

DFS Test Report

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FCC ID: PY326200348

Test Model: C7000v2

Received Date: July 18, 2016

Test Date: July 28 to Aug. 05, 2016

Issued Date: Sep. 07, 2016

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Release Control Record

Issue No.	Description	Date Issued
RF160623E04A-2	Original release.	Sep. 07, 2016

1 Certificate of Conformity

Product: AC1900 WiFi Cable Modem Router

Brand: NETGEAR

Test Model: C7000v2

Sample Status: ENGINEERING SAMPLE

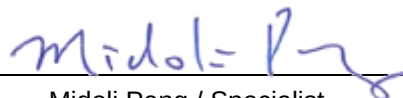
Applicant: NETGEAR, Inc.

Test Date: July 28 to Aug. 05, 2016

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.

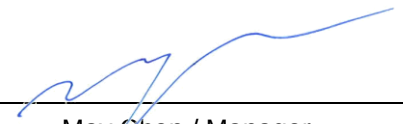
Prepared by :


Midoli Peng / Specialist

Date:

Sep. 07, 2016

Approved by :


May Chen / Manager

Date:

Sep. 07, 2016

2 EUT Information

2.1 Operating Frequency Bands and Mode of EUT

Table 1: Operating Frequency Bands and Mode of EUT

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

2.2 EUT Software and Firmware Version

Table 2: The EUT Software/Firmware Version

No.	Product	Model No.	Software/Firmware Version
1	AC1900 WiFi Cable Modem Router	C7000v2	V1.02.01T

2.3 Description of Available Antennas to the EUT

Table 3: Antenna List

Transmitter Circuit	Brand	Model	Antenna Gain(dBi) <including cable loss>	Frequency range (MHz ~ MHz)	Antenna Type	Connector Type	Cable Length (mm)
Chain (2)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	105
				5.15~5.85			
Chain (0)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	70
				5.15~5.85			
Chain (1)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	101

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(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.21	209.394	17.21	52.602
5470~5725	23.21	209.62	17.21	52.602

802.11ac (VHT20)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.17	207.327	17.17	52.119
5470~5725	23.21	209.524	17.21	52.602

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.17	207.327	17.17	52.119
5470~5725	23.21	209.524	17.21	52.602

802.11ac (VHT40)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.9	245.398	17.9	61.66
5470~5725	23.86	243.493	17.86	61.094

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.14	206.208	17.14	51.761
5470~5725	23.19	208.578	17.19	52.36

802.11ac (VHT80)

CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.88	244.232	17.88	61.376
5470~5725	23.85	242.83	17.85	60.954

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.19	208.217	17.19	52.36
5470~5725	23.21	209.514	17.21	52.602

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(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	25.21	331.867	19.21	83.368
5470~5725	25.21	332.225	19.21	83.368

802.11ac (VHT20)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	25.17	328.591	19.17	82.604
5470~5725	25.21	332.073	19.21	83.368

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	29.94	985.498	23.94	247.742
5470~5725	29.98	995.941	23.98	250.035

802.11ac (VHT40)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	25.9	388.93	19.9	97.724
5470~5725	25.86	385.91	19.86	96.828

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	29.91	980.179	23.91	246.037
5470~5725	29.96	991.445	23.96	248.886

802.11ac (VHT80)

CDD Mode

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	25.88	387.082	19.88	97.275
5470~5725	25.85	384.86	19.85	96.605

Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. EIRP Power		MIN. EIRP Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	29.96	989.729	23.96	248.886
5470~5725	29.98	995.894	23.98	250.036

2.6 Transmit Power Control (TPC)

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

Maximum EIRP of this device is **995.941** mW which more than 500mW, therefore it's require TPC function.

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

2.7 Statement of Manufacturer

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

3. U-NII DFS Rule Requirements

3.1 Working Modes and Required Test Items

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

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

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

Note: Regarding KDB 905462 D03 Client Without DFS New Rules v01r01 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	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066μ sec, with a minimum increment of 1μ sec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

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	Date of Calibration	Due Date of Calibration
Spectrum Analyzer R&S	FSV40	100964	Jun. 28, 2016	Jun. 27, 2017
Vector Signal Generator Agilent	N5182B	MY53051263	Aug. 10, 2015	Aug. 09, 2016
Horn Antenna EMCO	1018G	0001	Jan 08, 2016	Jan.07, 2017
DFS Control Box	BV-DFS-CB	001	Sep. 19, 2015	Sep. 18, 2016

4.2 Description of Support Units

Table 14: Support Unit Information.

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

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

Table 15: Software/Firmware Information.

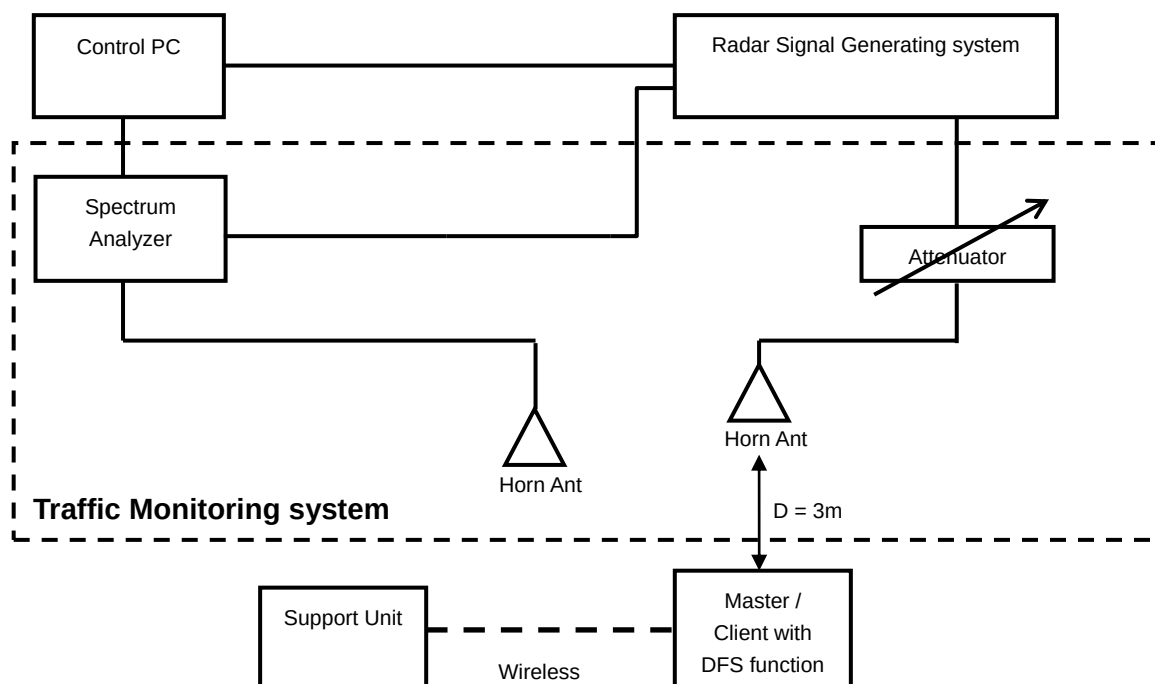
No.	Product	Model No.	Software/Firmware Version
1	Wireless LAN Unit	NP05LM	Driver Version: 06/18/2014, 1026.12.606.2014

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:

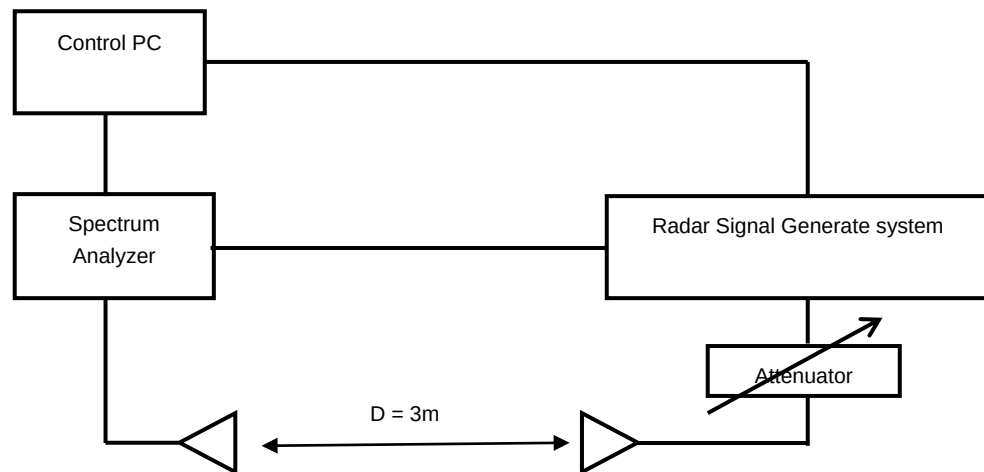
a)	The data file must be of a type that is typical for the device (i.e., MPEG-2, MPEG-4, WAV, MP3, MP4, AVI, etc.) and must generally be transmitting in a streaming mode.	
b)	Software to ping the client is permitted to simulate data transfer but must have random ping intervals.	
c)	Timing plots are required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



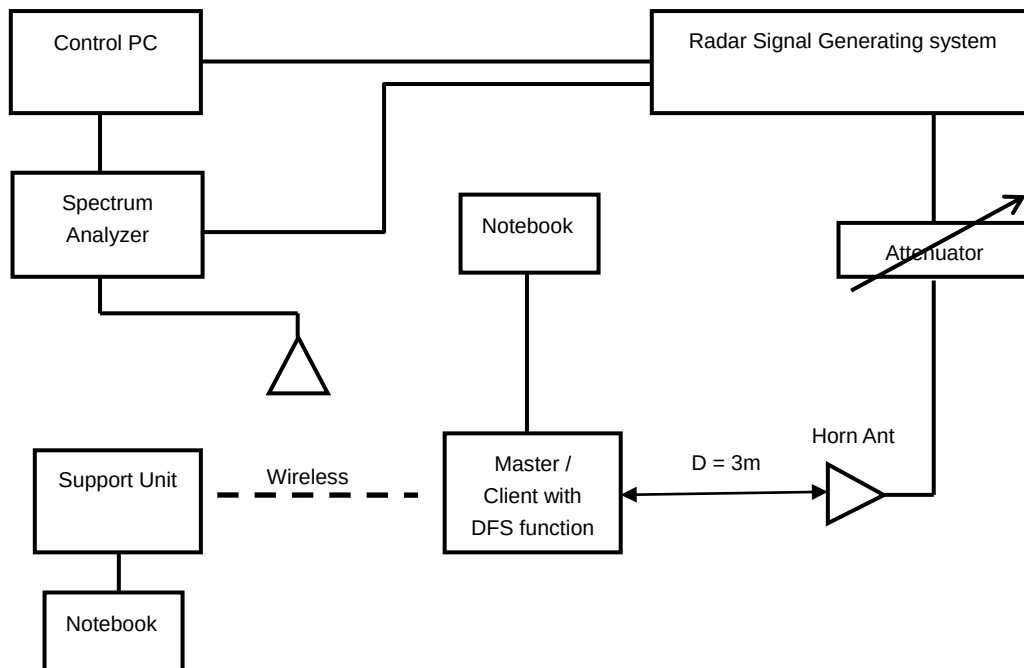
5.3 Deviation from Test Standard

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

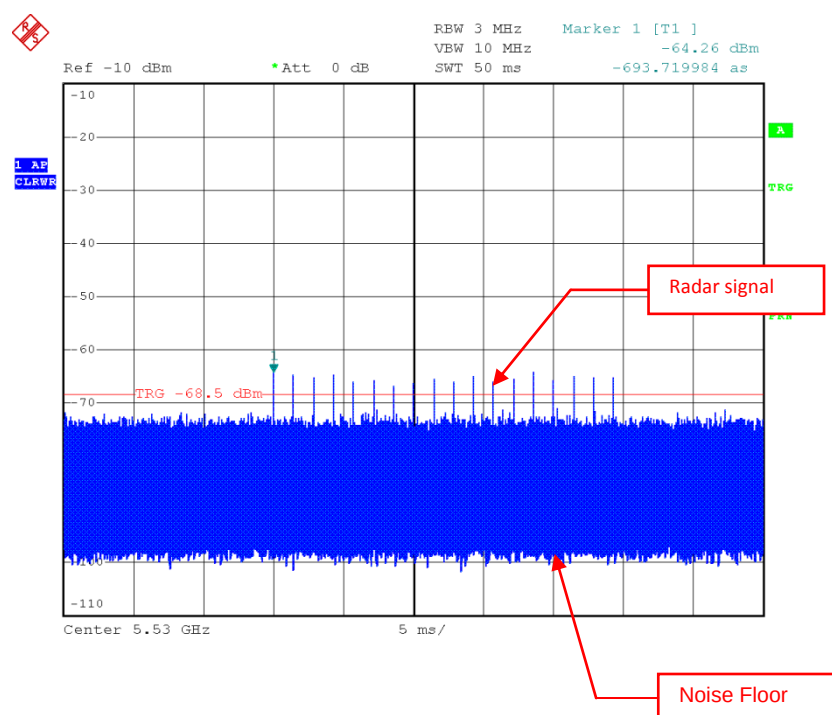
6.2 Test Results

6.2.1 Test Mode: Device Operating in Master Mode.

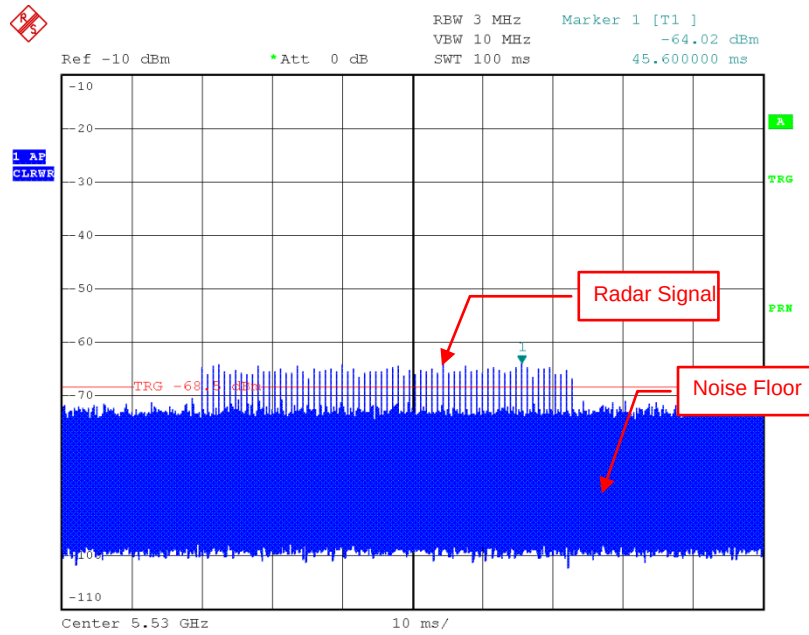
The radar test waveforms are injected into the Master.
 This test was investigated for different bandwidth (20MHz, 40MHz and 80MHz).
 The following plots were done on 80MHz as a representative

DFS Detection Threshold

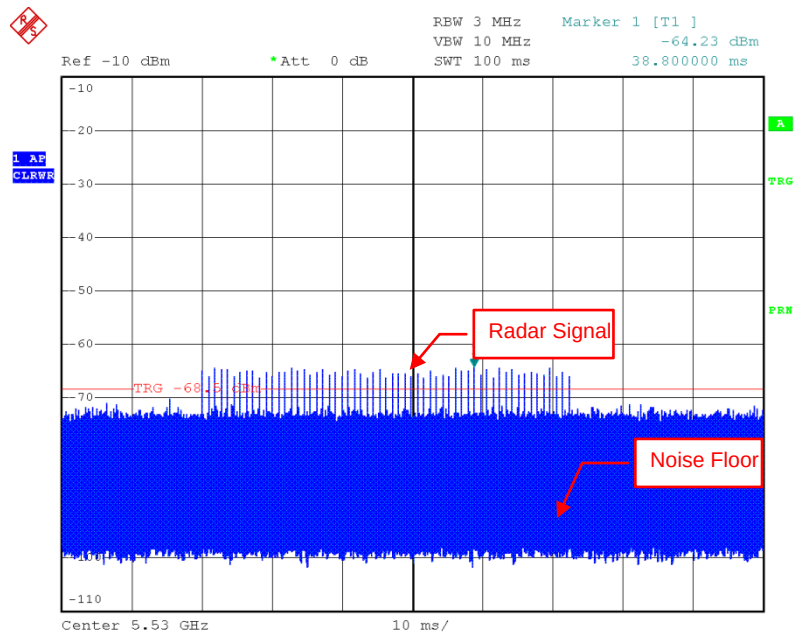
For detection threshold level of -64dBm, the tested level is lower than required level for 1dB, hence it provides margin to the limit.



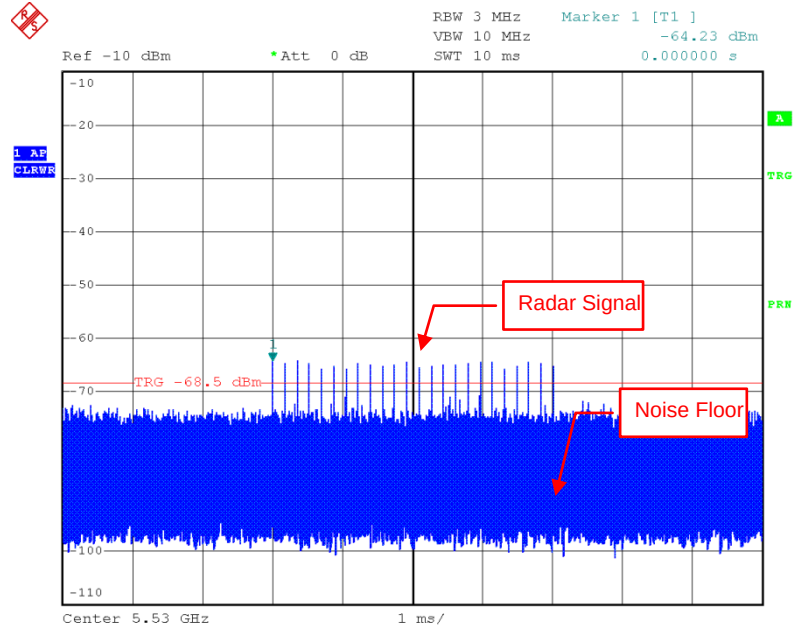
Radar Signal 0



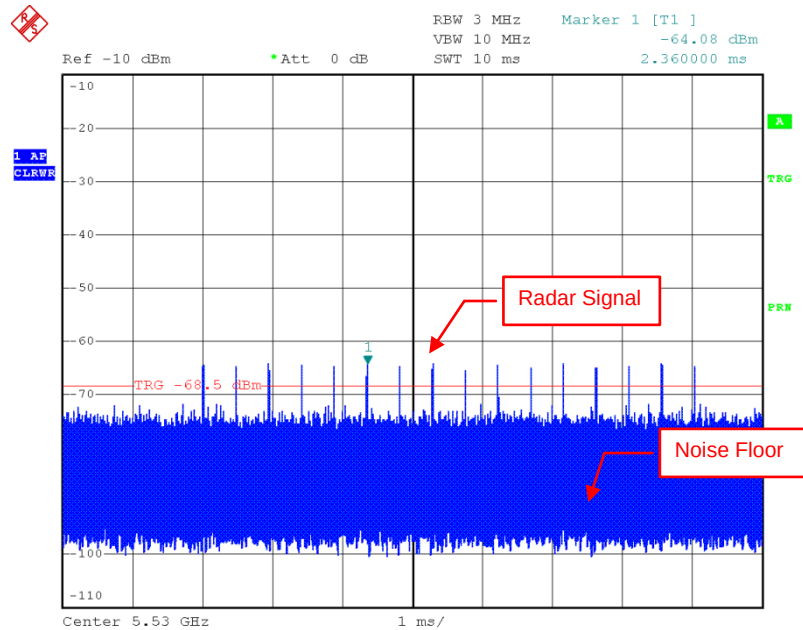
Radar Signal 1 (Test A)



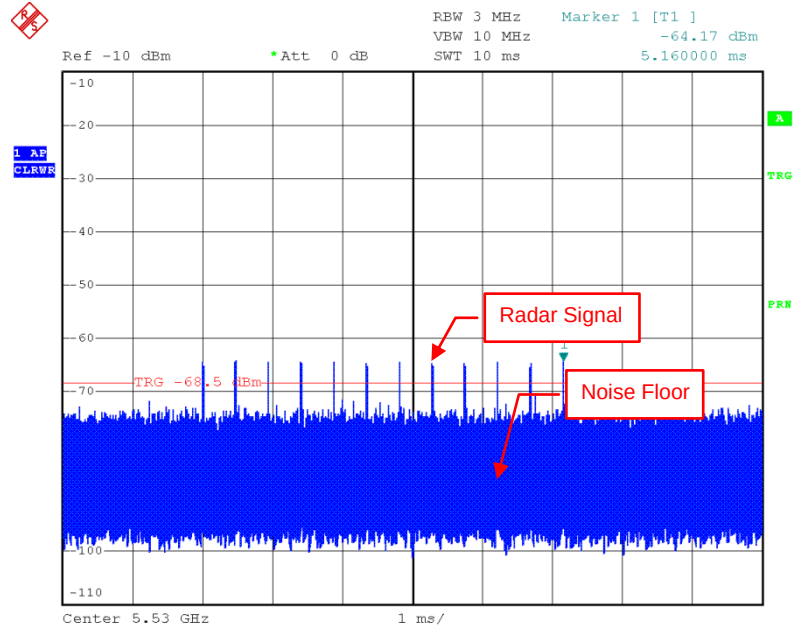
Radar Signal 1 (Test B)



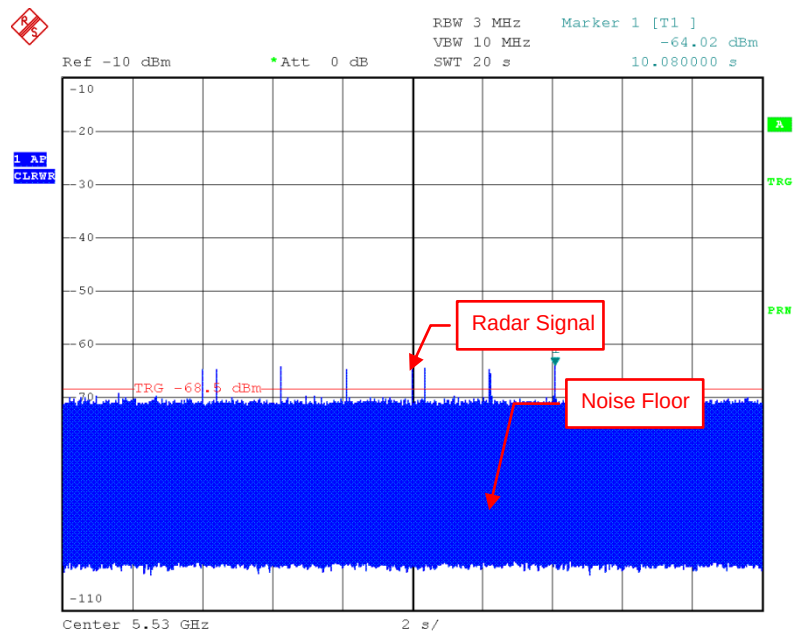
Radar Signal 2



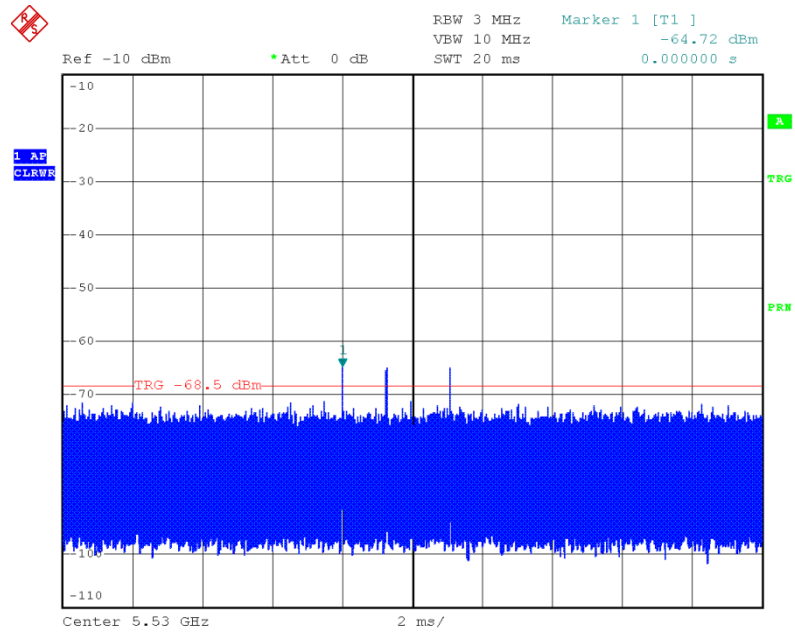
Radar Signal 3



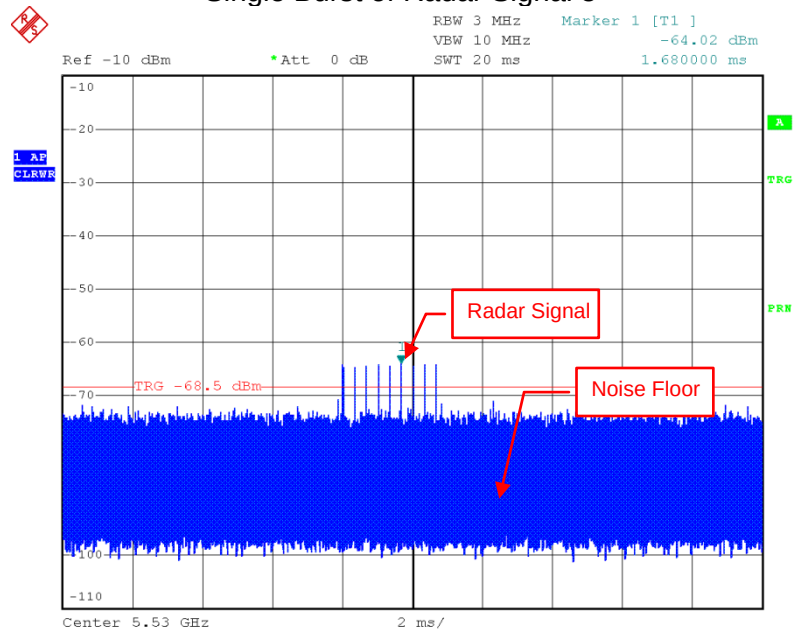
Single Burst of Radar Signal 4



Radar Signal 5



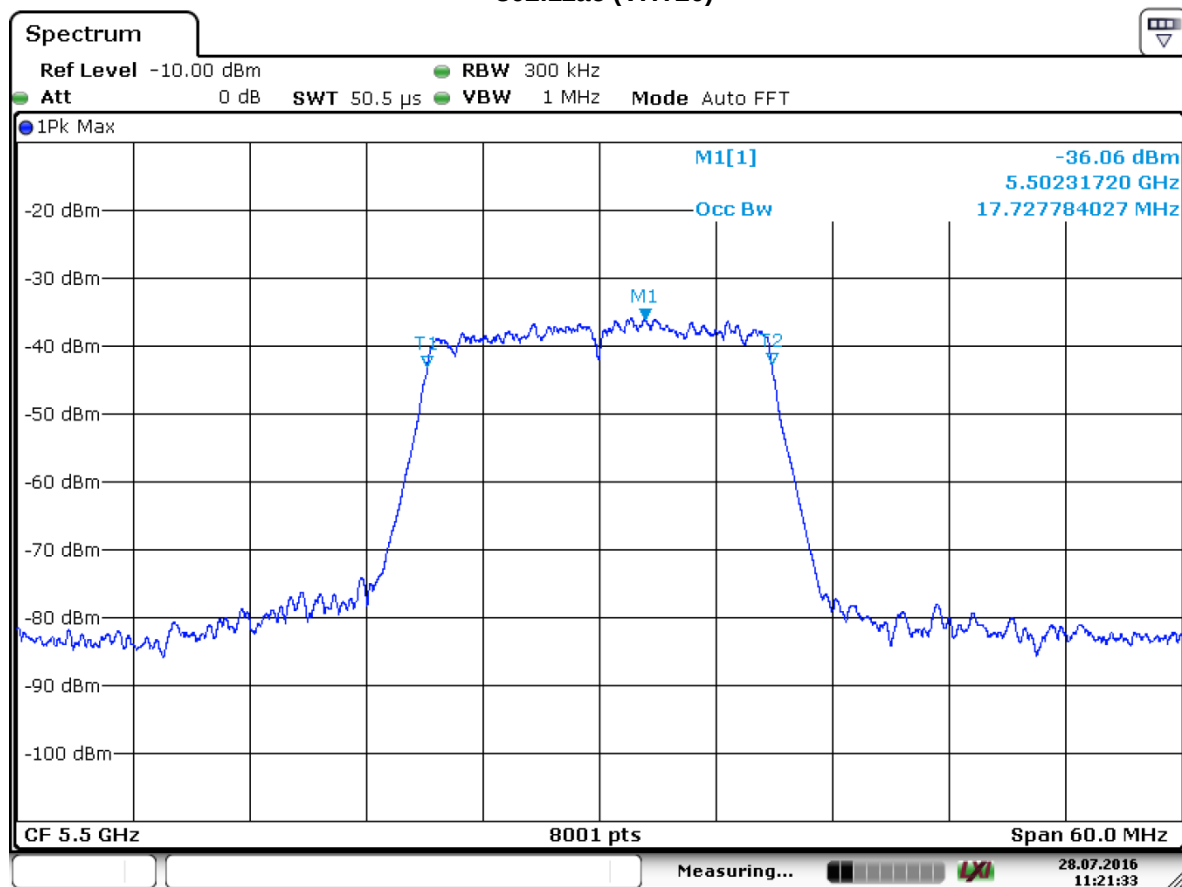
Single Burst of Radar Signal 5



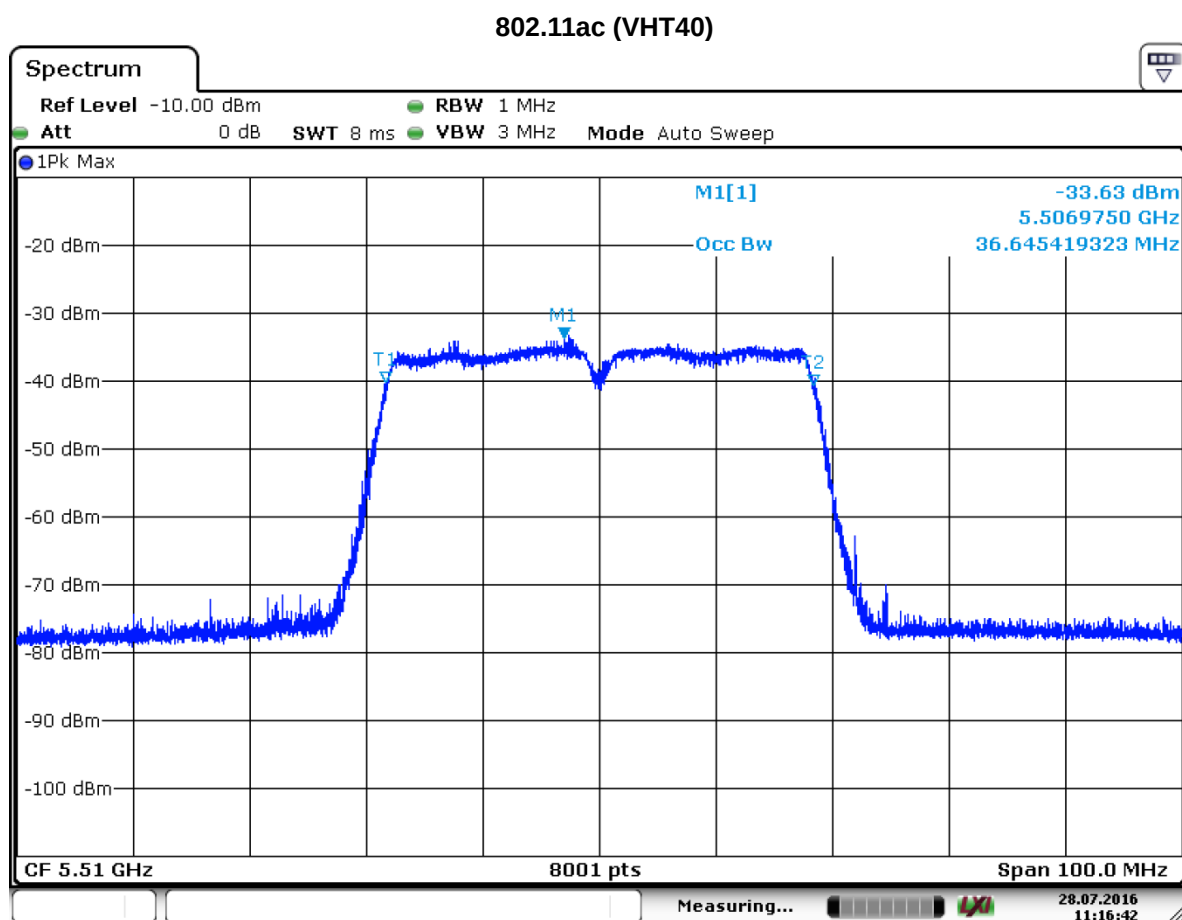
Radar Signal 6

6.2.2 U-NII Detection Bandwidth

802.11ac (VHT20)

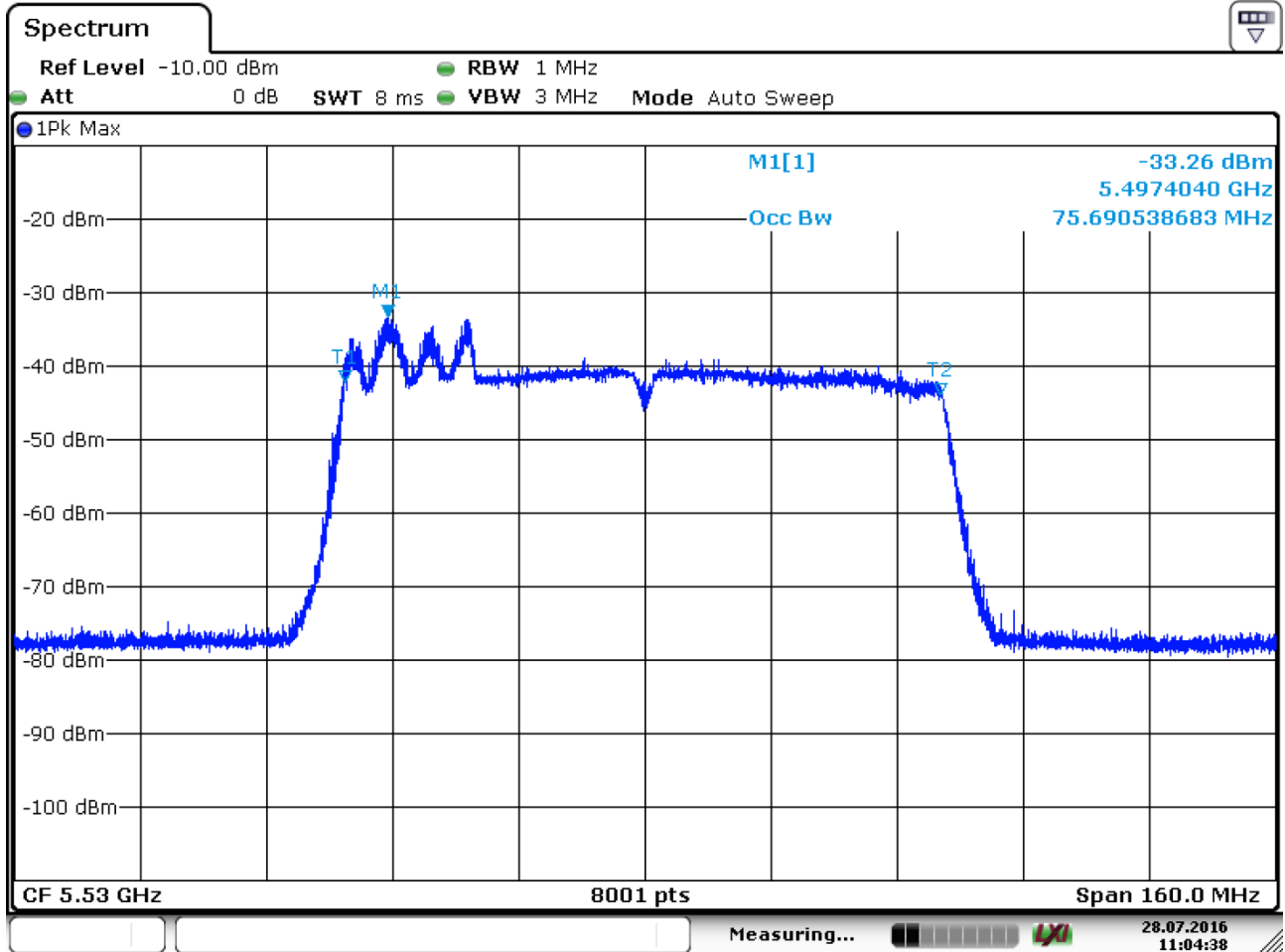


U-NII 99% Channel bandwidth



U-NII 99% Channel bandwidth

802.11ac (VHT80)



U-NII 99% Channel bandwidth

Detection Bandwidth Test - 802.11ac (VHT20)

Radar Type 0

EUT Frequency: 5500MHz

EUT 99% Power bandwidth: 17.727784027MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 17.727784027MHz

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	
5.491G(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.492G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.493G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.494G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.495G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.496G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.497G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.498G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.499G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.500G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.501G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.502G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.503G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.504G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.505G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.506G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.507G	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.508G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.509G(FH)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90

Detection Bandwidth Test - 802.11ac (VHT40)

Radar Type 0

EUT Frequency: 5510MHz

EUT 99% Power bandwidth: 36.645419323MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 36.645419323MHz

Detection bandwidth (5529(FH) – 5491(FL)) : 38MHz

Test Result : PASS

Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5.491G(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.492G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.493G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.494G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.495G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.496G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.497G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.498G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.499G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.500G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.501G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.502G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.503G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.504G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.505G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.506G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.507G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.508G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.509G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.510G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.511G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.512G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.513G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.514G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.515G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.516G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.517G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.518G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.519G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.520G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.521G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.522G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.523G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.524G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.525G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.526G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.527G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.528G	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.529G(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	90

Detection Bandwidth Test - 802.11ac (VHT80)

Radar Type 0

EUT Frequency: 5530MHz

EUT 99% Power bandwidth: 75.690538683MHz

Detection bandwidth limit (100% of EUT 99% Power bandwidth): 75.690538683MHz

Detection bandwidth (5568(FH) – 5492(FL)) : 76MHz

Test Result : PASS

Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5.492G(FL)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.493G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.494G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.495G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.496G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.497G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.498G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.499G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.500G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.501G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.502G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.503G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.504G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.505G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.506G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.507G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.508G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.509G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.510G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.511G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.512G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.513G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.514G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.515G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.516G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.517G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.518G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.519G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.520G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.521G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.522G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.523G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.524G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.525G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.526G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.527G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.528G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.529G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.530G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.531G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.532G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.533G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.534G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.535G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.536G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100

5.537G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.538G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.539G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.540G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.541G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.542G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.543G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.544G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.545G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.546G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.547G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.548G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.549G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.550G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.551G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.552G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.553G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.554G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.555G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.556G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.557G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.558G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.559G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.560G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.561G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.562G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.563G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.564G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.565G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.566G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.567G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.568G(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	90

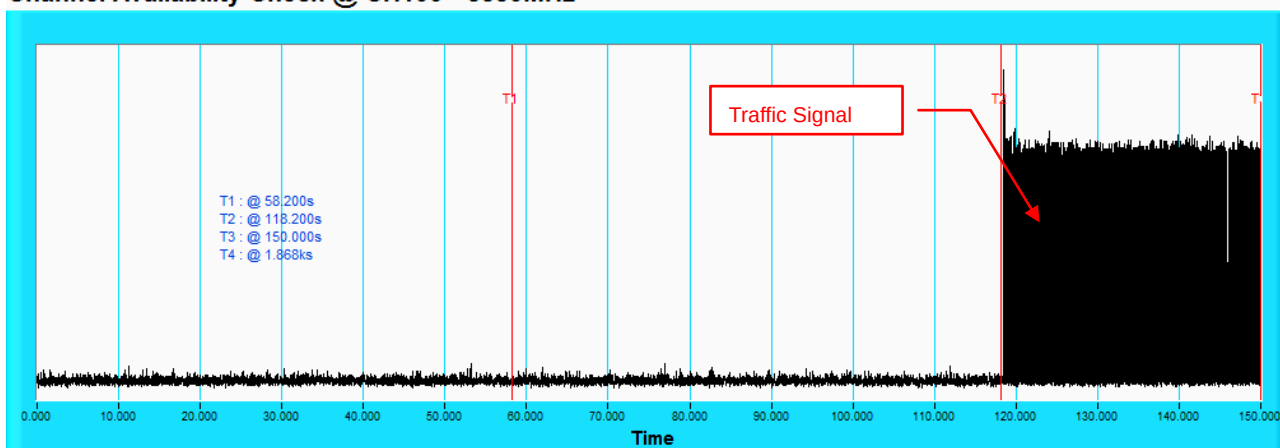
6.2.3 Channel Availability Check Time

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

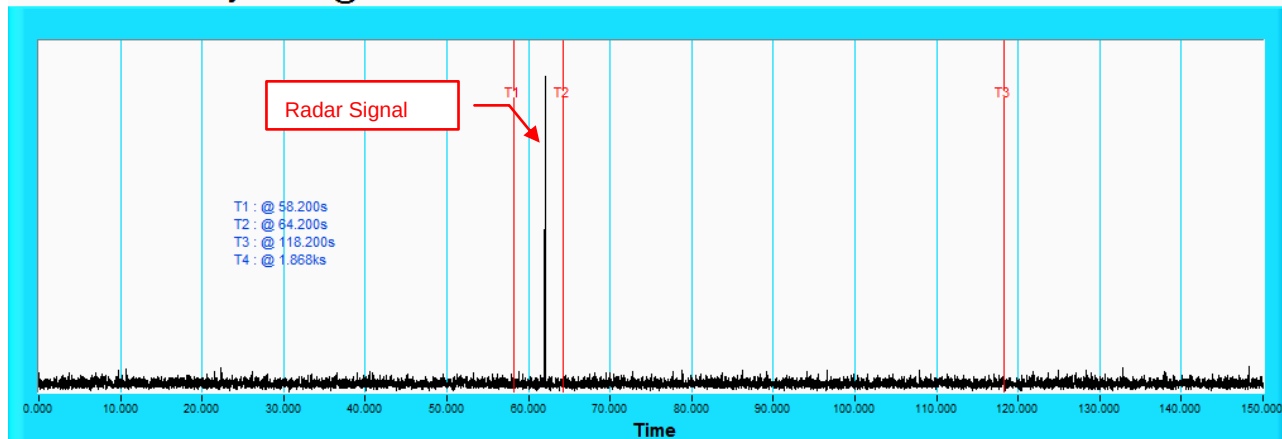
Channel Availability Check @ CH106 - 5530MHz



NOTE: T1 denotes the end of power-up time period is 58.2th second. T2 denotes the end of Channel Availability Check time is 118.2th second. Channel Availability Check time is equal to (T2 – T1) 60 seconds.

Radar Burst at the Beginning of the Channel Availability Check Time

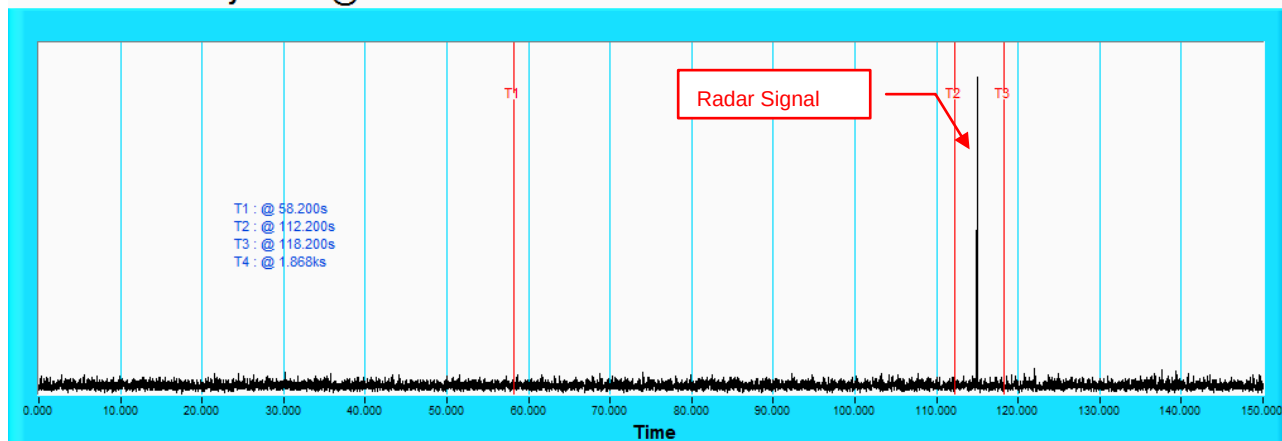
Channel Availability Check @ CH106 - 5530MHz



NOTE: T1 denotes the end of power up time period is 58.2th second. T2 denotes 64.2th second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T3 denotes the 118.2th second.

Radar Burst at the End of the Channel Availability Check Time

Channel Availability Check @ CH106 - 5530MHz



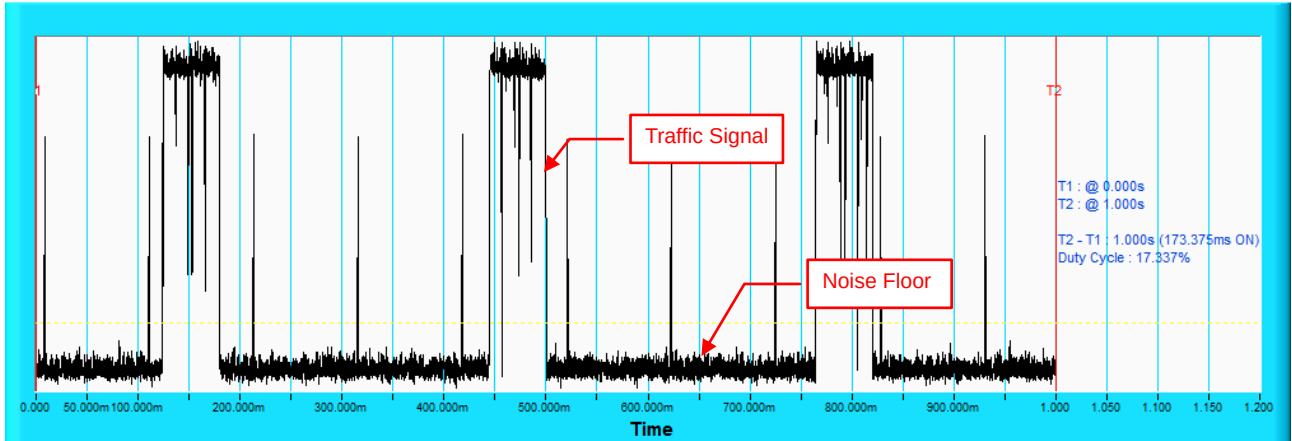
NOTE: T1 denotes the end of power up time period is 58.2th second. T2 denotes 112.2th second and the radar burst was commenced within 54th second to 60th second window starting from the end of power-up sequence. T3 denotes the 118.2th second.

6.2.4 Channel Closing Transmission and Channel Move Time

Wireless Traffic Loading

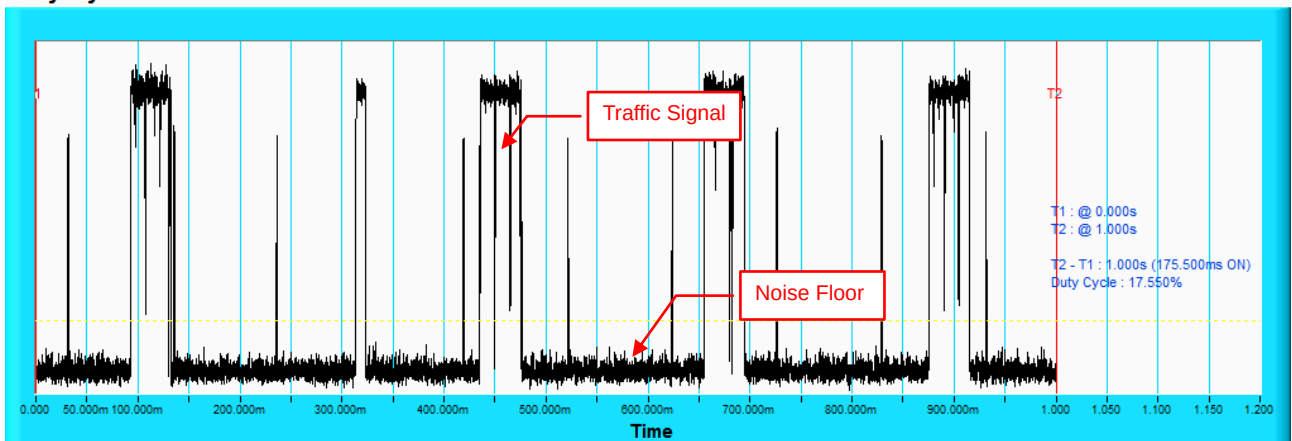
802.11ac (VHT20)

Duty Cycle



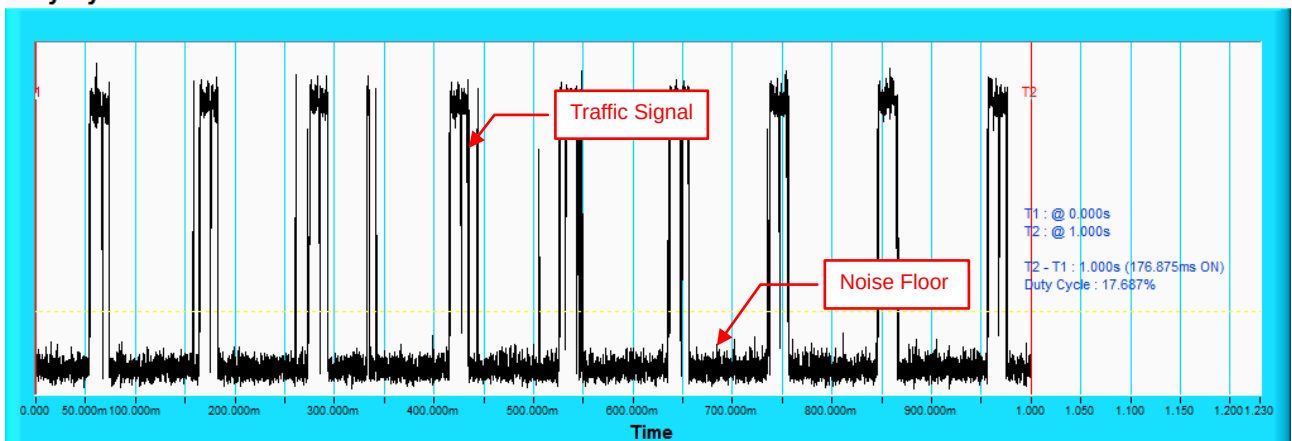
802.11ac (VHT40)

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 ----- Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A	$\text{Roundup} \left\{ \begin{array}{l} \left(\frac{1}{360} \right) \cdot \\ \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right) \end{array} \right\}$	18	30	93.3
2	1-5	150-230	23-29	30	93.3
3	6-10	200-500	16-18	30	90
4	11-20	200-500	12-16	30	93.3
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	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 ----- Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A	$\left\{ \begin{array}{l} \frac{1}{360} \\ \text{Roundup} \left\{ \frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right\} \end{array} \right\}$	18	30	90
2	1-5	150-230	23-29	30	93.3
3	6-10	200-500	16-18	30	90
4	11-20	200-500	12-16	30	93.3
Aggregate (Radar Types 1-4)				120	91.7

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 (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 ----- Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, with a minimum increment of 1 μ sec, excluding PRI values selected in Test A	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu \text{ sec}}} \right) \right\}$	18	30	90
2	1-5	150-230	23-29	30	86.7
3	6-10	200-500	16-18	30	90
4	11-20	200-500	12-16	30	86.7
Aggregate (Radar Types 1-4)				120	88.3

Table 2: Long Pulse Radar Test Waveform

Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per Burst	Number of Bursts	Number of Trials(Times)	Percentage of Successful Detection (%)
5	50-100	5-20	1000-2000	1-3	8-20	30	93.3

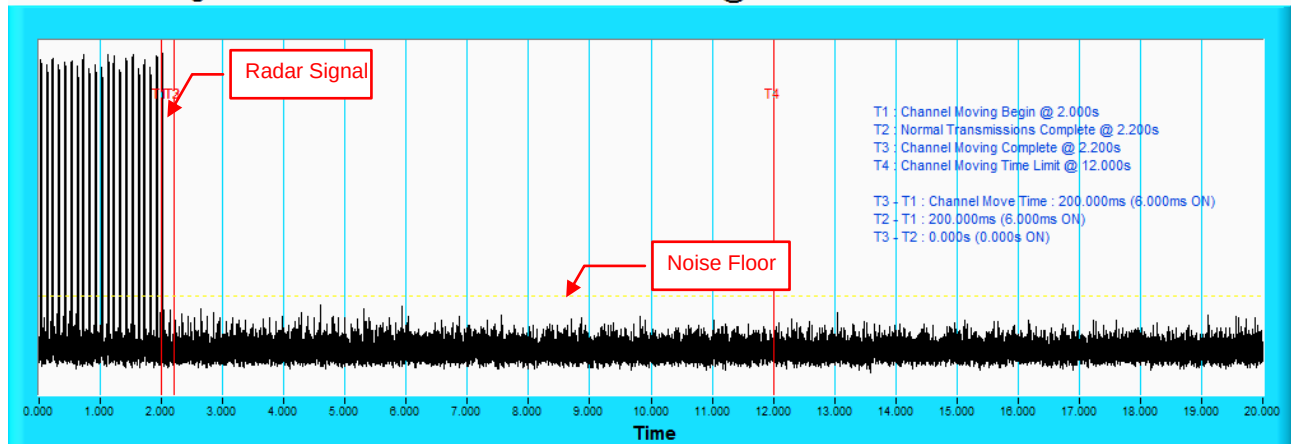
Table 3: Frequency Hopping Radar Test Waveform

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	90

Radar signal 0

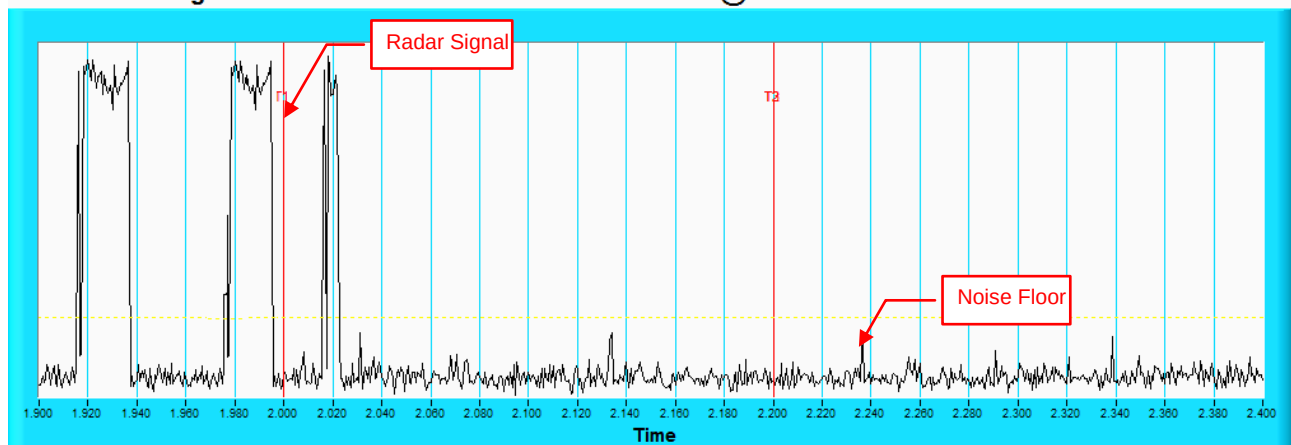
802.11ac (VHT80)

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

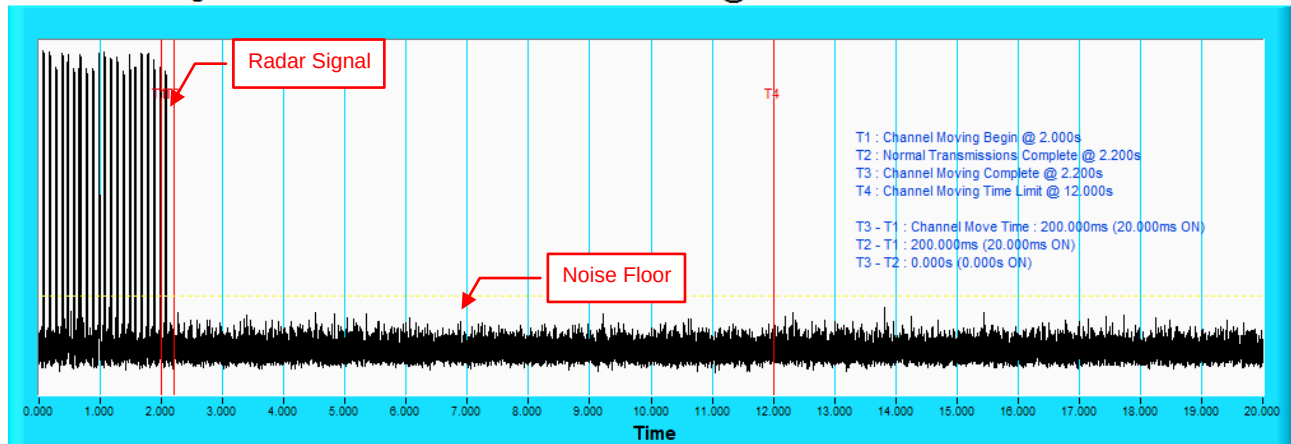


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 1

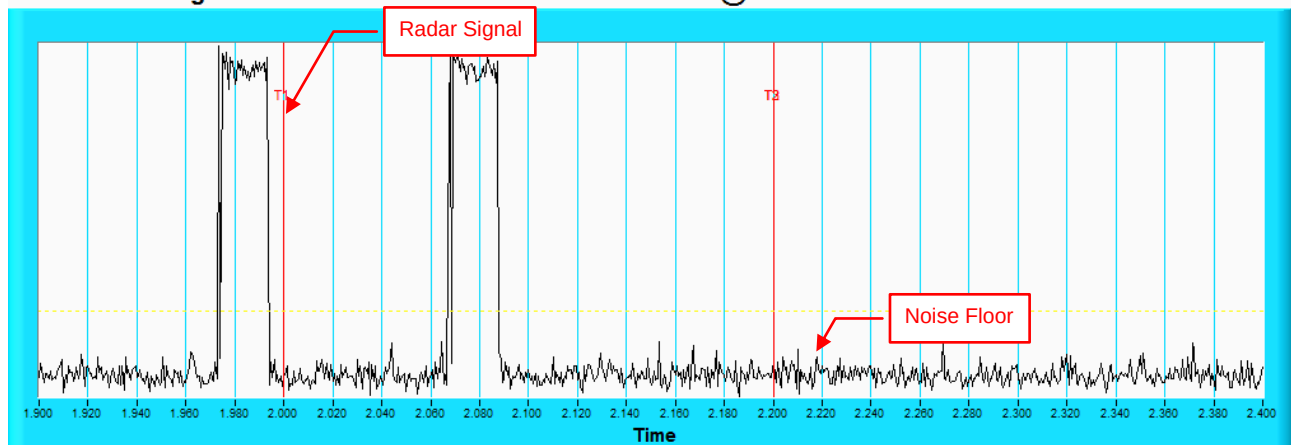
802.11ac (VHT80)

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

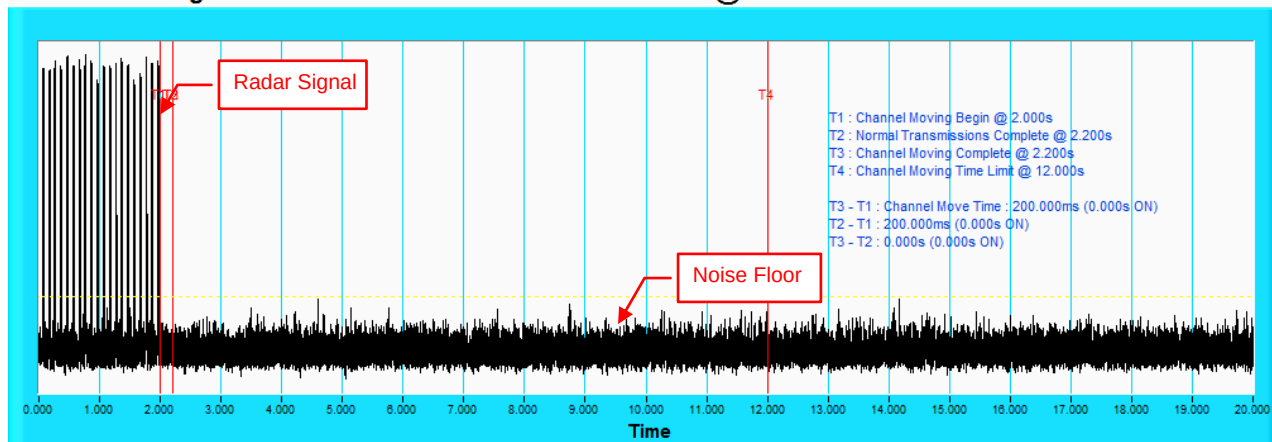


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 2

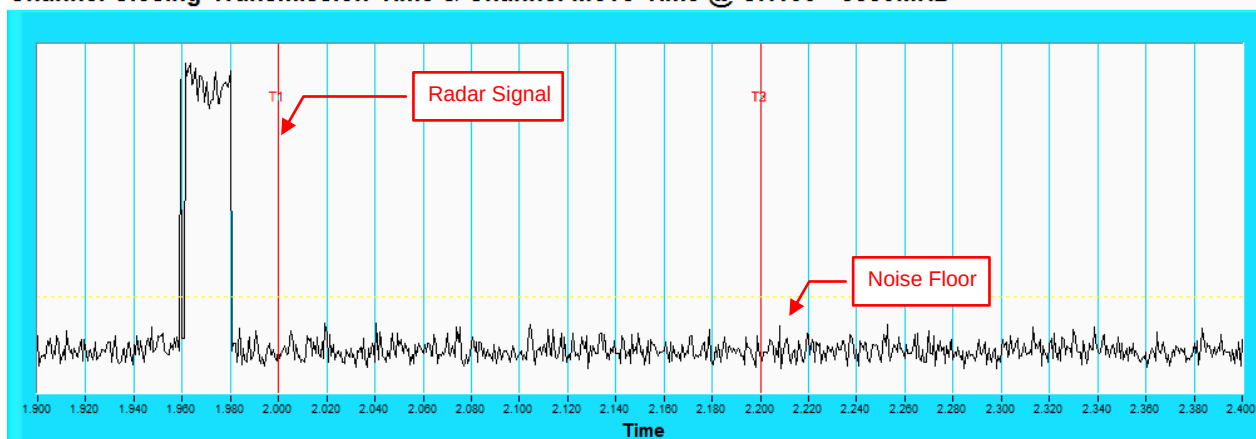
802.11ac (VHT80)

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

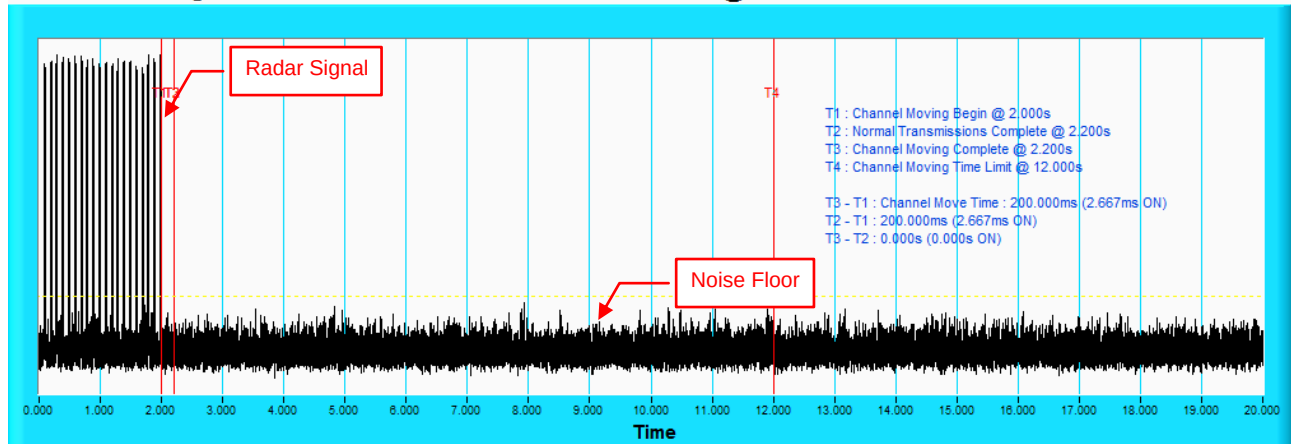


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 3

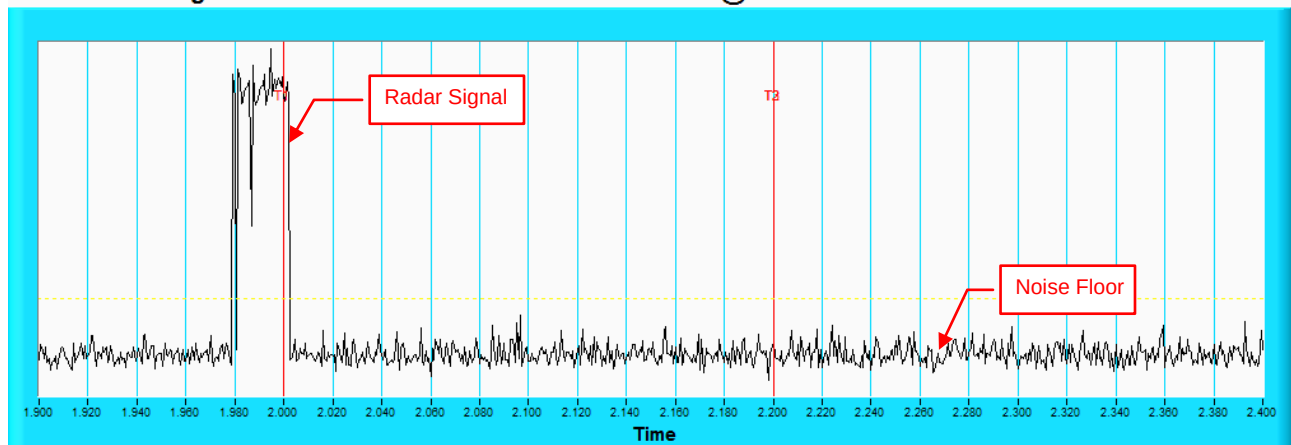
802.11ac (VHT80)

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

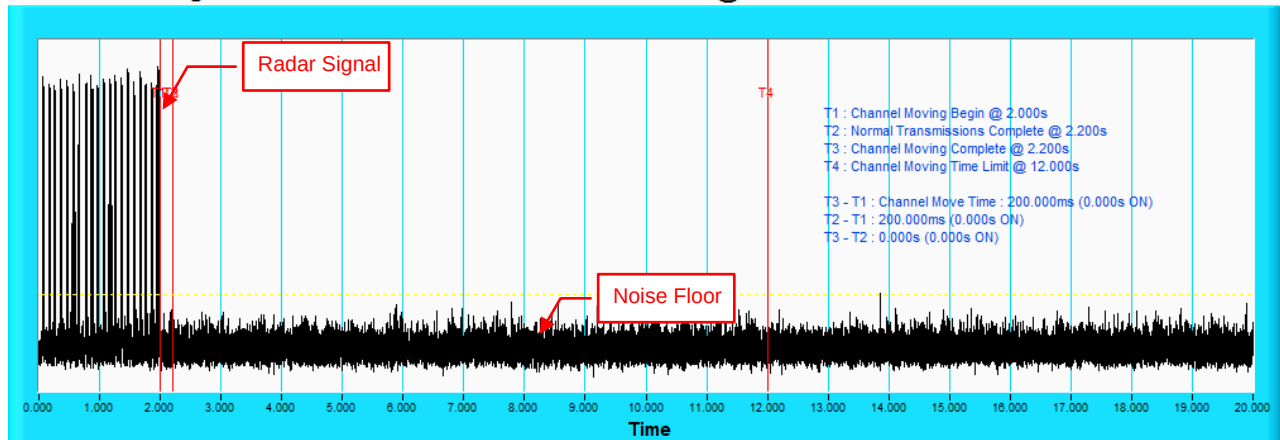


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 4

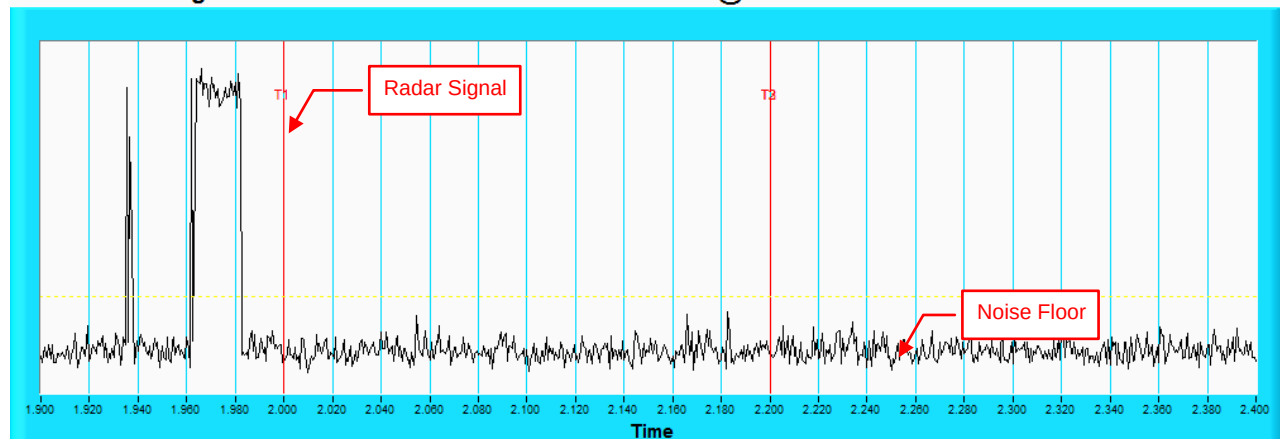
802.11ac (VHT80)

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	15	1253	67	798	Yes
2	5493	19	1139	61	878	Yes
3	5501	17	1193	63	838	No
4	5498	3	1792	95	558	Yes
5	5501	4	1730	92	578	Yes
6	5498	5	1672	89	598	Yes
7	5504	22	1066	57	938	Yes
8	5507	12	1355	72	738	Yes
9	5496	14	1285	68	778	Yes
10	5495	6	1618	86	618	No
11	5498	23	326.2	18	3066	Yes
12	5493	18	1166	62	858	Yes
13	5499	7	1567	83	638	Yes
14	5505	21	1089	58	918	Yes
15	5504	8	1520	81	658	Yes
16	5492		587.5	32	1702	Yes
17	5497		415.1	22	2409	Yes
18	5492		504.3	27	1983	Yes
19	5495		1397	74	716	Yes
20	5496		945.2	50	1058	Yes
21	5495		346.4	19	2887	Yes
22	5507		360.9	20	2771	Yes
23	5495		629.7	34	1588	Yes
24	5499		699.8	37	1429	Yes
25	5499		586.5	31	1705	Yes
26	5504		807.8	43	1238	Yes
27	5493		620	33	1613	Yes
28	5505		390	21	2564	Yes
29	5507		527.1	28	1897	Yes
30	5503		486.9	26	2054	Yes
Detection Rate: 93.3 %						

802.11ac (VHT20)

Type 2 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	27	3.8	178	Yes
2	5501	29	5	223	Yes
3	5491	26	2.8	187	Yes
4	5493	23	1.1	216	Yes
5	5508	27	3.8	181	Yes
6	5505	29	4.7	174	Yes
7	5506	25	2.2	182	Yes
8	5500	29	5	229	Yes
9	5497	27	3.3	167	Yes
10	5494	23	1	155	Yes
11	5491	28	4.1	159	No
12	5500	29	4.5	166	Yes
13	5497	23	1.2	180	Yes
14	5500	25	2.6	199	Yes
15	5507	27	3.7	210	Yes
16	5502	24	1.5	179	Yes
17	5491	27	3.8	206	Yes
18	5499	23	1	184	Yes
19	5504	24	2	205	Yes
20	5506	26	2.8	225	Yes
21	5506	27	3.4	214	Yes
22	5504	23	1	175	Yes
23	5508	26	3.2	220	Yes
24	5501	25	2.5	152	Yes
25	5493	28	4.1	172	Yes
26	5491	23	1.1	208	Yes
27	5508	29	5	209	Yes
28	5494	27	3.8	191	Yes
29	5506	25	2.4	200	Yes
30	5503	29	5	227	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	18	8.8	486	Yes
2	5492	18	10	463	Yes
3	5502	17	7.8	264	Yes
4	5499	16	6.1	309	No
5	5507	18	8.8	347	Yes
6	5504	18	9.7	346	Yes
7	5495	16	7.2	243	Yes
8	5508	18	10	281	Yes
9	5496	17	8.3	437	Yes
10	5506	16	6	303	Yes
11	5504	18	9.1	239	Yes
12	5495	18	9.5	241	Yes
13	5502	16	6.2	489	Yes
14	5494	17	7.6	331	Yes
15	5508	18	8.7	407	Yes
16	5502	16	6.5	255	Yes
17	5495	18	8.8	457	Yes
18	5494	16	6	398	Yes
19	5500	16	7	447	No
20	5505	17	7.8	474	Yes
21	5508	17	8.4	312	Yes
22	5503	16	6	380	Yes
23	5497	17	8.2	461	Yes
24	5504	17	7.5	334	Yes
25	5493	18	9.1	313	Yes
26	5506	16	6.1	341	Yes
27	5496	18	10	466	Yes
28	5496	18	8.8	272	Yes
29	5503	17	7.4	307	Yes
30	5505	18	10	412	No

Detection Rate: 90 %

802.11ac (VHT20)

Type 4 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	15	17.3	486	Yes
2	5506	16	19.9	463	Yes
3	5500	14	15	264	Yes
4	5501	12	11.3	309	Yes
5	5507	15	17.2	347	Yes
6	5495	16	19.2	346	Yes
7	5498	13	13.8	243	Yes
8	5492	16	19.8	281	Yes
9	5496	14	16.2	437	Yes
10	5498	12	11.1	303	Yes
11	5505	15	17.9	239	Yes
12	5493	16	18.8	241	No
13	5506	12	11.6	489	Yes
14	5507	13	14.5	331	Yes
15	5497	15	17.2	407	Yes
16	5494	12	12.3	255	Yes
17	5505	15	17.2	457	Yes
18	5500	12	11.1	398	Yes
19	5497	13	13.2	447	Yes
20	5502	14	15	474	Yes
21	5504	15	16.5	312	Yes
22	5492	12	11	380	Yes
23	5506	14	15.9	461	Yes
24	5507	13	14.3	334	No
25	5498	15	17.8	313	Yes
26	5494	12	11.3	341	Yes
27	5507	16	20	466	Yes
28	5506	15	17.3	272	Yes
29	5505	13	14.1	307	Yes
30	5492	16	20	412	Yes

Detection Rate: 93.3 %

802.11ac (VHT20)

Type 5 Radar Statistical Performances

Trial #	Minimum Chirp Width(MHz)	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	16	5500	LP_Signal_01	Yes
2	20	5500	LP_Signal_02	No
3	12	5500	LP_Signal_03	Yes
4	5	5500	LP_Signal_04	Yes
5	15	5500	LP_Signal_05	Yes
6	19	5500	LP_Signal_06	Yes
7	10	5500	LP_Signal_07	Yes
8	20	5500	LP_Signal_08	Yes
9	14	5500	LP_Signal_09	Yes
10	5	5500	LP_Signal_10	Yes
11	17	5498	LP_Signal_11	Yes
12	18	5498	LP_Signal_12	Yes
13	6	5493	LP_Signal_13	No
14	11	5495	LP_Signal_14	Yes
15	15	5497	LP_Signal_15	No
16	7	5494	LP_Signal_16	Yes
17	16	5497	LP_Signal_17	Yes
18	5	5493	LP_Signal_18	Yes
19	8	5494	LP_Signal_19	Yes
20	12	5496	LP_Signal_20	Yes
21	14	5503	LP_Signal_21	Yes
22	5	5507	LP_Signal_22	Yes
23	13	5504	LP_Signal_23	Yes
24	10	5505	LP_Signal_24	Yes
25	17	5502	LP_Signal_25	Yes
26	5	5507	LP_Signal_26	Yes
27	20	5501	LP_Signal_27	Yes
28	17	5502	LP_Signal_28	Yes
29	12	5504	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	No
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: 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	No
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: 93.3 %

The Frequency Hopping Radar pattern shown in Appendix A.2

802.11ac (VHT40)
Type 1 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulse per seconds)	Pulses per Burst	Pulse Repetition Interval (microseconds)	Detection
1	5510	15	1253	67	798	Yes
2	5520	19	1139	61	878	Yes
3	5500	17	1193	63	838	Yes
4	5521	3	1792	95	558	Yes
5	5528	4	1730	92	578	Yes
6	5515	5	1672	89	598	Yes
7	5504	22	1066	57	938	Yes
8	5494	12	1355	72	738	Yes
9	5506	14	1285	68	778	Yes
10	5514	6	1618	86	618	Yes
11	5499	23	326.2	18	3066	Yes
12	5527	18	1166	62	858	Yes
13	5506	7	1567	83	638	Yes
14	5521	21	1089	58	918	No
15	5519	8	1520	81	658	Yes
16	5508		587.5	32	1702	Yes
17	5512		415.1	22	2409	Yes
18	5494		504.3	27	1983	Yes
19	5525		1397	74	716	Yes
20	5501		945.2	50	1058	Yes
21	5498		346.4	19	2887	No
22	5494		360.9	20	2771	Yes
23	5502		629.7	34	1588	Yes
24	5520		699.8	37	1429	No
25	5504		586.5	31	1705	Yes
26	5519		807.8	43	1238	Yes
27	5494		620	33	1613	Yes
28	5519		390	21	2564	Yes
29	5504		527.1	28	1897	Yes
30	5495		486.9	26	2054	Yes

Detection Rate: 90 %

802.11ac (VHT40)

Type 2 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	27	3.8	178	Yes
2	5520	29	5	223	Yes
3	5500	26	2.8	187	Yes
4	5510	23	1.1	216	Yes
5	5500	27	3.8	181	No
6	5505	29	4.7	174	Yes
7	5525	25	2.2	182	Yes
8	5526	29	5	229	Yes
9	5500	27	3.3	167	Yes
10	5520	23	1	155	Yes
11	5523	28	4.1	159	Yes
12	5500	29	4.5	166	Yes
13	5522	23	1.2	180	Yes
14	5494	25	2.6	199	Yes
15	5502	27	3.7	210	Yes
16	5511	24	1.5	179	Yes
17	5498	27	3.8	206	Yes
18	5522	23	1	184	Yes
19	5507	24	2	205	Yes
20	5502	26	2.8	225	Yes
21	5522	27	3.4	214	Yes
22	5505	23	1	175	Yes
23	5513	26	3.2	220	Yes
24	5511	25	2.5	152	Yes
25	5514	28	4.1	172	Yes
26	5502	23	1.1	208	Yes
27	5503	29	5	209	Yes
28	5516	27	3.8	191	Yes
29	5493	25	2.4	200	Yes
30	5517	29	5	227	No

Detection Rate: 93.3 %

802.11ac (VHT40)

Type 3 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	18	8.8	486	Yes
2	5520	18	10	463	Yes
3	5500	17	7.8	264	Yes
4	5510	16	6.1	309	Yes
5	5500	18	8.8	347	Yes
6	5505	18	9.7	346	Yes
7	5525	16	7.2	243	Yes
8	5526	18	10	281	Yes
9	5500	17	8.3	437	Yes
10	5520	16	6	303	Yes
11	5523	18	9.1	239	Yes
12	5500	18	9.5	241	Yes
13	5522	16	6.2	489	Yes
14	5494	17	7.6	331	Yes
15	5502	18	8.7	407	Yes
16	5511	16	6.5	255	Yes
17	5498	18	8.8	457	Yes
18	5522	16	6	398	Yes
19	5507	16	7	447	Yes
20	5502	17	7.8	474	No
21	5522	17	8.4	312	Yes
22	5505	16	6	380	Yes
23	5513	17	8.2	461	Yes
24	5511	17	7.5	334	Yes
25	5514	18	9.1	313	Yes
26	5502	16	6.1	341	Yes
27	5503	18	10	466	No
28	5516	18	8.8	272	Yes
29	5493	17	7.4	307	No
30	5517	18	10	412	Yes

Detection Rate: 90 %

802.11ac (VHT40)

Type 4 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	15	17.3	486	Yes
2	5520	16	19.9	463	Yes
3	5500	14	15	264	Yes
4	5496	12	11.3	309	Yes
5	5518	15	17.2	347	Yes
6	5509	16	19.2	346	Yes
7	5503	13	13.8	243	Yes
8	5519	16	19.8	281	Yes
9	5520	14	16.2	437	Yes
10	5510	12	11.1	303	Yes
11	5497	15	17.9	239	Yes
12	5508	16	18.8	241	No
13	5498	12	11.6	489	Yes
14	5498	13	14.5	331	No
15	5526	15	17.2	407	Yes
16	5519	12	12.3	255	Yes
17	5523	15	17.2	457	Yes
18	5514	12	11.1	398	Yes
19	5525	13	13.2	447	Yes
20	5523	14	15	474	Yes
21	5495	15	16.5	312	Yes
22	5522	12	11	380	Yes
23	5519	14	15.9	461	Yes
24	5526	13	14.3	334	Yes
25	5525	15	17.8	313	Yes
26	5526	12	11.3	341	Yes
27	5498	16	20	466	Yes
28	5521	15	17.3	272	Yes
29	5507	13	14.1	307	Yes
30	5522	16	20	412	Yes

Detection Rate: 93.3 %

802.11ac (VHT40)
Type 5 Radar Statistical Performances

Trial #	Minimum Chirp Width(MHz)	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	16	5510	LP_Signal_01	Yes
2	20	5510	LP_Signal_02	Yes
3	12	5510	LP_Signal_03	Yes
4	5	5510	LP_Signal_04	Yes
5	15	5510	LP_Signal_05	No
6	19	5510	LP_Signal_06	Yes
7	10	5510	LP_Signal_07	Yes
8	20	5510	LP_Signal_08	Yes
9	14	5510	LP_Signal_09	Yes
10	5	5510	LP_Signal_10	Yes
11	17	5498	LP_Signal_11	Yes
12	18	5498	LP_Signal_12	Yes
13	6	5493	LP_Signal_13	Yes
14	11	5495	LP_Signal_14	Yes
15	15	5497	LP_Signal_15	Yes
16	7	5494	LP_Signal_16	Yes
17	16	5497	LP_Signal_17	Yes
18	5	5493	LP_Signal_18	Yes
19	8	5494	LP_Signal_19	Yes
20	12	5496	LP_Signal_20	Yes
21	14	5523	LP_Signal_21	No
22	5	5527	LP_Signal_22	Yes
23	13	5524	LP_Signal_23	Yes
24	10	5525	LP_Signal_24	Yes
25	17	5522	LP_Signal_25	Yes
26	5	5527	LP_Signal_26	Yes
27	20	5521	LP_Signal_27	Yes
28	17	5522	LP_Signal_28	No
29	12	5524	LP_Signal_29	Yes
30	20	5521	LP_Signal_30	Yes

Detection Rate:90 %

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	No
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	No
30	9	1	333.3	Yes
				Detection Rate: 93.3 %

802.11ac (VHT40)

Type 6 Radar Statistical Performances		
Trial #	Hopping Frequency Sequence Name	Detection
1	HOP_FREQ_SEQ_01	Yes
2	HOP_FREQ_SEQ_02	Yes
3	HOP_FREQ_SEQ_03	Yes
4	HOP_FREQ_SEQ_04	No
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	No
30	HOP_FREQ_SEQ_30	Yes
		Detection Rate: 93.3 %

The Frequency Hopping Radar pattern shown in Appendix A.2

802.11ac (VHT80)
Type 1 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulse per seconds)	Pulses per Burst	Pulse Repetition Interval (microseconds)	Detection
1	5530	15	1253	67	798	No
2	5540	19	1139	61	878	Yes
3	5560	17	1193	63	838	Yes
4	5520	3	1792	95	558	Yes
5	5500	4	1730	92	578	Yes
6	5506	5	1672	89	598	Yes
7	5541	22	1066	57	938	Yes
8	5549	12	1355	72	738	No
9	5559	14	1285	68	778	Yes
10	5541	6	1618	86	618	Yes
11	5513	23	326.2	18	3066	Yes
12	5535	18	1166	62	858	Yes
13	5549	7	1567	83	638	No
14	5527	21	1089	58	918	Yes
15	5515	8	1520	81	658	Yes
16	5520		587.5	32	1702	Yes
17	5562		415.1	22	2409	Yes
18	5531		504.3	27	1983	Yes
19	5565		1397	74	716	Yes
20	5565		945.2	50	1058	Yes
21	5501		346.4	19	2887	Yes
22	5541		360.9	20	2771	Yes
23	5498		629.7	34	1588	Yes
24	5533		699.8	37	1429	Yes
25	5562		586.5	31	1705	Yes
26	5497		807.8	43	1238	Yes
27	5522		620	33	1613	Yes
28	5522		390	21	2564	Yes
29	5556		527.1	28	1897	Yes
30	5517		486.9	26	2054	Yes

Detection Rate: 90 %

802.11ac (VHT80)

Type 2 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	27	3.8	178	Yes
2	5540	29	5	223	No
3	5560	26	2.8	187	Yes
4	5520	23	1.1	216	Yes
5	5500	27	3.8	181	Yes
6	5523	29	4.7	174	Yes
7	5558	25	2.2	182	No
8	5548	29	5	229	Yes
9	5510	27	3.3	167	Yes
10	5521	23	1	155	Yes
11	5567	28	4.1	159	Yes
12	5525	29	4.5	166	Yes
13	5516	23	1.2	180	Yes
14	5533	25	2.6	199	Yes
15	5547	27	3.7	210	Yes
16	5495	24	1.5	179	Yes
17	5520	27	3.8	206	Yes
18	5493	23	1	184	Yes
19	5510	24	2	205	Yes
20	5539	26	2.8	225	Yes
21	5494	27	3.4	214	Yes
22	5511	23	1	175	Yes
23	5518	26	3.2	220	Yes
24	5536	25	2.5	152	Yes
25	5509	28	4.1	172	Yes
26	5540	23	1.1	208	Yes
27	5523	29	5	209	Yes
28	5517	27	3.8	191	No
29	5524	25	2.4	200	Yes
30	5510	29	5	227	No

Detection Rate: 86.7 %

802.11ac (VHT80)

Type 3 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	18	8.8	486	Yes
2	5540	18	10	463	Yes
3	5560	17	7.8	264	Yes
4	5520	16	6.1	309	Yes
5	5500	18	8.8	347	Yes
6	5497	18	9.7	346	Yes
7	5506	16	7.2	243	Yes
8	5567	18	10	281	Yes
9	5531	17	8.3	437	No
10	5519	16	6	303	Yes
11	5504	18	9.1	239	Yes
12	5543	18	9.5	241	Yes
13	5562	16	6.2	489	Yes
14	5506	17	7.6	331	Yes
15	5498	18	8.7	407	Yes
16	5528	16	6.5	255	Yes
17	5547	18	8.8	457	Yes
18	5510	16	6	398	Yes
19	5493	16	7	447	Yes
20	5500	17	7.8	474	Yes
21	5552	17	8.4	312	Yes
22	5564	16	6	380	Yes
23	5563	17	8.2	461	Yes
24	5504	17	7.5	334	Yes
25	5544	18	9.1	313	Yes
26	5499	16	6.1	341	No
27	5521	18	10	466	No
28	5528	18	8.8	272	Yes
29	5552	17	7.4	307	Yes
30	5527	18	10	412	Yes

Detection Rate: 90 %

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Type 4 Radar Statistical Performances

Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	15	17.3	486	Yes
2	5540	16	19.9	463	Yes
3	5560	14	15	264	Yes
4	5520	12	11.3	309	Yes
5	5500	15	17.2	347	Yes
6	5496	16	19.2	346	Yes
7	5551	13	13.8	243	Yes
8	5541	16	19.8	281	Yes
9	5495	14	16.2	437	Yes
10	5543	12	11.1	303	No
11	5552	15	17.9	239	Yes
12	5547	16	18.8	241	Yes
13	5534	12	11.6	489	Yes
14	5510	13	14.5	331	Yes
15	5556	15	17.2	407	No
16	5544	12	12.3	255	Yes
17	5503	15	17.2	457	Yes
18	5555	12	11.1	398	Yes
19	5497	13	13.2	447	Yes
20	5497	14	15	474	Yes
21	5527	15	16.5	312	Yes
22	5533	12	11	380	Yes
23	5549	14	15.9	461	Yes
24	5535	13	14.3	334	No
25	5514	15	17.8	313	Yes
26	5552	12	11.3	341	Yes
27	5566	16	20	466	Yes
28	5553	15	17.3	272	Yes
29	5507	13	14.1	307	No
30	5553	16	20	412	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	16	5530	LP_Signal_01	Yes
2	20	5530	LP_Signal_02	Yes
3	12	5530	LP_Signal_03	Yes
4	5	5530	LP_Signal_04	Yes
5	15	5530	LP_Signal_05	Yes
6	19	5530	LP_Signal_06	Yes
7	10	5530	LP_Signal_07	Yes
8	20	5530	LP_Signal_08	Yes
9	14	5530	LP_Signal_09	No
10	5	5530	LP_Signal_10	Yes
11	17	5499	LP_Signal_11	Yes
12	18	5499	LP_Signal_12	Yes
13	6	5494	LP_Signal_13	Yes
14	11	5496	LP_Signal_14	Yes
15	15	5498	LP_Signal_15	Yes
16	7	5495	LP_Signal_16	Yes
17	16	5498	LP_Signal_17	No
18	5	5494	LP_Signal_18	Yes
19	8	5495	LP_Signal_19	Yes
20	12	5497	LP_Signal_20	Yes
21	14	5562	LP_Signal_21	Yes
22	5	5566	LP_Signal_22	Yes
23	13	5563	LP_Signal_23	Yes
24	10	5564	LP_Signal_24	Yes
25	17	5561	LP_Signal_25	Yes
26	5	5566	LP_Signal_26	Yes
27	20	5560	LP_Signal_27	Yes
28	17	5561	LP_Signal_28	Yes
29	12	5563	LP_Signal_29	Yes
30	20	5560	LP_Signal_30	Yes

Detection Rate: 93.3 %

The Long Pulse Radar pattern shown in Appendix A.1

802.11ac (VHT80)

Type 6 Radar Statistical Performances

Trial #	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	9	1	333.3	Yes
2	9	1	333.3	Yes
3	9	1	333.3	Yes
4	9	1	333.3	Yes
5	9	1	333.3	Yes
6	9	1	333.3	Yes
7	9	1	333.3	Yes
8	9	1	333.3	Yes
9	9	1	333.3	Yes
10	9	1	333.3	Yes
11	9	1	333.3	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	No
19	9	1	333.3	Yes
20	9	1	333.3	Yes
21	9	1	333.3	Yes
22	9	1	333.3	Yes
23	9	1	333.3	Yes
24	9	1	333.3	No
25	9	1	333.3	Yes
26	9	1	333.3	Yes
27	9	1	333.3	No
28	9	1	333.3	Yes
29	9	1	333.3	Yes
30	9	1	333.3	Yes

Detection Rate: 90 %

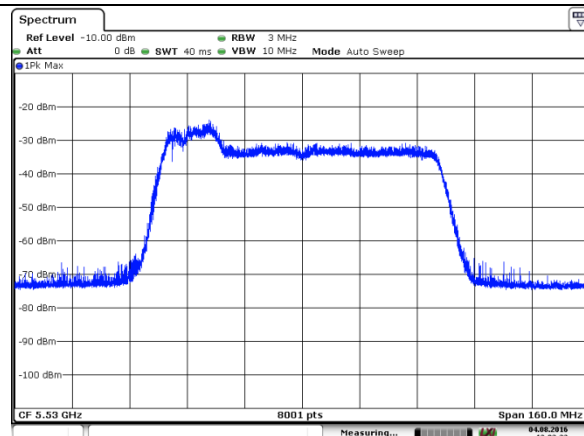
802.11ac (VHT80)

Type 6 Radar Statistical Performances		
Trial #	Hopping Frequency Sequence Name	Detection
1	HOP_FREQ_SEQ_01	Yes
2	HOP_FREQ_SEQ_02	Yes
3	HOP_FREQ_SEQ_03	Yes
4	HOP_FREQ_SEQ_04	Yes
5	HOP_FREQ_SEQ_05	Yes
6	HOP_FREQ_SEQ_06	Yes
7	HOP_FREQ_SEQ_07	Yes
8	HOP_FREQ_SEQ_08	Yes
9	HOP_FREQ_SEQ_09	Yes
10	HOP_FREQ_SEQ_10	Yes
11	HOP_FREQ_SEQ_11	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	No
19	HOP_FREQ_SEQ_19	Yes
20	HOP_FREQ_SEQ_20	Yes
21	HOP_FREQ_SEQ_21	Yes
22	HOP_FREQ_SEQ_22	Yes
23	HOP_FREQ_SEQ_23	Yes
24	HOP_FREQ_SEQ_24	No
25	HOP_FREQ_SEQ_25	Yes
26	HOP_FREQ_SEQ_26	Yes
27	HOP_FREQ_SEQ_27	No
28	HOP_FREQ_SEQ_28	Yes
29	HOP_FREQ_SEQ_29	Yes
30	HOP_FREQ_SEQ_30	Yes
		Detection Rate: 90 %

The Frequency Hopping Radar pattern shown in Appendix A.2

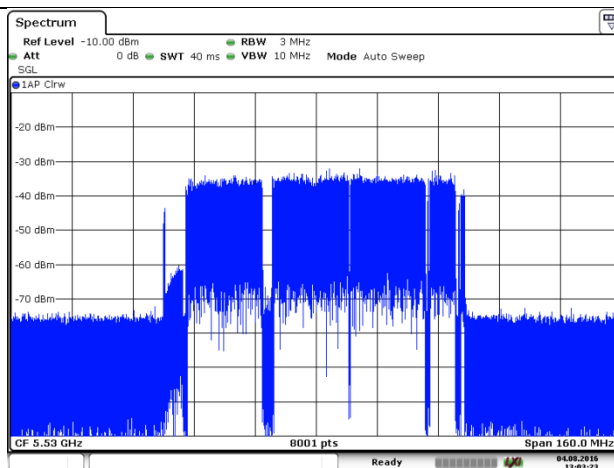
6.2.5 Non- Occupancy Period

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



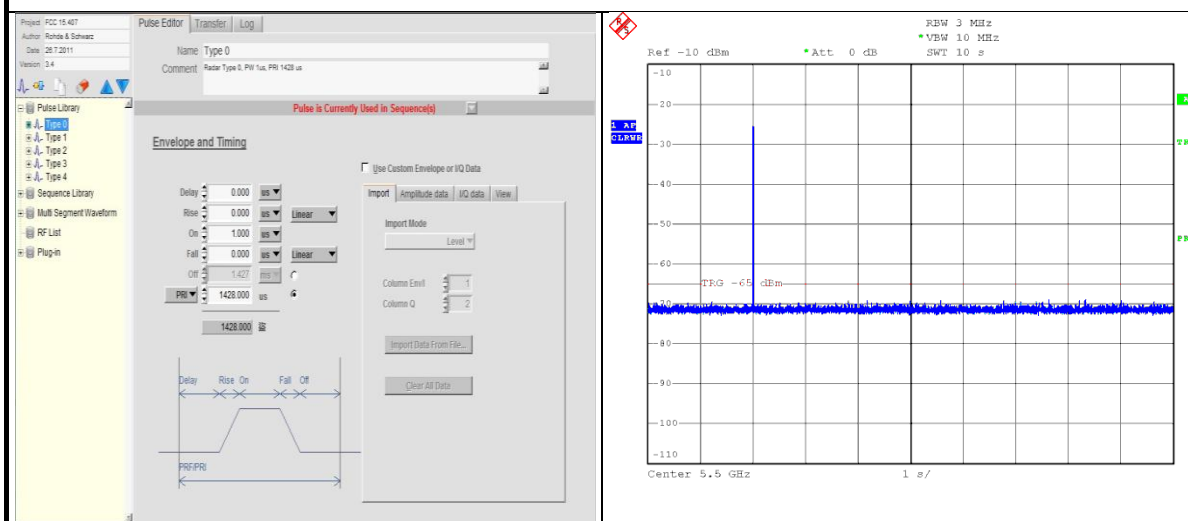
EUT (master) links with Client on 5530MHz

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



Client performed with channel-loading via master.

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



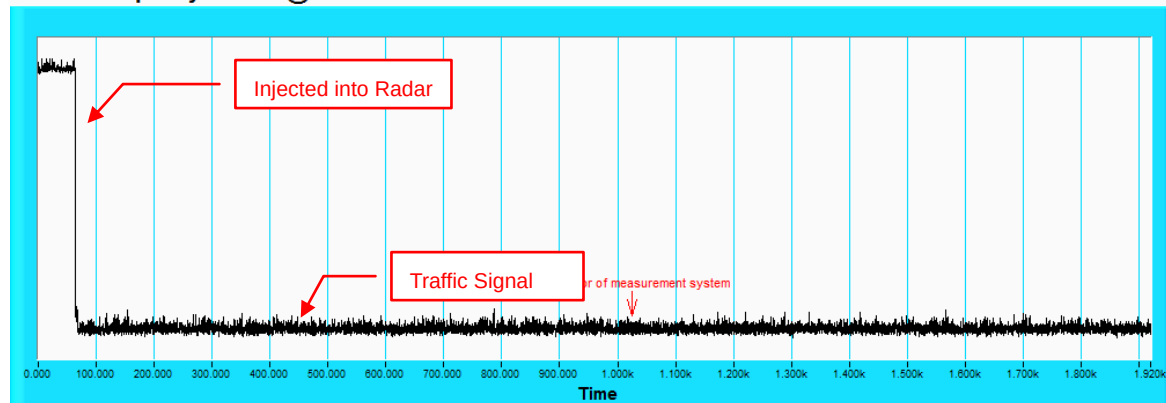
Radar 0 is used to test during DFS testing.

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

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

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

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:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab:

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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: 17

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	16	84.9	1262	1427	1286
2	3	16	99	1621	1355	1756
3	2	16	72.3	1743	1187	-
4	1	16	52	1329	-	-
5	3	16	84.4	1749	1671	1675
6	3	16	95.6	1031	1729	1449
7	1	16	65.7	1019	-	-
8	3	16	98.9	1561	1536	1257
9	2	16	78.8	1490	1250	-
10	1	16	50.8	1396	-	-
11	3	16	88.2	1559	1172	1325
12	3	16	93.2	1473	1752	1232
13	1	16	53.4	1439	-	-
14	2	16	69.7	1259	1643	-
15	3	16	84.1	1488	1179	1692
16	1	16	57.2	1496	-	-
17	3	16	84.5	1773	1557	1939
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_02

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	1	20	50.7	1209	-	-
2	1	20	62.3	1169	-	-
3	2	20	72.3	1802	1733	-
4	2	20	80.4	1248	1569	-
5	1	20	50	1358	-	-
6	2	20	77.1	1778	1192	-
7	2	20	68.4	1710	1283	-
8	3	20	87.9	1901	1871	1868
9	1	20	51.6	1870	-	-
10	3	20	99.5	1114	1549	1884
11	3	20	85	1764	1750	1296
12	2	20	67.3	1281	1105	-
13	3	20	99.7	1290	1955	1501
14	3	20	97	1852	1301	1574
15	3	20	99.3	1450	1918	1564
16	3	20	87.1	1698	1758	1368
17	2	20	75.8	1976	1040	-
18	3	20	98.8	1363	1578	1936
19	3	20	83.7	1360	1842	1310
20	2	20	71.3	1826	1628	-

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	84.6	1659	1008	1055
2	3	12	97	1205	1407	1305
3	3	12	94.1	1690	1507	1448
4	2	12	81.3	1382	1506	-
5	2	12	77.5	1239	1830	-
6	1	12	56.7	1706	-	-
7	2	12	82.5	1475	1984	-
8	3	12	99	1580	1421	1203
9	1	12	64.4	1044	-	-
10	2	12	74.1	1516	1724	-
11	3	12	89.3	1387	1720	1060
12	1	12	59.9	1923	-	-
13	3	12	99.9	1600	1797	1466
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_04

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	92.5	1844	1249	1048
2	1	5	59.1	1349	-	-
3	3	5	94.1	1167	1398	1228
4	3	5	88.3	1057	1376	1115
5	2	5	70	1741	1803	-
6	3	5	84.9	1535	1125	1461
7	2	5	71.9	1631	1142	-
8	1	5	53.9	1876	-	-
9						
10						
11						
12						
13						
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15						
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17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_05

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	64.1	1322	-	-
2	2	15	82.7	1241	1217	-
3	3	15	96.1	1541	1924	1938
4	2	15	80.8	1920	1972	-
5	2	15	81.5	1447	1780	-
6	2	15	79.1	1784	1711	-
7	1	15	53.8	1022	-	-
8	3	15	88.9	1914	1457	1680
9	1	15	56	1635	-	-
10	2	15	77.7	1413	1023	-
11	2	15	71	1977	1502	-
12	1	15	50.4	1670	-	-
13	3	15	86	1654	1174	1854
14	3	15	99.9	1595	1292	1338
15	1	15	53.8	1908	-	-
16	2	15	68.2	1845	1258	-
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_06

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	3	19	91	1856	1285	1509
2	1	19	52.8	1484	-	-
3	3	19	93.3	1612	1725	1594
4	3	19	94.6	1406	1719	1783
5	2	19	69.5	1998	1102	-
6	2	19	73.5	1119	1152	-
7	2	19	77.6	1822	1140	-
8	1	19	60.1	1380	-	-
9	2	19	75	1066	1630	-
10	2	19	67.5	1848	1699	-
11	1	19	57.2	1056	-	-
12	3	19	87.8	1432	1656	1385
13	1	19	55.1	1425	-	-
14	3	19	98.8	1424	1182	1545
15	1	19	55.7	1892	-	-
16	1	0	63.9	1951	-	-
17	1	19	61.7	1076	-	-
18	2	19	67.4	1078	1927	-
19	2	19	70.5	1071	1489	-
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_07

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	1	10	64.2	1789	-	-
2	3	10	98	1946	1691	1034
3	1	10	50.5	1738	-	-
4	3	10	96	1622	1300	1722
5	2	10	77.6	1667	1883	-
6	2	10	78.6	1017	1237	-
7	1	10	60	1148	-	-
8	1	10	58.3	1603	-	-
9	3	10	96.4	1287	1417	1498
10	2	10	68.3	1790	1922	-
11	1	10	59.5	1829	-	-
12	1	10	63.8	1435	-	-
13						
14						
15						
16						
17						
18						
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	92.7	1932	1124	1726
2	1	20	55.3	1894	-	-
3	2	20	75.9	1302	1732	-
4	3	20	97.4	1763	1705	1777
5	2	20	67.1	1210	1269	-
6	3	20	91.6	1218	1604	1942
7	2	20	77.4	1161	1715	-
8	3	20	84.4	1880	1838	1126
9	3	20	90.7	1714	1181	1647
10	1	20	55.1	1793	-	-
11	3	20	86	1799	1141	1682
12	1	20	55.7	1761	-	-
13	1	20	64	1213	-	-
14	2	20	71.9	1511	1912	-
15	1	20	66	1012	-	-
16	3	20	83.8	1730	2000	1992
17	1	20	57.2	1157	-	-
18	2	20	71.9	1431	1242	-
19	1	20	57	1298	-	-
20	3	20	88.7	1191	1587	1801

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_09

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	2	14	68.6	1523	1815	-
2	2	14	79.4	1558	1810	-
3	3	14	89.6	1629	1207	1599
4	2	14	70.2	1665	1798	-
5	3	14	90.4	1247	1186	1316
6	1	14	56.8	1433	-	-
7	1	14	65.7	1390	-	-
8	1	14	65.9	1230	-	-
9	1	14	59.4	1459	-	-
10	1	14	65.1	1694	-	-
11	2	14	81.2	1930	1327	-
12	3	14	91.8	1416	1978	1660
13	1	14	65.5	1886	-	-
14	1	14	53.6	1313	-	-
15	1	14	64.5	1245	-	-
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_10

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	82.5	1529	1581	-
2	2	5	79.3	1377	1615	-
3	1	5	51.4	1264	-	-
4	3	5	88.7	1165	1957	1500
5	2	5	72.4	1469	1483	-
6	3	5	84.4	1537	1661	1118
7	2	5	83	1531	1824	-
8	2	5	79.9	1064	1374	-
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_11

Number of Bursts in Trial: 17

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	17	59.1	1173	-	-
2	1	17	62	1808	-	-
3	3	17	94.8	1519	1294	1412
4	2	17	82	1028	1794	-
5	1	17	55.7	1318	-	-
6	1	17	62.5	1757	-	-
7	2	17	76.3	1846	1180	-
8	1	17	51.1	1252	-	-
9	2	17	74.4	1960	1551	-
10	1	17	61.3	1442	-	-
11	2	17	70.8	1423	1465	-
12	3	17	95.3	1460	1676	1384
13	1	17	63.2	1289	-	-
14	1	17	65.8	1226	-	-
15	1	17	55.6	1504	-	-
16	1	17	56.9	1916	-	-
17	1	17	60.3	1400	-	-
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_12

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	18	75.9	1762	1769	-
2	1	18	61.4	1070	-	-
3	2	18	74.9	1026	1759	-
4	2	18	75.5	1562	1929	-
5	2	18	74	1422	1639	-
6	3	18	94.2	1565	1042	1468
7	3	18	90.2	1700	1366	1405
8	1	18	60.3	1194	-	-
9	1	18	57.3	1087	-	-
10	3	18	83.6	1129	1899	1092
11	1	18	54.4	1975	-	-
12	1	18	55.8	1196	-	-
13	2	18	83.3	1547	1550	-
14	3	18	84.7	1463	1774	1492
15	1	18	54.2	1734	-	-
16	3	18	85.6	1669	1045	1919
17	3	18	99.5	1156	1533	1888
18	2	18	80.4	1821	1806	-
19	1	18	58.2	1397	-	-
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_13

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	6	95.6	1623	1206	1662
2	2	6	74.8	1610	1284	-
3	1	6	60	1943	-	-
4	1	6	53.3	1234	-	-
5	2	6	83.2	1589	1986	-
6	1	6	64	1877	-	-
7	1	6	56.7	1342	-	-
8	2	6	80.5	1099	1703	-
9						
10						
11						
12						
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14						
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19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_14

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	94.8	1530	1219	1952
2	1	11	58.3	1613	-	-
3	1	11	51.3	1038	-	-
4	1	11	66.6	1809	-	-
5	2	11	73.6	1701	1059	-
6	3	11	94.5	1645	1999	1568
7	2	11	78.3	1135	1160	-
8	3	11	96.6	1813	1950	1063
9	2	11	73	1401	1585	-
10	1	11	58	1039	-	-
11	1	11	54.3	1853	-	-
12	3	11	85.2	1037	1444	1855
13	2	11	67.9	1532	1304	-
14						
15						
16						
17						
18						
19						
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	54.6	1608	-	-
2	2	15	71.7	1189	1478	-
3	3	15	98.4	1370	1681	1471
4	2	15	78.9	1260	1753	-
5	2	15	71.8	1050	1476	-
6	3	15	95.3	1620	1058	1399
7	3	15	91.2	1369	1605	1577
8	2	15	76.6	1346	1236	-
9	1	15	66.5	1837	-	-
10	1	15	59.7	1805	-	-
11	1	15	63.7	1089	-	-
12	3	15	85.5	1270	1188	1085
13	3	15	97.5	1267	1312	1481
14	1	15	61.3	1091	-	-
15	3	15	85.5	1965	1046	1588
16	1	15	65.8	1967	-	-
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_16

Number of Bursts in Trial: 9

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	1	7	58	1859	-	-
2	3	7	91.8	1274	1211	1088
3	1	7	61.5	1745	-	-
4	2	7	67.2	1079	1731	-
5	1	7	63.6	1222	-	-
6	3	7	95.5	1514	1833	1445
7	1	7	51.9	1727	-	-
8	1	7	56	1307	-	-
9	2	7	67	1878	1573	-
10						
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12						
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19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_17

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	2	16	80.8	1272	1371	-
2	1	16	61.3	1609	-	-
3	1	16	54.9	1410	-	-
4	3	16	88.2	1007	1928	1616
5	2	16	81.3	1437	1796	-
6	2	16	77.6	1517	1303	-
7	3	16	95.2	1953	1275	1001
8	3	16	95.3	1137	1204	1067
9	3	16	90.3	1073	1834	1051
10	3	16	91	1345	1652	1261
11	1	16	53.1	1032	-	-
12	1	16	61.6	1097	-	-
13	2	16	74.4	1666	1792	-
14	1	16	61.4	1828	-	-
15	2	16	68.7	1317	1276	-
16	1	16	65.6	1708	-	-
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_18

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	1	5	53.9	1153	-	-
2	2	5	78.2	1776	1543	-
3	3	5	98.7	1324	1906	1840
4	3	5	87.6	1229	1689	1786
5	2	5	81.2	1353	1381	-
6	2	5	76.2	1288	1931	-
7	2	5	83.2	1403	1770	-
8	3	5	92.9	1897	1090	1900
9						
10						
11						
12						
13						
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15						
16						
17						
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19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_19

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	2	8	80.7	1602	1103	-
2	1	8	64.9	1065	-	-
3	1	8	66.3	1190	-	-
4	3	8	92.9	1987	1548	1479
5	2	8	67.9	1839	1053	-
6	1	8	54.3	1277	-	-
7	1	8	59.1	1015	-	-
8	2	8	69.7	1200	1414	-
9	3	8	92.4	1043	1176	1093
10	1	8	61.9	1351	-	-
11	3	8	91	1485	1458	1265
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_20

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	84	1123	1357	1636
2	3	12	86.2	1482	1997	1831
3	3	12	88.5	1291	1934	1847
4	3	12	85.3	1688	1438	1981
5	2	12	82.1	1653	1199	-
6	2	12	68.6	1082	1958	-
7	3	12	90.2	1638	1825	1898
8	1	12	57.1	1650	-	-
9	2	12	70.3	1982	1154	-
10	2	12	82.3	1419	1467	-
11	1	12	54.2	1113	-	-
12	3	12	83.6	1221	1772	1556
13	2	12	80.4	1539	1224	-
14						
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19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_21

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	92.9	1395	1974	1862
2	1	14	51.6	1464	-	-
3	1	14	59.7	1223	-	-
4	2	14	67.2	1145	1913	-
5	1	14	53.2	1096	-	-
6	2	14	68.4	1084	1487	-
7	3	14	85.9	1672	1455	1971
8	1	14	54.6	1970	-	-
9	2	14	78.2	1572	1315	-
10	1	14	62.1	1903	-	-
11	1	14	57.4	1359	-	-
12	1	14	66.3	1679	-	-
13	1	14	61.2	1524	-	-
14	1	14	52.3	1873	-	-
15	2	14	77.3	1996	1238	-
16						
17						
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_22

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	86	1812	1256	1143
2	2	5	81.8	1004	1696	-
3	3	5	83.5	1593	1816	1768
4	2	5	69.3	1686	1860	-
5	1	5	62.5	1138	-	-
6	2	5	70.4	1651	1905	-
7	3	5	84.7	1225	1775	1677
8	2	5	79.5	1728	1634	-
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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	13	65.4	1584	-	-
2	3	13	93	1411	1979	1081
3	1	13	66.5	1003	-	-
4	2	13	68.9	1782	1120	-
5	3	13	91	1695	1214	1712
6	2	13	69	1781	1915	-
7	1	13	62.8	1146	-	-
8	1	13	60.5	1704	-	-
9	2	13	76.5	1520	1889	-
10	2	13	81.4	1499	1940	-
11	3	13	85.9	1171	1687	1350
12	3	13	100	1863	1454	1227
13	1	13	66.3	1542	-	-
14	3	13	94.6	1344	1961	1379
15	3	13	92	1627	1819	1544
16						
17						
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19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_24

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	1	10	66.4	1268	-	-
2	2	10	73.9	1029	1601	-
3	2	10	76.1	1052	1155	-
4	3	10	86.4	1879	1074	1619
5	1	10	55.7	1841	-	-
6	2	10	74	1452	1451	-
7	2	10	81	1546	1959	-
8	2	10	68.9	1243	1220	-
9	2	10	70.9	1195	1969	-
10	1	10	66.3	1429	-	-
11	1	10	62.9	1033	-	-
12	2	10	71.2	1440	1648	-
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14						
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19						
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_25

Number of Bursts in Trial: 17

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	3	17	88.5	1598	1334	1525
2	3	17	98.9	1100	1570	1735
3	3	17	84.9	1215	1495	1107
4	2	17	71	1011	1571	-
5	1	17	59.9	1966	-	-
6	1	17	58.1	1614	-	-
7	2	17	72.1	1326	1980	-
8	3	17	94.3	1418	1266	1094
9	2	17	74.3	1331	1887	-
10	3	17	86.7	1491	1163	1618
11	3	17	99.6	1673	1273	2000
12	3	17	95	1178	1836	1663
13	3	17	85.6	1989	1526	1538
14	1	17	65.4	1693	-	-
15	1	17	51.5	1811	-	-
16	2	17	81	1893	1020	-
17	3	17	84.9	1881	1902	1077
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_26

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	75.3	1443	1954	-
2	1	5	52.3	1948	-	-
3	1	5	60.9	1061	-	-
4	3	5	91.4	1937	1144	1626
5	3	5	89.9	1006	1655	1787
6	2	5	67	1904	1320	-
7	3	5	95.4	1864	1579	1742
8	3	5	86.5	1201	1340	1098
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Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_27

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	1968	1208	1649
2	2	20	79	1607	1597	-
3	1	20	55.4	1299	-	-
4	3	20	84.5	1617	1624	1567
5	2	20	74	1147	1678	-
6	3	20	95.7	1684	1910	1133
7	1	20	52.6	1857	-	-
8	2	20	78	1112	1534	-
9	3	20	97.9	1388	1183	1872
10	2	20	74.3	1723	1462	-
11	1	20	61.7	1364	-	-
12	3	20	91.6	1212	1505	1009
13	1	20	60.3	1027	-	-
14	2	20	76	1434	1632	-
15	3	20	91.8	1590	1582	1000
16	3	20	94.2	1072	1964	1823
17	1	20	50.3	1047	-	-
18	2	20	67.6	1658	1925	-
19	2	20	79.8	1865	1323	-
20	2	20	74.3	1280	1891	-

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_28

Number of Bursts in Trial: 17

Burst	Pulses per Burst	Chirp (MHz)	Pulse Width(us)	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
1	2	16	81.1	1850	1321	-
2	1	16	50.7	1477	-	-
3	3	16	90.4	1935	1408	1426
4	2	16	72.5	1674	1005	-
5	3	16	100	1641	1814	1991
6	3	16	84	1586	1746	1394
7	3	16	95.6	1110	1717	1339
8	1	16	63.9	1583	-	-
9	1	16	51.9	1278	-	-
10	2	16	79.8	1555	1013	-
11	3	16	98.7	1348	1709	1985
12	2	16	81.9	1592	1518	-
13	3	16	89.5	1933	1168	1356
14	3	16	84.6	1995	1820	1069
15	2	16	75.9	1713	1095	-
16	2	16	79.2	1767	1697	-
17	2	16	66.7	1736	1111	-
18						
19						
20						

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_29

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	1	10	59.7	1739	-	-
2	1	10	50.2	1164	-	-
3	3	10	91	1306	1086	1337
4	3	10	97	1375	1436	1240
5	2	10	66.9	1010	1795	-
6	3	10	87.8	1553	1159	1702
7	3	10	91.1	1874	1127	1642
8	3	10	89.8	1136	1075	1521
9	3	10	89.5	1341	1895	1293
10	2	10	74.6	1041	1515	-
11	3	10	99.4	1508	1907	1779
12	1	10	60.5	1765	-	-
13						
14						
15						
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	2	20	66.7	1827	1233	-
2	3	20	91.1	1151	1202	1282
3	2	20	72.3	1198	1197	-
4	3	20	87.3	1389	1817	1166
5	2	20	71	1843	1540	-
6	1	20	55.3	1314	-	-
7	2	20	83.3	1474	1361	-
8	3	20	88.6	1744	1818	1295
9	2	20	83	1994	1513	-
10	3	20	84.6	1807	1956	1921
11	3	20	90	1866	1409	1945
12	1	20	50.1	1668	-	-
13	3	20	88.7	1365	1235	1441
14	2	20	76	1512	1909	-
15	2	20	68	1560	1150	-
16	2	20	75.7	1721	1858	-
17	2	20	79.9	1373	1591	-
18	1	20	52	1497	-	-
19	2	20	75.8	1035	1386	-
20	1	20	50	1014	-	-

A.2 The Frequency Hopping Radar pattern

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_01					
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_02					
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_03

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_04

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_05

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_06

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_07

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_08

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_09

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_10

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_11

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_12

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_13

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_14

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_15

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_16

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_17

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_18

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_19

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_20

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_21

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_22

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_23

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_24

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_25

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_26

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_27

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_28

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_29

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

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_30

Frequency (MHz)	0	1	2	3	4
0	5444	5508	5539	5712	5397
5	5437	5494	5356	5577	5636
10	5631	5600	5357	5530	5330
15	5265	5635	5303	5674	5689
20	5723	5491	5697	5394	5307
25	5250	5487	5598	5602	5476
30	5486	5334	5518	5664	5548
35	5572	5646	5273	5695	5301
40	5606	5620	5546	5595	5593
45	5411	5650	5360	5445	5289
50	5634	5446	5364	5568	5340
55	5354	5483	5322	5410	5395
60	5613	5661	5591	5621	5580
65	5344	5612	5347	5704	5638
70	5367	5596	5498	5502	5479
75	5423	5673	5492	5378	5544
80	5522	5292	5468	5531	5633
85	5425	5658	5688	5543	5557
90	5401	5329	5691	5252	5515
95	5417	5266	5558	5667	5655

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