DFS Test Report

Report No.: RF130927E08N-2

FCC ID: 2ABTEG1100

Test Model: FiOS-G1100

Received Date: Feb. 01, 2016

Test Date: Mar. 29, 2016

Issued Date: Apr. 28, 2016

Applicant: Verizon Online LLC

Address: 1300 I Street NW, Room 400W, Washington, District of Columbia, 20005 United State

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

Test Location (1): E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.
The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record **3**

1 Certificate of Conformity **4**

2 EUT Information **5**

2.1 Operating Frequency Bands and Mode of EUT 5
2.2 EUT Software and Firmware Version 5
2.3 Description Of Available Antennas to The EUT 6
2.4 EUT Maximum and Minimum Conducted Power 8
2.5 EUT MAXIMUM EIRP POWER 17
2.6 Transmit Power Control (TPC) 26
2.7 Statement of Manufacturer 26

3. U-NII DFS Rule Requirements **27**

3.1 Working Modes and Required Test Items 27
3.2 Test Limits And Radar Signal Parameters 28

4. Test & Support Equipment List **31**

4.1 Test Instruments 31
4.2 Description of Support Units 31

5. Test Procedure **32**

5.1 DFS Measurement System 32
5.2 Calibration of DFS Detection Threshold Level 33
5.3 Deviation From Test Standard 33
5.4 Radiated Test Setup Configuration 34

6. Test Results **35**

6.1 Summary of Test Results 35
6.2 Test Results 36
6.2.1 Test Mode: Device Operating In Master Mode. 36
6.2.2 U-NII Detection Bandwidth 41
6.2.3 Channel Availability Check Time 48
6.2.4 Channel Closing Transmission and Channel Move Time 50
6.2.5 Non- Occupancy Period 83

7. Information on The Testing Laboratories **85**

8. APPENDIX-A **86**

9. APPENDIX-B **146**

Release Control Record

Issue No.	Description	Date Issued
RF130927E08N-2	Original release.	Apr. 28, 2016

1 Certificate of Conformity

Product: FiOS Quantum Gateway

Brand: Verizon

Test Model: FiOS-G1100

Sample Status: ENGINEERING SAMPLE

Applicant: Verizon Online LLC

Test Date: Mar. 29, 2016

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

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02

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

Prepared by : _____ , **Date:** Apr. 28, 2016

Claire Kuan / Specialist

Approved by : _____ , **Date:** Apr. 28, 2016

May Chen / Manager

2 EUT Information

2.1 Operating Frequency Bands and Mode of EUT

TABLE 1: Operating Frequency Bands And Mode Of Eut

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

2.2 EUT Software and Firmware Version

Table 2: The EUT Software/Firmware Version

No.	Product	Model No.	Software/Firmware Version
1	FiOS Quantum Gateway	FiOS-G1100	01.04.00.49-gw

2.3 Description Of Available Antennas to The EUT

Table 3: Antenna List

WLAN Antenna Spec.				
2.4GHz				
Transmitter Circuit	Gain (dBi) (Include cable loss)	Antenna Type	Connecter Type	Frequency range (GHz to GHz)
Chain (0)	3.97	Dipole(Metal)	NA	2.4~2.4835
Chain (1)	4.1	Dipole(Metal)	NA	2.4~2.4835
Chain (2)	3.36	PIFA(Metal)	NA	2.4~2.4835
5GHz				
Transmitter Circuit	Gain (dBi) (Include cable loss)	Antenna Type	Connecter Type	Frequency range (GHz to GHz)
Chain (0)	3.97	Dipole(Metal)	NA	2.4~2.4835
	3.56			5.15~5.25
	3.86			5.25~5.35
	4.05			5.47~5.725
	4.05			5.725~5.85
Chain (1)	4.1	Dipole(Metal)	NA	2.4~2.4835
	5.3			5.15~5.25
	5.75			5.25~5.35
	5.75			5.47~5.725
	5.71			5.725~5.85
Chain (2)	3.36	Dipole(Metal)	NA	2.4~2.4835
	4.6			5.15~5.25
	4.35			5.25~5.35
	4.35			5.47~5.725
	4.21			5.725~5.85

Z-Wave Antenna Spec.			
Gain (dBi) (Include cable loss)	Antenna Type	Connecter Type	Frequency range (MHz to MHz)
1.73	PIFA (Metal)	NA	902~928

Note: 1. For 1Tx mode will fix transmission on Chain (0).
2. For 2Tx mode will fix transmission on Chain (0) and Chain (1)

Summary antenna

Test Mode	Operation Mode	Frequency Range	Directional Gain
Mode 1	3TX / Beamforming Mode MCS0NSS1	5.25~5.35	9.46
		5.47~5.725	9.52
Mode 2	3TX / CDD Mode	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 3	3TX / STBC Mode	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 4	3TX/ SDM Mode	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 5	3TX / Beamforming Mode MCS0NSS2	5.25~5.35	7.51
		5.47~5.725	7.51
Mode 6	3TX / Beamforming Mode MCS0NSS3	5.25~5.35	5.75
		5.47~5.725	5.75
Mode7	2TX / Beamforming Mode MCS0NSS1	5.25~5.35	7.87
		5.47~5.725	7.95
Mode 8	2TX / Beamforming Mode MCS0NSS2	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 9	2TX / CDD Mode	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 10	2TX / STBC Mode	5.25~5.35	5.75
		5.47~5.725	5.75
Mode 11	2TX / SDM Mode	5.25~5.35	5.75
		5.47~5.725	5.75

2.4 EUT Maximum and Minimum Conducted Power

Table 4: The Measured Conducted Output Power

For U-NII-2A and U-NII-2C Band: There is no increase in authorized power level, so the MAX. power refer to the original test report.

IEEE 802.11a

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	8.94	7.834	2.94	1.968
5470~5725	11.47	14.028	5.47	3.524

IEEE 802.11ac VHT20

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	18.26	67.047	12.26	16.827

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	18.26	67.047	12.26	16.827

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	17.09	51.213	11.09	12.853

Mode 4. : 3TX/ SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	18.26	67.047	12.26	16.827

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	18.26	67.047	12.26	16.827

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	11.32	13.547	5.32	3.404
5470~5725	18.26	67.047	12.26	16.827

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.45	17.589	6.45	4.416
5470~5725	17.47	55.855	11.47	14.028

Mode 8. : 2TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.45	17.589	6.45	4.416
5470~5725	17.47	55.855	11.47	14.028

Mode 9. : 2TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.45	17.589	6.45	4.416
5470~5725	17.47	55.855	11.47	14.028

Mode 10. : 2TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.89	19.453	6.89	4.887
5470~5725	18.02	63.341	12.02	15.922

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.45	17.589	6.45	4.416
5470~5725	17.47	55.855	11.47	14.028

IEEE 802.11ac VHT40

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	17.24	52.93	11.24	13.305

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	17.24	52.93	11.24	13.305

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	19.14	82.107	13.14	20.606

Mode 4. : 3TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	17.24	52.93	11.24	13.305

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	17.24	52.93	11.24	13.305

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.13	32.593	9.13	8.185
5470~5725	17.24	52.93	11.24	13.305

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.74	37.456	9.74	9.419
5470~5725	19.06	80.528	13.06	20.230

Mode 8. : 2TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.74	37.456	9.74	9.419
5470~5725	19.06	80.528	13.06	20.230

Mode 9. : 2TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.74	37.456	9.74	9.419
5470~5725	19.06	80.528	13.06	20.230

Mode 10. : 2TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	16.18	41.538	10.18	10.423
5470~5725	19.7	93.307	13.7	23.442

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.74	37.456	9.74	9.419
5470~5725	19.06	80.528	13.06	20.230

IEEE 802.11ac VHT80

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	17.19	52.37	11.19	13.152

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	17.19	52.37	11.19	13.152

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	19.19	83.069	12.19	16.558

Mode 4. : 3TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	17.19	52.37	11.19	13.152

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	17.19	52.37	11.19	13.152

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	15.95	39.38	9.95	9.886
5470~5725	17.19	52.37	11.19	13.152

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	16.79	47.709	10.79	11.995
5470~5725	19.86	96.912	13.86	24.322

Mode 8. : 2TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	16.79	47.709	10.79	11.995
5470~5725	19.86	96.912	13.86	24.322

Mode 9. : 2TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	16.79	47.709	10.79	11.995
5470~5725	19.86	96.912	13.86	24.322

Mode 10. : 2TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.43	69.627	12.43	17.498
5470~5725	19.86	96.912	13.86	24.322

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	16.79	47.709	10.79	11.995
5470~5725	19.86	96.912	13.86	24.322

2.5 EUT MAXIMUM EIRP POWER

Table 5: The EIRP output power list

IEEE 802.11a

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	12.8	19.054	6.8	4.786
5470~5725	15.52	35.645	9.52	8.954

IEEE 802.11ac VHT20

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.78	119.631	14.78	30.061
5470~5725	27.78	600.315	21.78	150.661

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	17.07	50.915	11.07	12.794
5470~5725	24.01	251.988	18.01	63.241

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	17.07	50.915	11.07	12.794
5470~5725	22.84	192.478	16.84	48.306

Mode 4. : 3TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	17.07	50.915	11.07	12.794
5470~5725	24.01	251.988	18.01	63.241

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.83	76.356	12.83	19.187
5470~5725	25.77	377.902	19.77	94.842

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	17.07	50.915	11.07	12.794
5470~5725	24.01	251.988	18.01	63.241

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.32	107.706	14.32	27.040
5470~5725	25.42	348.387	19.42	87.498

Mode 8. : 2TX/ Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.2	66.106	12.2	16.596
5470~5725	23.22	209.924	17.22	52.723

Mode 9. : 2TX /CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.2	66.106	12.2	16.596
5470~5725	23.22	209.924	17.22	52.723

Mode 10. : 2TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.64	73.112	12.64	18.365
5470~5725	23.77	238.059	17.77	59.841

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	18.2	66.106	12.2	16.596
5470~5725	23.22	209.924	17.22	52.723

IEEE 802.11ac VHT40

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	24.59	287.822	18.59	72.277
5470~5725	26.76	473.917	20.76	119.124

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.88	122.497	14.88	30.761
5470~5725	22.99	198.931	16.99	50.003

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.88	122.497	14.88	30.761
5470~5725	24.89	308.589	18.89	77.446

Mode 4. : 3TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.88	122.497	14.88	30.761
5470~5725	22.99	198.931	16.99	50.003

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	22.64	183.706	16.64	46.132
5470~5725	24.75	298.333	18.75	74.989

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	20.88	122.497	14.88	30.761
5470~5725	22.99	198.931	16.99	50.003

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.61	229.362	17.61	57.677
5470~5725	27.01	502.281	21.01	126.183

Mode 8. : 2TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.49	140.774	15.49	35.400
5470~5725	24.81	302.654	18.81	76.033

Mode 9. : 2TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.49	140.774	15.49	35.400
5470~5725	24.81	302.654	18.81	76.033

Mode 10. : 2TX /STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.93	156.115	15.93	39.174
5470~5725	25.45	350.683	19.45	88.105

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.49	140.774	15.49	35.400
5470~5725	24.81	302.654	18.81	76.033

IEEE 802.11ac VHT80

Mode 1. : 3TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	25.41	347.757	19.41	87.297
5470~5725	26.71	468.903	20.71	117.761

Mode 2. : 3TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.7	148.005	15.7	37.154
5470~5725	22.94	196.826	16.94	49.431

Mode 3. : 3TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.7	148.005	15.7	37.154
5470~5725	24.94	312.204	18.94	78.343

Mode 4. : 3TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.7	148.005	15.7	37.154
5470~5725	22.94	196.826	16.94	49.431

Mode 5. : 3TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	23.46	221.961	17.46	55.719
5470~5725	24.7	295.177	18.7	74.131

Mode 6. : 3TX / Beamforming Mode MCS0NSS3

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	21.7	148.005	15.7	37.154
5470~5725	22.94	196.826	16.94	49.431

Mode 7. : 2TX / Beamforming Mode MCS0NSS1

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	24.66	292.146	18.66	73.451
5470~5725	27.81	604.474	21.81	151.705

Mode 8. : 2TX / Beamforming Mode MCS0NSS2

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	22.54	179.308	16.54	45.082
5470~5725	25.61	364.232	19.61	91.411

Mode 9. : 2TX / CDD Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	22.54	179.308	16.54	45.082
5470~5725	25.61	364.232	19.61	91.411

Mode 10. : 2TX / STBC Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	24.18	261.684	18.18	65.766
5470~5725	25.61	364.232	19.61	91.411

Mode 11. : 2TX / SDM Mode

Frequency Band (MHz)	MAX. Power		MIN. Power	
	Output Power(dBm)	Output Power(mW)	Output Power(dBm)	Output Power(mW)
5250~5350	22.54	179.308	16.54	45.082
5470~5725	25.61	364.232	19.61	91.411

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 **604.474** 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 controlled by software and the user may adjust the Transmit Power level from web interface that may adjust the transmit power among Max,-3dB,-6dB, from web manually when the power needs to be increased or decreased.
The interface is for WLAN purpose that is installed fixedly, so we implement manual TPC instead of automatic TPC on the product.

2.7 Statement of Manufacturer

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

3. U-NII DFS Rule Requirements

3.1 Working Modes and Required Test Items

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

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

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

Table 7: Applicability of DFS Requirements During Normal Operation.

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

Additional requirements for devices with multiple bandwidth modes	Master or Client with radar detection	Client without radar detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) 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 ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

Table 9: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Parameters of DFS Test Signals

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

Table 10: Short Pulse Radar Test Waveforms

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

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.

Table 11: Long Pulse Radar Test Waveform

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

Table 12: Frequency Hopping Radar Test Waveform

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

4. Test & Support Equipment List

4.1 Test Instruments

Table 13: Test Instruments List

Description & Manufacturer	Model No.	Serial No	Date Of Calibration	Due Date Of Calibration
Spectrum Analyzer R&S	FSP40	100060	May. 08, 2015	May 07, 2016
Vector Signal Generator Agilent	N5182B	MY53051263	Aug. 10, 2015	Aug. 09, 2016
EMCO Horn Antenna	3115	SN00028262	Jan 08, 2016	Jan. 07, 2017

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.

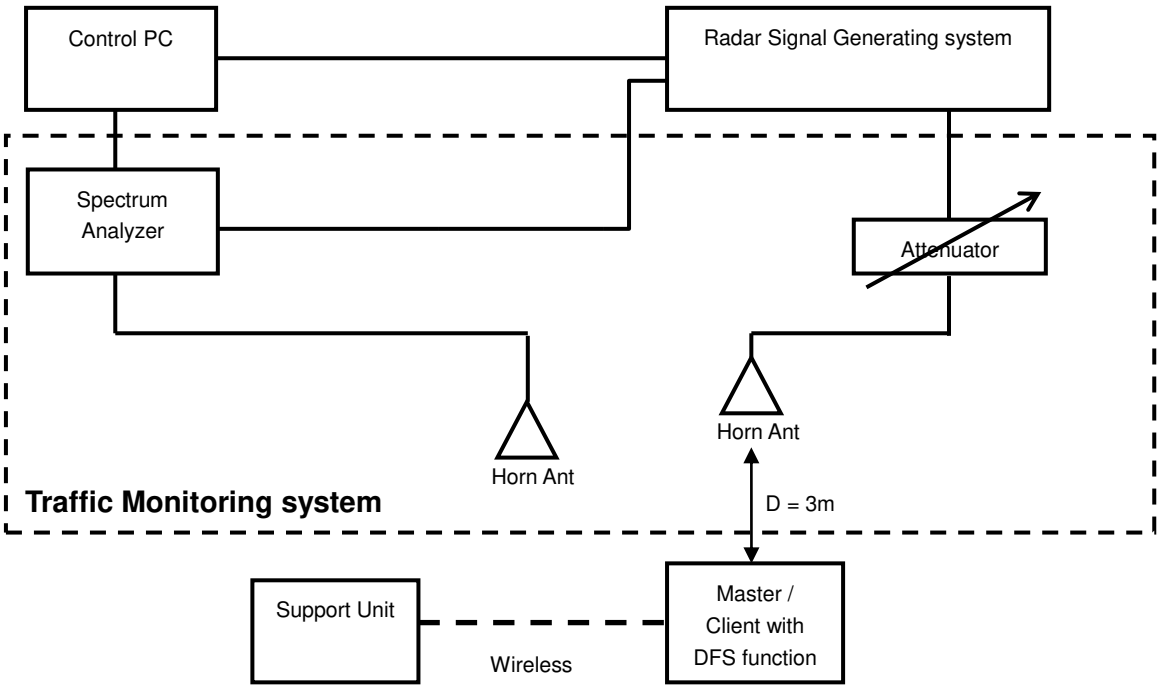
No.	Product	Model No.	Software/Firmware Version
1	Wireless LAN Unit	NP05LM	Driver Version: 06/18/2014, 1026.12.606.2014

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:

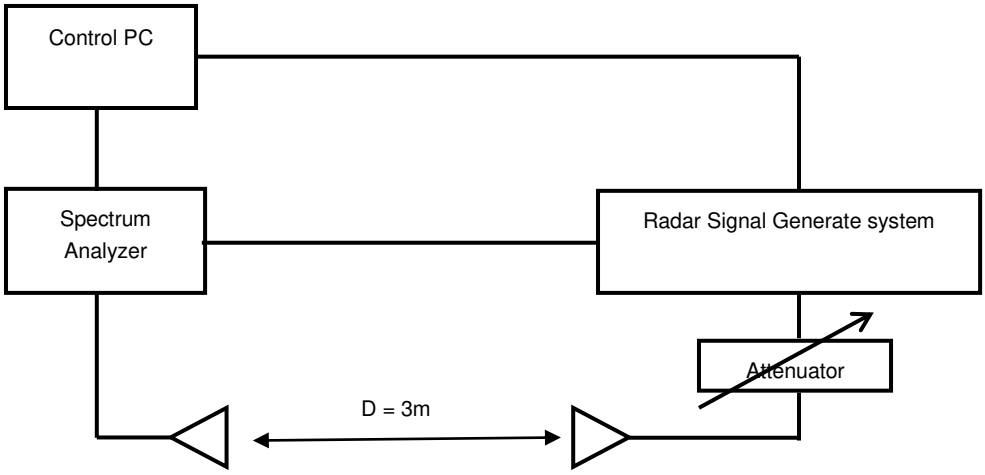
a)	The data file must be of a type that is typical for the device (i.e., MPEG-2, MPEG-4, WAV, MP3, MP4, AVI, etc.) and must generally be transmitting in a streaming mode.	
b)	Software to ping the client is permitted to simulate data transfer but must have random ping intervals.	
c)	Timing plots are required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



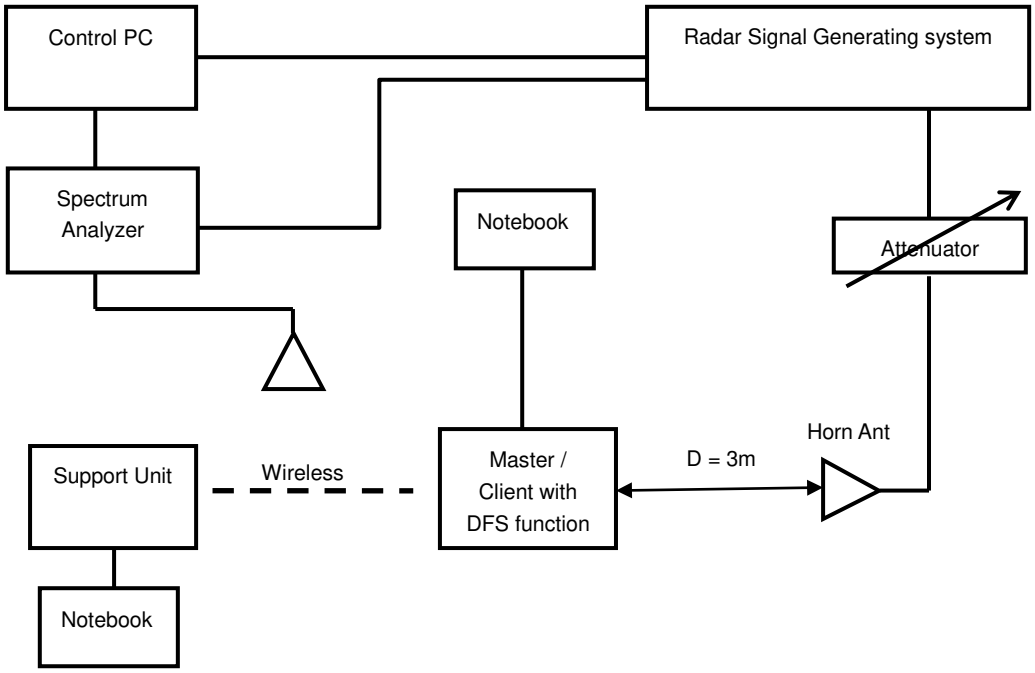
5.3 Deviation From Test Standard

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.



6. Test Results

6.1 Summary of Test Results

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

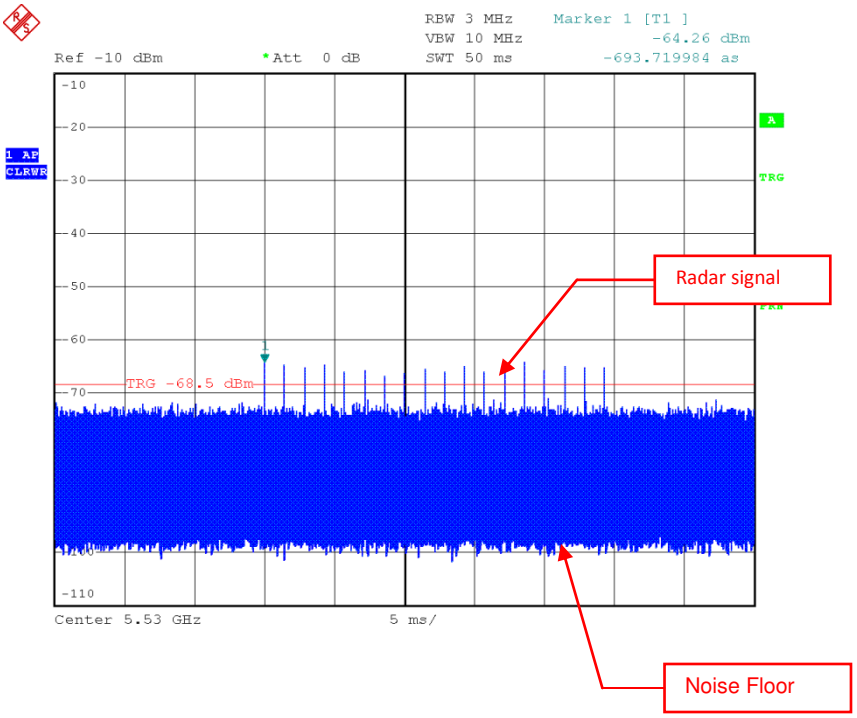
6.2 Test Results

6.2.1 Test Mode: Device Operating In Master Mode.

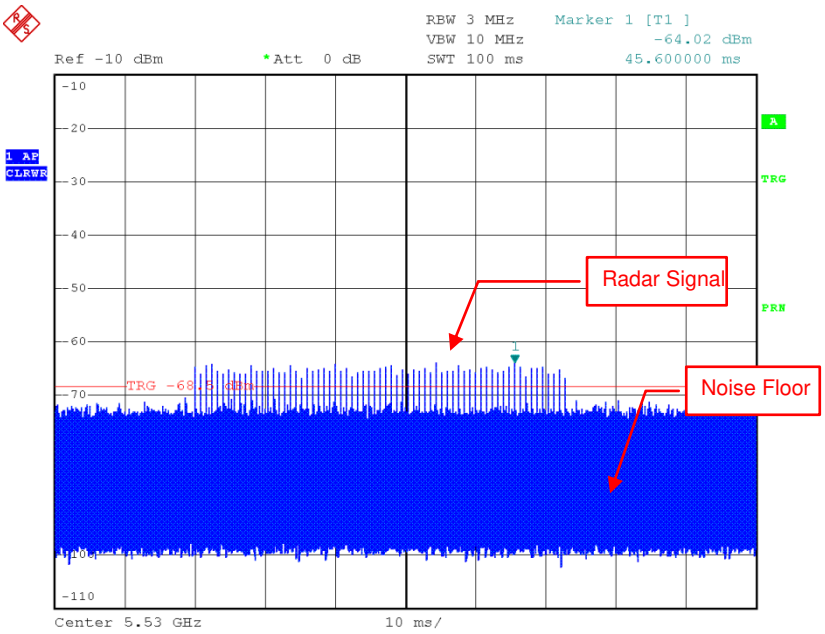
The radar test waveforms are injected into the Master.

DFS Detection Threshold

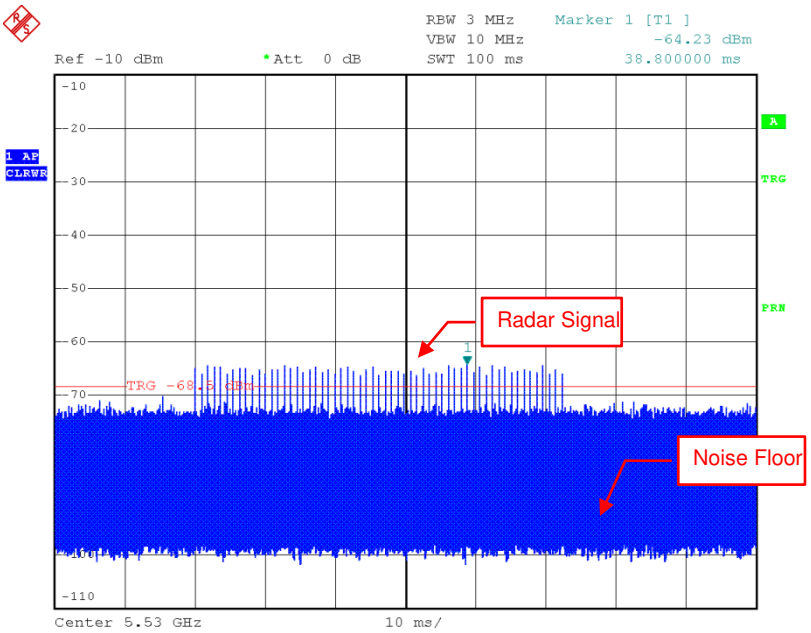
For detection threshold level of -64dBm, the tested level is lower than required level for 1dB, hence it provides margin to the limit.



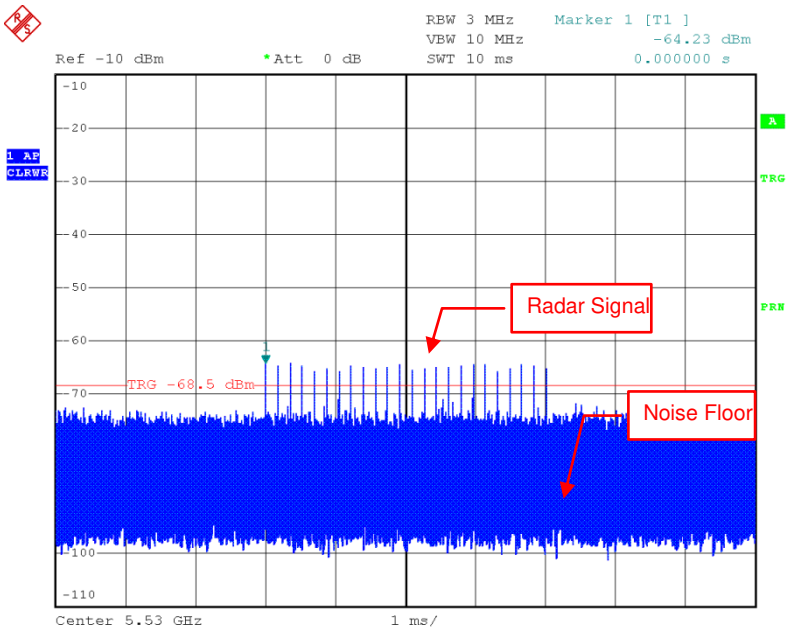
Radar Signal 0



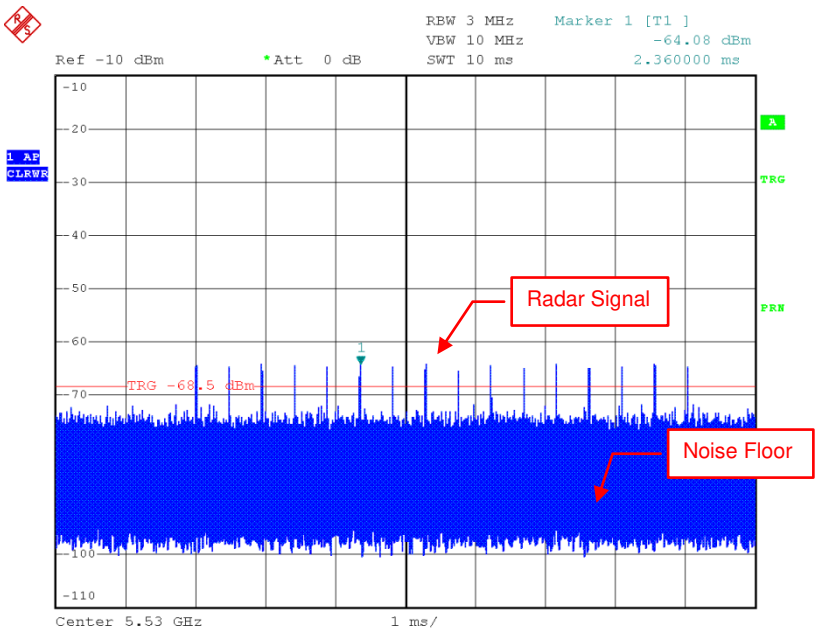
Radar Signal 1 (Test A)



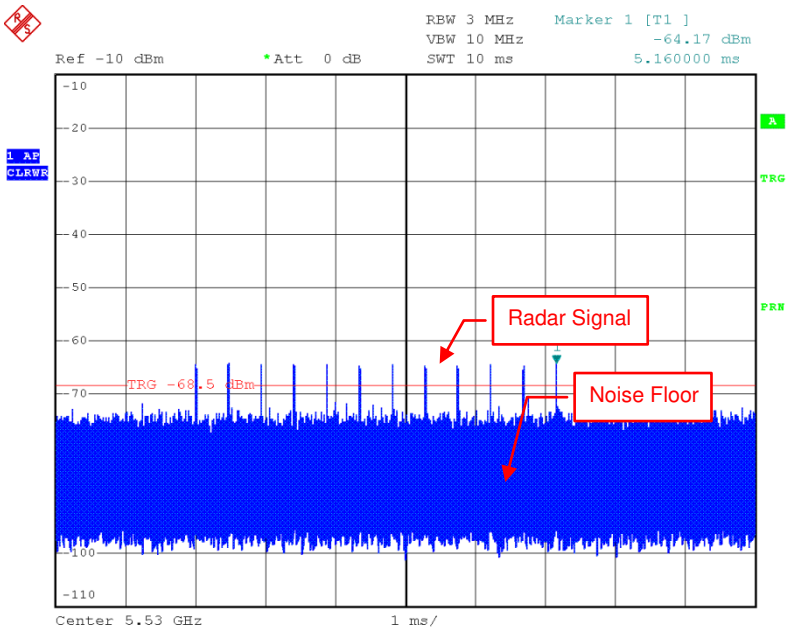
Radar Signal 1 (Test B)



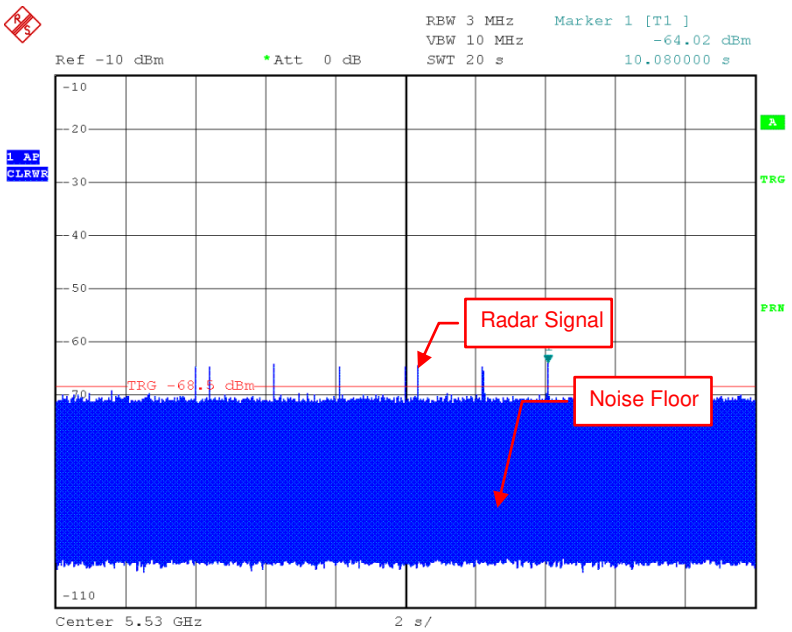
Radar Signal 2



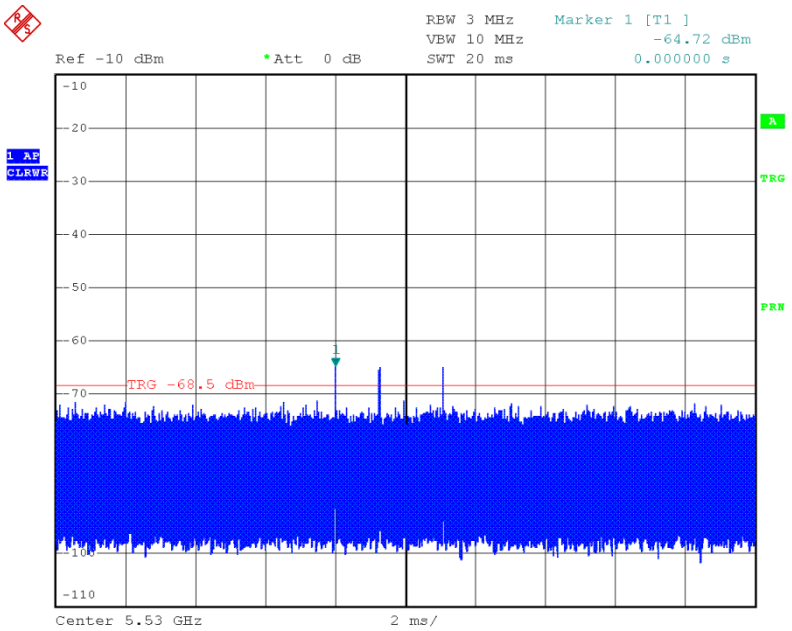
Radar Signal 3



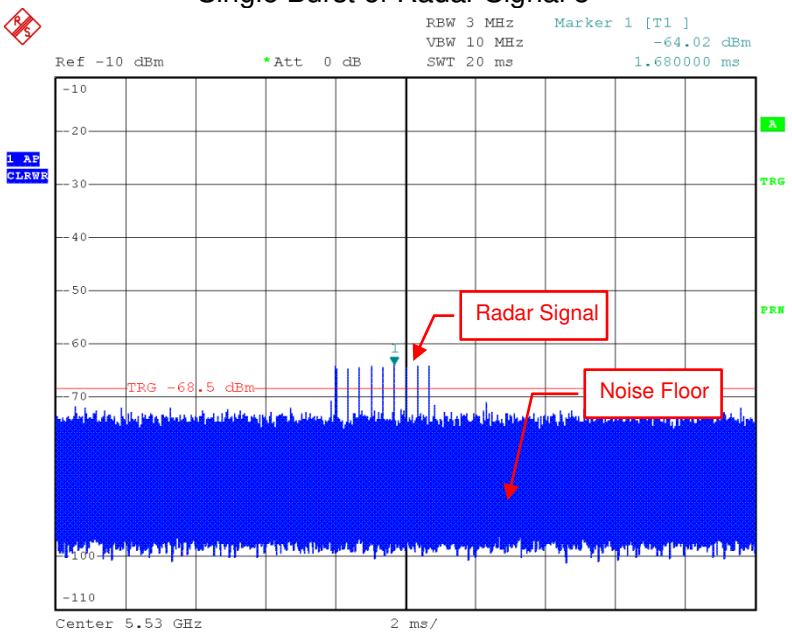
Single Burst of Radar Signal 4



Radar Signal 5



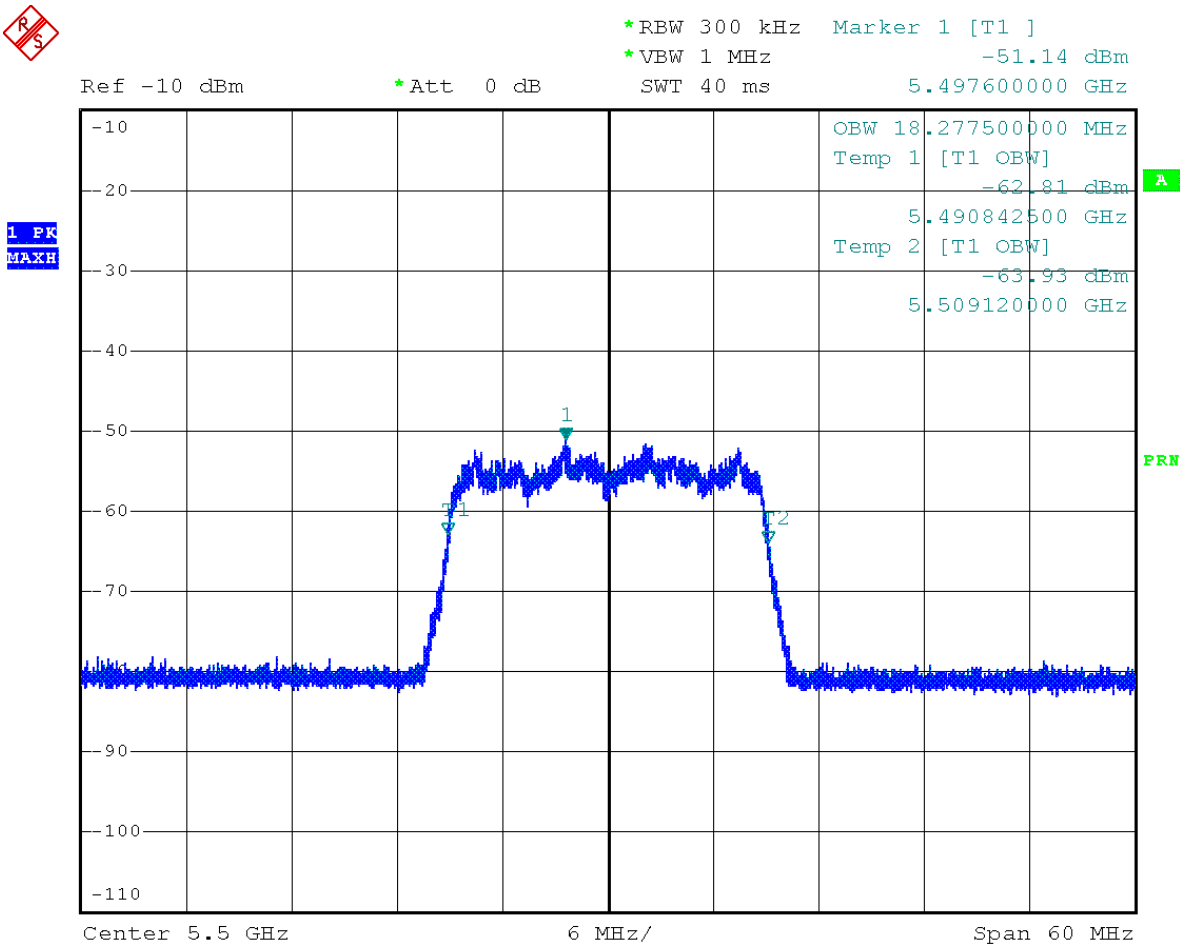
Single Burst of Radar Signal 5



Radar Signal 6

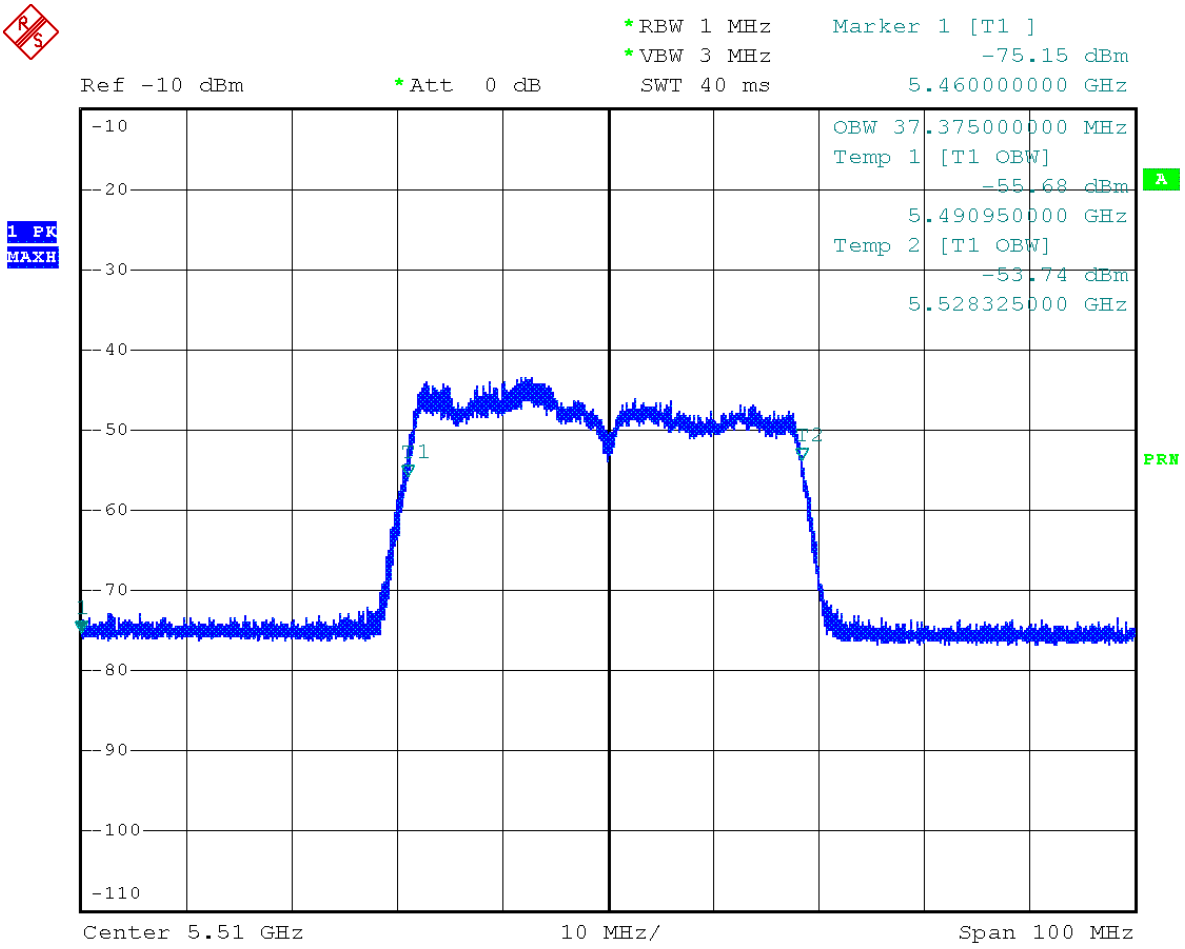
6.2.2 U-NII Detection Bandwidth

IEEE 802.11ac VHT20



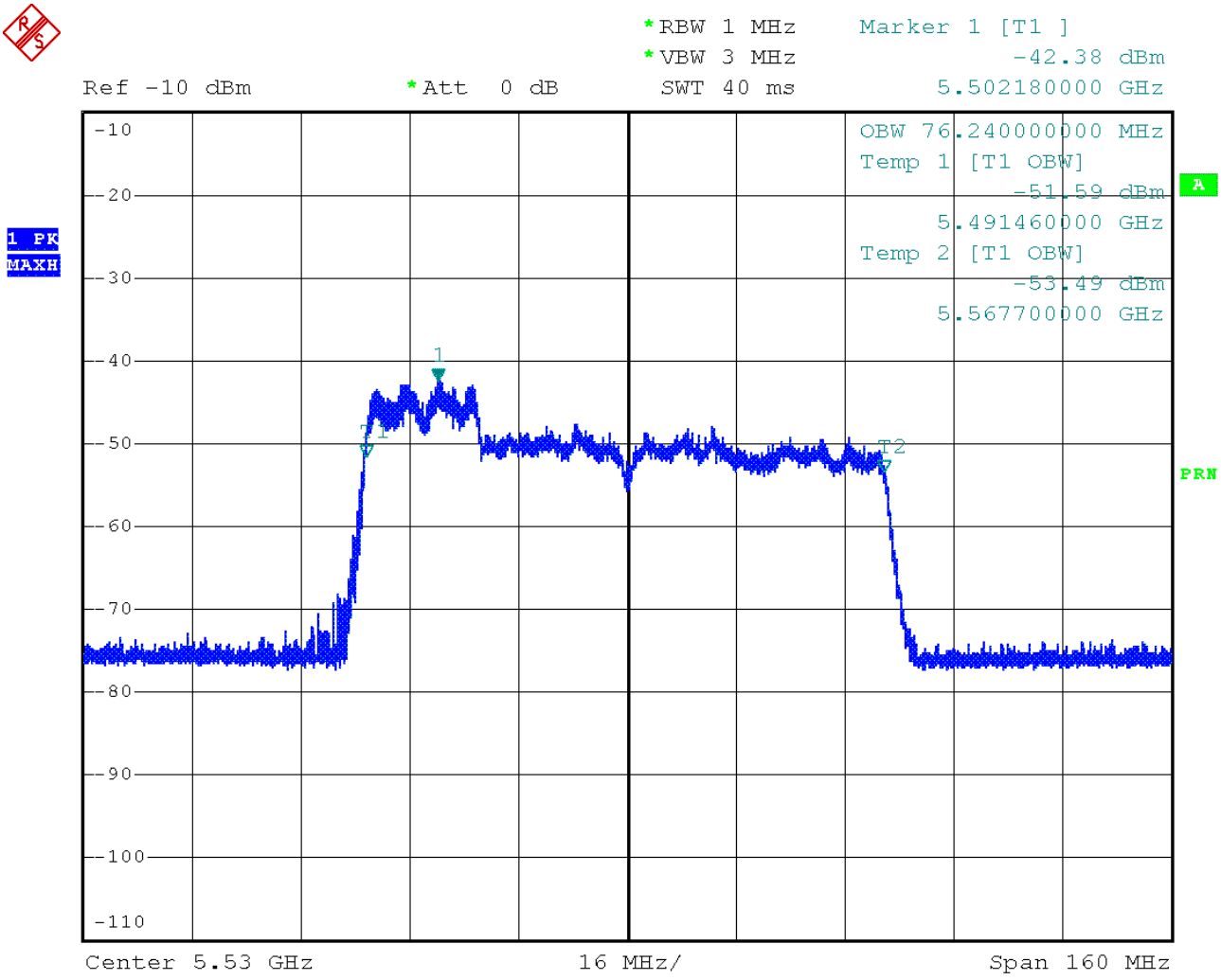
U-NII 99% Channel bandwidth

IEEE 802.11ac VHT40



U-NII 99% Channel bandwidth

IEEE 802.11ac VHT80



U-NII 99% Channel bandwidth

Detection Bandwidth Test - IEEE 802.11ac VHT20											
Radar Type 0 EUT Frequency: 5500MHz EUT 99% Power bandwidth:18.2775MHz Detection bandwidth limit (100% of EUT 99% Power bandwidth):18.2775MHz Detection bandwidth (5510(FH) – 5490(FL)) : 20MHz Test Result : PASS											
Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5.490G(FL)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.491G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
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	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	90
5.510G(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100

Detection Bandwidth Test - IEEE 802.11ac VHT40											
Radar Type 0 EUT Frequency: 5510MHz EUT 99% Power bandwidth: 37.375MHz Detection bandwidth limit (100% of EUT 99% Power bandwidth): 37.375MHz 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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.529G(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	90

Detection Bandwidth Test - IEEE 802.11ac VHT80											
Radar Type 0 EUT Frequency: 5530MHz EUT 99% Power bandwidth: 76.24MHz Detection bandwidth limit (100% of EUT 99% Power bandwidth): 76.24MHz Detection bandwidth (5569(FH) – 5491(FL)) : 78MHz Test Result : PASS											
Radar Frequency (MHz)	Trial Number / Detection										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
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	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

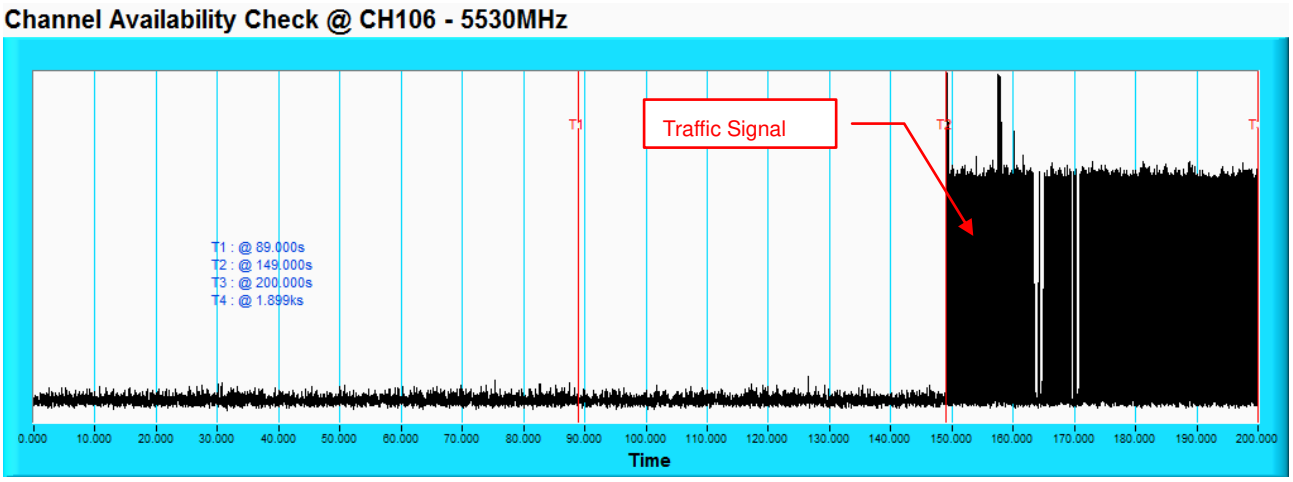
5.536G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.537G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.538G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.539G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.540G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.541G	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100
5.569G(FH)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100

6.2.3 Channel Availability Check Time

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

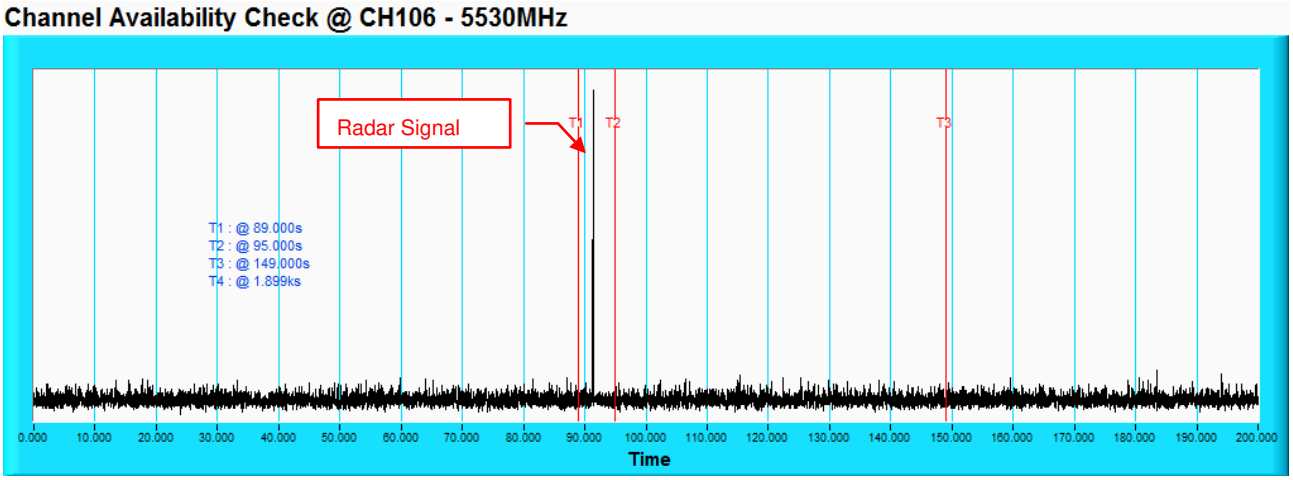
Timing of Radar Signal	Observation	
	EUT	Spectrum Analyzer
Within 1 to 6 second	Detected	No transmissions
Within 54 to 60 second	Detected	No transmissions

Initial Channel Availability Check Time



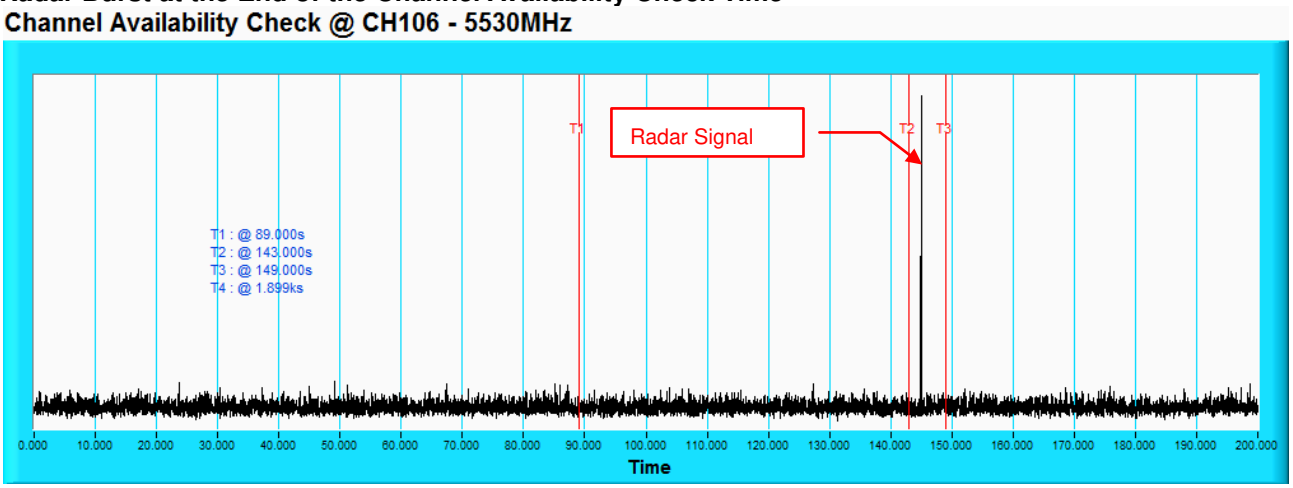
NOTE: T1 denotes the end of power-up time period is 89th second. T2 denotes the end of Channel Availability Check time is 149th second. Channel Availability Check time is equal to (T2 – T1) 60 seconds.

Radar Burst at the Beginning of the Channel Availability Check Time



NOTE: T1 denotes the end of power up time period is 89th second. T2 denotes 95h second and the radar burst was commenced within a 6 second window starting from the end of power-up sequence. T3 denotes the 149th second.

Radar Burst at the End of the Channel Availability Check Time

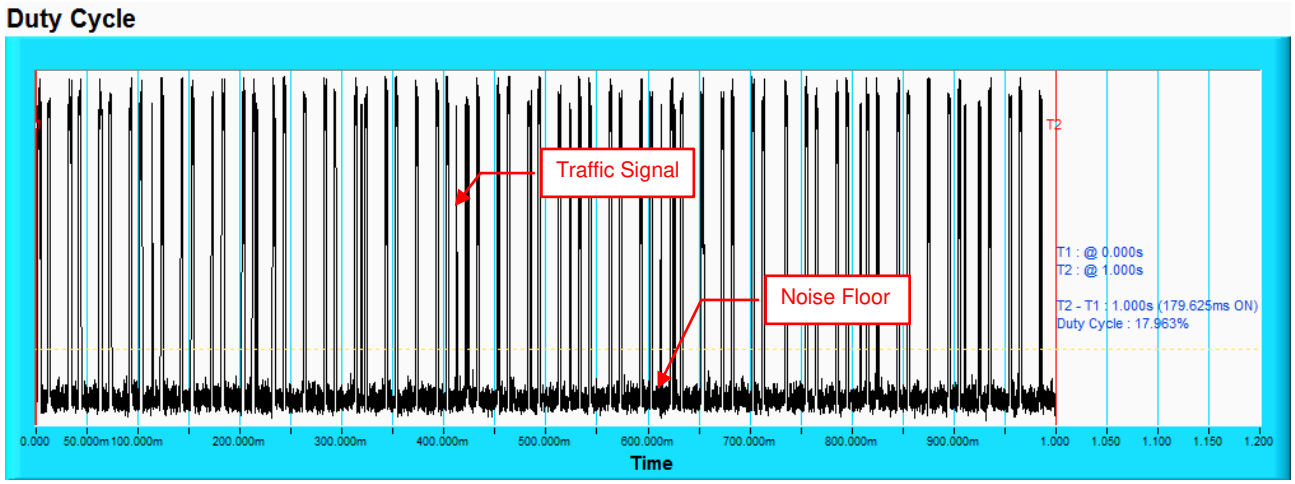


NOTE: T1 denotes the end of power up time period is 89th second.T2 denotes 143th second and the radar burst was commenced within 54th second to 60th second window starting from the end of power-up sequence. T3 denotes the 149th second.

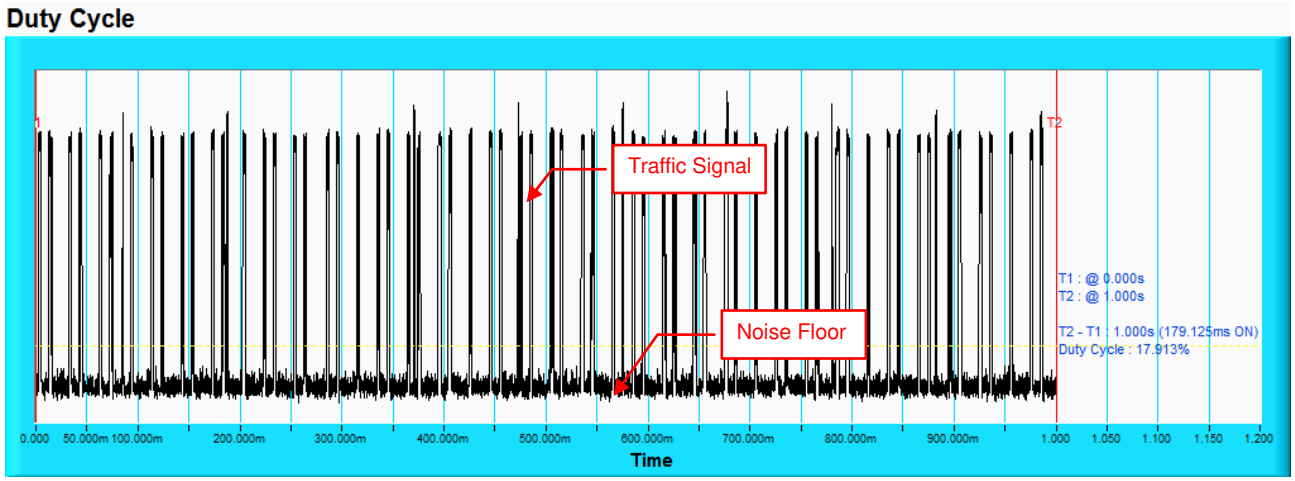
6.2.4 Channel Closing Transmission and Channel Move Time

Wireless Traffic Loading

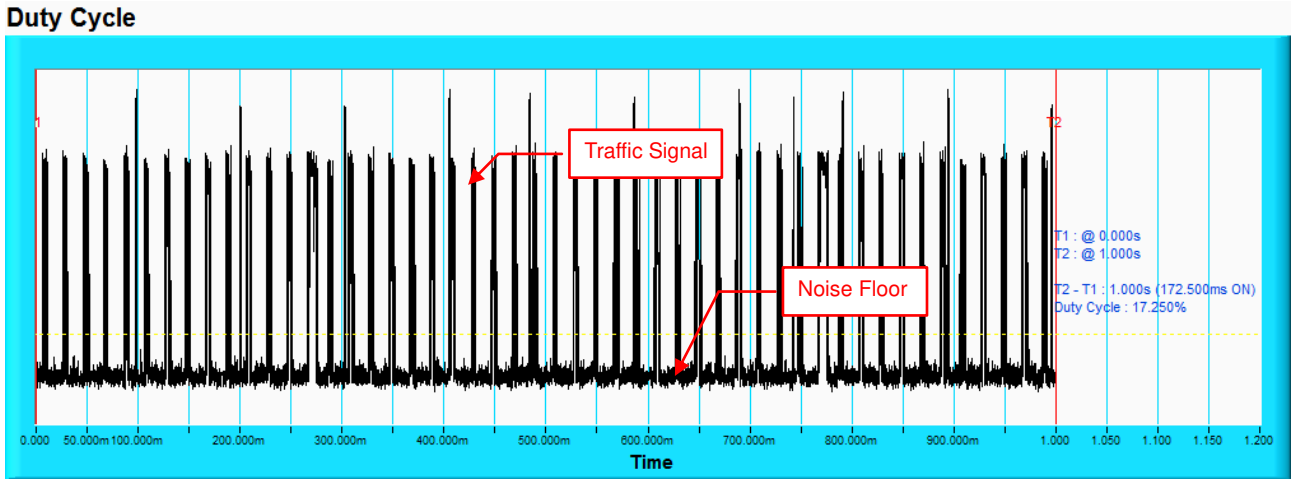
IEEE 802.11ac VHT20



IEEE 802.11ac VHT40



IEEE 802.11ac VHT80



IEEE 802.11ac VHT20

Table 1: Short Pulse Radar Test Waveforms.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Number of Trials(Times)	Percentage of Successful Detection (%)
1	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	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{PRI_{\mu\,sec}}\right)\right\}$	18	30	90
2	1-5	150-230	23-29	30	86.7
3	6-10	200-500	16-18	30	86.7
4	11-20	200-500	12-16	30	83.3
Aggregate (Radar Types 1-4)				120	86.7

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	86.7

Table 3: Frequency Hopping Radar Test Waveform

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

IEEE 802.11ac VHT40

Table 1: Short Pulse Radar Test Waveforms.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Number of Trials(Times)	Percentage of Successful Detection (%)
1	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	$\text{Roundup}\left\{\frac{1}{360}, \frac{19 \cdot 10^6}{PRI_{\mu\,sec}}\right\}$	18	30	93.3
2	1-5	150-230	23-29	30	90
3	6-10	200-500	16-18	30	83.3
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	80

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

.

IEEE 802.11ac VHT80

Table 1: Short Pulse Radar Test Waveforms.

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Number of Trials(Times)	Percentage of Successful Detection (%)
1	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	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{PRI_{\mu\,sec}}\right)\right\}$	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	80

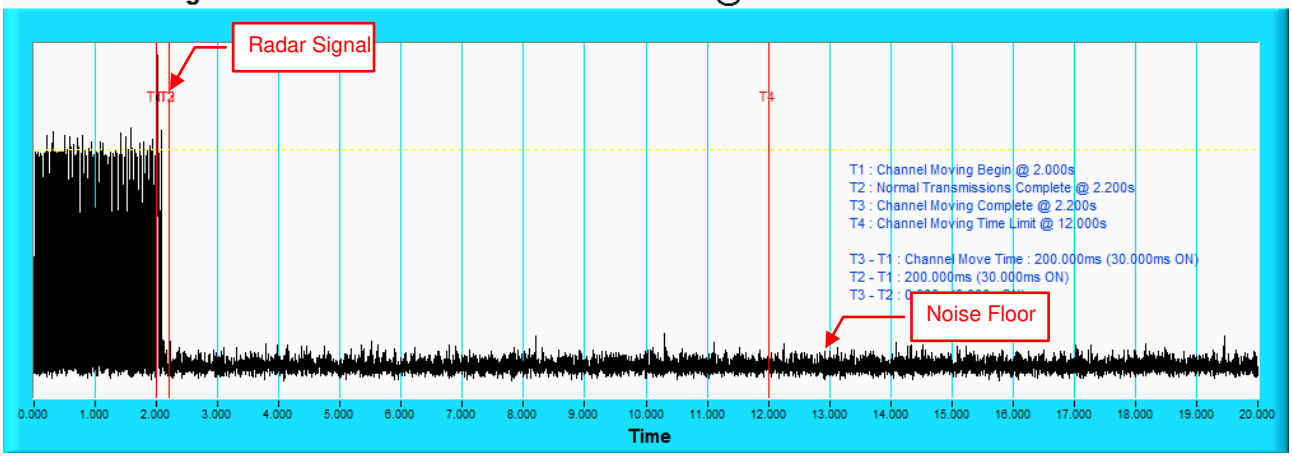
Table 3: Frequency Hopping Radar Test Waveform

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

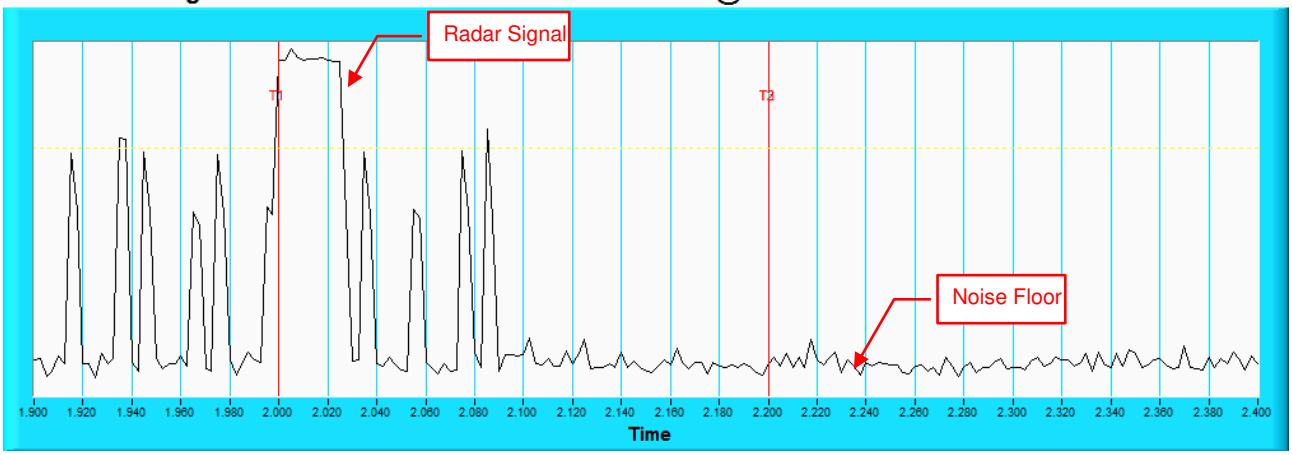
IEEE 802.11ac VHT80

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

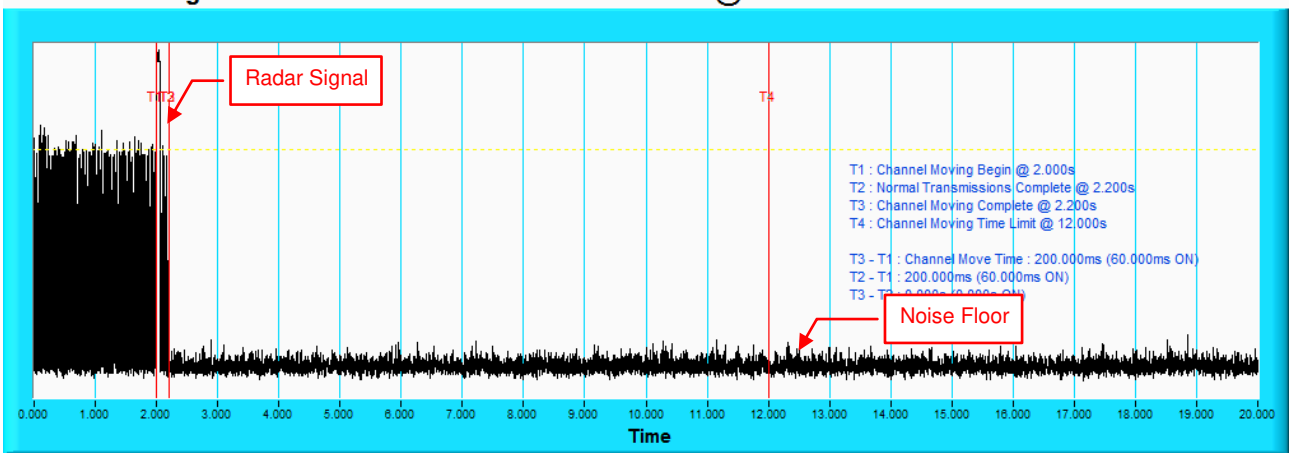


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 1

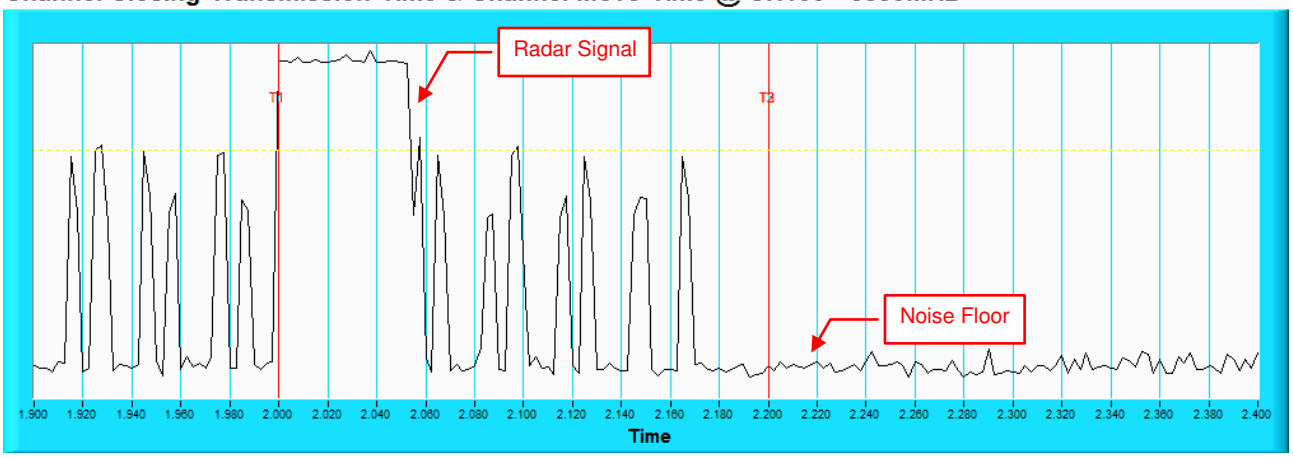
IEEE 802.11ac VHT80

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.

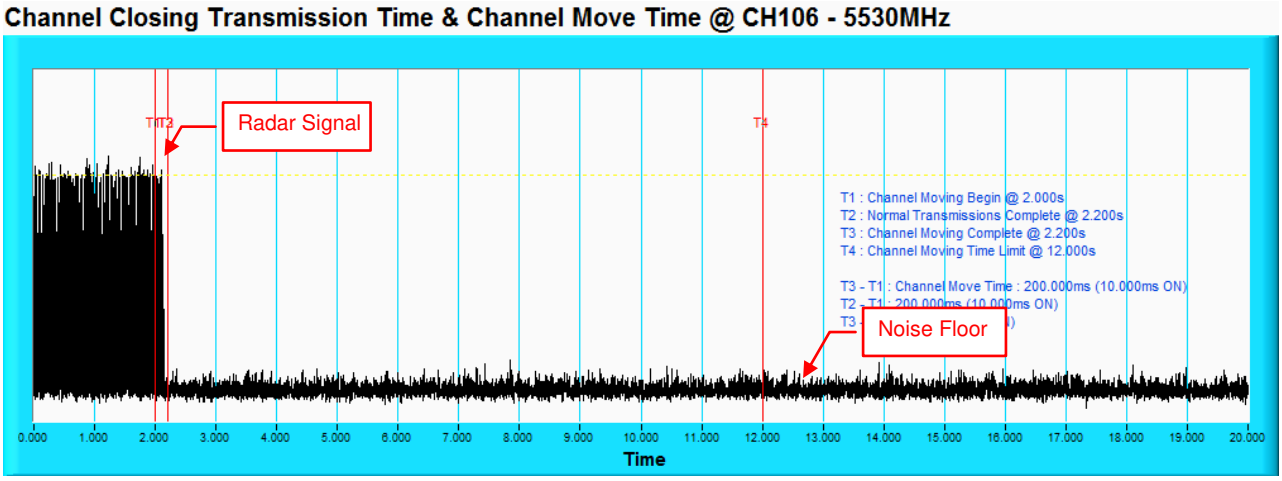
Channel Closing Transmission Time & Channel Move Time @ CH106 - 5530MHz



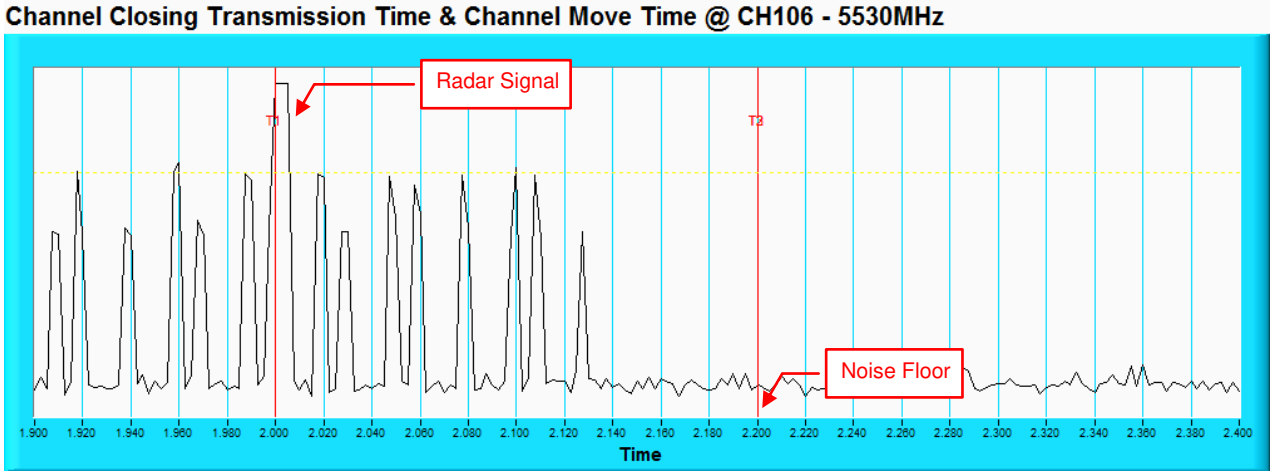
NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 2

IEEE 802.11ac VHT80



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

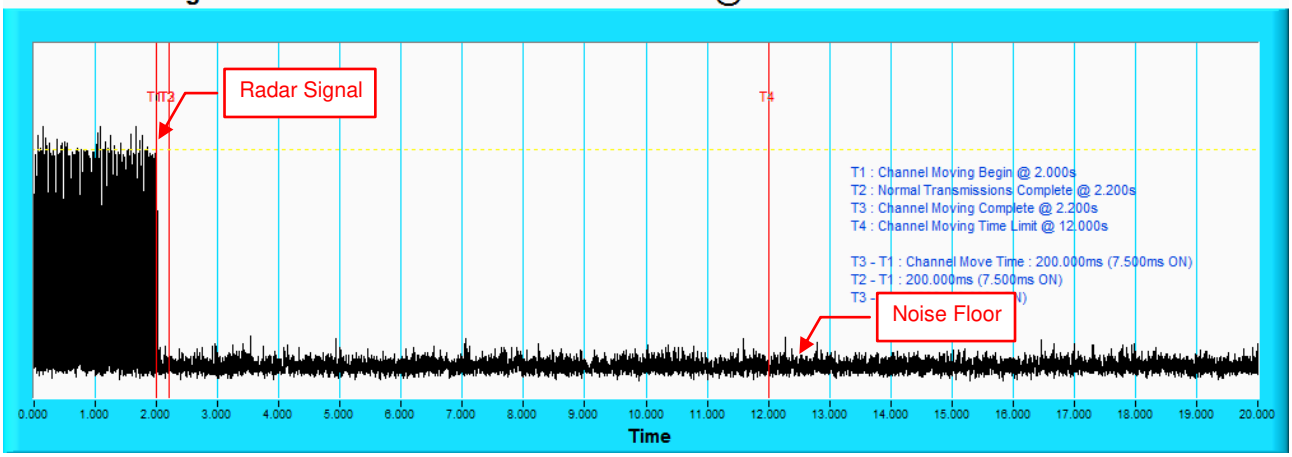


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 3

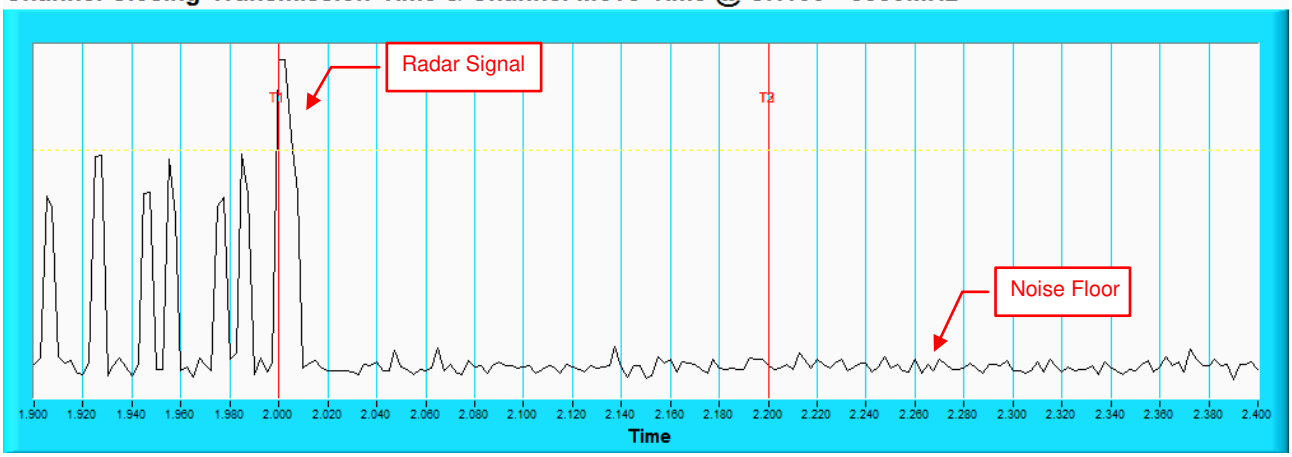
IEEE 802.11ac VHT80

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

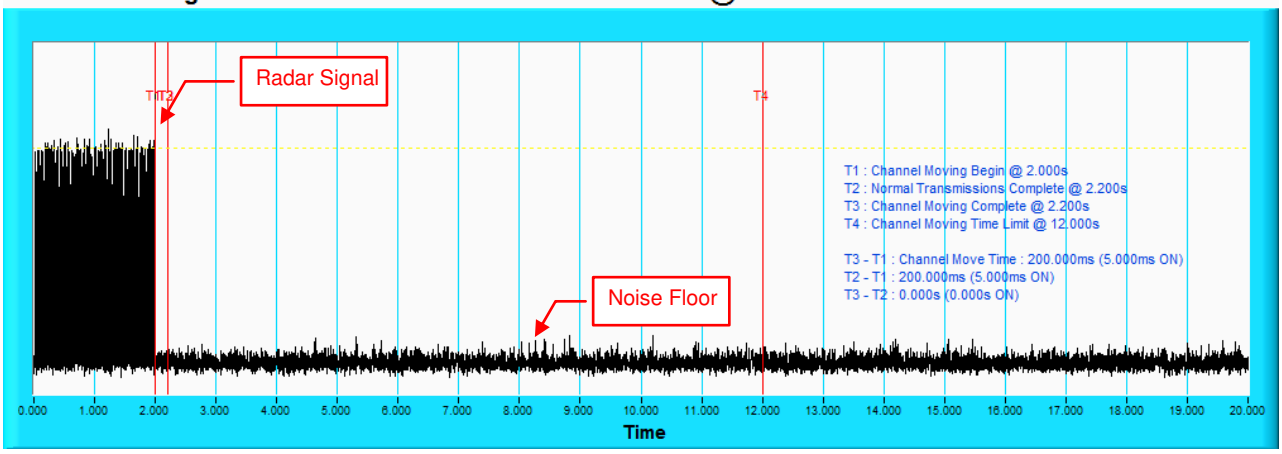


NOTE: Zoom in of the first 500ms after radar signal applied.

Radar signal 4

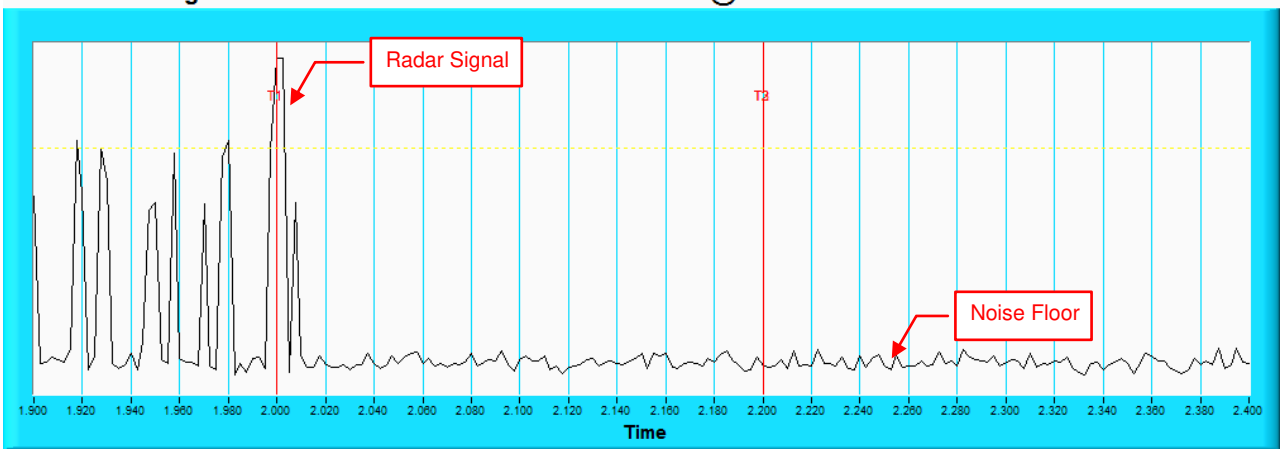
IEEE 802.11ac VHT80

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	5506	16	1223	65	818	Yes
3	5507	4	1730	92	578	No
4	5504	11	1393	74	718	Yes
5	5502	22	1066	57	938	Yes
6	5499	7	1567	83	638	Yes
7	5503	2	1859	99	538	Yes
8	5498	8	1520	81	658	Yes
9	5502	1	1931	102	518	Yes
10	5508	19	1139	61	878	Yes
11	5497	21	1089	58	918	Yes
12	5507	23	326.2	18	3066	Yes
13	5493	9	1475	78	678	Yes
14	5501	5	1672	89	598	Yes
15	5501	6	1618	86	618	Yes
16	5507		1111	59	900	Yes
17	5508		1024	55	977	Yes
18	5499		625.8	34	1598	Yes
19	5504		730.5	39	1369	Yes
20	5495		1181	63	847	Yes
21	5502		400.6	22	2496	Yes
22	5505		529.4	28	1889	No
23	5506		347.6	19	2877	No
24	5497		641.4	34	1559	Yes
25	5504		508.9	27	1965	Yes
26	5503		345.4	19	2895	Yes
27	5495		580.7	31	1722	Yes
28	5503		786.8	42	1271	Yes
29	5497		808.4	43	1237	Yes
30	5501		517.1	28	1934	Yes
						Detection Rate: 90 %

802.11ac (VHT20)

Type 2 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	24	1.7	174	Yes
2	5507	27	3.8	176	Yes
3	5505	28	4	161	No
4	5503	28	4.3	226	Yes
5	5506	24	1.9	193	Yes
6	5494	23	1.1	230	Yes
7	5494	29	4.5	198	Yes
8	5504	26	2.9	227	Yes
9	5495	26	2.8	171	Yes
10	5501	27	3.6	221	Yes
11	5499	23	1.1	180	Yes
12	5496	23	1.3	189	No
13	5495	25	2.5	204	Yes
14	5507	29	4.5	203	Yes
15	5496	29	5	170	Yes
16	5500	26	3.1	201	Yes
17	5496	24	2.1	218	Yes
18	5507	25	2.6	208	Yes
19	5501	24	1.8	223	No
20	5496	23	1.2	220	Yes
21	5498	26	2.9	224	Yes
22	5504	28	4	160	No
23	5504	25	2.5	209	Yes
24	5495	23	1	205	Yes
25	5494	27	3.7	151	Yes
26	5507	25	2.5	186	Yes
27	5503	23	1.5	190	Yes
28	5500	23	1.3	185	Yes
29	5508	23	1.2	175	Yes
30	5508	24	1.7	216	Yes
					Detection Rate: 86.7 %

802.11ac (VHT20)

Type 3 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	16	6.7	467	Yes
2	5497	18	8.8	304	Yes
3	5502	18	9	316	Yes
4	5493	18	9.3	439	Yes
5	5498	16	6.9	420	Yes
6	5499	16	6.1	249	Yes
7	5500	18	9.5	463	Yes
8	5496	17	7.9	258	Yes
9	5504	17	7.8	212	Yes
10	5492	17	8.6	236	Yes
11	5502	16	6.1	474	Yes
12	5508	16	6.3	461	Yes
13	5498	17	7.5	437	Yes
14	5499	18	9.5	287	Yes
15	5501	18	10	395	Yes
16	5491	17	8.1	322	Yes
17	5498	16	7.1	468	No
18	5494	17	7.6	255	Yes
19	5497	16	6.8	423	Yes
20	5504	16	6.2	456	Yes
21	5507	17	7.9	351	No
22	5500	18	9	411	Yes
23	5501	17	7.5	279	Yes
24	5501	16	6	431	Yes
25	5500	17	8.7	324	Yes
26	5498	17	7.5	419	No
27	5497	16	6.5	447	No
28	5498	16	6.3	481	Yes
29	5492	16	6.2	438	Yes
30	5496	16	6.7	270	Yes
					Detection Rate: 86.7 %

802.11ac (VHT20)

Type 4 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5500	12	12.5	467	Yes
2	5498	15	17.2	304	Yes
3	5494	15	17.8	316	No
4	5502	16	18.5	439	Yes
5	5499	13	13.1	420	Yes
6	5501	12	11.3	249	Yes
7	5498	16	18.8	463	Yes
8	5491	14	15.3	258	No
9	5492	14	15.1	212	Yes
10	5497	15	16.9	236	Yes
11	5502	12	11.2	474	Yes
12	5493	12	11.7	461	Yes
13	5495	13	14.4	437	No
14	5500	16	18.9	287	Yes
15	5495	16	19.9	395	Yes
16	5501	14	15.7	322	Yes
17	5501	13	13.4	468	Yes
18	5495	13	14.5	255	Yes
19	5501	13	12.9	423	Yes
20	5498	12	11.5	456	Yes
21	5505	14	15.3	351	Yes
22	5492	15	17.8	411	Yes
23	5498	13	14.3	279	Yes
24	5505	12	11.1	431	Yes
25	5496	15	17	324	Yes
26	5494	13	14.5	419	No
27	5500	12	12.1	447	Yes
28	5494	12	11.7	481	No
29	5494	12	11.6	438	Yes
30	5493	12	12.7	270	Yes
					Detection Rate: 83.3 %

802.11ac (VHT20)

Type 5 Radar Statistical Performances			
Trial #	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	5500	LP_Signal_01	Yes
2	5500	LP_Signal_02	Yes
3	5507	LP_Signal_03	Yes
4	5505	LP_Signal_04	No
5	5501	LP_Signal_05	Yes
6	5494	LP_Signal_06	Yes
7	5498	LP_Signal_07	Yes
8	5501	LP_Signal_08	Yes
9	5496	LP_Signal_09	Yes
10	5495	LP_Signal_10	Yes
11	5500	LP_Signal_11	Yes
12	5496	LP_Signal_12	Yes
13	5503	LP_Signal_13	Yes
14	5503	LP_Signal_14	Yes
15	5506	LP_Signal_15	Yes
16	5502	LP_Signal_16	Yes
17	5507	LP_Signal_17	Yes
18	5497	LP_Signal_18	Yes
19	5500	LP_Signal_19	Yes
20	5503	LP_Signal_20	Yes
21	5502	LP_Signal_21	No
22	5504	LP_Signal_22	Yes
23	5504	LP_Signal_23	No
24	5503	LP_Signal_24	Yes
25	5502	LP_Signal_25	No
26	5501	LP_Signal_26	Yes
27	5501	LP_Signal_27	Yes
28	5502	LP_Signal_28	Yes
29	5505	LP_Signal_29	Yes
30	5501	LP_Signal_30	Yes
			Detection Rate: 86.7 %

The Long Pulse Radar pattern shown in Appendix A.1

802.11ac (VHT20)

Type 6 Radar Statistical Performances				
Trial #	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	9	1	333.3	Yes
2	9	1	333.3	Yes
3	9	1	333.3	Yes
4	9	1	333.3	Yes
5	9	1	333.3	Yes
6	9	1	333.3	Yes
7	9	1	333.3	Yes
8	9	1	333.3	Yes
9	9	1	333.3	Yes
10	9	1	333.3	Yes
11	9	1	333.3	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	No
17	9	1	333.3	Yes
18	9	1	333.3	Yes
19	9	1	333.3	Yes
20	9	1	333.3	Yes
21	9	1	333.3	Yes
22	9	1	333.3	No
23	9	1	333.3	Yes
24	9	1	333.3	Yes
25	9	1	333.3	Yes
26	9	1	333.3	No
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: 90 %

802.11ac (VHT20)

Type 6 Radar Statistical Performances		
Trial #	Hopping Frequency Sequence Name	Detection
1	HOP_FREQ_SEQ_01	Yes
2	HOP_FREQ_SEQ_02	Yes
3	HOP_FREQ_SEQ_03	Yes
4	HOP_FREQ_SEQ_04	Yes
5	HOP_FREQ_SEQ_05	Yes
6	HOP_FREQ_SEQ_06	Yes
7	HOP_FREQ_SEQ_07	Yes
8	HOP_FREQ_SEQ_08	Yes
9	HOP_FREQ_SEQ_09	Yes
10	HOP_FREQ_SEQ_10	Yes
11	HOP_FREQ_SEQ_11	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	No
17	HOP_FREQ_SEQ_17	Yes
18	HOP_FREQ_SEQ_18	Yes
19	HOP_FREQ_SEQ_19	Yes
20	HOP_FREQ_SEQ_20	Yes
21	HOP_FREQ_SEQ_21	Yes
22	HOP_FREQ_SEQ_22	No
23	HOP_FREQ_SEQ_23	Yes
24	HOP_FREQ_SEQ_24	Yes
25	HOP_FREQ_SEQ_25	Yes
26	HOP_FREQ_SEQ_26	No
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: 90 %

The Frequency Hopping Radar pattern shown in Appendix A.2

802.11ac (VHT40)

Type 1 Radar Statistical Performances						
Trial #	Test Frequency (MHz)	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulse per seconds)	Pulses per Burst	Pulse Repetition Interval (microseconds)	Detection
1	5510	15	1253	67	798	Yes
2	5520	16	1223	65	818	Yes
3	5500	4	1730	92	578	Yes
4	5502	11	1393	74	718	Yes
5	5519	22	1066	57	938	Yes
6	5516	7	1567	83	638	Yes
7	5523	2	1859	99	538	Yes
8	5510	8	1520	81	658	Yes
9	5506	1	1931	102	518	Yes
10	5506	19	1139	61	878	Yes
11	5524	21	1089	58	918	Yes
12	5508	23	326.2	18	3066	Yes
13	5516	9	1475	78	678	Yes
14	5510	5	1672	89	598	Yes
15	5519	6	1618	86	618	Yes
16	5511		1111	59	900	No
17	5527		1024	55	977	Yes
18	5514		625.8	34	1598	Yes
19	5527		730.5	39	1369	Yes
20	5497		1181	63	847	Yes
21	5508		400.6	22	2496	No
22	5527		529.4	28	1889	Yes
23	5525		347.6	19	2877	Yes
24	5506		641.4	34	1559	Yes
25	5516		508.9	27	1965	Yes
26	5529		345.4	19	2895	Yes
27	5514		580.7	31	1722	Yes
28	5526		786.8	42	1271	Yes
29	5523		808.4	43	1237	Yes
30	5503		517.1	28	1934	Yes
Detection Rate: 93.3 %						

802.11ac (VHT40)

Type 2 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	24	1.7	174	Yes
2	5520	27	3.8	176	Yes
3	5500	28	4	161	Yes
4	5528	28	4.3	226	Yes
5	5500	24	1.9	193	Yes
6	5527	23	1.1	230	No
7	5510	29	4.5	198	Yes
8	5492	26	2.9	227	Yes
9	5503	26	2.8	171	Yes
10	5493	27	3.6	221	Yes
11	5508	23	1.1	180	Yes
12	5515	23	1.3	189	Yes
13	5528	25	2.5	204	Yes
14	5507	29	4.5	203	No
15	5515	29	5	170	Yes
16	5526	26	3.1	201	Yes
17	5517	24	2.1	218	Yes
18	5513	25	2.6	208	Yes
19	5491	24	1.8	223	Yes
20	5504	23	1.2	220	Yes
21	5516	26	2.9	224	Yes
22	5498	28	4	160	Yes
23	5503	25	2.5	209	Yes
24	5519	23	1	205	No
25	5526	27	3.7	151	Yes
26	5525	25	2.5	186	Yes
27	5525	23	1.5	190	Yes
28	5524	23	1.3	185	Yes
29	5516	23	1.2	175	Yes
30	5521	24	1.7	216	Yes
					Detection Rate: 90 %

802.11ac (VHT40)

Type 3 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	16	6.7	467	Yes
2	5520	18	8.8	304	Yes
3	5500	18	9	316	Yes
4	5508	18	9.3	439	Yes
5	5519	16	6.9	420	Yes
6	5515	16	6.1	249	No
7	5510	18	9.5	463	Yes
8	5522	17	7.9	258	Yes
9	5504	17	7.8	212	Yes
10	5525	17	8.6	236	Yes
11	5515	16	6.1	474	Yes
12	5516	16	6.3	461	Yes
13	5495	17	7.5	437	Yes
14	5517	18	9.5	287	No
15	5508	18	10	395	Yes
16	5503	17	8.1	322	Yes
17	5507	16	7.1	468	Yes
18	5508	17	7.6	255	Yes
19	5527	16	6.8	423	Yes
20	5516	16	6.2	456	Yes
21	5514	17	7.9	351	Yes
22	5504	18	9	411	Yes
23	5494	17	7.5	279	No
24	5513	16	6	431	Yes
25	5521	17	8.7	324	No
26	5495	17	7.5	419	Yes
27	5522	16	6.5	447	Yes
28	5500	16	6.3	481	Yes
29	5513	16	6.2	438	Yes
30	5526	16	6.7	270	No
					Detection Rate: 83.3 %

802.11ac (VHT40)

Type 4 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5510	12	12.5	467	Yes
2	5520	15	17.2	304	Yes
3	5500	15	17.8	316	Yes
4	5501	16	18.5	439	Yes
5	5509	13	13.1	420	Yes
6	5506	12	11.3	249	No
7	5525	16	18.8	463	Yes
8	5498	14	15.3	258	Yes
9	5523	14	15.1	212	Yes
10	5511	15	16.9	236	Yes
11	5503	12	11.2	474	No
12	5509	12	11.7	461	Yes
13	5511	13	14.4	437	Yes
14	5499	16	18.9	287	Yes
15	5526	16	19.9	395	Yes
16	5498	14	15.7	322	Yes
17	5505	13	13.4	468	Yes
18	5522	13	14.5	255	No
19	5499	13	12.9	423	Yes
20	5495	12	11.5	456	Yes
21	5516	14	15.3	351	Yes
22	5520	15	17.8	411	Yes
23	5498	13	14.3	279	Yes
24	5511	12	11.1	431	Yes
25	5522	15	17	324	Yes
26	5509	13	14.5	419	Yes
27	5493	12	12.1	447	No
28	5493	12	11.7	481	Yes
29	5502	12	11.6	438	Yes
30	5527	12	12.7	270	Yes
					Detection Rate: 86.7 %

802.11ac (VHT40)

Type 5 Radar Statistical Performances			
Trial #	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	5510	LP_Signal_01	Yes
2	5520	LP_Signal_02	Yes
3	5500	LP_Signal_03	Yes
4	5508	LP_Signal_04	Yes
5	5499	LP_Signal_05	Yes
6	5507	LP_Signal_06	Yes
7	5510	LP_Signal_07	No
8	5513	LP_Signal_08	No
9	5505	LP_Signal_09	Yes
10	5505	LP_Signal_10	Yes
11	5508	LP_Signal_11	Yes
12	5516	LP_Signal_12	No
13	5518	LP_Signal_13	Yes
14	5498	LP_Signal_14	Yes
15	5518	LP_Signal_15	No
16	5519	LP_Signal_16	Yes
17	5509	LP_Signal_17	No
18	5498	LP_Signal_18	Yes
19	5523	LP_Signal_19	Yes
20	5510	LP_Signal_20	Yes
21	5515	LP_Signal_21	Yes
22	5511	LP_Signal_22	Yes
23	5518	LP_Signal_23	Yes
24	5514	LP_Signal_24	Yes
25	5497	LP_Signal_25	Yes
26	5507	LP_Signal_26	Yes
27	5499	LP_Signal_27	Yes
28	5509	LP_Signal_28	Yes
29	5509	LP_Signal_29	Yes
30	5504	LP_Signal_30	No
			Detection Rate: 80 %

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	No
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 (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	No
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 (VHT80)

Type 1 Radar Statistical Performances						
Trial #	Test Frequency (MHz)	Pulse Repetition Frequency Number (1 to 23)	Pulse Repetition Frequency (Pulse per seconds)	Pulses per Burst	Pulse Repetition Interval (microseconds)	Detection
1	5530	15	1253	67	798	Yes
2	5540	16	1223	65	818	Yes
3	5560	4	1730	92	578	Yes
4	5520	11	1393	74	718	Yes
5	5500	22	1066	57	938	Yes
6	5555	7	1567	83	638	Yes
7	5506	2	1859	99	538	Yes
8	5501	8	1520	81	658	Yes
9	5493	1	1931	102	518	Yes
10	5532	19	1139	61	878	Yes
11	5527	21	1089	58	918	Yes
12	5496	23	326.2	18	3066	Yes
13	5543	9	1475	78	678	Yes
14	5512	5	1672	89	598	Yes
15	5566	6	1618	86	618	Yes
16	5545		1111	59	900	Yes
17	5556		1024	55	977	Yes
18	5536		625.8	34	1598	Yes
19	5548		730.5	39	1369	Yes
20	5550		1181	63	847	Yes
21	5493		400.6	22	2496	Yes
22	5551		529.4	28	1889	Yes
23	5557		347.6	19	2877	Yes
24	5564		641.4	34	1559	Yes
25	5512		508.9	27	1965	No
26	5528		345.4	19	2895	No
27	5567		580.7	31	1722	No
28	5550		786.8	42	1271	Yes
29	5520		808.4	43	1237	Yes
30	5519		517.1	28	1934	Yes
						Detection Rate: 90 %

802.11ac (VHT80)

Type 2 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	24	1.7	174	Yes
2	5540	27	3.8	176	Yes
3	5560	28	4	161	Yes
4	5520	28	4.3	226	Yes
5	5500	24	1.9	193	Yes
6	5526	23	1.1	230	Yes
7	5507	29	4.5	198	No
8	5532	26	2.9	227	Yes
9	5538	26	2.8	171	Yes
10	5547	27	3.6	221	Yes
11	5562	23	1.1	180	Yes
12	5501	23	1.3	189	No
13	5509	25	2.5	204	Yes
14	5544	29	4.5	203	Yes
15	5502	29	5	170	No
16	5541	26	3.1	201	Yes
17	5539	24	2.1	218	Yes
18	5552	25	2.6	208	No
19	5509	24	1.8	223	Yes
20	5554	23	1.2	220	Yes
21	5496	26	2.9	224	Yes
22	5563	28	4	160	Yes
23	5559	25	2.5	209	Yes
24	5536	23	1	205	Yes
25	5534	27	3.7	151	Yes
26	5561	25	2.5	186	Yes
27	5503	23	1.5	190	Yes
28	5566	23	1.3	185	Yes
29	5556	23	1.2	175	Yes
30	5507	24	1.7	216	Yes
					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	16	6.7	467	Yes
2	5540	18	8.8	304	No
3	5560	18	9	316	Yes
4	5520	18	9.3	439	Yes
5	5500	16	6.9	420	Yes
6	5501	16	6.1	249	Yes
7	5542	18	9.5	463	Yes
8	5509	17	7.9	258	Yes
9	5526	17	7.8	212	No
10	5542	17	8.6	236	Yes
11	5565	16	6.1	474	Yes
12	5497	16	6.3	461	No
13	5511	17	7.5	437	Yes
14	5549	18	9.5	287	Yes
15	5550	18	10	395	Yes
16	5492	17	8.1	322	Yes
17	5552	16	7.1	468	Yes
18	5506	17	7.6	255	Yes
19	5514	16	6.8	423	Yes
20	5531	16	6.2	456	Yes
21	5553	17	7.9	351	Yes
22	5525	18	9	411	Yes
23	5516	17	7.5	279	Yes
24	5500	16	6	431	Yes
25	5529	17	8.7	324	Yes
26	5529	17	7.5	419	Yes
27	5560	16	6.5	447	Yes
28	5498	16	6.3	481	Yes
29	5555	16	6.2	438	Yes
30	5506	16	6.7	270	Yes
					Detection Rate: 90 %

802.11ac (VHT80)

Type 4 Radar Statistical Performances					
Trial #	Test Frequency (MHz)	Pulses per Burst	Pulse Width(us)	PRI(us)	Detection
1	5530	12	12.5	467	No
2	5540	15	17.2	304	Yes
3	5560	15	17.8	316	Yes
4	5520	16	18.5	439	Yes
5	5500	13	13.1	420	Yes
6	5553	12	11.3	249	Yes
7	5536	16	18.8	463	Yes
8	5563	14	15.3	258	Yes
9	5501	14	15.1	212	Yes
10	5552	15	16.9	236	Yes
11	5548	12	11.2	474	Yes
12	5524	12	11.7	461	Yes
13	5512	13	14.4	437	Yes
14	5519	16	18.9	287	No
15	5565	16	19.9	395	Yes
16	5535	14	15.7	322	Yes
17	5537	13	13.4	468	Yes
18	5499	13	14.5	255	Yes
19	5509	13	12.9	423	No
20	5565	12	11.5	456	Yes
21	5536	14	15.3	351	Yes
22	5562	15	17.8	411	Yes
23	5522	13	14.3	279	Yes
24	5548	12	11.1	431	Yes
25	5506	15	17	324	Yes
26	5511	13	14.5	419	Yes
27	5516	12	12.1	447	Yes
28	5523	12	11.7	481	Yes
29	5506	12	11.6	438	Yes
30	5538	12	12.7	270	No
					Detection Rate: 86.7 %

802.11ac (VHT80)

Type 5 Radar Statistical Performances			
Trial #	Chirp Center Frequency(MHz)	Test Signal Name	Detection
1	5530	LP_Signal_01	Yes
2	5540	LP_Signal_02	Yes
3	5560	LP_Signal_03	Yes
4	5520	LP_Signal_04	Yes
5	5500	LP_Signal_05	No
6	5506	LP_Signal_06	Yes
7	5505	LP_Signal_07	Yes
8	5548	LP_Signal_08	Yes
9	5543	LP_Signal_09	Yes
10	5541	LP_Signal_10	Yes
11	5508	LP_Signal_11	Yes
12	5544	LP_Signal_12	Yes
13	5514	LP_Signal_13	Yes
14	5509	LP_Signal_14	Yes
15	5548	LP_Signal_15	Yes
16	5556	LP_Signal_16	No
17	5523	LP_Signal_17	Yes
18	5528	LP_Signal_18	Yes
19	5525	LP_Signal_19	No
20	5549	LP_Signal_20	No
21	5551	LP_Signal_21	Yes
22	5540	LP_Signal_22	Yes
23	5526	LP_Signal_23	Yes
24	5528	LP_Signal_24	Yes
25	5505	LP_Signal_25	No
26	5540	LP_Signal_26	Yes
27	5530	LP_Signal_27	Yes
28	5559	LP_Signal_28	No
29	5545	LP_Signal_29	Yes
30	5531	LP_Signal_30	Yes
			Detection Rate: 80 %

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	No
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	No
15	9	1	333.3	Yes
16	9	1	333.3	Yes
17	9	1	333.3	Yes
18	9	1	333.3	Yes
19	9	1	333.3	Yes
20	9	1	333.3	Yes
21	9	1	333.3	Yes
22	9	1	333.3	No
23	9	1	333.3	Yes
24	9	1	333.3	Yes
25	9	1	333.3	Yes
26	9	1	333.3	Yes
27	9	1	333.3	Yes
28	9	1	333.3	Yes
29	9	1	333.3	Yes
30	9	1	333.3	Yes
				Detection Rate: 90 %

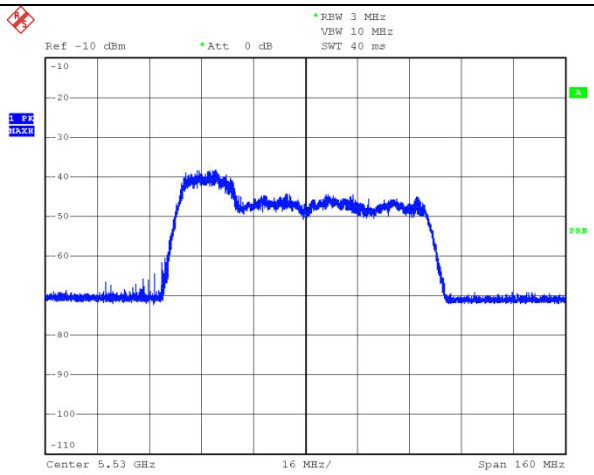
802.11ac (VHT80)

Type 6 Radar Statistical Performances		
Trial #	Hopping Frequency Sequence Name	Detection
1	HOP_FREQ_SEQ_01	No
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	No
15	HOP_FREQ_SEQ_15	Yes
16	HOP_FREQ_SEQ_16	Yes
17	HOP_FREQ_SEQ_17	Yes
18	HOP_FREQ_SEQ_18	Yes
19	HOP_FREQ_SEQ_19	Yes
20	HOP_FREQ_SEQ_20	Yes
21	HOP_FREQ_SEQ_21	Yes
22	HOP_FREQ_SEQ_22	No
23	HOP_FREQ_SEQ_23	Yes
24	HOP_FREQ_SEQ_24	Yes
25	HOP_FREQ_SEQ_25	Yes
26	HOP_FREQ_SEQ_26	Yes
27	HOP_FREQ_SEQ_27	Yes
28	HOP_FREQ_SEQ_28	Yes
29	HOP_FREQ_SEQ_29	Yes
30	HOP_FREQ_SEQ_30	Yes
		Detection Rate: 90 %

The Frequency Hopping Radar pattern shown in Appendix A.2

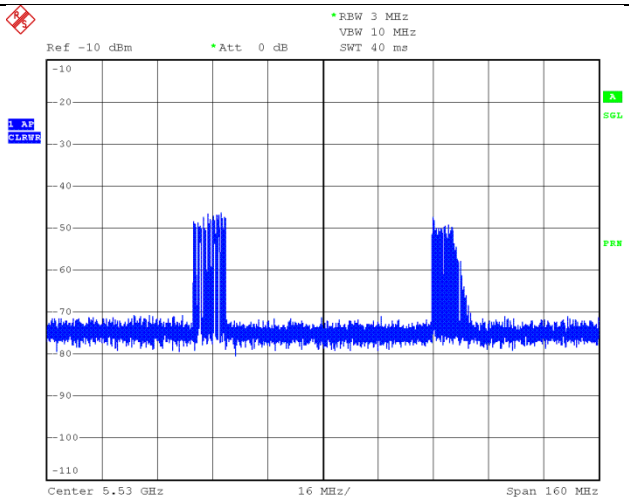
6.2.5 Non- Occupancy Period

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



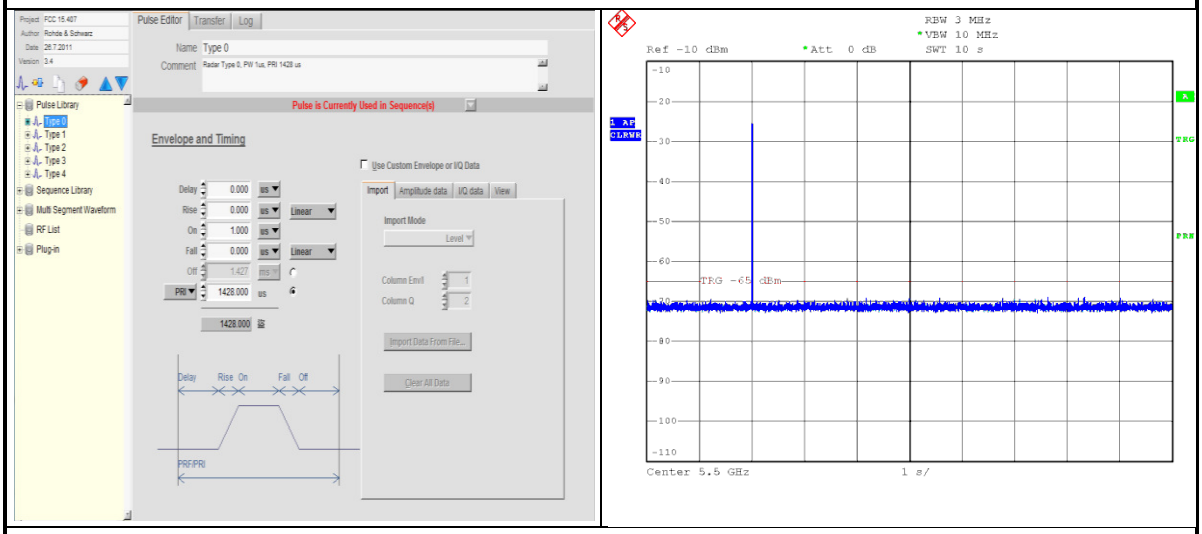
EUT (master) links with Client on 5530MHz

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.



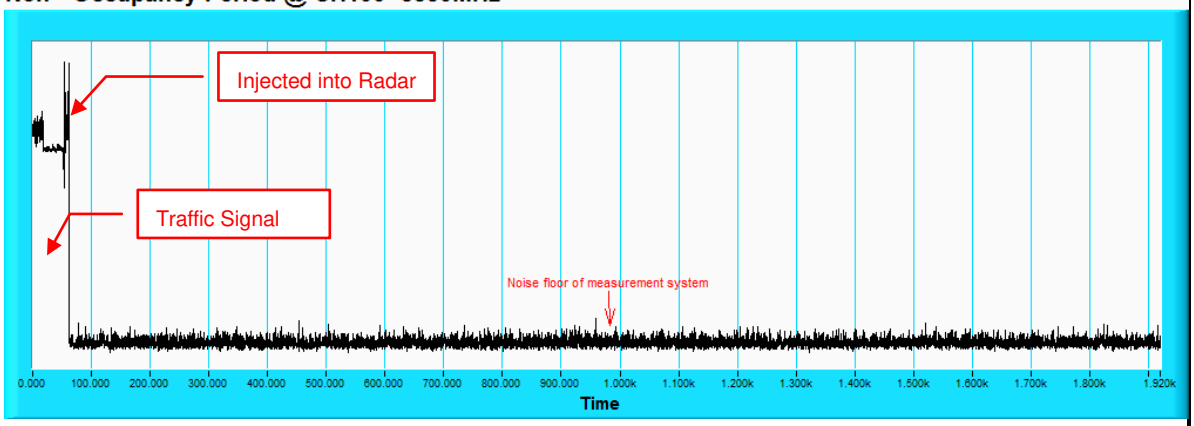
Radar 0 is used to test during DFS testing.

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:
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab:
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
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: 10

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_02

Number of Bursts in Trial: 16

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_03

Number of Bursts in Trial: 17

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_04

Number of Bursts in Trial: 18

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_05

Number of Bursts in Trial: 11

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_06

Number of Bursts in Trial: 8

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_07

Number of Bursts in Trial: 19

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_08

Number of Bursts in Trial: 14

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_09

Number of Bursts in Trial: 13

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_10

Number of Bursts in Trial: 16

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_11

Number of Bursts in Trial: 8

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_12

Number of Bursts in Trial: 9

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_13

Number of Bursts in Trial: 12

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_14

Number of Bursts in Trial: 19

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_15

Number of Bursts in Trial: 20

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_16

Number of Bursts in Trial: 14

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_17

Number of Bursts in Trial: 11

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_18

Number of Bursts in Trial: 13

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_19

Number of Bursts in Trial: 10

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_20

Number of Bursts in Trial: 8

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_21

Number of Bursts in Trial: 14

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_22

Number of Bursts in Trial: 17

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_23

Number of Bursts in Trial: 12

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_24

Number of Bursts in Trial: 8

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_25

Number of Bursts in Trial: 16

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_26

Number of Bursts in Trial: 13

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_27

Number of Bursts in Trial: 9

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_28

Number of Bursts in Trial: 9

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_29

Number of Bursts in Trial: 8

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

Long Pulse Radar Test Signal

Test Signal Name: LP_Signal_30

Number of Bursts in Trial: 10

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

A.2 The Frequency Hopping Radar pattern

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hopping Frequency Sequence Name: HOP_FREQ_SEQ_26							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.399G	2	5.652G	3	5.582G	4	5.697G
5	5.452G	6	5.545G	7	5.380G	8	5.343G
9	5.725G	10	5.592G	11	5.529G	12	5.405G
13	5.253G	14	5.643G	15	5.598G	16	5.617G
17	5.593G	18	5.560G	19	5.326G	20	5.534G
21	5.508G	22	5.372G	23	5.682G	24	5.491G
25	5.495G	26	5.396G	27	5.503G	28	5.477G
29	5.427G	30	5.501G	31	5.430G	32	5.589G
33	5.571G	34	5.712G	35	5.658G	36	5.665G
37	5.371G	38	5.553G	39	5.569G	40	5.717G
41	5.621G	42	5.517G	43	5.699G	44	5.566G
45	5.428G	46	5.627G	47	5.583G	48	5.688G
49	5.437G	50	5.448G	51	5.445G	52	5.570G
53	5.375G	54	5.562G	55	5.364G	56	5.488G
57	5.677G	58	5.403G	59	5.502G	60	5.523G
61	5.678G	62	5.536G	63	5.620G	64	5.466G
65	5.596G	66	5.454G	67	5.316G	68	5.673G
69	5.645G	70	5.357G	71	5.530G	72	5.378G
73	5.458G	74	5.511G	75	5.516G	76	5.440G
77	5.609G	78	5.702G	79	5.705G	80	5.494G
81	5.550G	82	5.515G	83	5.548G	84	5.547G
85	5.490G	86	5.676G	87	5.415G	88	5.684G
89	5.681G	90	5.659G	91	5.449G	92	5.576G
93	5.407G	94	5.351G	95	5.475G	96	5.376G
97	5.614G	98	5.637G	99	5.626G	100	5.470G

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

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

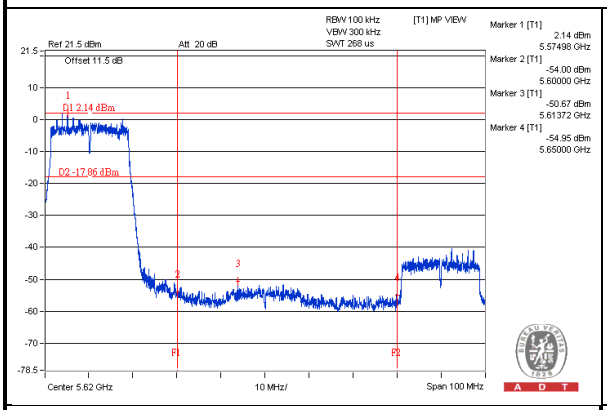
Hopping Frequency Sequence Name: HOP_FREQ_SEQ_29							
SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)	SEQ#	Frequency (Hz)
1	5.378G	2	5.707G	3	5.336G	4	5.533G
5	5.678G	6	5.692G	7	5.391G	8	5.491G
9	5.652G	10	5.662G	11	5.455G	12	5.627G
13	5.384G	14	5.721G	15	5.686G	16	5.649G
17	5.633G	18	5.682G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

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

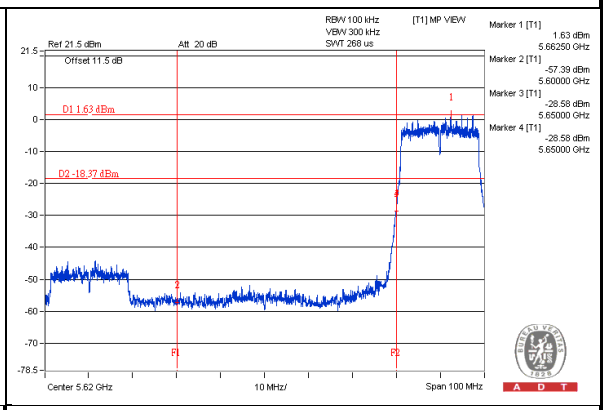
9. APPENDIX-B

NOTCH BAND IN 5600-5650MHZ

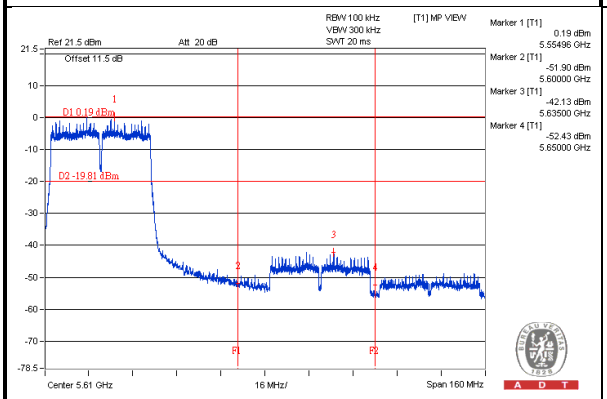
Verify that the 5600 – 5650 MHz band is notched.
Test results demonstrating last channel shall not exceed the band edge on 5600~5650MHz.



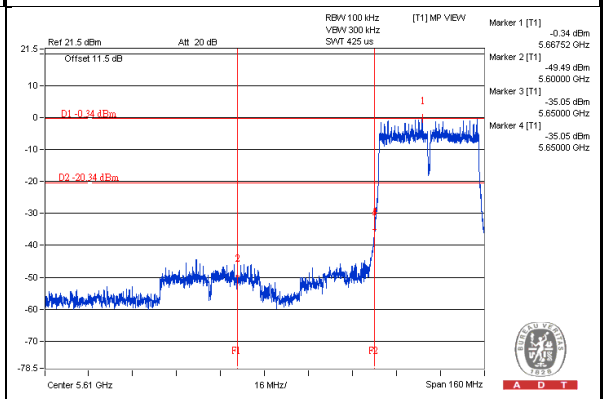
802.11ac (VHT20) (CH 116: 5580MHz)



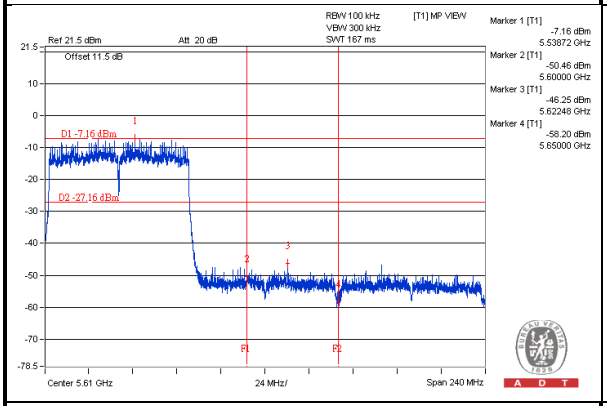
802.11ac (VHT20) (CH 132: 5660MHz)



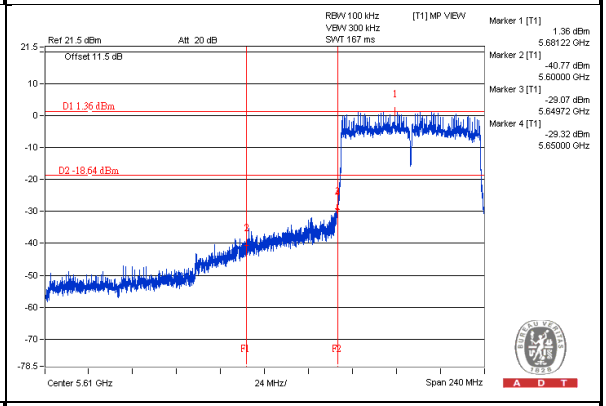
802.11ac (VHT40) (CH 110: 5550MHz)



802.11ac (VHT40)(CH 134: 5670MHz)



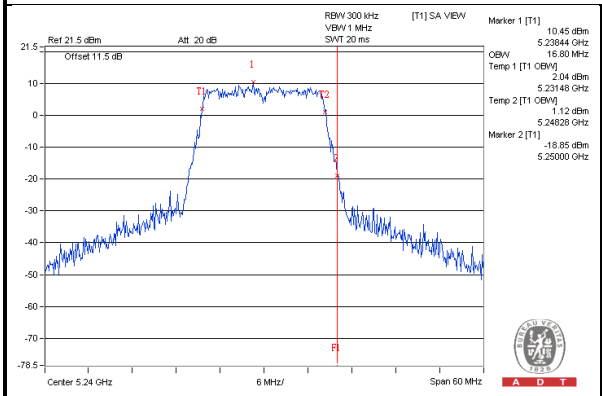
802.11ac (VHT80) (CH 106: 5530MHz)



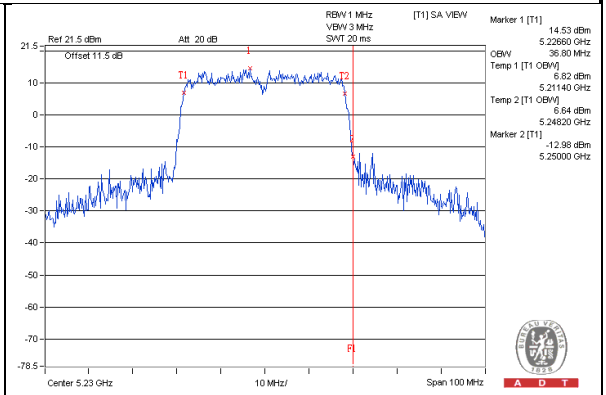
802.11ac (VHT80) (CH 138: 5690MHz)

BAND EDGE AT NEARBY DFS BAND

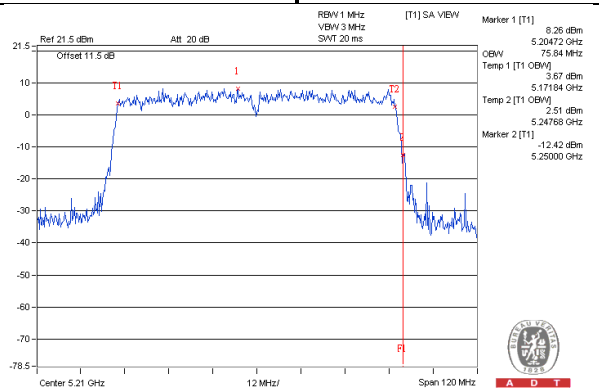
1) Test results demonstrating last channel (99% OBW) shall not exceed the band edge on 5150~5250MHz.



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



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



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

--- END ---