Yes
17	5494	26	2.9	176	Yes
18	5493	28	4.3	172	Yes
19	5502	29	4.9	151	Yes
20	5506	27	3.3	200	Yes
21	5509	24	2.1	229	Yes
22	5491	26	3.2	179	Yes
23	5503	28	4.4	222	Yes
24	5500	29	4.5	181	Yes
25	5503	28	4.1	160	Yes
26	5505	27	3.4	206	Yes
27	5500	25	2.6	211	Yes
28	5494	26	3	174	Yes
29	5492	27	3.3	197	Yes
30	5500	29	4.8	226	No
Detection Rate: 93.3 %					

802.11ac (VHT20)
Type 3 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	17	7.9	301	Yes
2	5504	16	6.1	385	Yes
3	5503	17	7.8	479	Yes
4	5494	18	9.7	394	Yes
5	5501	16	6.7	477	Yes
6	5501	16	6.7	290	Yes
7	5501	18	9.4	324	Yes
8	5492	18	9.9	358	Yes
9	5495	17	7.3	302	Yes
10	5498	16	7.3	231	Yes
11	5493	17	7.6	482	Yes
12	5500	16	6.2	334	Yes
13	5497	16	6.7	268	Yes
14	5503	16	6.7	490	Yes
15	5492	18	8.7	284	Yes
16	5497	18	9.6	318	Yes
17	5494	17	7.9	269	Yes
18	5508	18	9.3	475	Yes
19	5493	18	9.9	208	Yes
20	5500	17	8.3	342	No
21	5501	16	7.1	243	Yes
22	5509	17	8.2	265	Yes
23	5504	18	9.4	392	Yes
24	5508	18	9.5	368	Yes
25	5503	18	9.1	332	Yes
26	5506	17	8.4	262	Yes
27	5494	17	7.6	238	Yes
28	5501	17	8	200	Yes
29	5507	17	8.3	204	Yes
30	5492	18	9.8	229	Yes
Detection Rate: 96.7 %					

802.11ac (VHT20)
Type 4 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	14	15.3	301	Yes
2	5502	12	11.4	385	Yes
3	5501	14	15.1	479	Yes
4	5505	16	19.2	394	Yes
5	5493	12	12.5	477	Yes
6	5503	12	12.5	290	Yes
7	5503	16	18.5	324	Yes
8	5496	16	19.7	358	No
9	5495	13	14	302	No
10	5506	13	14	231	Yes
11	5509	13	14.6	482	Yes
12	5495	12	11.5	334	Yes
13	5503	12	12.7	268	Yes
14	5502	12	12.7	490	Yes
15	5508	15	17.2	284	Yes
16	5503	16	19.1	318	Yes
17	5503	14	15.4	269	Yes
18	5501	16	18.4	475	Yes
19	5495	16	19.8	208	Yes
20	5502	14	16.2	342	No
21	5497	13	13.5	243	Yes
22	5496	14	15.9	265	Yes
23	5493	16	18.7	392	Yes
24	5494	16	18.9	368	Yes
25	5504	15	18	332	Yes
26	5501	15	16.4	262	Yes
27	5504	13	14.5	238	Yes
28	5491	14	15.5	200	Yes
29	5505	14	16.3	204	Yes
30	5502	16	19.5	229	Yes
Detection Rate: 90 %					

802.11ac (VHT20)

Type 5 Radar Statistical Performances				
Trial #	Minimum Chirp Width(MHz)	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	12	5500	LP_Signal_01	Yes
2	5	5500	LP_Signal_02	Yes
3	12	5500	LP_Signal_03	Yes
4	19	5500	LP_Signal_04	No
5	7	5500	LP_Signal_05	Yes
6	7	5500	LP_Signal_06	Yes
7	18	5500	LP_Signal_07	Yes
8	20	5500	LP_Signal_08	Yes
9	10	5500	LP_Signal_09	No
10	10	5500	LP_Signal_10	Yes
11	11	5495	LP_Signal_11	Yes
12	5	5493	LP_Signal_12	Yes
13	8	5494	LP_Signal_13	Yes
14	8	5494	LP_Signal_14	Yes
15	15	5497	LP_Signal_15	Yes
16	19	5499	LP_Signal_16	Yes
17	12	5496	LP_Signal_17	Yes
18	18	5498	LP_Signal_18	Yes
19	20	5499	LP_Signal_19	Yes
20	14	5497	LP_Signal_20	Yes
21	9	5505	LP_Signal_21	Yes
22	13	5504	LP_Signal_22	Yes
23	18	5502	LP_Signal_23	Yes
24	19	5501	LP_Signal_24	No
25	17	5502	LP_Signal_25	Yes
26	14	5503	LP_Signal_26	Yes
27	11	5505	LP_Signal_27	Yes
28	13	5504	LP_Signal_28	Yes
29	14	5503	LP_Signal_29	Yes
30	20	5501	LP_Signal_30	Yes
				Detection Rate: 90 %

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	No
6	9	1	333.3	Yes
7	9	1	333.3	Yes
8	9	1	333.3	Yes
9	9	1	333.3	No
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	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	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	No
6	HOP_FREQ_SEQ_06	Yes
7	HOP_FREQ_SEQ_07	Yes
8	HOP_FREQ_SEQ_08	Yes
9	HOP_FREQ_SEQ_09	No
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	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	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	17	1193	63	838	Yes
2	5520	22	1066	57	938	Yes
3	5500	10	1433	76	698	Yes
4	5500	2	1859	99	538	Yes
5	5525	20	1114	59	898	Yes
6	5506	19	1139	61	878	Yes
7	5501	6	1618	86	618	Yes
8	5528	21	1089	58	918	Yes
9	5513	5	1672	89	598	Yes
10	5519	1	1931	102	518	Yes
11	5495	12	1355	72	738	Yes
12	5525	14	1285	68	778	Yes
13	5525	16	1223	65	818	Yes
14	5503	4	1730	92	578	Yes
15	5502	15	1253	67	798	Yes
16	5498		565.6	30	1768	Yes
17	5516		393.9	21	2539	Yes
18	5493		513.3	28	1948	Yes
19	5517		391.7	21	2553	Yes
20	5498		424.1	23	2358	Yes
21	5495		1431	76	699	Yes
22	5495		862.8	46	1159	Yes
23	5523		460.4	25	2172	Yes
24	5499		433.5	23	2307	Yes
25	5525		575	31	1739	Yes
26	5518		474.2	26	2109	Yes
27	5507		435.2	23	2298	Yes
28	5510		912.4	49	1096	Yes
29	5527		399.2	22	2505	Yes
30	5502		471.7	25	2120	Yes

Detection Rate: 100 %

802.11ac (VHT40)
Type 2 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	26	2.9	215	Yes
2	5520	23	1.1	205	Yes
3	5500	26	2.8	221	Yes
4	5512	29	4.7	192	Yes
5	5528	24	1.7	152	Yes
6	5526	24	1.7	193	Yes
7	5492	28	4.4	184	Yes
8	5498	29	4.9	190	Yes
9	5505	25	2.3	161	Yes
10	5499	25	2.3	178	Yes
11	5515	25	2.6	171	Yes
12	5523	23	1.2	167	Yes
13	5505	24	1.7	159	Yes
14	5496	24	1.7	214	Yes
15	5493	27	3.7	209	Yes
16	5511	29	4.6	182	Yes
17	5525	26	2.9	176	Yes
18	5514	28	4.3	172	Yes
19	5526	29	4.9	151	Yes
20	5501	27	3.3	200	Yes
21	5512	24	2.1	229	Yes
22	5513	26	3.2	179	Yes
23	5498	28	4.4	222	Yes
24	5513	29	4.5	181	Yes
25	5513	28	4.1	160	Yes
26	5521	27	3.4	206	Yes
27	5505	25	2.6	211	Yes
28	5525	26	3	174	Yes
29	5501	27	3.3	197	Yes
30	5498	29	4.8	226	No
Detection Rate: 96.7 %					

802.11ac (VHT40)
Type 3 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	17	7.9	301	Yes
2	5520	16	6.1	385	Yes
3	5500	17	7.8	479	Yes
4	5517	18	9.7	394	Yes
5	5523	16	6.7	477	Yes
6	5508	16	6.7	290	Yes
7	5505	18	9.4	324	Yes
8	5508	18	9.9	358	Yes
9	5507	17	7.3	302	Yes
10	5506	16	7.3	231	Yes
11	5512	17	7.6	482	Yes
12	5513	16	6.2	334	Yes
13	5523	16	6.7	268	Yes
14	5513	16	6.7	490	Yes
15	5512	18	8.7	284	Yes
16	5508	18	9.6	318	No
17	5503	17	7.9	269	No
18	5526	18	9.3	475	Yes
19	5510	18	9.9	208	Yes
20	5522	17	8.3	342	Yes
21	5525	16	7.1	243	Yes
22	5498	17	8.2	265	Yes
23	5515	18	9.4	392	Yes
24	5508	18	9.5	368	Yes
25	5517	18	9.1	332	Yes
26	5494	17	8.4	262	Yes
27	5508	17	7.6	238	Yes
28	5498	17	8	200	Yes
29	5495	17	8.3	204	Yes
30	5526	18	9.8	229	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	14	15.3	301	Yes
2	5520	12	11.4	385	No
3	5500	14	15.1	479	No
4	5520	16	19.2	394	Yes
5	5505	12	12.5	477	No
6	5503	12	12.5	290	Yes
7	5522	16	18.5	324	Yes
8	5525	16	19.7	358	No
9	5508	13	14	302	No
10	5501	13	14	231	Yes
11	5508	13	14.6	482	Yes
12	5492	12	11.5	334	Yes
13	5498	12	12.7	268	Yes
14	5518	12	12.7	490	Yes
15	5527	15	17.2	284	Yes
16	5514	16	19.1	318	Yes
17	5527	14	15.4	269	Yes
18	5519	16	18.4	475	Yes
19	5517	16	19.8	208	Yes
20	5524	14	16.2	342	Yes
21	5512	13	13.5	243	Yes
22	5503	14	15.9	265	Yes
23	5504	16	18.7	392	No
24	5507	16	18.9	368	No
25	5498	15	18	332	Yes
26	5498	15	16.4	262	No
27	5525	13	14.5	238	Yes
28	5495	14	15.5	200	Yes
29	5513	14	16.3	204	Yes
30	5494	16	19.5	229	Yes
Detection Rate: 73.3 %					

802.11ac (VHT40)
Type 5 Radar Statistical Performances

Trial #	Minimum Chirp Width(MHz)	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	12	5510	LP_Signal_01	Yes
2	5	5510	LP_Signal_02	Yes
3	12	5510	LP_Signal_03	Yes
4	19	5510	LP_Signal_04	Yes
5	7	5510	LP_Signal_05	Yes
6	7	5510	LP_Signal_06	Yes
7	18	5510	LP_Signal_07	Yes
8	20	5510	LP_Signal_08	Yes
9	10	5510	LP_Signal_09	Yes
10	10	5510	LP_Signal_10	Yes
11	11	5495	LP_Signal_11	Yes
12	5	5493	LP_Signal_12	Yes
13	8	5494	LP_Signal_13	Yes
14	8	5494	LP_Signal_14	Yes
15	15	5497	LP_Signal_15	Yes
16	19	5499	LP_Signal_16	Yes
17	12	5496	LP_Signal_17	Yes
18	18	5498	LP_Signal_18	Yes
19	20	5499	LP_Signal_19	Yes
20	14	5497	LP_Signal_20	Yes
21	9	5525	LP_Signal_21	Yes
22	13	5524	LP_Signal_22	Yes
23	18	5522	LP_Signal_23	Yes
24	19	5521	LP_Signal_24	Yes
25	17	5522	LP_Signal_25	Yes
26	14	5523	LP_Signal_26	Yes
27	11	5525	LP_Signal_27	Yes
28	13	5524	LP_Signal_28	Yes
29	14	5523	LP_Signal_29	No
30	20	5521	LP_Signal_30	Yes

Detection Rate: 96.7 %

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	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	No
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	Yes
30	9	1	333.3	Yes
Detection Rate: 96.7 %				

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	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	No
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
		Detection Rate: 96.7 %

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	17	1193	63	838	Yes
2	5540	22	1066	57	938	Yes
3	5560	10	1433	76	698	Yes
4	5520	2	1859	99	538	Yes
5	5500	20	1114	59	898	Yes
6	5539	19	1139	61	878	Yes
7	5533	6	1618	86	618	Yes
8	5499	21	1089	58	918	Yes
9	5563	5	1672	89	598	Yes
10	5564	1	1931	102	518	Yes
11	5551	12	1355	72	738	Yes
12	5508	14	1285	68	778	Yes
13	5542	16	1223	65	818	Yes
14	5510	4	1730	92	578	Yes
15	5554	15	1253	67	798	Yes
16	5535		565.6	30	1768	Yes
17	5508		393.9	21	2539	Yes
18	5494		513.3	28	1948	Yes
19	5567		391.7	21	2553	Yes
20	5521		424.1	23	2358	Yes
21	5529		1431	76	699	Yes
22	5542		862.8	46	1159	Yes
23	5513		460.4	25	2172	Yes
24	5494		433.5	23	2307	Yes
25	5499		575	31	1739	Yes
26	5497		474.2	26	2109	Yes
27	5525		435.2	23	2298	Yes
28	5504		912.4	49	1096	Yes
29	5560		399.2	22	2505	Yes
30	5511		471.7	25	2120	Yes

Detection Rate: 100 %

802.11ac (VHT80)
Type 2 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	26	2.9	215	Yes
2	5540	23	1.1	205	Yes
3	5560	26	2.8	221	Yes
4	5520	29	4.7	192	Yes
5	5500	24	1.7	152	Yes
6	5516	24	1.7	193	Yes
7	5517	28	4.4	184	Yes
8	5546	29	4.9	190	Yes
9	5507	25	2.3	161	Yes
10	5537	25	2.3	178	Yes
11	5545	25	2.6	171	Yes
12	5531	23	1.2	167	Yes
13	5534	24	1.7	159	Yes
14	5521	24	1.7	214	Yes
15	5567	27	3.7	209	Yes
16	5499	29	4.6	182	Yes
17	5541	26	2.9	176	Yes
18	5548	28	4.3	172	Yes
19	5567	29	4.9	151	Yes
20	5517	27	3.3	200	Yes
21	5506	24	2.1	229	Yes
22	5540	26	3.2	179	No
23	5499	28	4.4	222	Yes
24	5529	29	4.5	181	Yes
25	5527	28	4.1	160	Yes
26	5548	27	3.4	206	Yes
27	5511	25	2.6	211	Yes
28	5529	26	3	174	Yes
29	5552	27	3.3	197	Yes
30	5543	29	4.8	226	Yes
Detection Rate: 96.7 %					

802.11ac (VHT80)
Type 3 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	17	7.9	301	Yes
2	5540	16	6.1	385	Yes
3	5560	17	7.8	479	Yes
4	5520	18	9.7	394	Yes
5	5500	16	6.7	477	Yes
6	5530	16	6.7	290	Yes
7	5535	18	9.4	324	Yes
8	5507	18	9.9	358	No
9	5512	17	7.3	302	Yes
10	5524	16	7.3	231	Yes
11	5557	17	7.6	482	Yes
12	5535	16	6.2	334	Yes
13	5496	16	6.7	268	Yes
14	5546	16	6.7	490	Yes
15	5543	18	8.7	284	No
16	5496	18	9.6	318	Yes
17	5500	17	7.9	269	Yes
18	5524	18	9.3	475	Yes
19	5534	18	9.9	208	No
20	5536	17	8.3	342	Yes
21	5535	16	7.1	243	Yes
22	5558	17	8.2	265	Yes
23	5559	18	9.4	392	Yes
24	5550	18	9.5	368	Yes
25	5502	18	9.1	332	Yes
26	5501	17	8.4	262	No
27	5558	17	7.6	238	Yes
28	5518	17	8	200	Yes
29	5515	17	8.3	204	Yes
30	5495	18	9.8	229	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	14	15.3	301	Yes
2	5540	12	11.4	385	No
3	5560	14	15.1	479	Yes
4	5520	16	19.2	394	Yes
5	5500	12	12.5	477	Yes
6	5545	12	12.5	290	Yes
7	5546	16	18.5	324	Yes
8	5554	16	19.7	358	Yes
9	5505	13	14	302	Yes
10	5530	13	14	231	Yes
11	5531	13	14.6	482	Yes
12	5565	12	11.5	334	Yes
13	5515	12	12.7	268	Yes
14	5523	12	12.7	490	Yes
15	5537	15	17.2	284	Yes
16	5557	16	19.1	318	Yes
17	5518	14	15.4	269	Yes
18	5556	16	18.4	475	Yes
19	5552	16	19.8	208	Yes
20	5499	14	16.2	342	Yes
21	5556	13	13.5	243	Yes
22	5546	14	15.9	265	Yes
23	5532	16	18.7	392	No
24	5563	16	18.9	368	No
25	5549	15	18	332	Yes
26	5534	15	16.4	262	Yes
27	5508	13	14.5	238	Yes
28	5521	14	15.5	200	No
29	5508	14	16.3	204	Yes
30	5502	16	19.5	229	Yes
Detection Rate: 86.7 %					

802.11ac (VHT80)

Type 5 Radar Statistical Performances

Trial #	Minimum Chirp Width(MHz)	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	12	5530	LP_Signal_01	Yes
2	5	5530	LP_Signal_02	Yes
3	12	5530	LP_Signal_03	Yes
4	19	5530	LP_Signal_04	Yes
5	7	5530	LP_Signal_05	Yes
6	7	5530	LP_Signal_06	Yes
7	18	5530	LP_Signal_07	Yes
8	20	5530	LP_Signal_08	Yes
9	10	5530	LP_Signal_09	Yes
10	10	5530	LP_Signal_10	Yes
11	11	5496	LP_Signal_11	No
12	5	5494	LP_Signal_12	Yes
13	8	5495	LP_Signal_13	Yes
14	8	5495	LP_Signal_14	Yes
15	15	5498	LP_Signal_15	Yes
16	19	5500	LP_Signal_16	Yes
17	12	5497	LP_Signal_17	Yes
18	18	5499	LP_Signal_18	Yes
19	20	5500	LP_Signal_19	Yes
20	14	5498	LP_Signal_20	Yes
21	9	5564	LP_Signal_21	Yes
22	13	5563	LP_Signal_22	Yes
23	18	5561	LP_Signal_23	Yes
24	19	5560	LP_Signal_24	Yes
25	17	5561	LP_Signal_25	Yes
26	14	5562	LP_Signal_26	Yes
27	11	5564	LP_Signal_27	Yes
28	13	5563	LP_Signal_28	Yes
29	14	5562	LP_Signal_29	Yes
30	20	5560	LP_Signal_30	Yes

Detection Rate: 96.7 %

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	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	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	Yes
30	9	1	333.3	Yes
Detection Rate: 100 %				

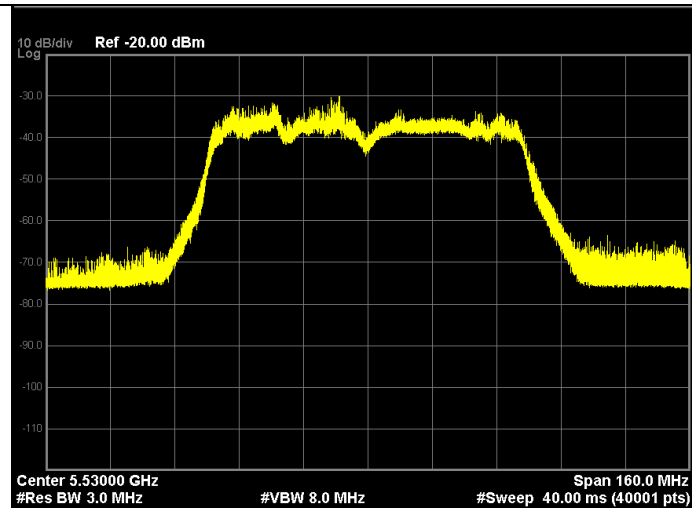
802.11ac (VHT80)

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	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	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	Yes
30	HOP_FREQ_SEQ_30	Yes
		Detection Rate: 100 %

The Frequency Hopping Radar pattern shown in Appendix A.2

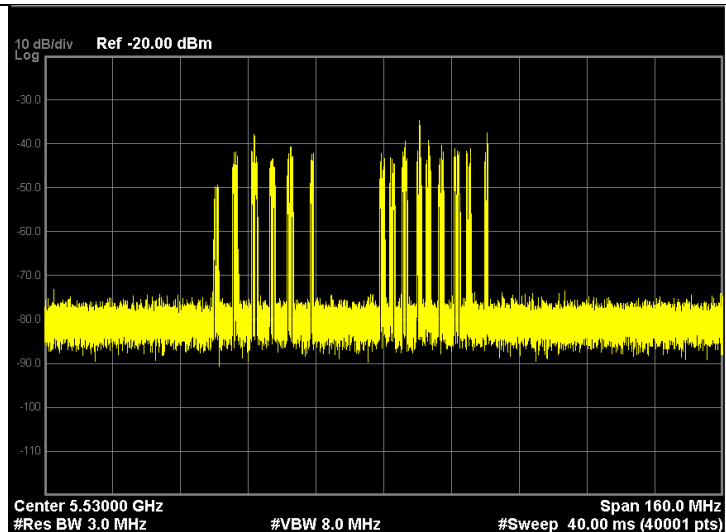
6.2.5 Non- Occupancy Period

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



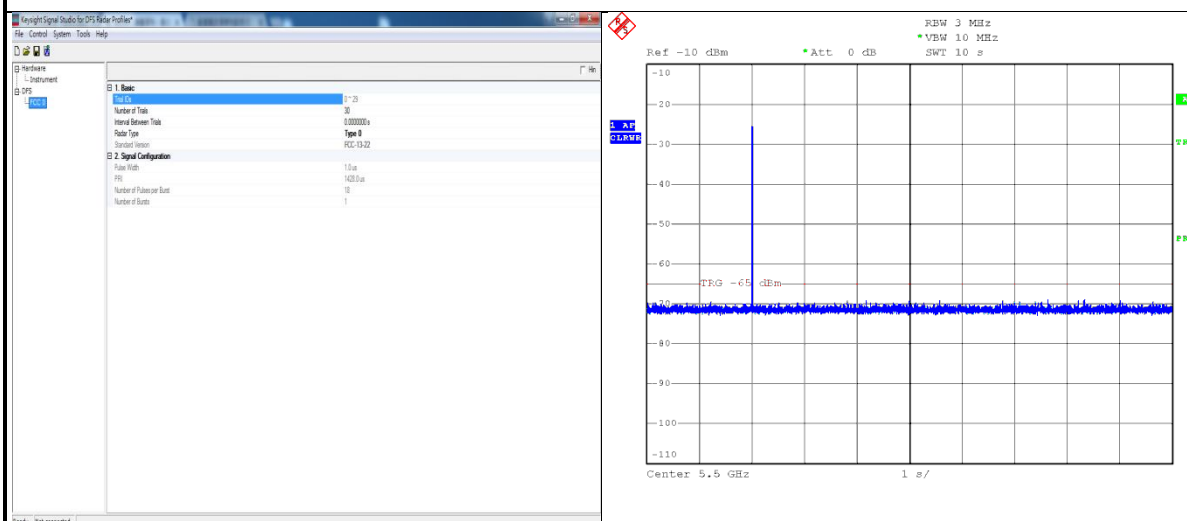
EUT (master) links with Client on 5530MHz

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.



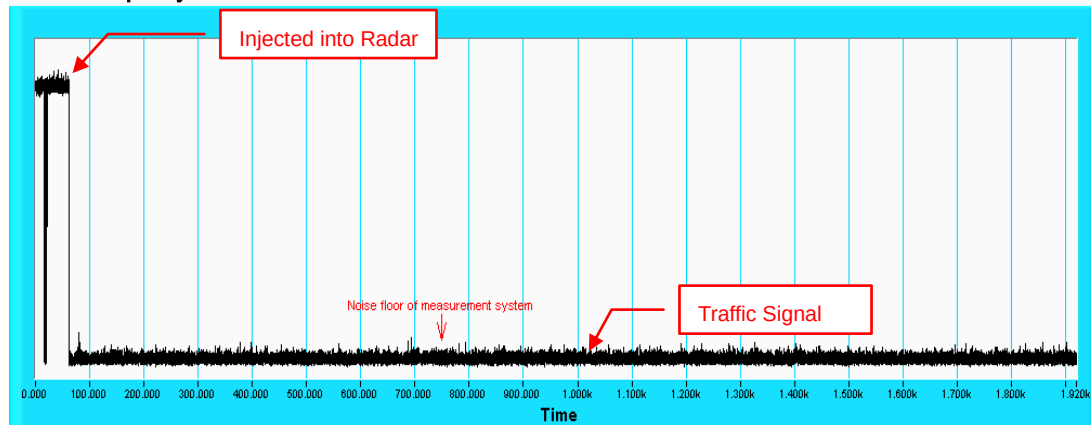
Radar 0 is used to test during DFS testing.

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.

Non - Occupancy Period-CH106-5530MHz



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

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

8. APPENDIX-A

RADAR TEST SIGNAL

A.1 The Long Pulse Radar Pattern

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_01

Number of Bursts in Trial: 14

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	12	73.6	1545	1181	-
2	1	12	52.2	1647	-	-
3	2	12	72.8	1354	1395	-
4	3	12	95.3	1994	1172	1112
5	1	12	58.6	1658	-	-
6	1	12	58.6	1365	-	-
7	3	12	91.8	1004	1904	1594
8	3	12	98.1	1422	1096	1529
9	2	12	66.9	1761	1734	-
10	1	12	66.5	1098	-	-
11	2	12	69.8	1779	1793	-
12	1	12	52.7	1325	-	-
13	1	12	59.7	1896	-	-
14	1	12	59.6	1820	-	-
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_02

Number of Bursts in Trial: 8

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	5	84.1	1632	1690	1980
2	3	5	95	1856	1686	1802
3	2	5	74.3	1373	1698	-
4	3	5	90.8	1265	1783	1314
5	3	5	98.8	1221	1382	1984
6	2	5	78.7	1492	1777	-
7	1	5	63.9	1705	-	-
8	2	5	77.3	1923	1747	-
9						
10						
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12						
13						
14						
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17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_03

Number of Bursts in Trial: 13

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	12	92.6	1924	1825	1750
2	3	12	93.8	1553	1252	1969
3	3	12	88.9	1838	1666	1739
4	2	12	80.1	1005	1109	-
5	2	12	69.6	1536	1016	-
6	2	12	75.2	1557	1194	-
7	2	12	79.3	1258	1225	-
8	3	12	97	1565	1633	1459
9	1	12	62.4	1582	-	-
10	2	12	67.5	1826	1108	-
11	3	12	86	1877	1400	1242
12	1	12	63.2	1576	-	-
13	2	12	74.2	1327	1872	-
14						
15						
16						
17						
18						
19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_04

Number of Bursts in Trial: 19

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	19	62	1580	-	-
2	1	19	57.1	1892	-	-
3	3	19	93.9	1898	1809	1193
4	1	19	61.3	1427	-	-
5	1	19	60.1	1857	-	-
6	3	19	97.5	1719	1217	1962
7	3	19	88.6	1126	1781	1029
8	2	19	70.6	1205	1470	-
9	2	19	75.9	1848	1219	-
10	3	19	85.4	1188	1583	1447
11	2	19	74.1	1182	1465	-
12	1	19	53.9	1496	-	-
13	2	19	81.5	1177	1630	-
14	1	19	61	1569	-	-
15	3	19	83.8	1059	1677	1249
16	3	19	84.4	1665	1135	1784
17	3	19	83.8	1114	1893	1209
18	2	19	80.7	1364	1769	-
19	3	19	86.5	1656	1508	1601
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_05

Number of Bursts in Trial: 10

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	7	69.9	1926	1586	-
2	3	7	96.4	1803	1797	1905
3	1	7	59.7	1407	-	-
4	2	7	79.1	1807	1813	-
5	1	7	56.4	1054	-	-
6	2	7	78.6	1995	1882	-
7	3	7	89	1174	1651	1772
8	1	7	66.6	1433	-	-
9	2	7	68.8	1313	1269	-
10	2	7	69.9	1480	1150	-
11						
12						
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16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_06

Number of Bursts in Trial: 10

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	7	54.1	1158	-	-
2	1	7	52.2	1538	-	-
3	2	7	66.7	1879	1369	-
4	3	7	96.6	1147	1676	1356
5	3	7	85.5	1208	1010	1816
6	2	7	72.1	1044	1443	-
7	3	7	87.9	1836	1449	1132
8	2	7	80.5	1695	1795	-
9	2	7	79.4	1223	1015	-
10	3	7	88.6	1501	1623	1256
11						
12						
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14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_07

Number of Bursts in Trial: 18

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	18	81.2	1785	1963	-
2	2	18	75.3	1386	1597	-
3	1	18	56.7	1460	-	-
4	1	18	66.6	1149	-	-
5	1	18	58.4	1348	-	-
6	1	18	64.8	1038	-	-
7	2	18	76.1	1429	1611	-
8	3	18	88.1	1641	1687	1903
9	1	18	64.1	1229	-	-
10	3	18	95.5	1051	1852	1483
11	1	18	62.6	1432	-	-
12	2	18	78.6	1089	1986	-
13	3	18	86.9	1068	1323	1554
14	3	18	99.6	1620	1889	1189
15	3	18	93.4	1257	1388	1659
16	2	18	77.9	1917	1186	-
17	1	18	52.2	1543	-	-
18	2	18	78	1012	1478	-
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_08

Number of Bursts in Trial: 20

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	20	87.5	1778	1617	1085
2	2	20	82.8	1393	1061	-
3	2	20	71.1	1261	1481	-
4	2	20	80.9	1566	1418	-
5	2	20	69.8	1953	1077	-
6	1	20	50.7	1696	-	-
7	2	20	71.8	1979	1571	-
8	2	20	83.1	1274	1908	-
9	1	20	57.3	1531	-	-
10	1	20	57.4	1461	-	-
11	3	20	96.1	1851	1037	1726
12	3	20	89	1592	1717	1941
13	3	20	95.9	1292	1102	1942
14	1	20	53.9	1727	-	-
15	1	20	54.4	1152	-	-
16	3	20	92.2	1515	1635	1612
17	1	20	55.2	1661	-	-
18	3	20	94.6	1878	1338	1972
19	3	20	89.6	1961	1546	1143
20	3	20	93.1	1462	1993	1095

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_09

Number of Bursts in Trial: 12

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	10	70.6	1585	1017	-
2	3	10	91.6	1180	1445	1864
3	1	10	52.4	1337	-	-
4	1	10	50.9	1835	-	-
5	1	10	52.4	1909	-	-
6	2	10	73.3	1766	1880	-
7	1	10	57.3	1133	-	-
8	2	10	75.5	1011	1423	-
9	1	10	65.4	1222	-	-
10	2	10	67.1	1827	1526	-
11	1	10	53.1	1921	-	-
12	1	10	57.5	1053	-	-
13						
14						
15						
16						
17						
18						
19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_10

Number of Bursts in Trial: 12

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	10	69.8	1226	1087	-
2	1	10	59.8	1506	-	-
3	3	10	93	1078	1202	1046
4	3	10	96.7	1211	1716	1301
5	2	10	67.4	1260	1610	-
6	1	10	50.2	1990	-	-
7	1	10	55.5	1729	-	-
8	1	10	56	1282	-	-
9	3	10	94.9	1574	1431	1897
10	2	10	75.4	2000	1458	-
11	1	10	57.4	1403	-	-
12	2	10	68.6	1950	1136	-
13						
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_11

Number of Bursts in Trial: 13

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	11	92.1	1376	1637	1584
2	2	11	75.1	1485	1956	-
3	3	11	99.7	1358	1278	1789
4	1	11	58.6	1951	-	-
5	2	11	74.2	1511	1417	-
6	3	11	94.7	1834	1562	1653
7	3	11	94.4	1949	1537	1322
8	3	11	98.8	1330	1469	1411
9	3	11	88.3	1884	1103	1130
10	1	11	59.2	1066	-	-
11	1	11	57.4	1925	-	-
12	3	11	95.9	1290	1873	1069
13	2	11	80.3	1691	1946	-
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_12

Number of Bursts in Trial: 8

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	5	70.2	1024	1775	-
2	2	5	78.5	1438	1296	-
3	3	5	96.6	1549	1013	1007
4	3	5	93.4	1626	1094	1547
5	3	5	96.3	1738	1234	1100
6	2	5	67.6	1262	1155	-
7	3	5	90.2	1847	1450	1728
8	1	5	54.3	1982	-	-
9						
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: 13

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	8	88.5	1255	1401	1117
2	2	8	69.1	1640	1765	-
3	3	8	86	1712	1352	1279
4	1	8	61	1034	-	-
5	1	8	57.7	1966	-	-
6	2	8	74.7	1025	1900	-
7	1	8	54.9	1056	-	-
8	3	8	89.1	1167	1097	1749
9	3	8	83.6	1967	1047	1183
10	3	8	98.3	1148	1733	2000
11	3	8	88.5	1255	1401	1117
12	2	8	69.1	1640	1765	-
13	3	8	86	1712	1352	1279
14						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_14

Number of Bursts in Trial: 11

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	8	95.3	1298	1476	1837
2	3	8	84.2	1858	1218	1001
3	3	8	83.9	1985	1374	1134
4	1	8	58.8	1241	-	-
5	2	8	77.4	1830	1724	-
6	2	8	73.6	1246	1488	-
7	3	8	98.7	1869	1668	1027
8	1	8	51.3	1216	-	-
9	2	8	70.7	1380	1384	-
10	2	8	72.8	1556	1817	-
11	3	8	95.3	1298	1476	1837
12						
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20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_15

Number of Bursts in Trial: 16

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	15	54.3	1026	-	-
2	2	15	69.3	1855	1397	-
3	1	15	60.6	1788	-	-
4	1	15	52.4	1494	-	-
5	3	15	97.1	1091	1023	1965
6	1	15	66.3	1184	-	-
7	3	15	97.3	1475	1939	1245
8	2	15	71.8	1528	1745	-
9	1	15	58.9	1885	-	-
10	1	15	62.6	1621	-	-
11	3	15	98.6	1943	1895	1854
12	1	15	57.7	1319	-	-
13	2	15	67.2	1127	1008	-
14	1	15	64.3	1228	-	-
15	1	15	53.5	1763	-	-
16	1	15	55.9	1767	-	-
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_16

Number of Bursts in Trial: 19

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	19	63.6	1064	-	-
2	3	19	97.7	1710	1161	1052
3	1	19	66.4	1311	-	-
4	2	19	70	1542	1371	-
5	3	19	89.4	1339	1619	1198
6	1	19	59.7	1191	-	-
7	1	19	54.6	1288	-	-
8	1	19	60.9	1899	-	-
9	1	19	62.1	1634	-	-
10	1	19	61.7	1176	-	-
11	3	19	96.5	1732	1021	1484
12	1	19	61.3	1399	-	-
13	1	19	51.1	1231	-	-
14	2	19	72.9	1104	1638	-
15	3	19	94.8	1164	1210	1043
16	3	19	95	1602	1509	1030
17	3	19	97	1758	1448	1121
18	2	19	67.4	1435	1822	-
19	3	19	100	1493	1329	1170
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_17

Number of Bursts in Trial: 14

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	12	69.2	1006	1284	-
2	1	12	58.5	1080	-	-
3	3	12	83.6	1396	1861	1868
4	1	12	63.9	1471	-	-
5	3	12	91.5	1829	1844	1741
6	2	12	77.5	1721	1120	-
7	2	12	83.1	1129	1062	-
8	2	12	80.1	1735	1588	-
9	2	12	71	1760	1636	-
10	3	12	99.8	1866	1088	1402
11	3	12	87.6	1596	1771	1682
12	2	12	66.9	1645	1420	-
13	2	12	69.5	1862	1667	-
14	1	12	55.3	1300	-	-
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_18

Number of Bursts in Trial: 18

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	18	71.4	1200	1575	-
2	1	18	60	1762	-	-
3	1	18	51	1291	-	-
4	3	18	84.9	1680	1359	1320
5	1	18	50.7	1248	-	-
6	3	18	83.5	1039	1486	1343
7	3	18	94.7	1999	1824	1525
8	1	18	64.6	1424	-	-
9	3	18	99.7	1890	1076	1199
10	3	18	90.4	1073	1360	1383
11	3	18	85.4	1390	1487	1725
12	2	18	69.8	1503	1347	-
13	3	18	85.9	1818	1035	1689
14	2	18	70.7	1074	1238	-
15	3	18	86.1	1657	1649	1768
16	2	18	67.9	1530	1244	-
17	1	18	53.5	1049	-	-
18	1	18	60.7	1934	-	-
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_19

Number of Bursts in Trial: 20

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	20	99.9	1527	1206	1439
2	1	20	64.4	1294	-	-
3	3	20	84.4	1138	1455	1863
4	3	20	97.5	1201	1960	1648
5	2	20	80.1	1394	1398	-
6	3	20	83.8	1996	1974	1195
7	2	20	74.9	1253	1887	-
8	3	20	92.6	1644	1559	1171
9	1	20	56.2	1203	-	-
10	2	20	79.7	1782	1453	-
11	3	20	83.7	1800	1572	1151
12	1	20	61.2	1286	-	-
13	2	20	74.6	1987	1902	-
14	3	20	94.9	1212	1720	1945
15	2	20	77	1239	1192	-
16	1	20	56	1406	-	-
17	2	20	79.7	1040	1472	-
18	1	20	62.9	1821	-	-
19	3	20	93.7	1185	1063	1978
20	1	20	60	1929	-	-

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_20

Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	14	96.3	1849	1713	1989
2	3	14	84	1271	1137	1886
3	1	14	55.2	1502	-	-
4	1	14	54.6	1532	-	-
5	1	14	58.9	1867	-	-
6	3	14	93.3	1919	1266	1033
7	2	14	78.6	1175	1041	-
8	2	14	71.6	1312	1675	-
9	3	14	91.7	1067	1955	1663
10	1	14	62.4	1022	-	-
11	3	14	94.1	1694	1408	1684
12	1	14	53.1	1277	-	-
13	3	14	96.2	1159	1387	1599
14	2	14	76.8	1153	1700	-
15	2	14	67	1308	1600	-
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_21

Number of Bursts in Trial: 11

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	9	55.1	1141	-	-
2	2	9	70.9	1125	1874	-
3	2	9	73.9	1070	1683	-
4	2	9	80	1086	1681	-
5	2	9	67.3	1796	1639	-
6	1	9	59.9	1426	-	-
7	1	9	58.1	1297	-	-
8	2	9	77.2	1036	1786	-
9	1	9	65	1613	-	-
10	2	9	80.9	1828	1541	-
11	3	9	88.4	1723	1608	1081
12						
13						
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_22

Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	13	65.8	1321	-	-
2	3	13	90.5	1283	1350	1444
3	3	13	92.9	1618	1243	1674
4	2	13	79.8	1604	1928	-
5	3	13	91	1299	1362	1349
6	2	13	73.2	1075	1309	-
7	2	13	74.2	1688	1405	-
8	3	13	93.5	1437	1391	1736
9	1	13	64.5	1351	-	-
10	1	13	65.9	1627	-	-
11	1	13	59.1	1915	-	-
12	2	13	79.8	1304	1139	-
13	3	13	88.6	1518	1746	1381
14	3	13	86.9	1003	1446	1709
15	1	13	55.1	1805	-	-
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_23

Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	18	53.3	1881	-	-
2	1	18	50.9	1464	-	-
3	3	18	93.9	1157	1009	1213
4	3	18	85.6	1474	1317	1028
5	2	18	80.6	1334	1973	-
6	1	18	65	1539	-	-
7	3	18	97.8	1413	1843	1513
8	2	18	77.8	1669	1179	-
9	2	18	71.8	1643	1276	-
10	3	18	85.1	1489	1920	1055
11	1	18	55.8	1673	-	-
12	2	18	82.9	1079	1440	-
13	2	18	76.4	1968	1389	-
14	1	18	50	1655	-	-
15	3	18	88.1	1550	1590	1544
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_24

Number of Bursts in Trial: 19

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	19	77.5	1914	1992	-
2	3	19	88.1	1168	1457	1285
3	2	19	78.8	1254	1548	-
4	1	19	61.8	1281	-	-
5	2	19	71.4	1988	1910	-
6	2	19	70.9	1197	1355	-
7	2	19	78.9	1236	1499	-
8	1	19	52.7	1166	-	-
9	1	19	62.2	1598	-	-
10	1	19	51.1	1454	-	-
11	3	19	96	1370	1101	1540
12	3	19	91.2	1660	1791	1237
13	3	19	85.4	1163	1335	1346
14	3	19	93.2	1742	1123	1507
15	1	19	62.1	1832	-	-
16	1	19	56.6	1032	-	-
17	1	19	57.2	1595	-	-
18	3	19	83.4	1922	1336	1090
19	2	19	79.4	1315	1522	-
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_25

Number of Bursts in Trial: 18

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	17	50.3	1883	-	-
2	2	17	73.3	1232	1589	-
3	2	17	68	1699	1947	-
4	1	17	62.7	1998	-	-
5	2	17	71	1776	1233	-
6	3	17	94.7	1845	1251	1685
7	3	17	85.2	1375	1568	1759
8	3	17	90.3	1521	1751	1377
9	3	17	97.9	1107	1799	1287
10	3	17	93.4	1916	1048	1577
11	2	17	76.5	1415	1940	-
12	1	17	59.2	1714	-	-
13	2	17	68.8	1593	1625	-
14	1	17	56.1	1948	-	-
15	2	17	68	1931	1935	-
16	1	17	59.3	1140	-	-
17	2	17	67.1	1842	1840	-
18	2	17	74.6	1404	1302	-
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_26

Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	14	89.1	1752	1551	1983
2	2	14	72.4	1524	1142	-
3	1	14	64.7	1970	-	-
4	1	14	51.6	1616	-	-
5	1	14	62.3	1753	-	-
6	3	14	85.5	1876	1918	1976
7	2	14	76.7	1268	1014	-
8	2	14	75.9	1975	1230	-
9	3	14	94	1581	1318	1204
10	2	14	70.4	1490	1573	-
11	3	14	89.8	1477	1722	1808
12	1	14	64.3	1305	-	-
13	3	14	93.5	1870	1156	1106
14	2	14	80.8	1692	1144	-
15	2	14	73.3	1912	1341	-
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_27

Number of Bursts in Trial: 13

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	11	60.9	1561	-	-
2	2	11	73.3	1894	1603	-
3	3	11	97.2	1419	1937	1614
4	1	11	59.4	1082	-	-
5	2	11	75.4	1456	1263	-
6	1	11	57.7	1578	-	-
7	2	11	67.1	1467	1811	-
8	3	11	86.3	1000	1031	1187
9	2	11	80.6	1264	1911	-
10	2	11	81.1	1628	1124	-
11	1	11	59.3	1436	-	-
12	3	11	85.8	1083	1718	1865
13	3	11	91.9	1357	1517	1434
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_28

Number of Bursts in Trial: 14

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	13	77.2	1707	1814	-
2	3	13	85.1	1631	1099	1757
3	2	13	67.4	1479	1491	-
4	3	13	83.8	1270	1774	1295
5	3	13	95	1806	1020	1367
6	2	13	82.1	1672	1938	-
7	2	13	68.2	1609	1875	-
8	1	13	60.9	1654	-	-
9	1	13	64.7	1853	-	-
10	3	13	98.7	1042	1303	1441
11	1	13	61	1823	-	-
12	2	13	82.5	1591	1363	-
13	3	13	86	1977	1859	1169
14	3	13	95.2	1622	1368	1497
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_29

Number of Bursts in Trial: 15

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	14	50.7	1888	-	-
2	1	14	64.7	1642	-	-
3	1	14	50.4	1353	-	-
4	3	14	83.5	1385	1267	1997
5	3	14	100	1504	1798	1606
6	3	14	95.7	1115	1671	1280
7	3	14	85.9	1933	1316	1754
8	1	14	57.9	1906	-	-
9	2	14	82.8	1755	1340	-
10	2	14	70.8	1523	1165	-
11	3	14	100	1410	1207	1018
12	3	14	91.8	1703	1971	1240
13	2	14	66.8	1833	1495	-
14	2	14	71.9	1326	1564	-
15	3	14	86.2	1535	1173	1913
16						
17						
18						
19						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_30

Number of Bursts in Trial: 20

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	20	84.1	1936	1740	1512
2	2	20	70.6	1839	1505	-
3	1	20	52.9	1145	-	-
4	3	20	99.7	1579	1058	1773
5	3	20	84.8	1792	1215	1607
6	3	20	98.7	1342	1379	1328
7	1	20	58.8	1624	-	-
8	1	20	53	1105	-	-
9	1	20	56	1452	-	-
10	2	20	69.3	1372	1615	-
11	1	20	61.3	1850	-	-
12	1	20	62.6	1272	-	-
13	1	20	62.4	1361	-	-
14	3	20	96.3	1116	1045	1072
15	2	20	74.7	1050	1708	-
16	3	20	86.2	1110	1220	1764
17	2	20	76.9	1891	1646	-
18	3	20	89.5	1463	1060	1421
19	1	20	62.5	1693	-	-
20	3	20	84.1	1936	1740	1512

A.2 The Frequency Hopping Radar pattern

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_01					
Frequency (MHz)	0	1	2	3	4
0	5598	5269	5559	5545	5417
5	5301	5339	5578	5641	5581
10	5443	5648	5639	5487	5289
15	5366	5362	5502	5701	5469
20	5426	5438	5432	5254	5653
25	5676	5679	5599	5251	5718
30	5374	5296	5447	5349	5503
35	5281	5295	5274	5665	5493
40	5297	5499	5253	5674	5355
45	5680	5540	5510	5371	5519
50	5474	5541	5586	5385	5704
55	5262	5588	5319	5699	5539
60	5485	5455	5428	5457	5583
65	5546	5542	5486	5670	5401
70	5404	5255	5591	5525	5686
75	5442	5423	5652	5631	5376
80	5465	5531	5343	5367	5630
85	5703	5604	5307	5590	5566
90	5589	5333	5380	5651	5283
95	5330	5402	5460	5691	5410

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_02					
Frequency (MHz)	0	1	2	3	4
0	5378	5605	5495	5609	5259
5	5440	5264	5653	5329	5313
10	5374	5534	5680	5682	5310
15	5357	5489	5508	5724	5418
20	5477	5379	5424	5702	5444
25	5625	5407	5703	5285	5382
30	5360	5253	5662	5598	5642
35	5372	5663	5693	5416	5588
40	5273	5431	5537	5575	5428
45	5708	5282	5413	5258	5330
50	5386	5377	5422	5608	5476
55	5321	5254	5540	5637	5679
60	5675	5391	5278	5361	5531
65	5365	5656	5464	5667	5349
70	5614	5569	5295	5709	5363
75	5375	5277	5302	5699	5698
80	5490	5715	5628	5571	5368
85	5373	5403	5462	5260	5704
90	5426	5294	5410	5527	5351
95	5601	5616	5388	5533	5528

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_03

Frequency (MHz)	0	1	2	3	4
0	5633	5369	5431	5295	5479
5	5482	5286	5253	5492	5617
10	5683	5323	5343	5402	5331
15	5445	5616	5611	5294	5610
20	5485	5661	5320	5513	5675
25	5332	5477	5697	5424	5724
30	5685	5275	5577	5306	5463
35	5459	5371	5330	5427	5453
40	5680	5572	5357	5688	5365
45	5374	5689	5692	5640	5553
50	5473	5299	5265	5442	5494
55	5255	5498	5646	5520	5443
60	5460	5666	5377	5486	5403
65	5499	5270	5530	5308	5555
70	5298	5558	5353	5322	5495
75	5305	5258	5554	5334	5654
80	5400	5625	5291	5271	5312
85	5366	5603	5658	5651	5721
90	5416	5561	5708	5710	5717
95	5273	5512	5489	5251	5529

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_04

Frequency (MHz)	0	1	2	3	4
0	5316	5608	5367	5456	5321
5	5524	5686	5706	5558	5349
10	5614	5587	5384	5597	5352
15	5533	5646	5714	5339	5327
20	5396	5358	5505	5648	5695
25	5329	5716	5256	5466	5613
30	5642	5520	5397	5445	5554
35	5255	5341	5266	5536	5307
40	5666	5664	5571	5448	5432
45	5267	5482	5516	5254	5311
50	5630	5649	5251	5292	5589
55	5420	5680	5435	5439	5709
60	5540	5333	5380	5541	5301
65	5407	5281	5483	5615	5351
70	5336	5444	5260	5343	5463
75	5622	5583	5271	5629	5371
80	5568	5424	5624	5422	5498
85	5493	5344	5650	5323	5394
90	5592	5546	5527	5417	5687
95	5427	5563	5721	5379	5496

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_05

Frequency (MHz)	0	1	2	3	4
0	5571	5372	5303	5617	5541
5	5566	5708	5306	5721	5556
10	5545	5376	5425	5695	5373
15	5621	5298	5342	5287	5519
20	5404	5421	5299	5594	5486
25	5278	5444	5637	5290	5508
30	5599	5260	5676	5692	5487
35	5645	5526	5255	5677	5619
40	5623	5685	5663	5593	5551
45	5531	5490	5320	5369	5392
50	5430	5575	5400	5323	5343
55	5402	5635	5514	5491	5681
60	5293	5415	5366	5503	5384
65	5378	5335	5611	5549	5527
70	5401	5634	5305	5715	5452
75	5638	5494	5317	5457	5516
80	5507	5649	5471	5389	5466
85	5436	5672	5264	5314	5428
90	5532	5375	5356	5667	5553
95	5307	5544	5269	5622	5385

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_06

Frequency (MHz)	0	1	2	3	4
0	5351	5611	5714	5303	5383
5	5705	5633	5381	5409	5385
10	5379	5640	5466	5415	5394
15	5612	5425	5445	5332	5333
20	5412	5587	5715	5586	5594
25	5374	5605	5647	5266	5324
30	5488	5556	5475	5450	5626
35	5358	5419	5452	5644	5516
40	5702	5561	5353	5660	5531
45	5614	5451	5373	5634	5268
50	5606	5621	5378	5356	5350
55	5462	5335	5463	5713	5431
60	5716	5312	5704	5414	5276
65	5610	5404	5483	5659	5674
70	5421	5283	5540	5298	5263
75	5567	5297	5574	5589	5616
80	5498	5552	5410	5352	5658
85	5304	5348	5479	5434	5469
90	5257	5465	5306	5608	5291
95	5442	5255	5323	5467	5717

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_07

Frequency (MHz)	0	1	2	3	4
0	5606	5375	5650	5464	5603
5	5272	5655	5456	5572	5592
10	5310	5526	5507	5610	5415
15	5700	5552	5451	5377	5525
20	5323	5656	5278	5675	5567
25	5640	5554	5370	5358	5689
30	5513	5690	5602	5710	5290
35	5449	5605	5558	5355	5407
40	5499	5593	5657	5354	5511
45	5697	5509	5426	5521	5522
50	5307	5677	5444	5322	5622
55	5688	5540	5530	5433	5628
60	5658	5263	5639	5527	5282
65	5450	5583	5497	5692	5315
70	5596	5504	5332	5635	5633
75	5293	5403	5683	5279	5515
80	5553	5274	5516	5693	5252
85	5412	5269	5668	5644	5537
90	5503	5517	5477	5663	5372
95	5340	5709	5329	5287	5715

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_08

Frequency (MHz)	0	1	2	3	4
0	5289	5614	5586	5625	5445
5	5314	5580	5531	5260	5324
10	5716	5315	5548	5330	5436
15	5313	5679	5554	5422	5717
20	5331	5347	5694	5667	5540
25	5528	5406	5578	5571	5392
30	5256	5363	5470	5333	5376
35	5433	5332	5486	5380	5569
40	5669	5490	5437	5358	5654
45	5283	5491	5305	5567	5479
50	5311	5398	5483	5253	5267
55	5644	5335	5642	5255	5349
60	5307	5593	5318	5603	5465
65	5301	5706	5389	5495	5387
70	5582	5507	5656	5611	5592
75	5262	5523	5351	5292	5690
80	5334	5427	5337	5513	5413
85	5455	5375	5612	5719	5369
90	5480	5543	5440	5399	5340
95	5718	5356	5713	5591	5432

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_09

Frequency (MHz)	0	1	2	3	4
0	5544	5378	5522	5311	5665
5	5356	5602	5606	5326	5628
10	5550	5579	5589	5525	5457
15	5401	5709	5657	5370	5434
20	5339	5416	5635	5281	5513
25	5319	5258	5684	5675	5426
30	5395	5252	5427	5548	5528
35	5253	5471	5631	5379	5533
40	5483	5605	5573	5375	5598
45	5273	5590	5388	5532	5673
50	5274	5562	5304	5468	5588
55	5523	5596	5445	5643	5278
60	5722	5645	5499	5551	5655
65	5425	5625	5659	5676	5556
70	5607	5505	5587	5609	5546
75	5397	5716	5447	5325	5591
80	5400	5510	5705	5358	5508
85	5435	5662	5577	5617	5300
90	5549	5474	5695	5357	5298
95	5340	5708	5570	5535	5683

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_10

Frequency (MHz)	0	1	2	3	4
0	5324	5617	5458	5375	5507
5	5495	5527	5681	5489	5360
10	5481	5368	5630	5623	5478
15	5392	5361	5285	5415	5626
20	5250	5582	5576	5273	5486
25	5682	5412	5304	5460	5437
30	5616	5384	5288	5302	5451
35	5610	5722	5650	5686	5397
40	5444	5278	5313	5266	5270
45	5519	5354	5471	5586	5488
50	5463	5528	5263	5355	5564
55	5291	5435	5711	5550	5538
60	5462	5724	5279	5648	5590
65	5331	5689	5668	5277	5604
70	5364	5457	5454	5479	5628
75	5651	5257	5563	5510	5578
80	5666	5540	5697	5699	5338
85	5371	5658	5425	5358	5350
90	5398	5282	5445	5390	5498
95	5664	5555	5508	5541	5707

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_11

Frequency (MHz)	0	1	2	3	4
0	5579	5381	5394	5536	5252
5	5537	5549	5281	5652	5567
10	5315	5632	5293	5343	5499
15	5480	5488	5388	5460	5258
20	5651	5614	5362	5459	5570
25	5534	5615	5408	5494	5479
30	5602	5341	5503	5454	5271
35	5274	5338	5446	5461	5283
40	5361	5251	5506	5267	5351
45	5334	5644	5541	5350	5404
50	5439	5406	5653	5589	5379
55	5424	5504	5253	5659	5695
60	5535	5638	5515	5711	5478
65	5553	5400	5667	5346	5282
70	5700	5637	5710	5581	5442
75	5469	5450	5311	5586	5678
80	5476	5448	5627	5347	5623
85	5620	5261	5289	5458	5474
90	5410	5696	5354	5658	5445
95	5423	5405	5431	5266	5701

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_12

Frequency (MHz)	0	1	2	3	4
0	5359	5620	5330	5697	5569
5	5579	5474	5356	5340	5396
10	5721	5518	5334	5538	5520
15	5568	5615	5394	5505	5535
20	5266	5342	5555	5354	5432
25	5361	5483	5343	5609	5528
30	5618	5491	5298	5621	5703
35	5469	5316	5526	5717	5614
40	5322	5597	5444	5664	5271
45	5264	5280	5314	5259	5605
50	5594	5457	5267	5412	5701
55	5612	5458	5443	5478	5537
60	5503	5480	5567	5438	5657
65	5301	5502	5436	5499	5616
70	5560	5623	5713	5430	5418
75	5428	5419	5431	5254	5659
80	5253	5558	5408	5511	5686
85	5404	5639	5606	5421	5666
90	5278	5411	5516	5519	5479
95	5683	5450	5463	5389	5402

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_13

Frequency (MHz)	0	1	2	3	4
0	5517	5384	5266	5383	5314
5	5621	5496	5431	5406	5603
10	5652	5307	5375	5258	5541
15	5656	5267	5497	5453	5252
20	5508	5443	5405	5724	5335
25	5546	5713	5562	5660	5477
30	5255	5361	5380	5289	5455
35	5617	5610	5292	5711	5436
40	5527	5505	5511	5261	5684
45	5294	5342	5663	5647	5502
50	5631	5316	5356	5613	5645
55	5325	5412	5633	5297	5540
60	5666	5668	5522	5399	5264
65	5451	5709	5363	5466	5706
70	5716	5279	5394	5387	5291
75	5551	5300	5262	5571	5664
80	5675	5274	5401	5535	5639
85	5448	5481	5286	5718	5683
90	5714	5670	5416	5565	5462
95	5518	5470	5472	5622	5372

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_14

Frequency (MHz)	0	1	2	3	4
0	5297	5623	5677	5544	5631
5	5285	5421	5506	5569	5335
10	5486	5571	5416	5453	5562
15	5647	5600	5498	5541	5660
20	5577	5534	5435	5378	5515
25	5662	5652	5342	5596	5702
30	5366	5687	5576	5629	5584
35	5594	5708	5406	5445	5722
40	5372	5707	5443	5654	5355
45	5516	5274	5425	5721	5700
50	5292	5410	5492	5559	5542
55	5436	5348	5494	5511	5320
60	5358	5467	5706	5565	5646
65	5325	5400	5411	5303	5635
70	5692	5341	5370	5346	5260
75	5574	5718	5282	5681	5267
80	5434	5398	5352	5387	5444
85	5478	5586	5637	5374	5676
90	5450	5350	5539	5573	5454
95	5673	5271	5575	5442	5333

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_15

Frequency (MHz)	0	1	2	3	4
0	5552	5387	5613	5705	5376
5	5327	5443	5581	5257	5639
10	5417	5360	5457	5551	5583
15	5260	5424	5703	5543	5258
20	5668	5268	5475	5524	5351
25	5403	5611	5380	5446	5630
30	5366	5255	5547	5316	5306
35	5307	5636	5324	5677	5695
40	5686	5315	5381	5419	5352
45	5445	5254	5508	5682	5278
50	5654	5286	5610	5631	5259
55	5436	5604	5320	5538	5313
60	5482	5449	5523	5412	5488
65	5592	5526	5349	5350	5276
70	5573	5347	5707	5678	5344
75	5355	5346	5305	5704	5694
80	5489	5699	5437	5701	5431
85	5497	5395	5542	5504	5688
90	5539	5680	5653	5628	5438
95	5640	5331	5605	5362	5656

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_16

Frequency (MHz)	0	1	2	3	4
0	5332	5626	5549	5391	5693
5	5369	5368	5656	5420	5371
10	5348	5624	5498	5271	5604
15	5551	5331	5491	5450	5579
20	5337	5416	5516	5324	5669
25	5463	5583	5550	5664	5408
30	5716	5504	5434	5555	5602
35	5300	5415	5570	5373	5525
40	5398	5319	5659	5349	5277
45	5709	5591	5265	5444	5637
50	5661	5720	5557	5283	5317
55	5274	5253	5607	5356	5481
60	5688	5357	5370	5314	5538
65	5298	5386	5465	5625	5401
70	5679	5322	5264	5576	5339
75	5632	5680	5689	5329	5482
80	5595	5560	5392	5267	5445
85	5546	5467	5290	5419	5642
90	5552	5704	5310	5421	5589
95	5692	5670	5683	5519	5566

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_17

Frequency (MHz)	0	1	2	3	4
0	5490	5487	5485	5455	5438
5	5508	5390	5256	5486	5578
10	5657	5510	5539	5466	5625
15	5436	5678	5337	5536	5642
20	5587	5503	5454	5605	5297
25	5557	5412	5311	5276	5698
30	5450	5461	5649	5707	5325
35	5439	5603	5366	5526	5561
40	5364	5257	5327	5346	5681
45	5592	5674	5323	5287	5331
50	5513	5545	5712	5334	5283
55	5702	5505	5703	5426	5610
60	5378	5399	5299	5484	5550
65	5722	5422	5318	5260	5428
70	5473	5272	5447	5528	5676
75	5459	5300	5661	5263	5284
80	5623	5292	5462	5348	5430
85	5482	5384	5693	5604	5275
90	5394	5316	5358	5374	5326
95	5687	5464	5489	5409	5658

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_18

Frequency (MHz)	0	1	2	3	4
0	5270	5251	5421	5616	5280
5	5550	5315	5331	5649	5310
10	5588	5299	5580	5661	5646
15	5427	5330	5440	5581	5359
20	5595	5572	5395	5597	5445
25	5264	5514	5380	5257	5492
30	5494	5418	5389	5481	5620
35	5578	5694	5637	5301	5475
40	5678	5670	5567	5343	5610
45	5282	5284	5340	5596	5292
50	5721	5288	5423	5549	5693
55	5657	5536	5623	5298	5543
60	5344	5606	5538	5527	5276
65	5671	5361	5625	5627	5706
70	5642	5258	5547	5377	5652
75	5560	5417	5482	5346	5718
80	5519	5351	5308	5289	5279
85	5348	5327	5490	5577	5252
90	5647	5570	5559	5322	5392
95	5256	5338	5704	5318	5487

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_19

Frequency (MHz)	0	1	2	3	4
0	5525	5490	5357	5302	5500
5	5592	5337	5406	5614	5422
10	5563	5718	5381	5667	5515
15	5360	5543	5626	5551	5506
20	5263	5336	5686	5711	5591
25	5620	5484	5291	5631	5480
30	5375	5604	5633	5343	5310
35	5433	5454	5389	5269	5608
40	5332	5437	5442	5552	5365
45	5342	5393	5483	5643	5339
50	5609	5404	5493	5514	5251
55	5708	5289	5438	5364	5473
60	5574	5397	5412	5714	5719
65	5550	5628	5519	5386	5602
70	5489	5623	5495	5562	5300
75	5371	5286	5474	5266	5453
80	5294	5692	5698	5625	5293
85	5724	5328	5426	5516	5447
90	5373	5568	5260	5350	5615
95	5579	5503	5720	5687	5565

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_20

Frequency (MHz)	0	1	2	3	4
0	5305	5254	5293	5463	5342
5	5634	5359	5481	5500	5346
10	5353	5352	5284	5479	5688
15	5603	5487	5646	5574	5268
20	5514	5332	5374	5678	5691
25	5599	5540	5348	5588	5325
30	5673	5369	5722	5407	5638
35	5401	5326	5607	5400	5453
40	5449	5572	5434	5371	5532
45	5448	5446	5273	5519	5598
50	5390	5698	5702	5340	5497
55	5468	5441	5261	5618	5522
60	5398	5331	5270	5287	5419
65	5300	5569	5433	5667	5692
70	5690	5408	5705	5650	5604
75	5478	5258	5535	5672	5556
80	5679	5283	5669	5629	5583
85	5513	5389	5560	5652	5301
90	5414	5431	5363	5360	5428
95	5552	5633	5329	5718	5399

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_21

Frequency (MHz)	0	1	2	3	4
0	5560	5493	5704	5624	5562
5	5298	5284	5556	5566	5553
10	5616	5325	5674	5709	5691
15	5614	5274	5619	5460	5522
20	5498	5315	5292	5664	5390
25	5392	5551	5314	5262	5715
30	5258	5289	5462	5559	5458
35	5423	5492	5597	5382	5532
40	5387	5431	5678	5512	5531
45	5361	5499	5635	5395	5299
50	5441	5312	5428	5685	5422
55	5631	5589	5554	5660	5276
60	5577	5588	5598	5615	5372
65	5402	5584	5480	5313	5653
70	5302	5580	5437	5702	5367
75	5585	5427	5337	5368	5594
80	5280	5389	5629	5425	5476
85	5581	5525	5703	5549	5311
90	5579	5397	5568	5377	5483
95	5536	5628	5308	5346	5329

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_22

Frequency (MHz)	0	1	2	3	4
0	5718	5257	5640	5310	5404
5	5340	5306	5631	5254	5382
10	5593	5405	5366	5394	5255
15	5682	5266	5280	5664	5274
20	5433	5567	5256	5284	5637
25	5278	5341	5279	5418	5296
30	5379	5719	5721	5677	5333
35	5656	5465	5680	5393	5535
40	5703	5606	5615	5325	5480
45	5428	5607	5492	5614	5419
50	5455	5425	5649	5475	5401
55	5251	5398	5376	5346	5277
60	5560	5683	5350	5696	5506
65	5414	5408	5324	5564	5709
70	5552	5299	5626	5556	5396
75	5574	5487	5724	5663	5679
80	5320	5435	5657	5655	5584
85	5532	5364	5536	5298	5322
90	5269	5443	5334	5540	5538
95	5520	5526	5665	5449	5327

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_23

Frequency (MHz)	0	1	2	3	4
0	5498	5496	5576	5471	5624
5	5382	5706	5417	5589	5524
10	5291	5407	5276	5295	5393
15	5383	5709	5466	5441	5258
20	5672	5373	5610	5544	5668
25	5482	5522	5330	5421	5608
30	5678	5485	5476	5604	5296
35	5286	5688	5714	5542	5698
40	5263	5720	5425	5536	5375
45	5697	5477	5508	5312	5525
50	5651	5543	5587	5549	5550
55	5586	5571	5531	5337	5515
60	5641	5338	5354	5622	5513
65	5347	5444	5271	5574	5721
70	5285	5281	5378	5435	5355
75	5510	5392	5644	5456	5430
80	5374	5599	5652	5401	5681
85	5499	5358	5708	5570	5329
90	5434	5449	5368	5422	5311
95	5411	5593	5601	5424	5552

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_24

Frequency (MHz)	0	1	2	3	4
0	5278	5260	5512	5632	5369
5	5424	5253	5306	5580	5321
10	5455	5555	5448	5309	5297
15	5383	5423	5486	5657	5658
20	5449	5710	5365	5583	5432
25	5520	5588	5626	5364	5463
30	5594	5635	5535	5259	5674
35	5268	5387	5557	5628	5381
40	5676	5485	5422	5368	5355
45	5305	5438	5561	5577	5401
50	5352	5372	5494	5299	5284
55	5629	5390	5405	5466	5680
60	5683	5645	5638	5300	5348
65	5462	5276	5541	5280	5318
70	5702	5411	5314	5630	5625
75	5708	5443	5288	5308	5649
80	5596	5435	5523	5559	5585
85	5701	5662	5343	5527	5599
90	5682	5323	5525	5648	5322
95	5526	5655	5338	5517	5613

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_25

Frequency (MHz)	0	1	2	3	4
0	5533	5499	5448	5696	5686
5	5563	5653	5381	5646	5625
10	5289	5344	5489	5407	5318
15	5471	5550	5589	5702	5375
20	5360	5493	5651	5454	5556
25	5320	5469	5316	5352	5398
30	5602	5483	5592	5275	5411
35	5494	5478	5353	5616	5542
40	5695	5486	5614	5628	5516
45	5297	5335	5388	5496	5464
50	5655	5528	5645	5290	5573
55	5341	5487	5713	5587	5376
60	5595	5370	5477	5561	5343
65	5549	5419	5433	5558	5354
70	5384	5551	5387	5273	5581
75	5606	5553	5452	5468	5338
80	5462	5522	5680	5666	5591
85	5347	5339	5564	5432	5703
90	5569	5505	5283	5536	5515
95	5350	5690	5307	5659	5520

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_26

Frequency (MHz)	0	1	2	3	4
0	5691	5263	5384	5382	5431
5	5605	5675	5456	5334	5357
10	5695	5608	5530	5602	5339
15	5462	5677	5692	5272	5567
20	5368	5659	5592	5446	5529
25	5586	5321	5519	5432	5644
30	5372	5549	5490	5660	5449
35	5569	5624	5294	5553	5534
40	5552	5393	5513	5604	5315
45	5471	5554	5667	5254	5531
50	5704	5696	5379	5396	5285
55	5406	5347	5724	5535	5573
60	5387	5289	5360	5358	5318
65	5703	5361	5559	5340	5400
70	5363	5707	5353	5395	5587
75	5640	5663	5643	5511	5716
80	5304	5582	5397	5364	5545
85	5454	5564	5276	5349	5541
90	5283	5650	5593	5386	5259
95	5610	5562	5685	5528	5445

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_27

Frequency (MHz)	0	1	2	3	4
0	5471	5502	5320	5543	5273
5	5647	5600	5531	5497	5564
10	5626	5397	5668	5322	5360
15	5550	5329	5698	5695	5284
20	5376	5253	5630	5535	5474
25	5270	5722	5560	5466	5686
30	5358	5506	5705	5337	5512
35	5588	5660	5517	5544	5467
40	5373	5652	5490	5633	5510
45	5533	5295	5554	5515	5720
50	5616	5407	5405	5272	5565
55	5694	5607	5291	5621	5724
60	5700	5318	5281	5518	5713
65	5688	5710	5573	5309	5394
70	5528	5498	5639	5326	5487
75	5339	5666	5568	5417	5676
80	5448	5683	5594	5640	5706
85	5716	5545	5589	5402	5718
90	5612	5365	5619	5570	5310
95	5553	5576	5338	5634	5491

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_28

Frequency (MHz)	0	1	2	3	4
0	5251	5266	5256	5704	5493
5	5689	5622	5606	5660	5393
10	5460	5283	5709	5517	5381
15	5638	5456	5326	5265	5476
20	5287	5419	5571	5527	5475
25	5597	5450	5664	5500	5350
30	5722	5463	5348	5586	5332
35	5252	5373	5313	5697	5309
40	5357	5331	5301	5507	5462
45	5275	5637	5573	5676	5406
50	5581	5323	5654	5551	5479
55	5575	5439	5422	5667	5410
60	5390	5560	5545	5611	5278
65	5396	5258	5333	5360	5442
70	5325	5409	5490	5315	5625
75	5669	5538	5438	5549	5311
80	5372	5657	5540	5523	5619
85	5605	5684	5367	5672	5288
90	5563	5576	5344	5588	5662
95	5690	5618	5486	5723	5592

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_29

Frequency (MHz)	0	1	2	3	4
0	5506	5505	5667	5390	5335
5	5353	5547	5681	5348	5600
10	5391	5275	5712	5402	5251
15	5486	5429	5310	5290	5295
20	5488	5512	5616	5448	5628
25	5449	5653	5534	5392	5611
30	5420	5563	5263	5530	5294
35	5464	5584	5375	5623	5440
40	5269	5541	5504	5633	5720
45	5631	5254	5293	5537	5282
50	5374	5268	5718	5398	5529
55	5629	5716	5638	5539	5555
60	5377	5437	5699	5597	5682
65	5369	5570	5660	5494	5395
70	5590	5325	5669	5658	5484
75	5446	5421	5485	5536	5342
80	5522	5568	5401	5710	5626
85	5383	5474	5679	5281	5373
90	5296	5707	5384	5702	5695
95	5475	5323	5723	5670	5338

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_30

Frequency (MHz)	0	1	2	3	4
0	5286	5269	5603	5551	5555
5	5395	5569	5281	5414	5332
10	5700	5336	5316	5335	5423
15	5717	5613	5532	5355	5482
20	5303	5654	5550	5608	5421
25	5419	5398	5284	5494	5568
30	5434	5597	5377	5512	5350
35	5433	5477	5625	5306	5462
40	5523	5682	5598	5698	5328
45	5592	5307	5558	5413	5458
50	5425	5357	5541	5342	5380
55	5483	5344	5535	5609	5668
60	5720	5450	5684	5263	5645
65	5420	5631	5405	5402	5552
70	5426	5566	5381	5593	5649
75	5543	5510	5627	5511	5266
80	5534	5438	5522	5341	5628
85	5496	5675	5677	5309	5581
90	5639	5685	5315	5255	5308
95	5724	5503	5683	5282	5681

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