

FCC/ISED DFS TEST REPORT



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Test Report Number.....	MTK-19111321-LC-FCC-IC-DFS
Applicant.....	Mikrotikls SIA
Applicant Address.....	Brivibas gatve 214j, Riga, LV-1039 LATVIA
Product Name.....	wAP R ac
Model Number.....	RBwAPGR-5HacD2HnD-US
Family Product/Model.....	N/A
FCC ID.....	TV7WAPGR5AC2D
ISED ID.....	7442A-WAPGR5AC2D
Date of EUT received.....	12/04/2019
Date of Test.....	12/04/2019 – 12/31/2019
Report Issue Date.....	12/31/2019
Test Standards.....	47CFR Part 15.407 RSS-247 Issue 2.0: Feb 2017 RSS-Gen Issue 5: Apr 2018
Test Result.....	Pass

Issued By:

Vista Laboratories

1261 Puerta Del Sol, San Clemente, CA 92673 USA

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Tested by:

Bruce Li/Test Engineer

Approved By:

David Zhang/Technical Manager

Report Number:	MTK-1911321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



Laboratory Introduction

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Product:	wAP R ac
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TABLE OF CONTENTS

1 GENERAL INFORMATION..... 5

1.1 Applicant5

1.2 Product information5

1.3 Test standard and method`6

1.4 Test Purpose and statement6

2 TEST SITE INFORMATION..... 7

3 MODIFICATION OF EUT 7

4 TEST CONFIGURATION AND OPERATION 7

4.1 EUT test configuration7

4.2 EUT test mode7

4.3 Supporting Equipment8

4.4 EUT operation8

4.5 Test software8

5 TEST SUMMARY 9

6 UNCERTAINTLY OF MEASUREMENT.....10

7 TEST SUMMARY AND RESULT.....11

7.1 Dynamic Frequency Selection (DFS) Introduction11

7.2 Dynamic Frequency Selection (DFS) Applicability.....15

7.3 Dynamic Frequency Selection (DFS) Testing.....16

8 TEST INSTRUMENT LIST77

9 DFS RADAR WAVEFORM CHARACTERISTIC78



Report Number: MTK-19111321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



REVISION HISTORY

Revision	Issue Date	Description	Note
Original	12/31/2019	Original release	N/A



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1 General Information

1.1 Applicant

Applicant:	Mikrotikls SIA
Applicant address:	Brivibas gatve 214i, Riga, LV-1039 LATVIA
Manufacturer:	Mikrotikls SIA
Manufacturer Address:	Brivibas gatve 214i, Riga, LV-1039 LATVIA

1.2 Product information

Product Name	wAP R ac
Model Number	RBwAPGR-5HacD2HnD-US
Family Model Number	N/A
HVIN	RBwAPGR-5HacD2HnD-US
FVIN	V6.45.7
Serial Number	AEEA0A452D59/928/r2
Frequency Band	<p>For United states: 802.11b/g/n-20MHz: 2412-2462MHz 802.11n-40MHz: 2422-2452MHz 802.11a/n-20MHz: 5180-5320MHz, 5500-5720MHz, 5725-5825MHz 802.11n-40MHz: 5190-5310MHz, 5510-5710MHz, 5755-5795MHz 802.11ac: 5210-5290MHz, 5530-5690MHz, 5775MHz</p> <p>For Canada (5600-5650MHz blocked): 802.11b/g/n-20MHz: 2412-2462MHz 802.11n-40MHz: 2422-2452MHz 802.11a/n-20MHz: 5180-5320MHz, 5500-5580MHz, 5660-5720MHz, 5725-5825MHz 802.11n-40MHz: 5190-5310MHz, 5510-5550MHz, 5630-5710MHz, 5755-5795MHz 802.11ac: 5210-5290MHz, 5530, 5690MHz, 5775MHz</p>
Type of modulation	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g: OFDM-CCK (BPSK, QPSK, 16QAM, 64QAM) 802.11a/n/ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Equipment Class/ Category	DTS, UNII
Maximum output power	See test result
Antenna Information	2 x Integral antenna, 2.5 dBi gain
Clock Frequencies	Directional Gain: WiFi1 & WiFi2 Antenna: 5.5 dBi
Port/Connectors	N/A
Input Power	DC In, PoE, Ethernet
Power Adapter Manu/Model	DC 10-57V
Power Adapter SN	FullPower / SAW30-240-0800U
Hardware version	N/A
Software version	N/A
Simultaneous Transmission	N/A
Additional Info	EUT is DFS master device.

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



1.3 Test standard and method

Test standard	47CFR Part 15.407 RSS-247 Issue 2.0: Feb 2017 RSS-Gen Issue 5: Apr 2018
Test method	ANSI C63.10: 2013 905462 D02 UNII DFS Compliance Procedures New Rules v02

1.4 Test Purpose and statement

The purpose of this test report is intended to demonstrate the compliance of product listed in section 1.2, received from company listed in section 1.1, to the requirements of standard and method listed in section 1.3. Based on our test results, we conclude that the product tested complies with the requirements of the standards indicated.

2 Test site information

Lab performing tests	Vista Laboratories
Lab Address	1261 Puerta Del Sol, San Clemente, CA 92673 USA
Phone Number	+1 (949) 393-1123
Website	www. Vista-compliance.com

Test condition	Test Engineer	Test Environment	Test Date
DFS Testing	Bruce Li	23.5°C / 58.2%/996 mbar	12/04/2019 – 12/31/2019

3 Modification of EUT

The EUT is a normal operational sample loaded with test firmware to set the EUT into continuous transmission mode under different modulation and data rate. The DFS test mode is also supported.

4 Test configuration and operation

4.1 EUT test configuration

EUT is powered by external DC power supply for testing purpose. EUT’s RF antenna port is connected to spectrum analyzer through RF test cable for measurement. For DFS testing, EUT is associated with the DFS client device and established the communication.

4.2 EUT test mode

Radio	Frequency
802.11n	5300MHz
802.11n	5500MHz
802.11n	5310MHz
802.11n	5510MHz
802.11ac	5290MHz
802.11ac	5530MHz

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



4.3 Supporting Equipment

Index	Description	Model	S/N	Brand	Remark
1	Notebook	W540	427638U	Lenovo	DFS client
2	AC/DC Adapter	SAW30-240-0800U	N/A	FullPower	-
3	AC/DC Adapter	HA45NM140	00285K	DELL	-
4	Laptop	Inspiron 15	245S2F2	DELL	-

4.4 EUT operation

EUT is loaded with test firmware to simulate the operation when the vehicle is in parking mode in order to activate the Wi-Fi normal operation mode. EUT is associated with the DFS master device and established the communication.

4.5 Test software

Index	Description	Remark
1	Keysight N7607B Signal Studio	DFS signal generation for ETSI/FCC

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



5 Test Summary

FCC Rules	ISED Rules	Test Item	Section	Verdict
§15.407(h)	RSS-247 §6.3	UNII Detection Bandwidth	7.3	Pass
§15.407(h)	RSS-247 §6.3	Initial Channel Availability Check Time	7.3	Pass
§15.407(h)	RSS-247 §6.3	Radar Burst at the Beginning of the CAC Time	7.3	Pass
§15.407(h)	RSS-247 §6.3	Radar Burst at the End of the CAC Time	7.3	Pass
§15.407(h)	RSS-247 §6.3	In-Service Monitoring - Channel Move Time	7.3	Pass
§15.407(h)	RSS-247 §6.3	In-Service Monitoring - channel Closing Transmission Time	7.3	Pass
§15.407(h)	RSS-247 §6.3	In-Service Monitoring - Non-Occupancy Period	7.3	Pass
§15.407(h)	RSS-247 §6.3	Statistical Performance Check	7.3	Pass



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6 Uncertainty of Measurement

Test item	Measurement Uncertainty (dB)
Dynamic frequency selection (DFS) Conducted Measurement	±1.5dB



7 Test summary and result

7.1 Dynamic Frequency Selection (DFS) Introduction

7.1.1 Requirement

Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see note)
≥ 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 spectra 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.

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 UNII 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 facilitating 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.

7.1.2 Radar type and test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. 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

Short Pulse Radar Test Waveforms

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

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 Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

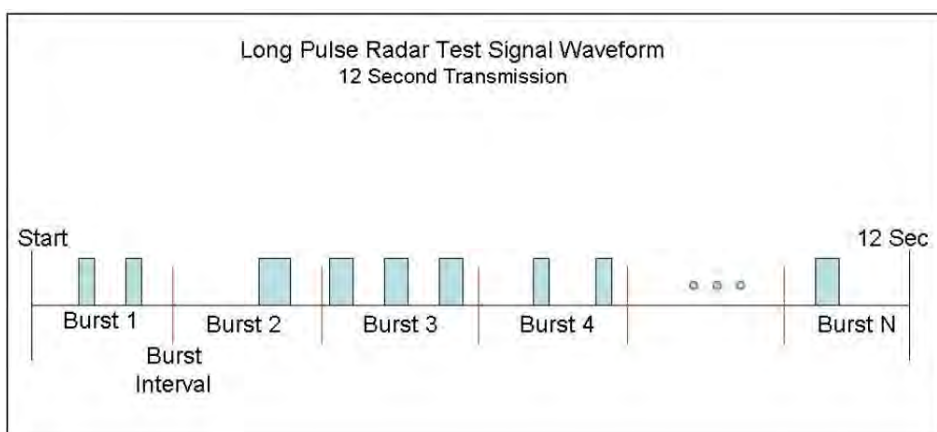
The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

Each waveform is defined as follows:

- 1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
- 2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
- 3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- 4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- 5) Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulses in different Bursts may have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz
- 6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
- 7) The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst Count. Each interval is of length $(12,000,000 / \text{Burst Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12,000,000 / \text{Burst Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

A representative example of a Long Pulse radar test waveform:

- 1) The total test signal length is 12 seconds.
- 2) 8 Bursts are randomly generated for the Burst Count.
- 3) Burst 1 has 2 randomly generated pulses.
- 4) The pulse width (for both pulses) is randomly selected to be 75 microseconds.
- 5) The PRI is randomly selected to be at 1213 microseconds.
- 6) Bursts 2 through 8 are generated using steps 3 – 5.
- 7) Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. Bursts 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. Burst 2 falls in the 1,500,001 – 3,000,000 microsecond range).



Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



Frequency Hopping Radar Type

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

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected 1 from the hopping sequence defined by the following algorithm:

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.





7.2 Dynamic Frequency Selection (DFS) Applicability

7.2.1 Requirement

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands.1

Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a UNII device operating in Master Mode.

Following tables shown below summarize the DFS testing applicability.

Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not required	Yes
<i>DFS Detection Threshold</i>	Yes	Not required	Yes
<i>Channel Availability Check Time</i>	Yes	Not required	Not required
<i>U-NII Detection Bandwidth</i>	Yes	Not required	Yes

Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	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.		

7.2.2 Conclusion

EUT is client device without radar detection function. Only the Channel Closing Transmission Time and Channel Move time testing are required. The testing shall be done using the widest BW mode.

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3 Dynamic Frequency Selection (DFS) Testing

7.3.1 Requirement

Channel Closing Transmission Time

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.

The channel closing transmission time shall be less than (200 milliseconds + an aggregate of 60 milliseconds) over remaining 10 second period

Channel Move Time

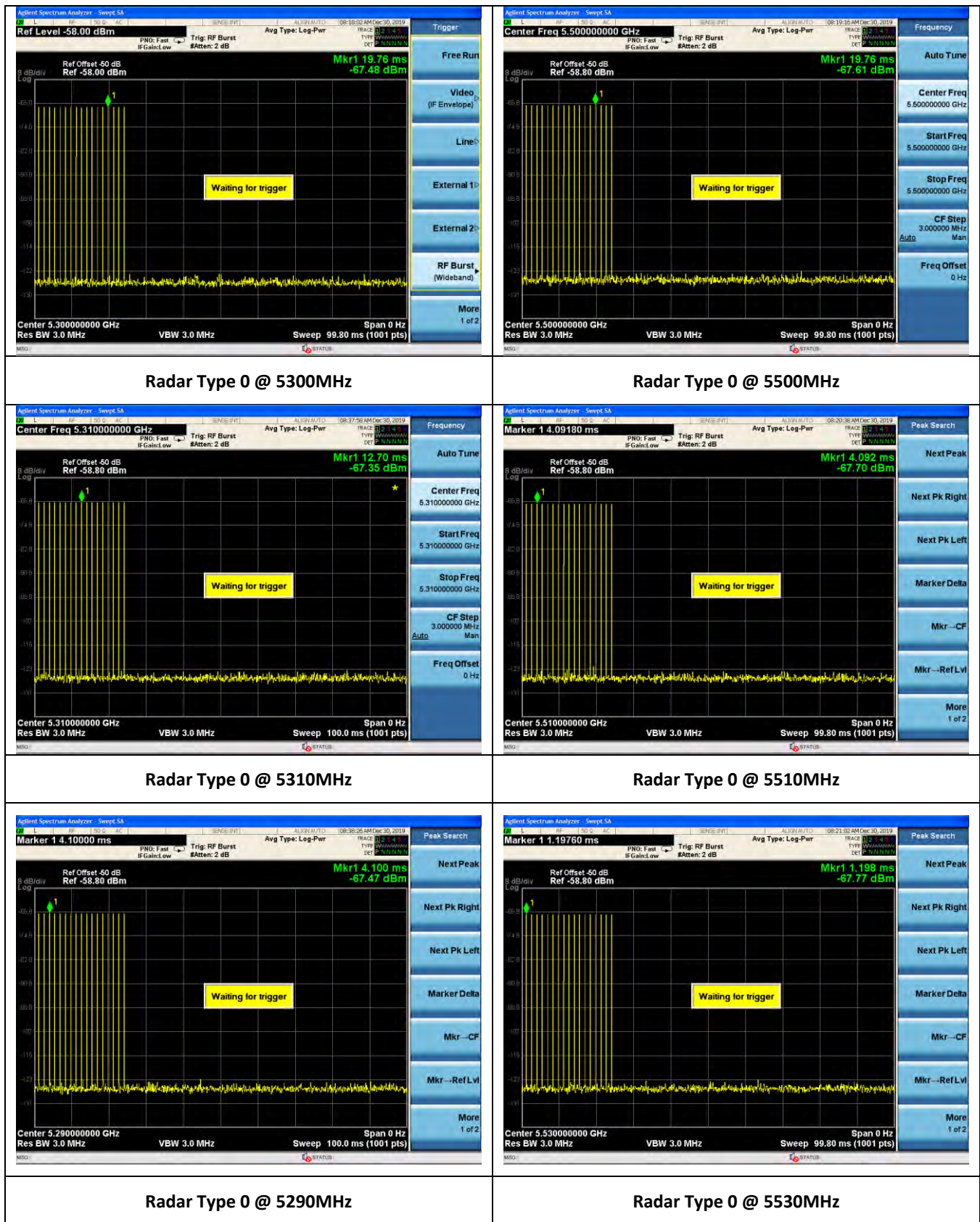
After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel.

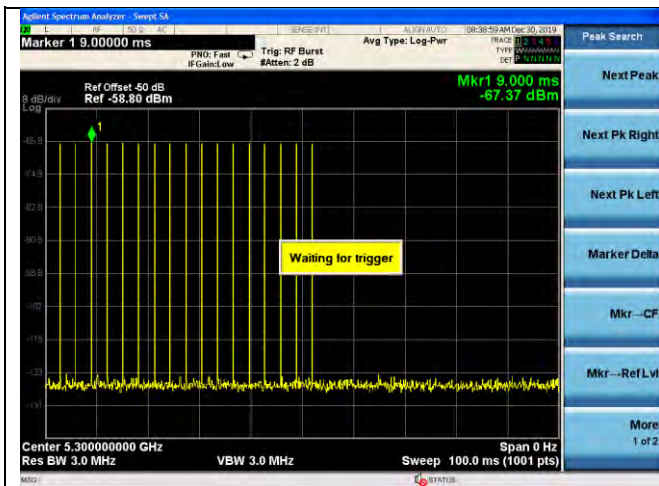
7.3.2 Radar Waveform Calibration

The following equipment setup was used to calibrate the conducted Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) mode at the frequency of the Radar Waveform generator. Peak detection was utilized.

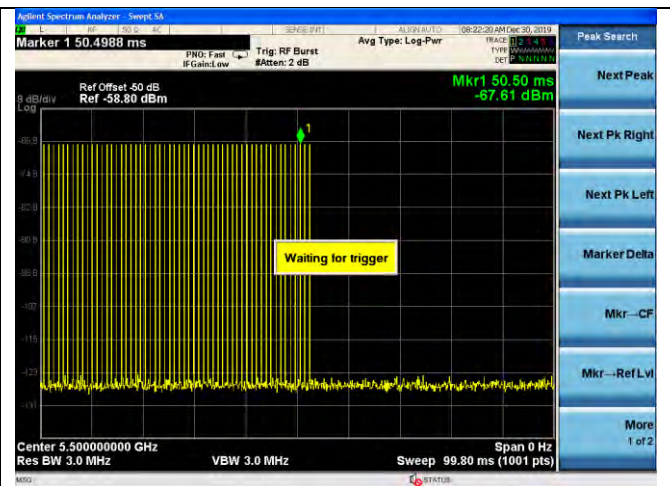


Calibration Test Plots

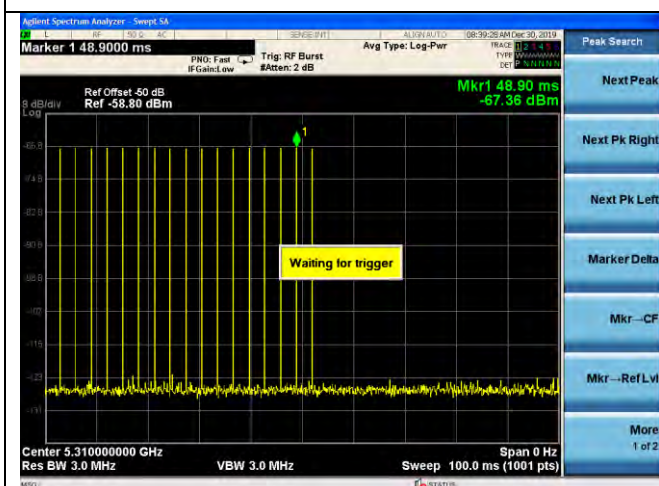




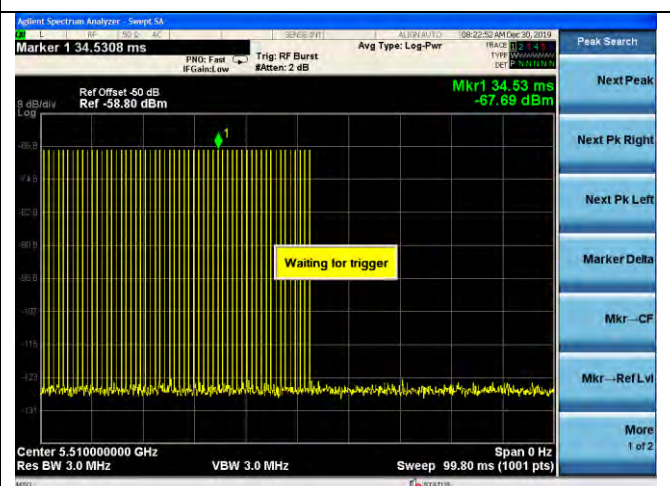
Radar Type 1 @ 5300MHz



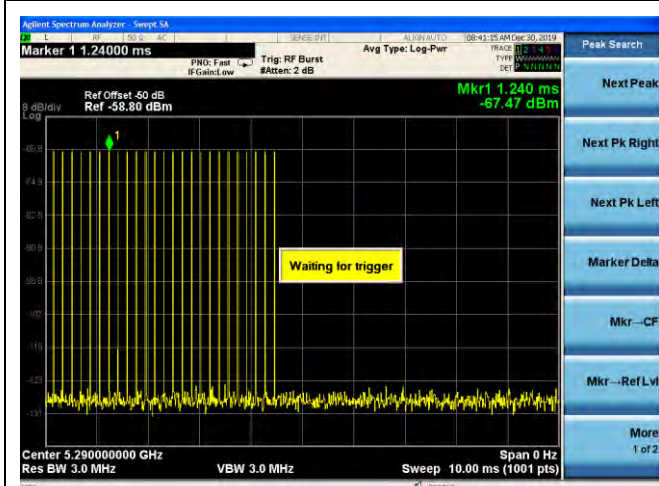
Radar Type 1 @ 5500MHz



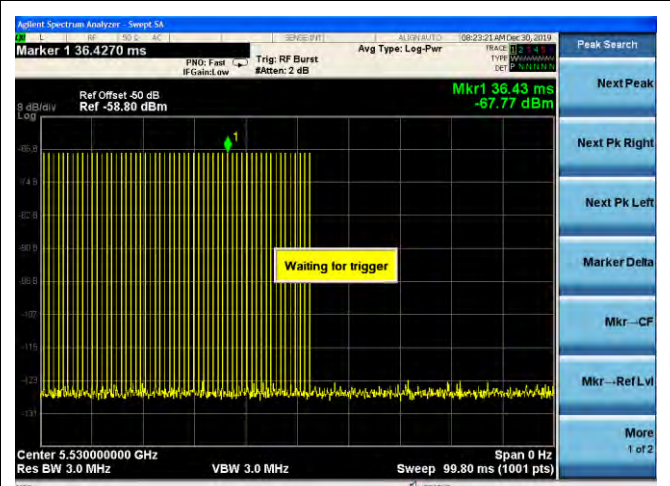
Radar Type 1 @ 5310MHz



Radar Type 1 @ 5510MHz



Radar Type 1 @ 5290MHz

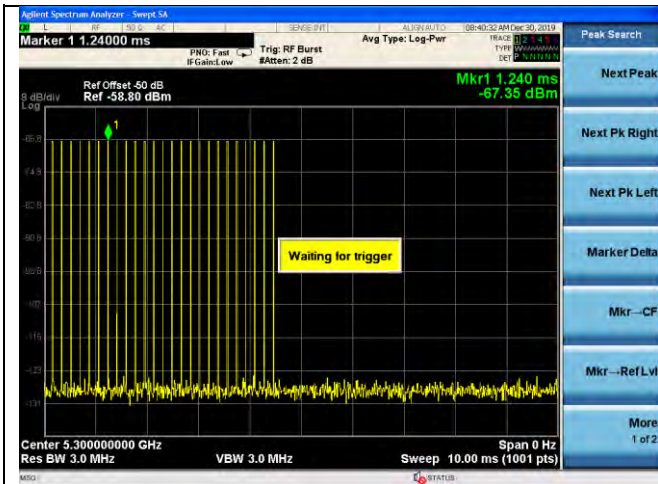


Radar Type 1 @ 5530MHz

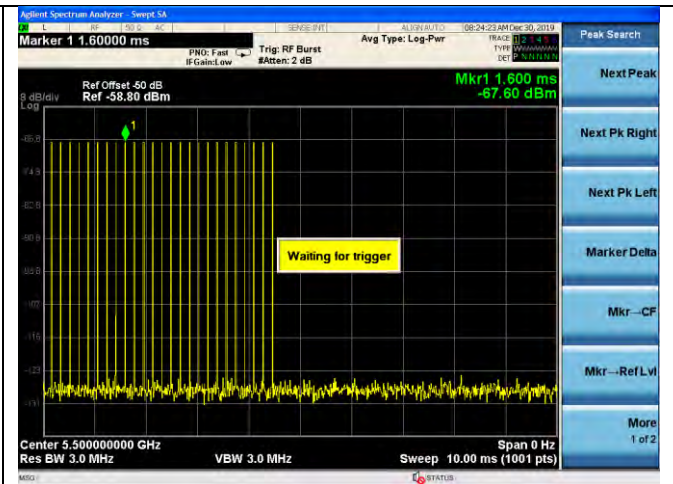


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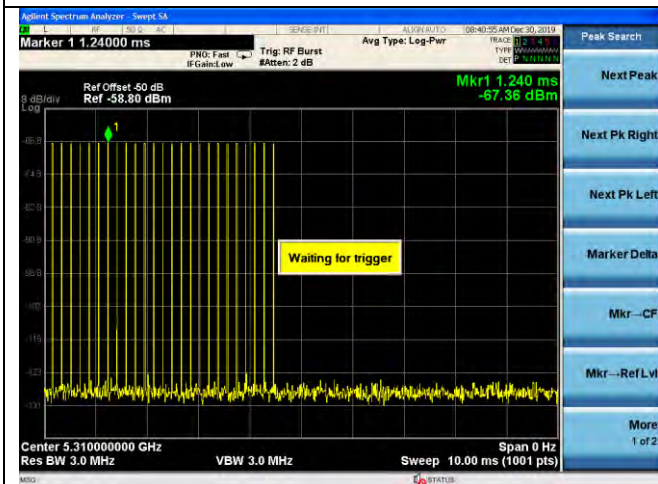
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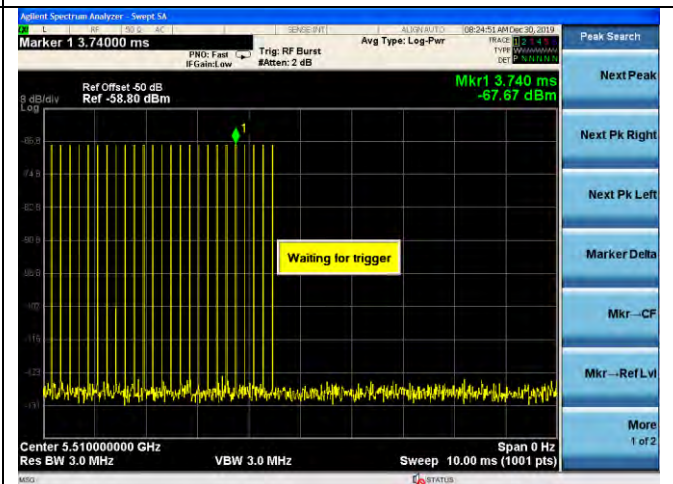
Radar Type 2 @ 5300MHz



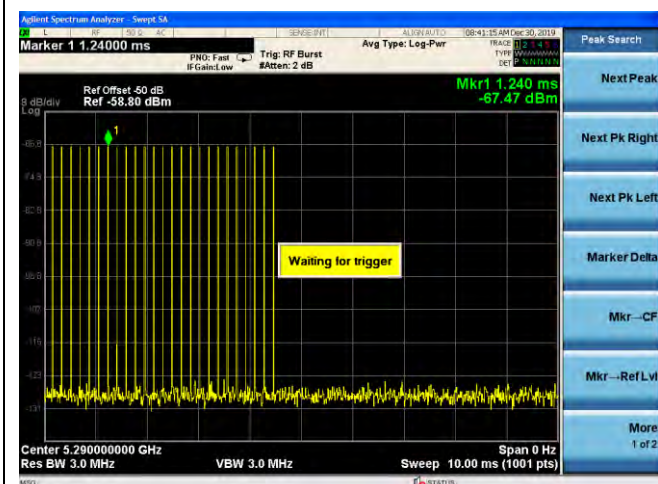
Radar Type 2 @ 5500MHz



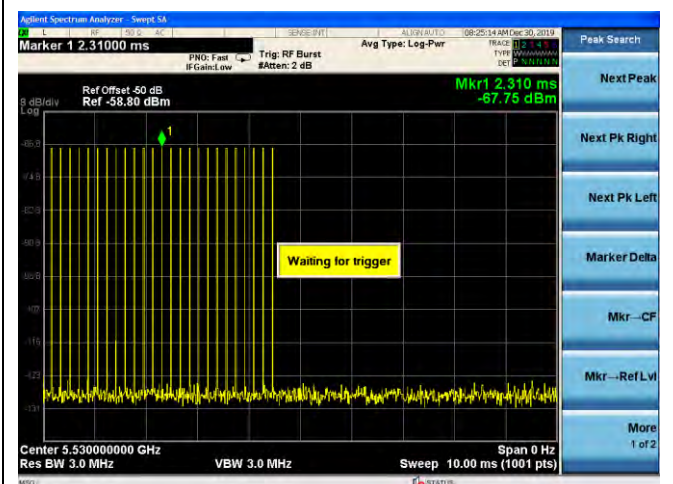
Radar Type 2 @ 5310MHz



Radar Type 2 @ 5510MHz



Radar Type 2 @ 5290MHz

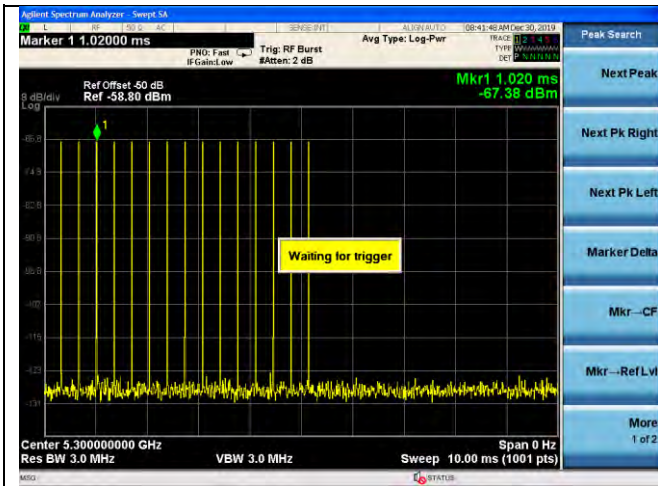


Radar Type 2 @ 5530MHz

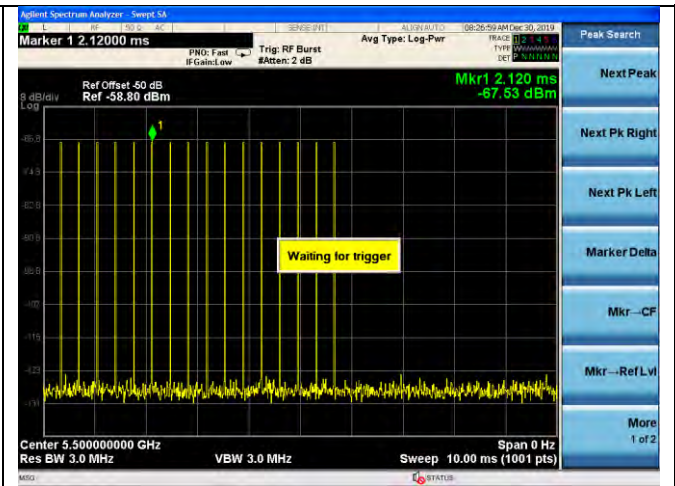


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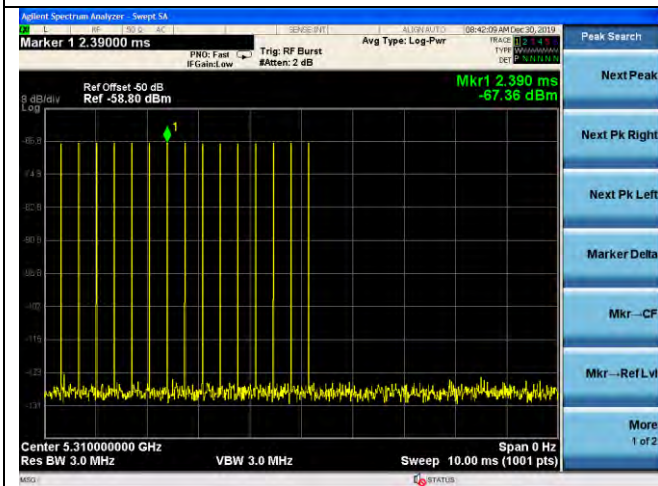
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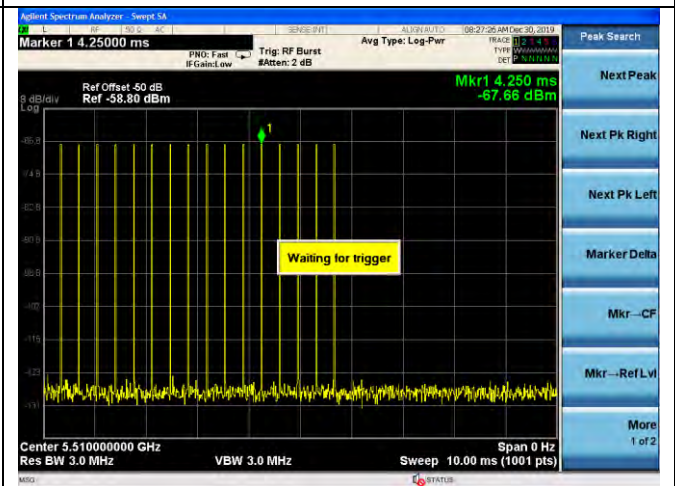
Radar Type 3 @ 5300MHz



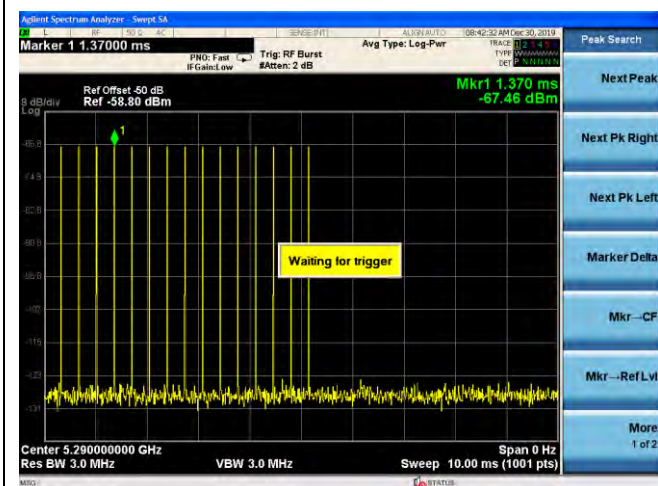
Radar Type 3 @ 5500MHz



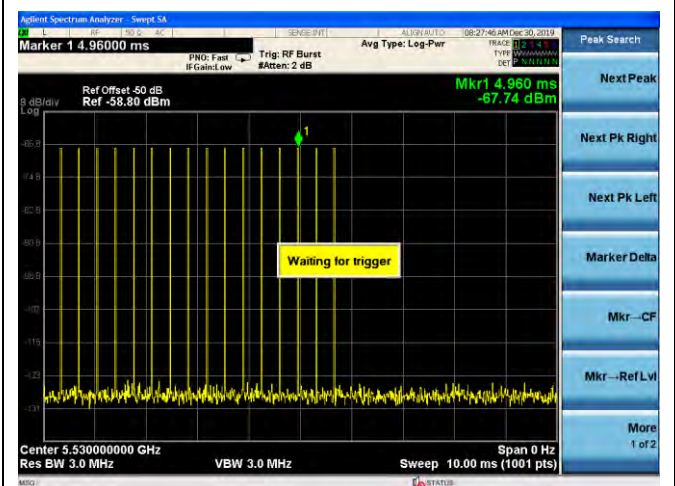
Radar Type 3 @ 5310MHz



Radar Type 3 @ 5510MHz



Radar Type 3 @ 5290MHz

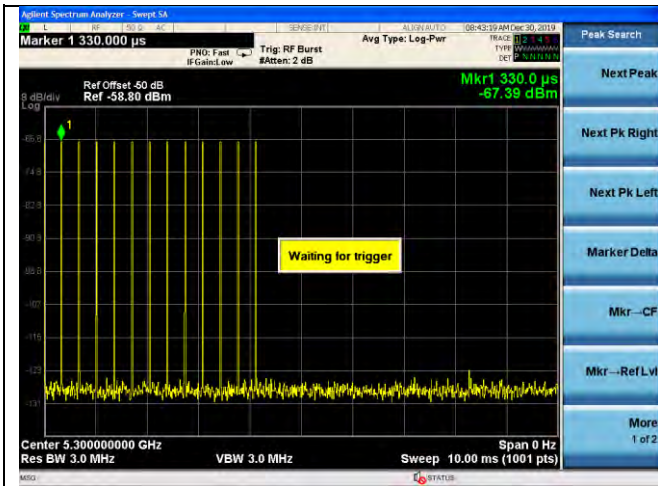


Radar Type 3 @ 5530MHz

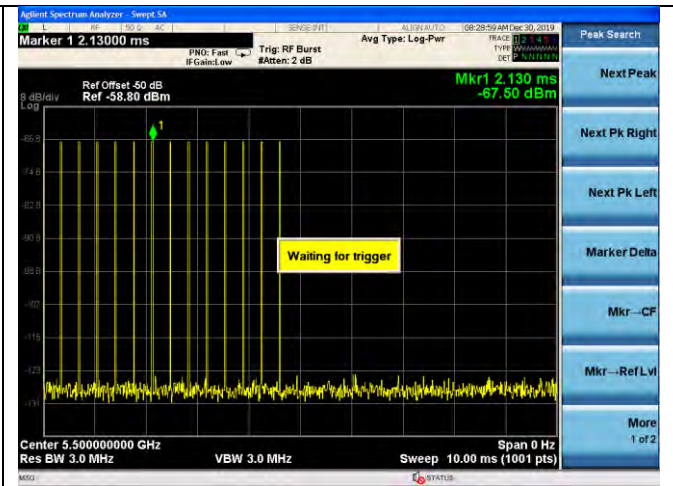


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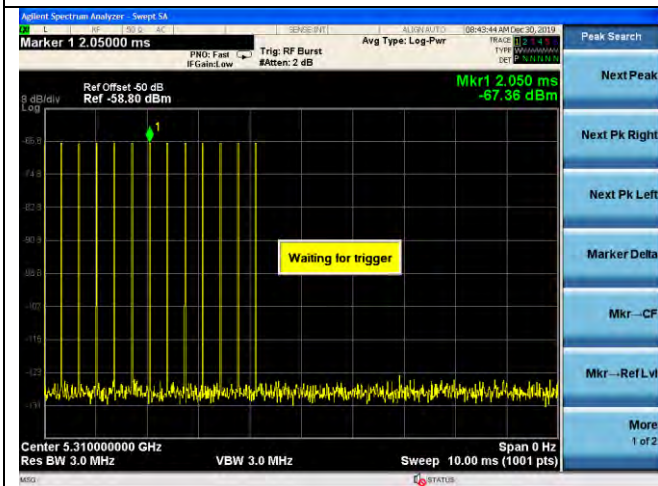
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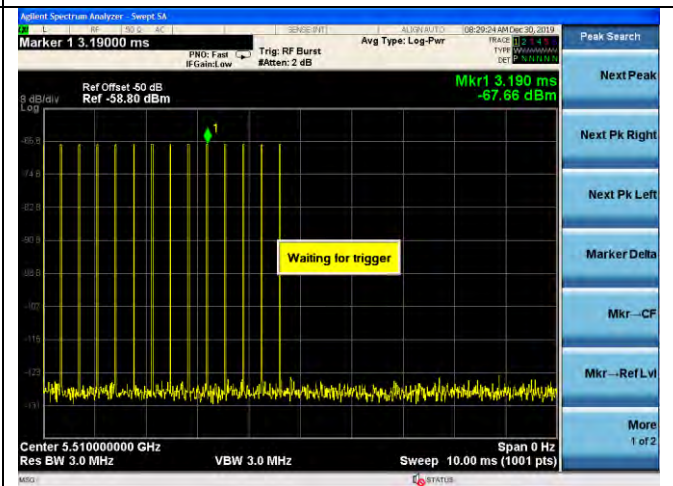
Radar Type 4 @ 5300MHz



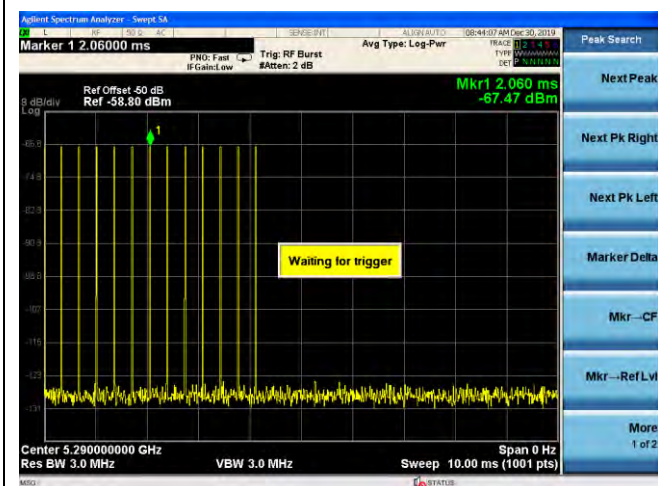
Radar Type 4 @ 5500MHz



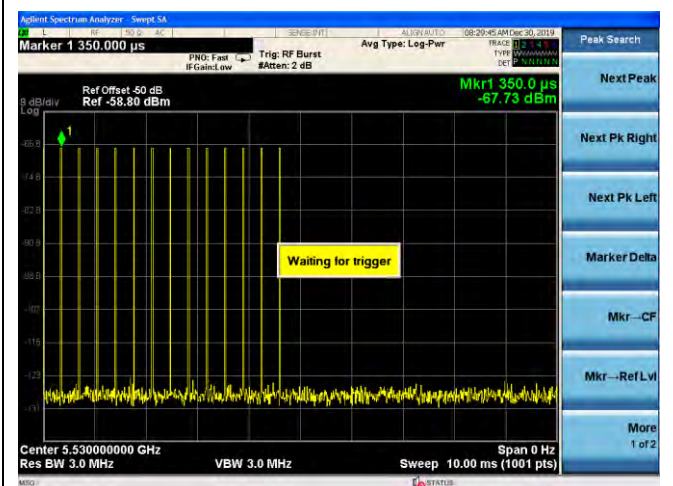
Radar Type 4 @ 5310MHz



Radar Type 4 @ 5510MHz



Radar Type 4 @ 5290MHz

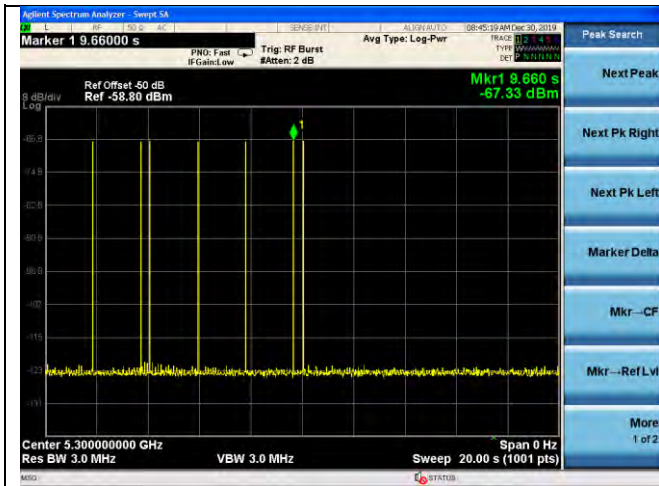


Radar Type 4 @ 5530MHz

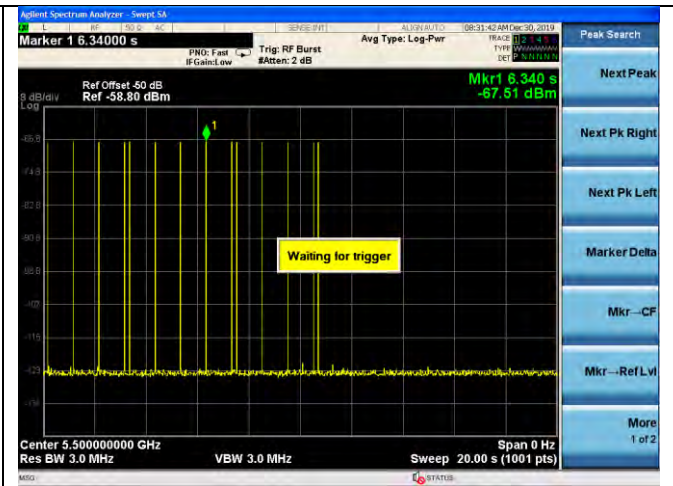


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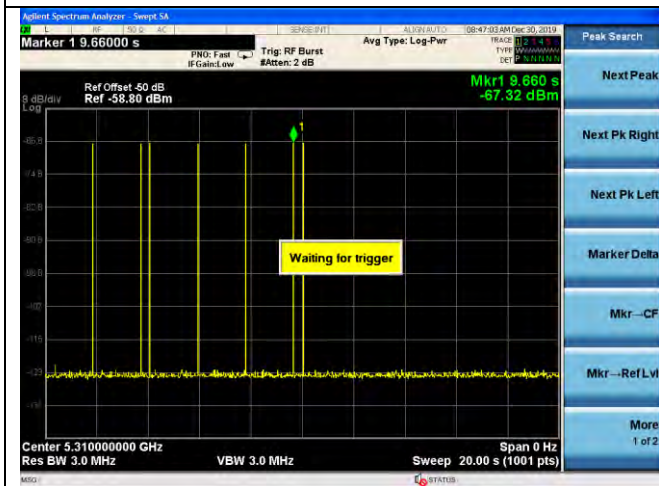
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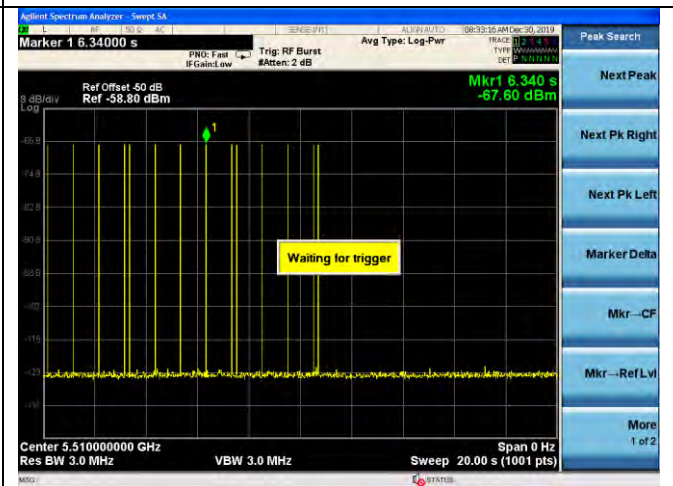
Radar Type 5 @ 5300MHz



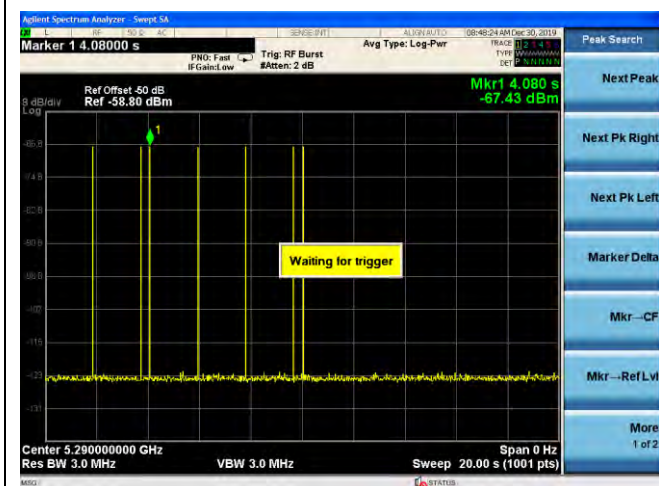
Radar Type 5 @ 5500MHz



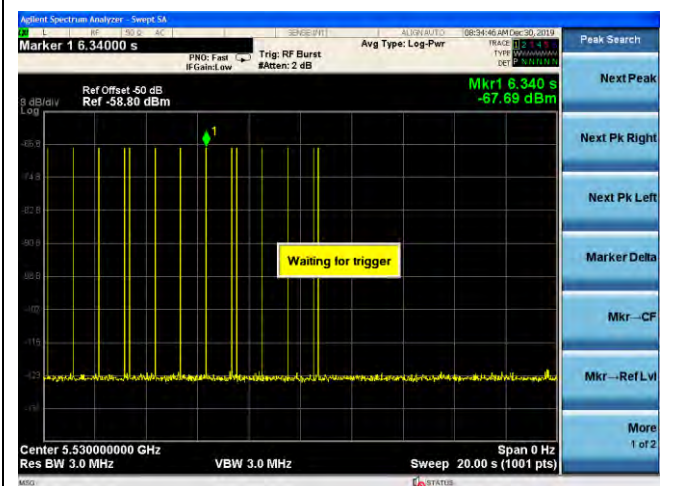
Radar Type 5 @ 5310MHz



Radar Type 5 @ 5510MHz



Radar Type 5 @ 5290MHz

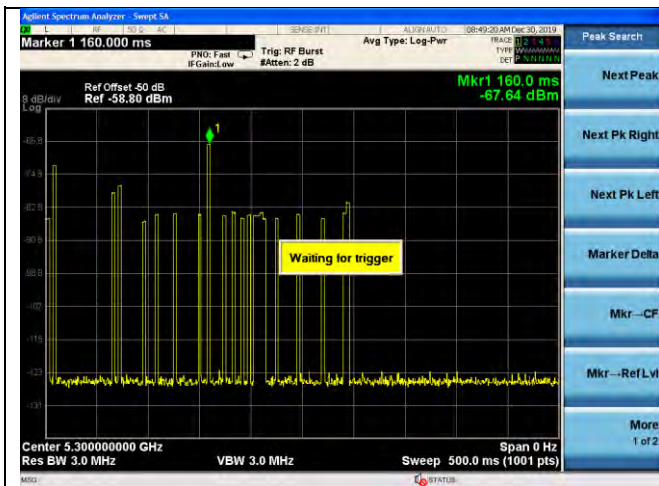


Radar Type 5 @ 5530MHz

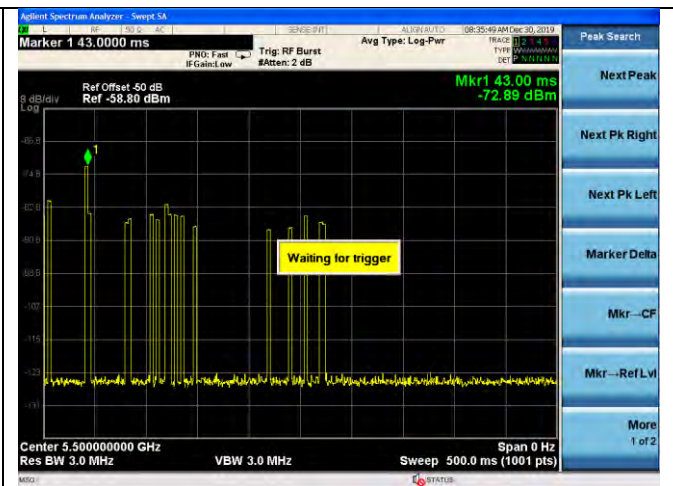


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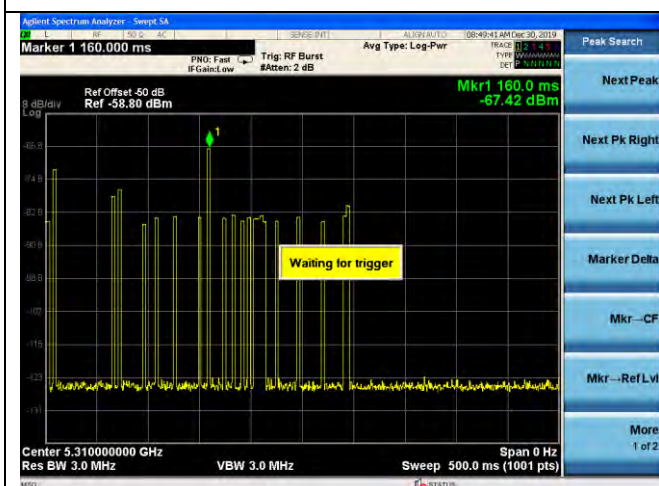
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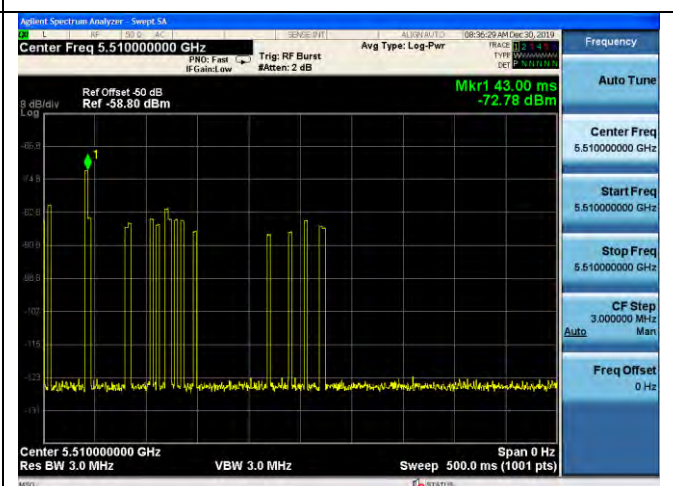
Radar Type 6 @ 5300MHz



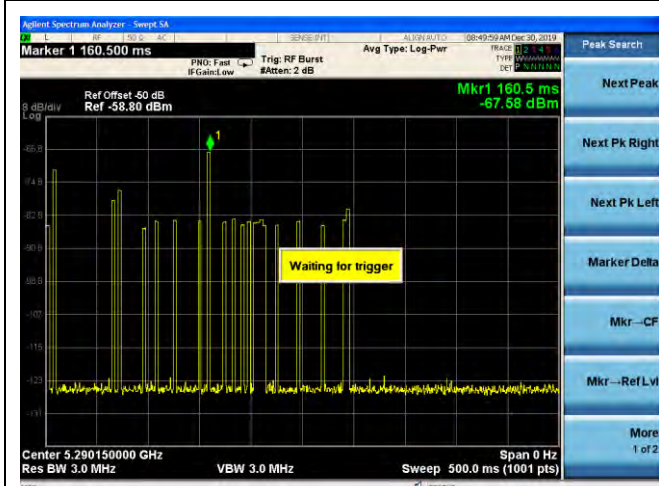
Radar Type 6 @ 5500MHz



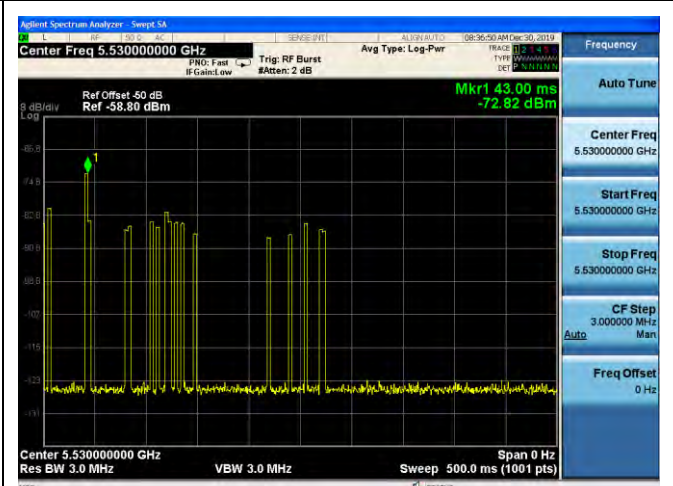
Radar Type 6 @ 5310MHz



Radar Type 6 @ 5510MHz



Radar Type 6 @ 5290MHz



Radar Type 6 @ 5530MHz



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Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3.3 DFS Test Procedure

In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period.

The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device.

UUT operating as a Client Device will associate with the (Master) at Mid Channel. DFS testing while the System testing was performed with the designated MPEG test file that streams full motion video from the Master to the Client IP based system

At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types.

Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

Channel Closing Transmission Time- Measurement

A type 1 waveform was introduced to the EUT and the Spectrum Analyzer sweep time was set to 1s for monitoring and capturing the plot. A LabVIEW program was created to collect trace data and capturing the plot. The program will calculate the channel closing time base on the spectrum analyzer result. The result will be calculated based on FCC procedure.

$$C= N * Dwell$$

C is the closing time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and dwell is the dwell time per bin.

$$Dwell= S/B$$

Where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number Of spectrum analyzer sampling bins.



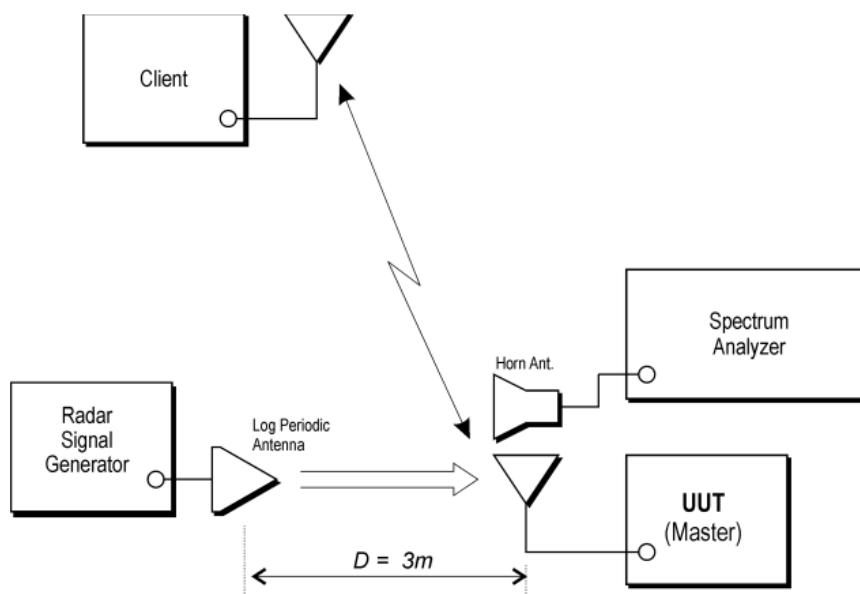
7.3.4 Channel Loading

UUT operating as a Client Device will associate with the (Master) at Mid Channel. DFS testing while the System testing was performed with the designated MPEG test file that streams full motion video from the Master to the Client IP based system



7.3.5 DFS Test Setup

Test Setup Block Diagram



The radio was set at the center channel frequency of tested Channel.

A laptop with FCC approved WLAN client module integrated (FCC ID: PD97260SD) was used to link with DUT device.

The master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

The rated output power of the Master unit is > 23 dBm (EIRP). Therefore, the required interference threshold is -64 dBm. And EUT has a 2.5 dBi antenna gain.

After correction for procedural adjustment, the required radiated threshold at the antenna port is $-64 - 2.5 + 1 = -65.5$ dBm.

The calibrated radiated DFS detection threshold level is set to -66 dBm. The tested level is lower than the required level hence it provides margining to the limit.

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3.6 DFS Test Result

7.3.6.1 UNII Detection Bandwidth

UNII Detection Bandwidth: All UNII channels for this device have identical Channel bandwidths and testing was performed on Mid Channel

The generating equipment is configured as shown in the Radiated Test Setup above. A single *Burst* of the short pulse radar type 0 is produced at Mid Channel at a -66 dBm level. The UUT is set up as a standalone device (no associated Client and no traffic).

A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time.

Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as FH) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance.

Starting at the center frequency of the UUT operating Channel, decrease the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 4. Repeat this measurement in 1MHz steps at frequencies 5 MHz above where the detection rate begins to fall. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.

The U-NII Detection Bandwidth is calculated as follows:

$$\text{U-NII Detection Bandwidth} = \text{FH} - \text{FL}$$

The U-NII Detection Bandwidth must be at least 100% of the UUT transmitter 99% power, otherwise, the UUT does not comply with DFS requirements.

Report Number: MTK-1911321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



Test Result

EUT Frequency = 5300MHz (11a mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5290	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5291	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5292	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5293	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5294	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5295	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5300	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5305	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5306	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5307	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5308	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5309	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5310	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
Detection Bandwidth: 20 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 16.597 MHz											

EUT Frequency = 5500MHz (11a mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5490	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5491	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5506	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5507	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5508	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5509	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5510	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
Detection Bandwidth: 20 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 16.535 MHz											



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EUT Frequency = 5310MHz (11n-40MHz mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5290	No	No	No	No	No	No	No	No	No	No	100.00%
5291	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5292	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5293	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5294	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5295	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5300	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5305	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5310	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5315	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5320	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5325	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5326	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5327	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5328	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5329	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5330	No	No	No	No	Yes	No	No	No	No	No	100.00%
Detection Bandwidth: 40 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 37.94 MHz											

EUT Frequency = 5510MHz (11n-40MHz mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5490	No	No	No	No	No	No	No	No	No	No	100.00%
5491	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5510	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5515	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5520	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5525	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5526	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5527	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5528	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5529	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5530	No	No	No	No	No	No	No	No	No	No	50.00%
Detection Bandwidth: 40 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 35.95 MHz											





EUT Frequency = 5290MHz (11ac-80MHz mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5250	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5251	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5252	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5253	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5254	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5255	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5260	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5265	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5270	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5275	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5280	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5285	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5290	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5295	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5300	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5305	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5310	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5315	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5320	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5325	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5326	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5327	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5328	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5329	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5330	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
Detection Bandwidth: 80 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 75.835 MHz											



EUT Frequency = 5530MHz (11ac-80MHz mode)

Frequency (MHz)	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Detection Rate %
5490	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5491	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5492	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5493	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5494	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5495	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5505	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5510	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5515	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5520	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5525	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5530	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5535	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5540	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5545	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5550	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5555	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5560	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5565	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5566	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5567	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5568	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5569	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
5570	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100.00%
Detection Bandwidth: 80 MHz											
Specification: at least 100% of 99% of EUT bandwidth= 76.028 MHz											

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3.6.2 Initial Channel Availability Check Time

The Initial Channel Availability Check Time tests that the UUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms and only needs to be performed one time.

The U-NII device is powered on and be instructed to operate at Low channel, Mid Channel or High channel. At the same time the UUT is powered on, the spectrum analyzer is set to zero span modes with a 3 MHz resolution bandwidth at low, mid can high channel with a 2.5-minute sweep time. The analyzer's sweep will be started the same time power is applied to the UNII device.

The UUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.

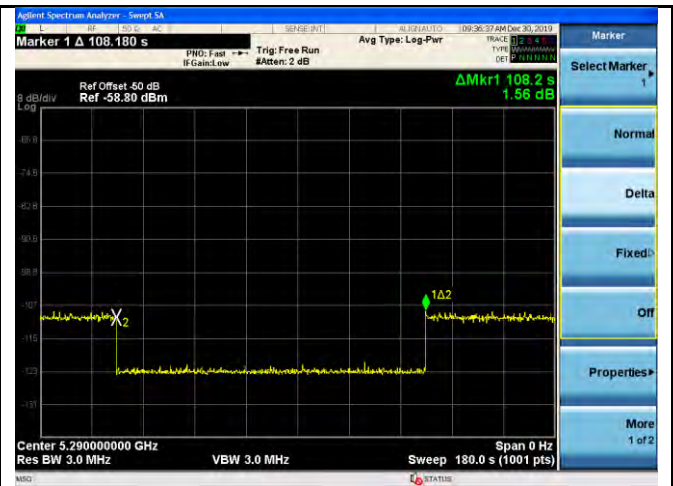
The initial power up time of the UUT is indicated by marker 1 in the plot. Initial beacons/data transmissions are indicated by marker.



Test Plots



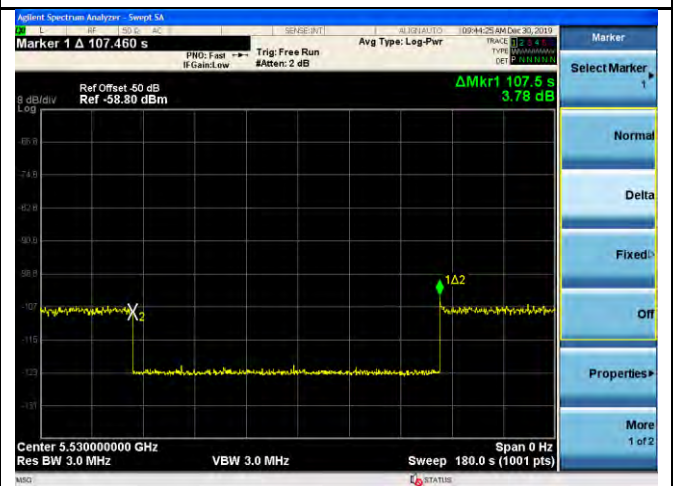
Initial CAC – HT20 – 5300MHz



Initial CAC – VHT80 – 5290MHz



Initial CAC – HT20 – 5500MHz



Initial CAC – VHT80 – 5530MHz



Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



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

Radar Burst at the Beginning of the Channel Availability Check Time: The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.

The UUT is powered on at T0. T1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds. A single Burst of short pulse of radar type 1 at -62 dBm will commence within a 6 second window.

Verify that during the 2.5-minute measurement window no UUT transmissions occurred at mid channel. Visual indication on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions at center frequency of low channel, mid channel and high channel will continue for 2.5 minutes after the radar Burst has been generated.

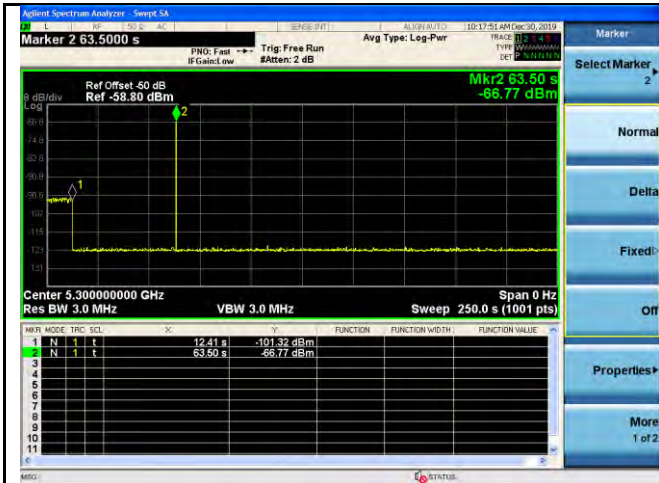
Note:

EUT power on cycle time ≈ 48 Sec

For CAC at the beginning, the radar signal was injected within 2 sec after 48 sec.

For CAC at the end, the radar signal was injected within 2 sec before 108 sec.

Test Plots



Radar at beginning of CAC – HT20 – 5300MHz



Radar at beginning of CAC – HT20 – 5500MHz

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



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

Radar Burst at the End of the Channel Availability Check Time: The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the end of the Channel Availability Check Time.

The UUT is powered on at T0. T1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds.

A single Burst of short pulse of radar type 1 at -62 dBm will commence within a last 6 second window.

Visual indication on the UUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions at center frequency of mid channel will continue for 2.5 minutes after the radar Burst has been generated.

Verify that during the 2.5 minute measurement window no UUT transmissions occurred at mid channel.

Note:

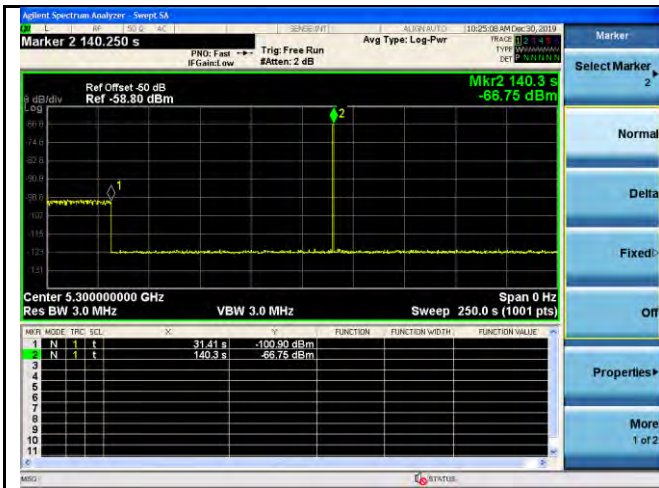
EUT power on cycle time \approx 48 Sec

For CAC at the beginning, the radar signal was injected within 2 sec after 48 sec.

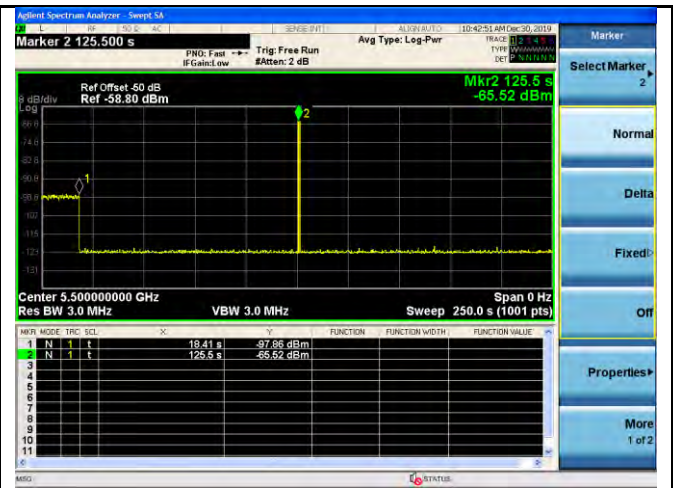
For CAC at the end, the radar signal was injected within 2 sec before 108 sec.



Test Plots



Radar at end of CAC – HT20 – 5300MHz



Radar at end of CAC – HT20 – 5500MHz



Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3.6.5 In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period.

The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device.

A U-NII device operating as a Client Device will associate with the UUT (Master) at Mid Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -62dBm.

Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

Channel Closing Transmission Time- Measurement

A type 1 waveform was introduced to the EUT and the Spectrum Analyzer sweep time was set to 1s for monitoring and capturing the plot. A LabView program was created to collect trace data and capturing the plot. The program will calculate the channel closing time base on the spectrum analyzer result. The result will be calculated base on FCC procedure.

$$C = N * Dwell$$

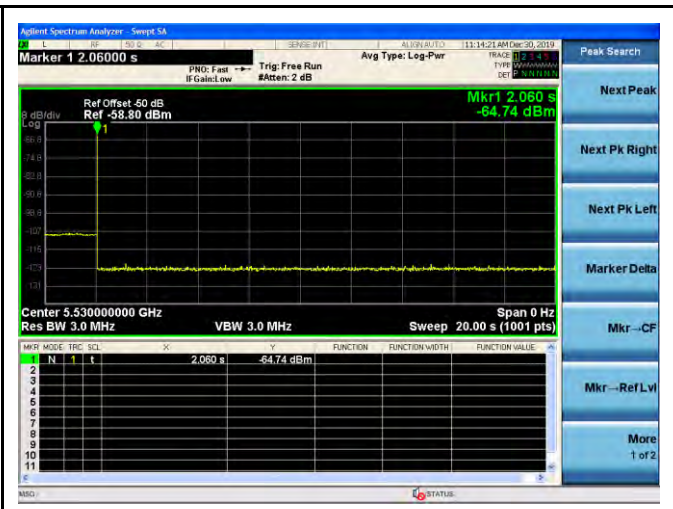
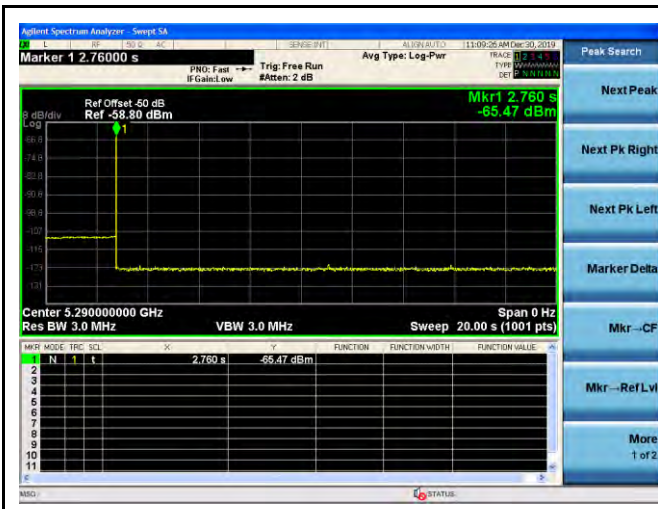
C is the closing time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and dwell is the dwell time per bin.

$$Dwell = S/B$$

Where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number Of spectrum analyzer sampling bins.

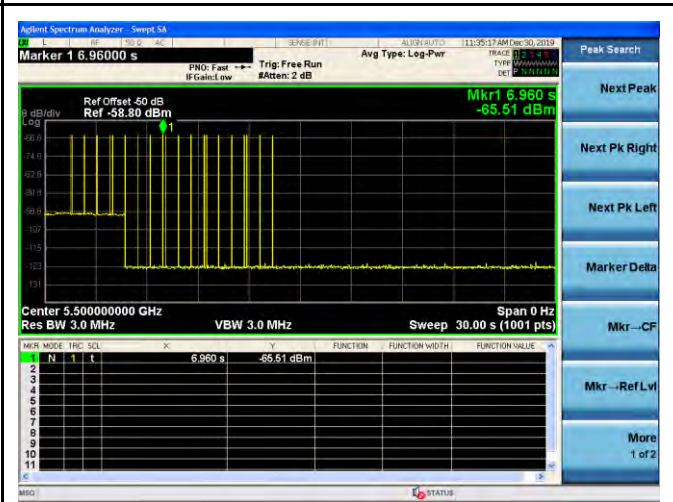
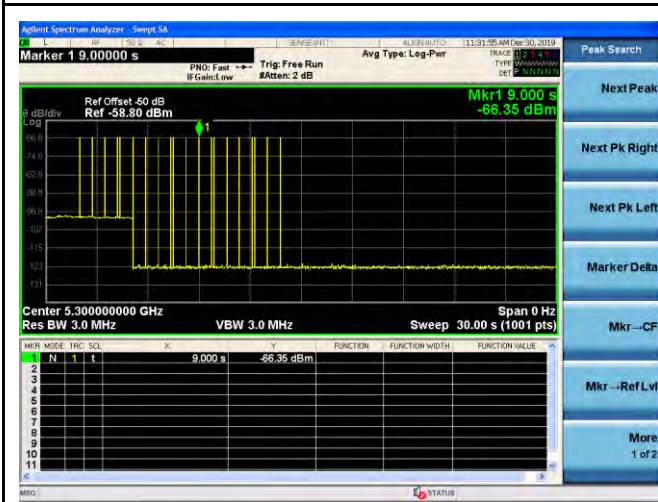


Test Result



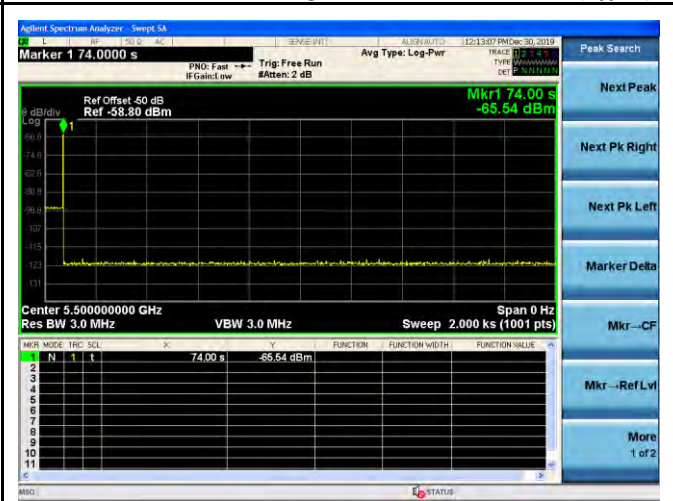
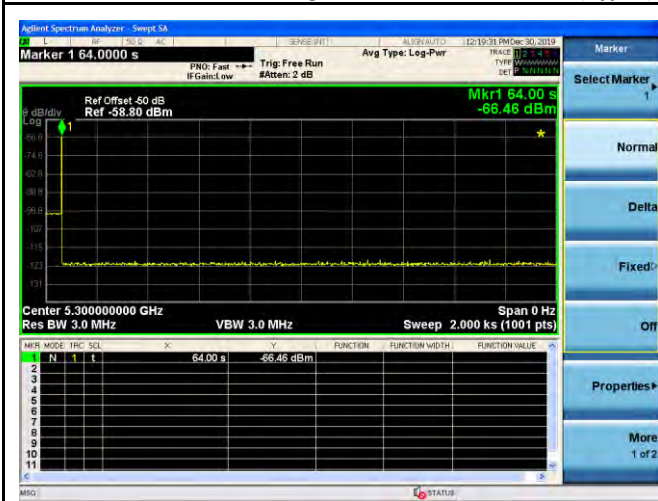
Channel Move Time & Closing Time - 802.11ac-5290MHz (Type0)

Channel Move Time & Closing Time - 802.11ac-5530MHz (Type0)



Channel Move Time & Closing Time - 802.11n-5300MHz (Type5)

Channel Move Time & Closing Time - 802.11n-5500MHz (Type5)



Non-Occupancy Period - 802.11n-5300MHz

Non-Occupancy Period - 802.11n-5500MHz



Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



7.3.6.6 Statistical Performance Check

Statistical Performance Check, the steps below define the procedure to determine the minimum percentage of detection when a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device.

A U-NII device operating as a Client Device will associate with the UUT (Master) at Low, Mid and High Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

The Radar Waveform generator sends the individual waveform for each of the radar types 0-6 at -62dbm. Statistical data will be gathered to determine the ability of the device to detect the radar test waveforms. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device

$$\frac{\text{TotalWaveformDetections}}{\text{TotalWaveformTrials}} \times 100 = \text{Probability of Detection Radar Waveform calculated by:}$$

The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in the Radar Test Waveforms section.

Report Number: MTK-19111321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 1	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000



Electromagnetic Compatibility
Radio Frequency
Product Certification
International Approval

1261 Puerta Del Sol
San Clemente, CA, 92673
+1 (949) 393-1123
www.vista-compliance.com



Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000



Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					

Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 5	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5300MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5300	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5300	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5300	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5300	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5300	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5300	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5300	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5300	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5300	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5300	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5300	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5300	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5300	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5300	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5300	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5300	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5300	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5300	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5300	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5300	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5300	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5300	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5300	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5300	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5300	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5300	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5300	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5300	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5300	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5300	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 1	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					





Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					

Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 5	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5500MHz – 802.11a

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5500	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5500	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5500	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5500	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5500	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5500	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5500	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5500	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5500	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5500	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5500	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5500	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5500	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5500	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5500	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5500	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5500	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5500	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5500	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5500	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5500	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5500	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5500	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5500	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5500	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5500	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5500	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5500	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5500	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5500	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5310	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 1	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5310	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					

Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5310	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5310	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 5	Waveform 16	Completed	No
17	5310	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000



Test Result-5310MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5310	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5310	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5310	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5310	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5310	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5310	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5310	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5310	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5310	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5310	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5310	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5310	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5310	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5310	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5310	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5310	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5310	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5310	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5310	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5310	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5310	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5310	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5310	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5310	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5310	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5310	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5310	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5310	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5310	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5310	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 1	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					

Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 5	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5510MHz – 802.11n-40MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5510	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5510	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5510	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5510	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5510	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5510	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5510	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5510	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5510	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5510	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5510	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5510	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5510	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5510	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5510	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5510	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5510	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5510	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5510	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5510	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5510	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5510	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5510	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5510	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5510	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5510	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5510	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5510	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5510	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5510	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 1	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 5	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5290MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5290	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5290	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5290	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5290	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5290	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5290	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5290	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5290	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5290	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5290	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5290	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5290	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5290	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5290	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5290	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5290	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5290	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5290	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5290	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5290	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5290	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5290	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5290	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5290	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5290	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5290	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5290	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5290	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5290	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5290	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 1	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 1	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 1	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 1	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 1	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 1	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 1	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 1	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 1	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 1	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 1	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 1	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 1	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 1	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 1	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 1	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 1	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 1	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 1	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 1	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 1	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 1	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 1	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 1	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 1	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 1	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 1	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 1	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 1	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 1	Waveform 30	Completed	Yes

Detection Probability Rate %: 100.000



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 2	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 2	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 2	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 2	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 2	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 2	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 2	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 2	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 2	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 2	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 2	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 2	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 2	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 2	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 2	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 2	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 2	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 2	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 2	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 2	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 2	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 2	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 2	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 2	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 2	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 2	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 2	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 2	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 2	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 2	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 3	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 3	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 3	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 3	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 3	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 3	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 3	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 3	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 3	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 3	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 3	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 3	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 3	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 3	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 3	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 3	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 3	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 3	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 3	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 3	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 3	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 3	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 3	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 3	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 3	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 3	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 3	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 3	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 3	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 3	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 4	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 4	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 4	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 4	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 4	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 4	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 4	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 4	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 4	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 4	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 4	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 4	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 4	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 4	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 4	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 4	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 4	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 4	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 4	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 4	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 4	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 4	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 4	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 4	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 4	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 4	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 4	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 4	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 4	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 4	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 5	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 5	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 5	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 5	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 5	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 5	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 5	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 5	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 5	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 5	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 5	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 5	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 5	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 5	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 5	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 5	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 5	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 5	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 5	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 5	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 5	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 5	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 5	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 5	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 5	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 5	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 5	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 5	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 5	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 5	Waveform 30	Completed	Yes
Detection Probability Rate %: 100.000					



Test Result-5530MHz – 802.11ac-80MHz

Trials	Frequency (MHz)	Radar Type	Waveform Type	Status	Result
1	5530	FCC Radar Type 6	Waveform 1	Completed	Yes
2	5530	FCC Radar Type 6	Waveform 2	Completed	Yes
3	5530	FCC Radar Type 6	Waveform 3	Completed	Yes
4	5530	FCC Radar Type 6	Waveform 4	Completed	Yes
5	5530	FCC Radar Type 6	Waveform 5	Completed	Yes
6	5530	FCC Radar Type 6	Waveform 6	Completed	Yes
7	5530	FCC Radar Type 6	Waveform 7	Completed	Yes
8	5530	FCC Radar Type 6	Waveform 8	Completed	Yes
9	5530	FCC Radar Type 6	Waveform 9	Completed	Yes
10	5530	FCC Radar Type 6	Waveform 10	Completed	Yes
11	5530	FCC Radar Type 6	Waveform 11	Completed	Yes
12	5530	FCC Radar Type 6	Waveform 12	Completed	Yes
13	5530	FCC Radar Type 6	Waveform 13	Completed	Yes
14	5530	FCC Radar Type 6	Waveform 14	Completed	Yes
15	5530	FCC Radar Type 6	Waveform 15	Completed	Yes
16	5530	FCC Radar Type 6	Waveform 16	Completed	Yes
17	5530	FCC Radar Type 6	Waveform 17	Completed	Yes
18	5530	FCC Radar Type 6	Waveform 18	Completed	Yes
19	5530	FCC Radar Type 6	Waveform 19	Completed	Yes
20	5530	FCC Radar Type 6	Waveform 20	Completed	Yes
21	5530	FCC Radar Type 6	Waveform 21	Completed	Yes
22	5530	FCC Radar Type 6	Waveform 22	Completed	Yes
23	5530	FCC Radar Type 6	Waveform 23	Completed	Yes
24	5530	FCC Radar Type 6	Waveform 24	Completed	Yes
25	5530	FCC Radar Type 6	Waveform 25	Completed	Yes
26	5530	FCC Radar Type 6	Waveform 26	Completed	Yes
27	5530	FCC Radar Type 6	Waveform 27	Completed	Yes
28	5530	FCC Radar Type 6	Waveform 28	Completed	Yes
29	5530	FCC Radar Type 6	Waveform 29	Completed	Yes
30	5530	FCC Radar Type 6	Waveform 30	Completed	Yes
Detection Probability Rate %:					100.000

Report Number:	MTK-19111321-LC-FCC-IC-DFS
Product:	wAP R ac
Model Number:	RBwAPGR-5HacD2HnD-US



8 Test instrument list

Equipment	Manufacturer	Model	Serial Number	Cal. Date	Cal. Due
Semi-Anechoic Chamber	ETS-Lindgren	10M	VL001	5/11/2019	5/11/2020
Spectrum Analyzer	Keysight	N9020A	MY50110074	5/4/2019	5/4/2020
Agilent Signal Generator	MXG N5182A	MY47071065	US47080548	5/2/2019	5/2/2020
Horn Antenna (1-18GHz)	Electro-Metrics	EM-6961	6292	5/2/2019	5/2/2020
Horn Antenna (1-18GHz)	FT-RF	HA-07M18G-NF	180010HA	5/2/2019	5/2/2020
Temp / Humidity / Pressure Meter	PCE Instruments	PCE-THB 40	R062028	5/9/2019	5/9/2020
RF Attenuator	Pasternack	PE7005-3	VL061	5/10/2019	5/10/2020
RE test cable (1-18GHz)	PhaseTrack	II-240	RE-18GHz-01	5/10/2019	5/10/2020
RE test cable (>18GHz)	Sucoflex	104	344903/4	5/10/2019	5/10/2020
Power Splitter/Combiner	Mini-Circuits	ZFSC-2-9G+	VL052	N/A	N/A
Power Splitter/Combiner	Mini-Circuits	ZFSC-2-9G+	VL053	N/A	N/A
Power Splitter/Combiner	Mini-Circuits	ZFSC-2-9G+	VL054	N/A	N/A
Power Splitter/Combiner	Mini-Circuits	ZFSC-2-9G+	VL055	N/A	N/A





9 DFS Radar Waveform Characteristic

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 0	1	1428	18	25704
1	Type 0	1	1428	18	25704
2	Type 0	1	1428	18	25704
3	Type 0	1	1428	18	25704
4	Type 0	1	1428	18	25704
5	Type 0	1	1428	18	25704
6	Type 0	1	1428	18	25704
7	Type 0	1	1428	18	25704
8	Type 0	1	1428	18	25704
9	Type 0	1	1428	18	25704
10	Type 0	1	1428	18	25704
11	Type 0	1	1428	18	25704
12	Type 0	1	1428	18	25704
13	Type 0	1	1428	18	25704
14	Type 0	1	1428	18	25704
15	Type 0	1	1428	18	25704
16	Type 0	1	1428	18	25704
17	Type 0	1	1428	18	25704
18	Type 0	1	1428	18	25704

Report Number: MTK-19111321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 1	1	938	57	53466
1	Type 1	1	698	76	53048
2	Type 1	1	618	86	53148
3	Type 1	1	538	99	53262
4	Type 1	1	878	61	53558
5	Type 1	1	3066	18	55188
6	Type 1	1	638	83	52954
7	Type 1	1	918	58	53244
8	Type 1	1	838	63	52794
9	Type 1	1	858	62	53196
10	Type 1	1	798	67	53466
11	Type 1	1	718	74	53132
12	Type 1	1	578	92	53176
13	Type 1	1	598	89	53222
14	Type 1	1	558	95	53010
15	Type 1	1	2536	21	53256
16	Type 1	1	966	55	53130
17	Type 1	1	827	64	52928
18	Type 1	1	2501	22	55022
19	Type 1	1	2595	21	54495
20	Type 1	1	1114	48	53472
21	Type 1	1	1302	41	53382
22	Type 1	1	3045	18	54810
23	Type 1	1	1624	33	53592
24	Type 1	1	2878	19	54682
25	Type 1	1	1027	52	53404
26	Type 1	1	2485	22	54670
27	Type 1	1	1600	33	52800
28	Type 1	1	1172	46	53912
29	Type 1	1	1177	45	52965



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Report Number: MTK-19111321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 2	3.2	179	26	4654
1	Type 2	1.1	207	23	4761
2	Type 2	2.1	230	24	5520
3	Type 2	4.8	200	29	5800
4	Type 2	3.9	214	28	5992
5	Type 2	2.9	222	26	5772
6	Type 2	3.2	204	26	5304
7	Type 2	2.5	192	25	4800
8	Type 2	3.1	164	26	4264
9	Type 2	1.2	156	23	3588
10	Type 2	3.9	210	27	5670
11	Type 2	4.6	201	29	5829
12	Type 2	3.2	162	26	4212
13	Type 2	2.2	197	25	4925
14	Type 2	4.5	163	29	4727
15	Type 2	3	203	26	5278
16	Type 2	5	168	29	4872
17	Type 2	2.4	217	25	5425
18	Type 2	2.9	191	26	4966
19	Type 2	2.3	166	25	4150
20	Type 2	3.7	150	27	4050
21	Type 2	2.2	176	25	4400
22	Type 2	4.9	195	29	5655
23	Type 2	2.9	202	26	5252
24	Type 2	2.5	178	25	4450
25	Type 2	1.1	206	23	4738
26	Type 2	3.8	155	27	4185
27	Type 2	4.7	157	29	4553
28	Type 2	2.4	224	25	5600
29	Type 2	4.2	159	28	4452



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Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 3	8.2	355	17	6035
1	Type 3	6.1	487	16	7792
2	Type 3	7.1	344	16	5504
3	Type 3	9.8	288	18	5184
4	Type 3	8.9	230	18	4140
5	Type 3	7.9	432	17	7344
6	Type 3	8.2	207	17	3519
7	Type 3	7.5	443	17	7531
8	Type 3	8.1	439	17	7463
9	Type 3	6.2	223	16	3568
10	Type 3	8.9	208	18	3744
11	Type 3	9.6	463	18	8334
12	Type 3	8.2	441	17	7497
13	Type 3	7.2	323	16	5168
14	Type 3	9.5	297	18	5346
15	Type 3	8	412	17	7004
16	Type 3	10	324	18	5832
17	Type 3	7.4	271	17	4607
18	Type 3	7.9	349	17	5933
19	Type 3	7.3	409	16	6544
20	Type 3	8.7	373	18	6714
21	Type 3	7.2	254	16	4064
22	Type 3	9.9	274	18	4932
23	Type 3	7.9	278	17	4726
24	Type 3	7.5	317	17	5389
25	Type 3	6.1	260	16	4160
26	Type 3	8.8	211	18	3798
27	Type 3	9.7	272	18	4896
28	Type 3	7.4	264	17	4488
29	Type 3	9.2	284	18	5112



Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 4	16	355	14	4970
1	Type 4	11.3	487	12	5844
2	Type 4	13.5	344	13	4472
3	Type 4	19.4	288	16	4608
4	Type 4	17.5	230	15	3450
5	Type 4	15.3	432	14	6048
6	Type 4	15.9	207	14	2898
7	Type 4	14.3	443	13	5759
8	Type 4	15.8	439	14	6146
9	Type 4	11.5	223	12	2676
10	Type 4	17.4	208	15	3120
11	Type 4	19	463	16	7408
12	Type 4	16	441	14	6174
13	Type 4	13.8	323	13	4199
14	Type 4	18.9	297	16	4752
15	Type 4	15.5	412	14	5768
16	Type 4	19.9	324	16	5184
17	Type 4	14.1	271	13	3523
18	Type 4	15.2	349	14	4886
19	Type 4	13.8	409	13	5317
20	Type 4	17.1	373	15	5595
21	Type 4	13.8	254	13	3302
22	Type 4	19.8	274	16	4384
23	Type 4	15.3	278	14	3892
24	Type 4	14.5	317	13	4121
25	Type 4	11.3	260	12	3120
26	Type 4	17.3	211	15	3165
27	Type 4	19.2	272	16	4352
28	Type 4	14.2	264	13	3432
29	Type 4	18.2	284	15	4260

Report Number: MTK-19111321-LC-FCC-IC-DFS
Product: wAP R ac
Model Number: RBwAPGR-5HacD2HnD-US



Trial Id	Radar Type	Number of Bursts	Burst Period (s)	Waveform Length (us)
0	Type 5	15	0.8000000	12
1	Type 5	8	1.5000000	12
2	Type 5	11	1.0909091	12
3	Type 5	20	0.6000000	12
4	Type 5	17	0.7058824	12
5	Type 5	14	0.8571429	12
6	Type 5	15	0.8000000	12
7	Type 5	12	1.0000000	12
8	Type 5	14	0.8571429	12
9	Type 5	8	1.5000000	12
10	Type 5	17	0.7058824	12
11	Type 5	19	0.6315789	12
12	Type 5	15	0.8000000	12
13	Type 5	12	1.0000000	12
14	Type 5	19	0.6315789	12
15	Type 5	14	0.8571429	12
16	Type 5	20	0.6000000	12
17	Type 5	12	1.0000000	12
18	Type 5	14	0.8571429	12
19	Type 5	12	1.0000000	12
20	Type 5	16	0.7500000	12
21	Type 5	12	1.0000000	12
22	Type 5	20	0.6000000	12
23	Type 5	14	0.8571429	12
24	Type 5	13	0.9230769	12
25	Type 5	8	1.5000000	12
26	Type 5	17	0.7058824	12
27	Type 5	19	0.6315789	12
28	Type 5	12	1.0000000	12
29	Type 5	18	0.6666667	12



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Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Pulses per Hop	Hopping Rate (KHz)	Hopping Sequences Length (ms)	Visible Frequency Number
0	Type 6	1	333.3	9	0.3333	300	32
1	Type 6	1	333.3	9	0.3333	300	27
2	Type 6	1	333.3	9	0.3333	300	25
3	Type 6	1	333.3	9	0.3333	300	33
4	Type 6	1	333.3	9	0.3333	300	37
5	Type 6	1	333.3	9	0.3333	300	30
6	Type 6	1	333.3	9	0.3333	300	33
7	Type 6	1	333.3	9	0.3333	300	27
8	Type 6	1	333.3	9	0.3333	300	33
9	Type 6	1	333.3	9	0.3333	300	30
10	Type 6	1	333.3	9	0.3333	300	37
11	Type 6	1	333.3	9	0.3333	300	36
12	Type 6	1	333.3	9	0.3333	300	38
13	Type 6	1	333.3	9	0.3333	300	35
14	Type 6	1	333.3	9	0.3333	300	28
15	Type 6	1	333.3	9	0.3333	300	37
16	Type 6	1	333.3	9	0.3333	300	35
17	Type 6	1	333.3	9	0.3333	300	37
18	Type 6	1	333.3	9	0.3333	300	27
19	Type 6	1	333.3	9	0.3333	300	34
20	Type 6	1	333.3	9	0.3333	300	35
21	Type 6	1	333.3	9	0.3333	300	37
22	Type 6	1	333.3	9	0.3333	300	41
23	Type 6	1	333.3	9	0.3333	300	36
24	Type 6	1	333.3	9	0.3333	300	29
25	Type 6	1	333.3	9	0.3333	300	32
26	Type 6	1	333.3	9	0.3333	300	30
27	Type 6	1	333.3	9	0.3333	300	31
28	Type 6	1	333.3	9	0.3333	300	31
29	Type 6	1	333.3	9	0.3333	300	40