



AFC DUT TEST HARNESS REPORT

FCC ID : 2ABLKU6HE
Equipment : GigaPro™ GPR2032H
Brand Name : Calix
Model Name : GPR2032H
Applicant : Calix Inc.
1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A.
Manufacturer : Calix Inc.
1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A.
Standard : 47 CFR FCC Part 15.407

The product was received on Nov. 14, 2023, and testing was started from Dec. 11, 2023 and completed on Dec. 11, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in AFC Device (AFC DUT) Compliance Test Plan Version 1.5 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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Table of Contents

1	General Description	6
1.1	Product Feature of Equipment Under Test	6
1.2	Table for Permissive Change	7
1.3	Table for EUT supports function	7
1.4	Accessories	7
1.5	Support Equipment	8
1.6	Applicable Standards	8
1.7	Testing Location	8
2	Measurement Environment	9
2.1	AFCD General Capabilities Declaration	9
2.2	Test Configuration	10
3	Protocol Test Results	12
3.1	Successful Registration and Spectrum Access Request	12
3.2	Unsuccessful Spectrum Access Request	14
3.3	Successful Spectrum Access Update	15
3.4	Unsuccessful Spectrum Access Update	17
3.5	Unsuccessful Server Validation	19
4	Test Equipment and Calibration Data	20
5	Measurement Uncertainty	21

Appendix A. Tools Report

Appendix B. DUT Spectrum Inquiry Request/Response Logs

Appendix C. RF Measurement Plots

Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Case Name	Result (PASS/FAIL)	Remark
AFC capability - Inquired Frequency				
Test Group: Inquired Frequency - Always				
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Frequency_20MHz_10611_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Frequency_40MHz_10612_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Frequency_80MHz_10613_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Frequency_160MHz_10614_1	N/A	-
3.2	3.2.4	CT_AFC_SP_AP_AFCDUSA32_Frequency_10615_1	N/A	-
3.3	3.3.4	CT_AFC_SP_AP_AFCDSAU33_Frequency_10616_1	N/A	-
3.4	3.4.4	CT_AFC_SP_AP_AFCDUAU34_Frequency_10617_1	N/A	-
AFC capability - Inquired Channel				
Test Group: Inquired Channel - Always				
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Channel_20MHz_10618_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Channel_40MHz_10619_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Channel_80MHz_10620_1	N/A	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_Channel_160MHz_10621_1	N/A	-
3.2	3.2.4	CT_AFC_SP_AP_AFCDUSA32_Channel_10622_1	N/A	-
3.3	3.3.4	CT_AFC_SP_AP_AFCDSAU33_Channel_10623_1	N/A	-
3.4	3.4.4	CT_AFC_SP_AP_AFCDUAU34_Channel_10624_1	N/A	-
AFC capability - Inquired Frequency & Channel				
Test Group: Inquired Frequency and Channel - Always				
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_20MHz_10625_1	PASS	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_40MHz_10626_1	PASS	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_80MHz_10627_1	PASS	-
3.1	3.1.4	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_160MHz_10628_1	PASS	-
3.2	3.2.4	CT_AFC_SP_AP_AFCDUSA32_FrequencyChannel_10629_1	PASS	-
3.3	3.3.4	CT_AFC_SP_AP_AFCDSAU33_FrequencyChannel_10630_1	PASS	-
3.4	3.4.4	CT_AFC_SP_AP_AFCDUAU34_FrequencyChannel_10631_1	PASS	-
AFC capability - Server Validation – Mandatory				
Test Group: Server Validation - Always				
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_NonMatchSAN_10632_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_DifferentRootCA_10633_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_MatchSuffixSAN_10634_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_ServerCertRevoked_10635_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_OCSPStaplingDisabled_10636_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_StapledOCSPRespExpired_10637_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_TLSCipherSuiteENULL_10638_1	PASS	-
3.5	3.5.4	CT_AFC_ServerValidation_AP_AFCDUSV35_NoRootCA_10639_1	PASS	-

**Conformity Assessment Condition:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturee who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Cathy Chiu



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature of Equipment Under Test	
Power Type	From power adapter or PoE
EUT Type	☐ Standard Power Access Point with Proxy ☒ Standard Power Access Point without Proxy ☐ Fixed Client with Proxy ☐ Fixed Client without Proxy
Condition of EUT	☐ Indoor ☒ Outdoor
Professional Installation	☒ Yes ☐ No
Firmware Version	WLAN.HK.2.9-01977-QCAHKSWPL_SILICONZ-1.38610.3 v1
Software Version	24.1.0.27
Hardware Version	10
Proxy Firmware Version	N/A
Proxy Software Version	N/A
Proxy Hardware Version	N/A

Note: The above information was declared by manufacturer.



1.2 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: 230414

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Changing the design for the digital board. 2. Changing equipment name to "GigaPro™ GPR2032H" from "GigaPro GPR2032H". 3. Changing the Firmware Version of DFS band to "22.4.500" from "13725.5.5".	After evaluating, it does not affect the test.
4. Add the Standard Power Access Point for UNII-5, UNII-7 via Firmware by factory.	AFC DUT TEST HARNESS

1.3 Table for EUT supports function

Function	Supports Band
AP	2.4GHz, 5GHz UNII-1~UNII-3 and 6GHz UNII-5, UNII-7
Extender	2.4GHz, 5GHz UNII-1~UNII-3

Note1: For above table list, only AP Router mode was tested and recorded in this test.

Note2: The above information was declared by manufacturer.

1.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	AMIGO	AMS157-1203000F2	INPUT: 100-240V~50/60Hz, 1A OUTPUT: 12V, 3.0A
Others			
Power cord*1: Non-shielded, 1.5m			
Grounding wire*1: Non-shielded, 0.35m			
I/O Cover*1			



1.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	WLAN module	Intel	AX210NGW	PD9AX210NG
D	Notebook	DELL	E4300	N/A

1.6 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15.407

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ AFC Device (AFC DUT) Compliance Test Plan Version 1.5
- ♦ FCC KDB 987594 D05 v01r01

1.7 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
Test site Designation No. TW3787 with FCC.	
Conformity Assessment Body Identifier (CABID) TW3787 with ISED.	

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Caster Chang	22.4~22.7 / 55~59	Dec. 11, 2023



2 Measurement Environment

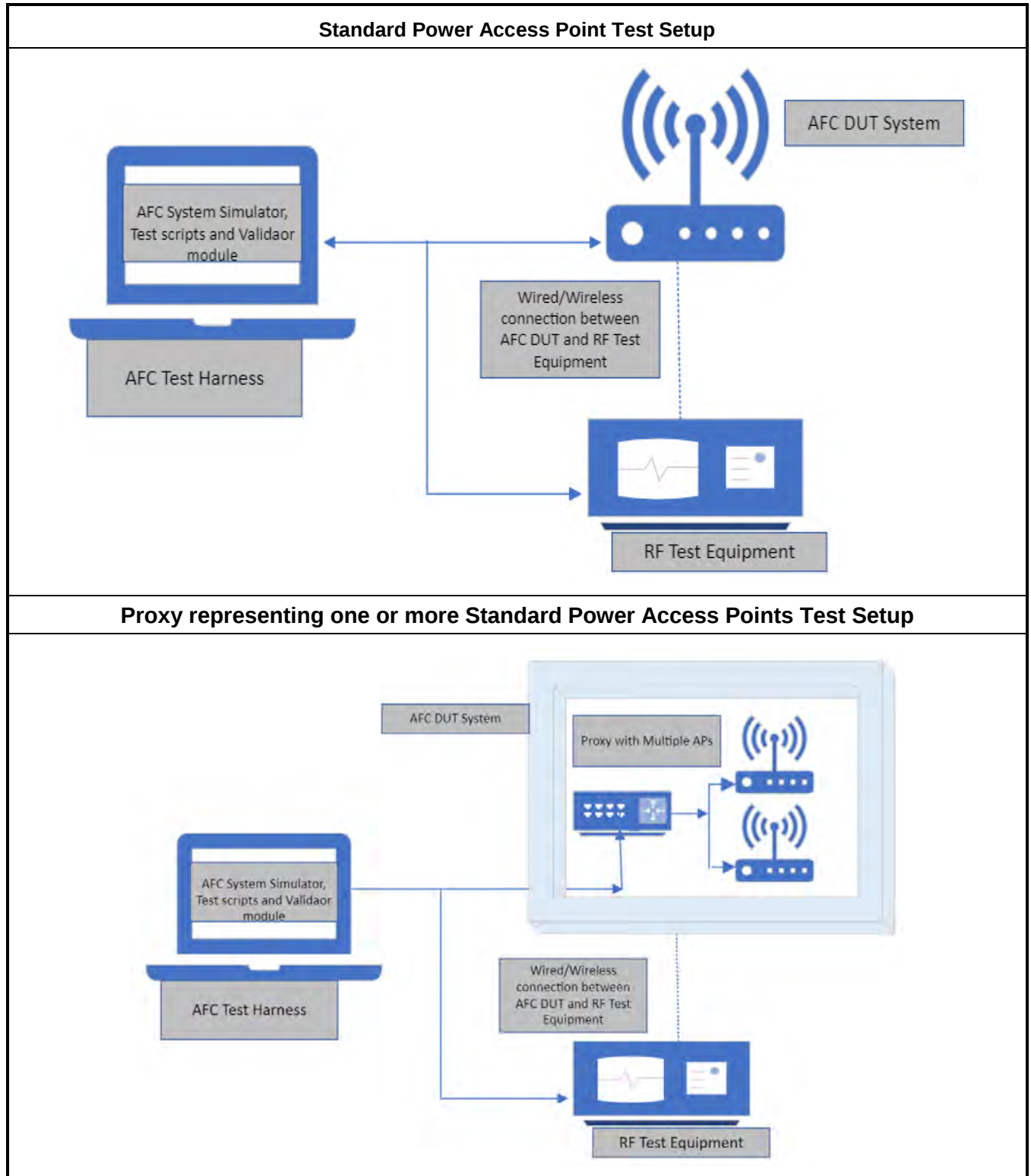
Measurement Environment Information	
AFC DUT Test Harness version	2.0.65.148

2.1 AFCD General Capabilities Declaration

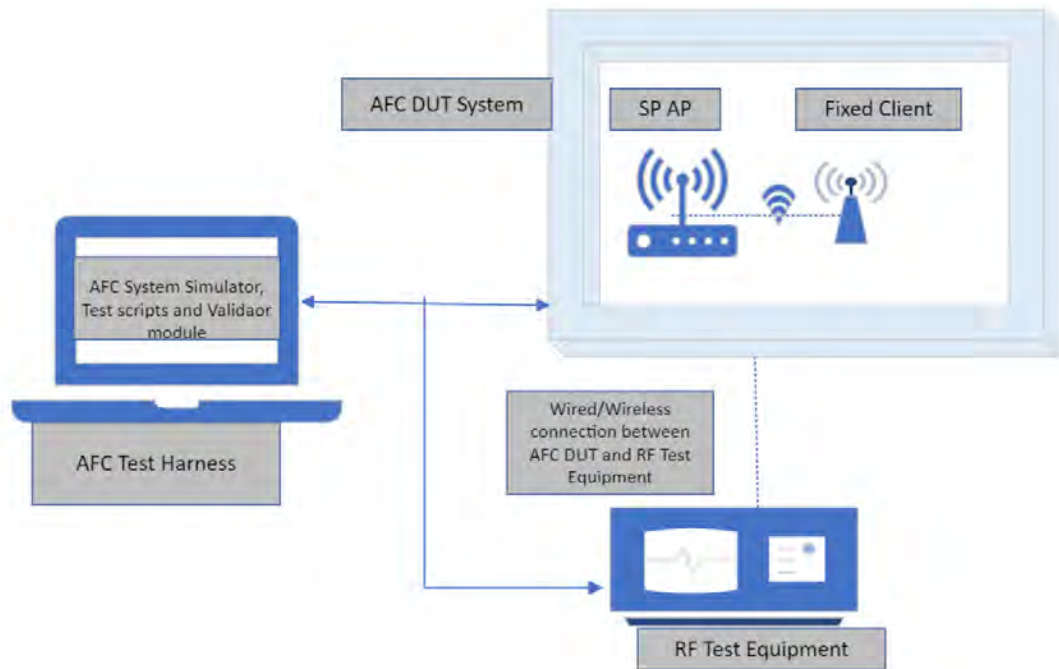
Item	Question	Vendor Response
1	AFC DUT Type	Standalone AP
2	Does the AFC DUT supports sending an Available Spectrum Inquiry Request based on the inquired Frequency Range field?	Yes
3	Does the AFC DUT supports sending an Available Spectrum Inquiry Request based on the inquired Channels fields?	Yes
4	If the Answer to Items 2 and 3 is "Yes", what is AFC DUT's default inquiry type?	Both
5	Does the AFC DUT need to be supplied with BSS configuration parameters?	No
6	Does the AFC DUT manufacturer attest to AFC DUT compliance with rules for LPI operation?	No
7	Does the AFC DUT need to be supplied with mandatory registration information to formulate an Available Spectrum Inquiry Request	No
8	If the Answer to Item 7 is "Yes". What is the geographic Supported by the AFC DUT?	-
9	Does the AFC DUT supports 160 MHz channel width operation?	Yes
10	Which method does AFC DUT acting as a Fixed Client uses for sending an Available Spectrum Inquiry Request?	-

Note: The above information was declared by manufacturer.

2.2 Test Configuration



Fixed Client Device Test Setup





3 Protocol Test Results

3.1 Successful Registration and Spectrum Access Request

3.1.1 Test Procedure

Step	Description
1	If the AFC DUT is Standard Power Access Point, go to Step 2, else go to Step 12
2	AFC DUT set to Initial Pre-test State. If needed (see Table 5 declaration), configure the AFC DUT with BSS parameters per Table 9 and a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request.
3	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquired Frequency Range and/or the inquired Channels fields*.
4	AFC DUT Test Harness validates the presence of mandatory registration information
5	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.
6	Throughout Step 1 to Step 4, RF Test Equipment monitors the output of the AFC DUT to confirm that the AFC DUT does not transmit: - In the band if the AFC DUT supports only SP operation Or - Above LPI limits for AFC DUT whose manufacturer attests to its compliance with rules for LPI operation Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the following: - For SP only operation, AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, AFC DUT transmit power in the band is less than CEILING [LPI limits, SP limits contained in the Available Spectrum Inquiry Response] and does not exceed emissions limits in adjacent frequencies.
7	Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request.
8	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*.
9	AFC DUT Test Harness validates the presence of mandatory registration information
10	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields which are significantly different from Step 5.
11	Wait for 5 minutes (configurable) RF Test Equipment monitors any transmission by the AFC DUT conforms to the following: - For SP only operation, AFC DUT conforms to the conditions contained in the latest Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, AFC DUT transmit power in the band is less than CEILING [LPI limits, SP limits contained in the latest Available Spectrum Inquiry Response] and does not exceed emissions limits in adjacent frequencies.
12	If the AFC DUT is Fixed Client, go to Step 13 else Stop the test
13	The AFC DUT set to Initial Pre-test State.
14	If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of-band methods.
15	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*
16	AFC DUT Test Harness validates the presence of mandatory registration information
17	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.



18	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
19	Wait for 60 seconds
20	RF Test Equipment monitors any transmission by the AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies
21	Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of-band methods
22	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*
23	AFC DUT Test Harness validates the presence of mandatory registration information
24	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields which are significantly different from Step 17.
25	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
	Wait for 60 seconds (configurable)
	RF Test Equipment monitors any transmission by the AFC DUT conforms to the conditions contained in the latest Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies

3.1.2 Test Result

Refer as Appendix A~C



3.2 Unsuccessful Spectrum Access Request

3.2.1 Test Procedure

Step	Description
1	If the AFC DUT is Standard Power Access Point, go to Step 2, else go to Step 7
2	AFC DUT set to Initial Pre-test State. If needed (see Table 5 declaration), configure the AFC DUT with BSS parameters per Table 9 and a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request.
3	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*.
4	AFC DUT Test Harness validates mandatory registration information.
5	AFC DUT Test Harness sends an Available Spectrum Inquiry Response indicating that no frequency ranges and/or channels are available.
6	Throughout Step 2 to Step 5 and subsequent to Step 5, RF Test Equipment monitors the output of the AFC DUT to confirm the following: - For SP only operation, AFC DUT does not transmit in the band. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, the AFC DUT does not transmit above LPI limits.
7	If the AFC DUT is Fixed Client, go to Step 8 else Stop the test
8	The AFC DUT set to Initial Pre-test State.
9	If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID or IC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request.
10	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*.
11	AFC DUT Test Harness validates mandatory registration information.
12	AFC DUT Test Harness sends an Available Spectrum Inquiry Response indicating that no frequency ranges and/or channels are available using either In-band or Out-of-band methods.
13	If AFC DUT used Out-of-band method, initiate connection procedure between Fixed Client and SP Access Point by following instructions provided by the AFC DUT Vendor
13	Wait for 60 seconds RF Test Equipment monitors that the AFC DUT does not transmit above maximum transmit power limits advertised by the Standard Power Access Point for Standard Client Devices in the channel.

3.2.2 Test Result

Refer as Appendix A~C



3.3 Successful Spectrum Access Update

3.3.1 Test Procedure

Step	Description
1	If the AFC DUT is Standard Power Access Point, go to Step 2, else go to Step 12
2	AFC DUT set to Initial Pre-test State. If needed (see Table 5 declaration), configure the DUT with BSS parameters per Table 9 and a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request.
3	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*.
4	AFC DUT Harness validates mandatory registration information.
5	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.
6	Throughout the preceding steps, RF Test Equipment monitors the output of the AFC DUT to confirm that the AFC DUT does not transmit: - In the band if the AFC DUT supports only SP operation Or - Above LPI limits for AFC DUT whose manufacturer attests to its compliance with rules for LPI operation Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the following: - For SP only operation, AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, AFC DUT transmit power in the band is less than CEILING [LPI limits, SP limits contained in the Available Spectrum Inquiry Response] and does not exceed emissions limits in adjacent frequencies.
7	AFC DUT is power cycled. If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID), new geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate.
8	Wait for 60 seconds If the AFC DUT does not send an Available Spectrum Inquiry Request, RF Test Equipment monitors the output of the AFC DUT to verify the following and STOP the test - For SP only operation, AFC DUT does not transmit in the band. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, the AFC DUT does not transmit above LPI limits. If the AFC DUT sends an Available Spectrum Inquiry Request, then CONTINUE with Step 9
9	AFC DUT Test Harness evaluates validity of mandatory registration information
10	AFC DUT Test Harness waits for 60 seconds before sending an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields which are significantly different from Step 5. - During the 60 seconds wait time: - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, RF Test Equipment monitors the output of the AFC DUT to confirm that AFC DUT does not transmit above LPI threshold limits - For SP only operation, RF Test Equipment monitors the output of the AFC DUT to confirm that AFC DUT doesn't transmit in the band
11	Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the following: - For SP only operation, AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies. - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, AFC DUT transmit power in the band is less than CEILING [LPI limits, SP limits contained in the Available Spectrum Inquiry Response] and does not exceed emissions limits in adjacent frequencies.
12	If the AFC DUT is Fixed Client, go to Step 13 else Stop the test
13	The AFC DUT set to Initial Pre-test State.



14	If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of- band methods.
15	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*
16	AFC DUT Test Harness validates the presence of mandatory registration information
17	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.
18	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
19	Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies
20	AFC DUT is power cycled. If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID), new geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate
21	Wait for 60 seconds If the AFC DUT does not send an Available Spectrum Inquiry Request, RF Test Equipment monitors the output of the AFC DUT to verify the AFC DUT does not transmit above maximum transmit power limits advertised by the Standard Power Access Point for Standard Client Devices in the channel and STOP the test. If the AFC DUT sends an Available Spectrum Inquiry Request, then CONTINUE with Step 21
22	AFC DUT Test Harness evaluates validity of mandatory registration information
23	AFC DUT Test Harness waits for 60 seconds before sending an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields which are significantly different from step 17. During the 60 seconds wait time, RF Test Equipment monitors the output of the AFC DUT to confirm that the AFC DUT does not transmit above maximum transmit power limits advertised by the Standard Power Access Point for Standard Client Devices in the channel.
24	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
25	Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies

3.3.2 Test Result

Refer as Appendix A~C



3.4 Unsuccessful Spectrum Access Update

3.4.1 Test Procedure

Step	Description
1	If the AFC DUT is Standard Power Access Point, go to Step 2, else go to Step 12
2	AFC DUT set to Initial Pre-test State. If needed (see Table 5 declaration), configure the AFC DUT with BSS parameters per Table 9 and a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the DUT with AFC System URL and server root certificate. Trigger the DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of-band methods.
3	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields.
4	AFC DUT Test Harness validates mandatory registration information
5	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.
6	Throughout the Step 2 to 5, RF Test Equipment monitors the output of the AFC DUT to confirm that the AFC DUT does not transmit: - In the band if the AFC DUT supports only SP operation Or - Above LPI limits for AFC DUT whose manufacturer attests to its compliance with rules for LPI operation Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the following: - For SP only operation, AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies. For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, AFC DUT transmit power in the band is less than CEILING [LPI limits, SP limits contained in the Available Spectrum Inquiry Response] and does not exceed emissions limits in adjacent frequencies
7	AFC DUT is power cycled. If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID), new geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate.
8	Wait for 60 seconds - If the AFC DUT does not send an Available Spectrum Inquiry Request, RF Test Equipment monitors the output of the DUT to verify the following and STOP the test: - For SP only operation, AFC DUT does not transmit in the band, - For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, the AFC DUT does not transmit above LPI limits. - If the AFC DUT sends an Available Spectrum Inquiry Request, then CONTINUE with Step 8
9	AFC DUT Test Harness evaluates validity of mandatory registration information.
10	AFC DUT Test Harness sends an Available Spectrum Inquiry Response indicating that no frequency ranges and/or channels are available.
11	Throughout Step 7 to 10 and subsequent to Step 10 Test Equipment monitors the output of the AFC DUT to confirm that: For SP only operation, AFC DUT does not transmit in the band. For AFC DUT whose manufacturer attests to its compliance with rules for LPI operation, the AFC DUT does not transmit above LPI limits.
12	If the AFC DUT is Fixed Client, go to Step 13 else Stop the test
13	The AFC DUT set to Initial Pre-test State.
14	If needed (see Table 5 declaration), configure the DUT with a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate. Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of- band methods.
15	AFC DUT sends a valid Available Spectrum Inquiry Request containing the inquiredFrequencyRange and/or the inquiredChannels fields*
16	AFC DUT Test Harness validates the presence of mandatory registration information
17	AFC DUT Test Harness sends an Available Spectrum Inquiry Response containing a list of available frequency



	ranges and/or channels and the maximum permissible transmit power in the availableFrequencyInfo and/or availableChannelInfo fields.
18	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
19	Wait for 60 seconds RF Test Equipment monitors any transmission by the AFC DUT conforms to the conditions contained in the Available Spectrum Inquiry Response and does not exceed emissions limits in adjacent frequencies
20	AFC DUT is power cycled. If needed (see Table 5 declaration), configure the AFC DUT with a temporary test regulatory identifier (e.g., FCC ID or IC ID), new geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT with AFC System URL and server root certificate
21	Wait for 60 seconds If the AFC DUT does not send an Available Spectrum Inquiry Request, RF Test Equipment monitors that the AFC DUT does not transmit above maximum transmit power limits advertised by the Standard Power Access Point for Standard Client Devices in the channel., If the AFC DUT sends an Available Spectrum Inquiry Request, then CONTINUE with Step 22 else STOP the test
22	AFC DUT Test Harness evaluates validity of mandatory registration information.
23	AFC DUT Test Harness sends an Available Spectrum Inquiry Response indicating that no frequency ranges and/or channels are available.
24	If AFC DUT used Out-of-band method, initiate connection procedure between AFC DUT and SP Access Point by following instructions provided by the AFC DUT Vendor
25	Wait for 60 seconds RF Test Equipment monitors that the AFC DUT does not transmit above maximum transmit power limits advertised by the Standard Power Access Point for Standard Client Devices in the channel.

3.4.2 Test Result

Refer as Appendix A~C



3.5 Unsuccessful Server Validation

3.5.1 Test Procedure

Step	Description
1	The AFC DUT set to Initial Pre-test State. If needed (see Table 5 declaration), configure the AFC DUT with BSS parameters per Table 9 and a temporary test regulatory identifier (e.g., FCC ID), geographic coordinates, antenna height, and uncertainty parameters. Configure the AFC DUT Test Harness with TLS configuration that is the same as the default configuration defined in Section 2.3.1 except for the following: - Run 1: A different server certificate (and private key) with SAN domain name entry "badafc.com" (i.e. that does not match AFC system URL's domain name); signed by the same root certificate as per Section 2.3.1 - Run 2: A different server certificate (and private key) where all attributes other than Public Key are the same as the server certificate per Section 2.3.1, but the certificate is signed by a different root certificate - Run 3: A different server certificate (and private key) with SAN domain name entry "wfatestorg.org" only (i.e. SAN domain name only matches suffix of AFC server's hostname); signed by the same root certificate as per Section 2.3.1 - Run 4: A different server certificate (and private key) where all attributes other than Public Key are the same as the server certificate per Section 2.3.1 signed by the same root certificate as per Section 2.3.1, but the server certificate is revoked as indicated in stapled OCSP response - Run 5: Same configuration as per Section 2.3.1, except OCSP stapling is disabled and CRL/OCSP servers are not available - Run 6: Same configuration as per Section 2.3.1, except stapled OCSP response has expired and CRL/OCSP servers are not available - Run 7: Same configuration as per Section 2.3.1, except only the TLS cipher suite "eNULL" (no encryption) is enabled - Run 8: N/A (same configuration as per Section 2.3.1) Configure the AFC DUT with the AFC System URL and the following root certificate: - Runs 1-7: Root certificate as per Section 2.3.1 - Run 8: No root certificate Trigger the AFC DUT to send to the AFC DUT Test Harness an Available Spectrum Inquiry Request using either In-band or Out-of-band methods.
2	AFC DUT Test Harness waits 10 seconds, and verifies no Available Spectrum Inquiry Request is sent to it.
3	Steps 1 and 2 are repeated for each of the remaining Runs

3.5.2 Test Result

Refer as Appendix A



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 29, 2023	May 28, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
Divider 9K-26.5G	STI	2 Way	DV-26.5G	9KHz – 26.5 GHz	Nov. 09, 2023	Nov. 08, 2024	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.



5 Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission	3.1 dB	Confidence levels of 95%

AFC DUT Compliance Test Report

DUT Information

AFC DUT System	Standard Power AP
DUT Vendor Name	Calix
DUT Product Model	GPR2032H

Test Result

FCC Requirements	Test Case Name	Test Result
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_NoRootCA_10639_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_TLSCipherSuiteENULL_10638_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_StapledOCSPRespExpired_10637_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_OCSPStaplingDisabled_10636_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_ServerCertRevoked_10635_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_MatchSuffixSAN_10634_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_DifferentRootCA_10633_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(v)	CT_AFC_ServerValidation_AP_AFCDUSV35_NonMatchSAN_10632_1 (Unsuccessful server validation)	PASS
15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(9)(i)	CT_AFC_SP_AP_AFCDUAU34_FrequencyChannel_10631_1 (Unsuccessful spectrum access update)	PASS
15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(9)(i)	CT_AFC_SP_AP_AFCDSAU33_FrequencyChannel_10630_1 (Successful spectrum access update)	PASS
15.407(k)(1), 15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(8)(iii)	CT_AFC_SP_AP_AFCDUSA32_FrequencyChannel_10629_1 (Unsuccessful registration and spectrum access request)	PASS
15.407(k)(1), 15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(8)(iii), 15.407(l)(ii), 15.407(k)(8)(iv)	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_160MHz_10628_1 (Successful registration and spectrum access request)	PASS
15.407(k)(1), 15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(8)(iii), 15.407(l)(ii), 15.407(k)(8)(iv)	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_80MHz_10627_1 (Successful registration and spectrum access request)	PASS
15.407(k)(1), 15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(8)(iii), 15.407(l)(ii), 15.407(k)(8)(iv)	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_40MHz_10626_1 (Successful registration and spectrum access request)	PASS
15.407(k)(1), 15.407(k)(8)(i), 15.407(k)(8)(ii), 15.407(k)(8)(iii), 15.407(l)(ii), 15.407(k)(8)(iv)	CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_20MHz_10625_1 (Successful registration and spectrum access request)	PASS

Test Measurements

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_NoRootCA_10639_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_TLSCipherSuiteENULL_10638_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_StapledOCSPRespExpired_10637_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_OCSPStaplingDisabled_10636_1 (Unsuccessful server validation)

TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_ServerCertRevoked_10635_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_MatchSuffixSAN_10634_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

TestCaseName: CT_AFC_ServerValidation_AP_AFCDUSV35_DifferentRootCA_10633_1 (Unsuccessful server validation)
 TestResult:PASS
 Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

Test Case Name: CT_AFC_ServerValidation_AP_AFCDUSV35_NonMatchSAN_10632_1 (Unsuccessful server validation)
Test Result: PASS
Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	false	PASS

Test Case Name: CT_AFC_SP_AP_AFCDAU34_FrequencyChannel_10631_1 (Unsuccessful spectrum access update)
Test Result: PASS
Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (23 dBm/MHz PSD, 36.0 dBm EIRP) on channel 5 bandwidth 20.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SP_OPERATION_NO_REQ	AFC DUT transmit with standard power in the band in no Spectrum Inquiry Request case	false	PASS

Test Case Name: CT_AFC_SP_AP_AFCDSAU33_FrequencyChannel_10630_1 (Successful spectrum access update)
Test Result: PASS
Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION_1	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (18.67943722940528	true	PASS

	dBm/MHz PSD, 31.689737186045093 dBm EIRP) on channel 133 bandwidth 20.		
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_1	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SP_OPERATION_NO_REQ	AFC DUT transmit with standard power in the band in no Spectrum Inquiry Request case	false	PASS

TestCaseName: CT_AFC_SP_AP_AFCDSA32_FrequencyChannel_10629_1 (Unsuccessful registration and spectrum access request)
TestResult: PASS
Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE	AFC DUT conforms to the conditions in the Spectrum Inquiry Response	true	PASS

TestCaseName: CT_AFC_SP_AP_AFCDSA31_FrequencyChannel_160MHz_10628_1 (Successful registration and spectrum access request)
TestResult: PASS
Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_1	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (9.876185432627304 dBm/MHz PSD, 31.917385259186553 dBm EIRP) on channel center frequency index 79 bandwidth 160.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_1	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_2	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_2	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_2	AFC DUT conforms to the conditions in Spectrum	true	PASS

	Response (10.871301635756508 dBm/MHz PSD, 32.91250146231576 dBm EIRP) on channel center frequency index 47 bandwidth 160.		
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_2	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS

TestCaseName: CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_80MHz_10627_1 (Successful registration and spectrum access request)
TestResult:PASS
Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_1	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (11.097847907851367 dBm/MHz PSD, 30.128747777708 dBm EIRP) on channel center frequency index 135 bandwidth 80.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_1	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_2	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_2	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_2	AFC DUT conforms to the conditions in Spectrum Response (11.87868565138238 dBm/MHz PSD, 30.909585521301814 dBm EIRP) on channel center frequency index 23 bandwidth 80.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_2	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS

TestCaseName: CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_40MHz_10626_1 (Successful registration and spectrum access request)
TestResult:PASS
Band:6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band	false	PASS

	before the Spectrum Inquiry Response		
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_1	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (15.17538355760422 dBm/MHz PSD, 31.195983470883846 dBm EIRP) on channel center frequency index 51 bandwidth 40.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_1	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_2	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_2	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_2	AFC DUT conforms to the conditions in Spectrum Response (13.816023626678156 dBm/MHz PSD, 29.83662353995778 dBm EIRP) on channel center frequency index 19 bandwidth 40.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_2	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS

TestCaseName: CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_20MHz_10625_1 (Successful registration and spectrum access request)
 TestResult: PASS
 Band: 6GHz

Measurements Name	Description	Value	Validation Result
AFC_DUT_SP_OPERATION	AFC DUT transmit with standard power in the band before the Spectrum Inquiry Response	false	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_1	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS
AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_1	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_1	AFC DUT conforms to the conditions in Spectrum Response (21.20483900595326 dBm/MHz PSD, 34.21513896259307 dBm EIRP) on channel 53 bandwidth 20.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_1	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS
AFC_DUT_SEND_SPECTRUM_INQUIRYREQUEST_2	AFC DUT sends an Available Spectrum Inquiry Request	true	PASS

AFC_DUT_SPECTRUM_INQUIRYREQUEST_VALID_2	Valid mandatory registration information	true	PASS
AFC_DUT_CONFORM_SPECTRUM_INQUIRYRESPONSE_2	AFC DUT conforms to the conditions in Spectrum Response (19.49777064315484 dBm/MHz PSD, 32.50807059979465 dBm EIRP) on channel 85 bandwidth 20.	true	PASS
AFC_DUT_CONFORM_ADJACENT_FREQUENCIES_EMISSIONS_LIMITS_2	AFC DUT conforms to not exceed emissions limits in adjacent frequencies	true	PASS

AFC capability - Inquired Frequency & Channel**CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_20MHz_10625_1**

2023-12-11T08:08:03Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        },
        "location": {
          "ellipse": {
            "center": {
              "longitude": -121,
              "latitude": 38
            },
            "majorAxis": 32,
            "minorAxis": 32,

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        "orientation": 0
      },
      "elevation": {
        "height": 0,
        "heightType": "AMSL",
        "verticalUncertainty": 10
      },
      "indoorDeployment": 2
    },
    "inquiredFrequencyRange": [
      {
        "lowFrequency": 5925,
        "highFrequency": 6425
      },
      {
        "lowFrequency": 6525,
        "highFrequency": 6875
      }
    ],
    "inquiredChannels": [
      {
        "globalOperatingClass": 131,
        "channelCfi": [
          1,
          5,
          9,
          13,
          17,
          21,
          25,
          29,
          33,
          37,
          41,
          45,
          49,
          53,
```

```
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137,  
141,  
145,  
149,  
153,  
157,  
161,  
165,  
169,  
173,  
177,  
181  
]  
,  
{  
  "globalOperatingClass": 132,  
  "channelCfi": [  
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    11,  
    19,  
    27,  
    35,
```

```
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        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,
```

```
        143
      ]
    },
    {
      "globalOperatingClass": 137,
      "channelCfi": [
        63
      ]
    }
  ],
  "minDesiredPower": -10
}
]
}
}

##### 2023-12-11T08:08:03Z #####
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 6125,
            "lowFrequency": 6105
          },
          "maxPsd": 21.565816819246297
        },
        {
          "frequencyRange": {
            "highFrequency": 6145,
            "lowFrequency": 6125
          }
        }
      ]
    }
  ]
}
```

```
"maxPsd": 20.913178406025867
},
{
  "frequencyRange": {
    "highFrequency": 6165,
    "lowFrequency": 6145
  },
  "maxPsd": 18.48194179181457
},
{
  "frequencyRange": {
    "highFrequency": 6185,
    "lowFrequency": 6165
  },
  "maxPsd": 10.36551152563963
},
{
  "frequencyRange": {
    "highFrequency": 6205,
    "lowFrequency": 6185
  },
  "maxPsd": 19.401779910467077
},
{
  "frequencyRange": {
    "highFrequency": 6225,
    "lowFrequency": 6205
  },
  "maxPsd": 21.20483900595326
},
{
  "frequencyRange": {
    "highFrequency": 6245,
    "lowFrequency": 6225
  },
  "maxPsd": 11.792043972193824
},
},
```

```
{
  "frequencyRange": {
    "highFrequency": 6265,
    "lowFrequency": 6245
  },
  "maxPsd": 10.781506944271445
}
],
"availableChannelInfo": [
  {
    "channelCfi": [
      33,
      37,
      41,
      45,
      49,
      53,
      57,
      61
    ],
    "globalOperatingClass": 131,
    "maxEirp": [
      34.576116775886106,
      33.923478362665676,
      31.492241748454383,
      23.375811482279442,
      32.41207986710689,
      34.21513896259307,
      24.802343928833636,
      23.791806900911258
    ]
  }
],
{
  "channelCfi": [
    35,
    43,
    51,
```

```
59
],
"globalOperatingClass": 132,
"maxEirp": [
    36.0,
    26.386111438919254,
    35.4223798237467,
    26.80210685755107
]
},
{
    "channelCfi": [
        39,
        55
    ],
    "globalOperatingClass": 133,
    "maxEirp": [
        29.396411395559063,
        29.81240681419088
    ]
},
{
    "channelCfi": [
        47
    ],
    "globalOperatingClass": 134,
    "maxEirp": [
        32.40671135219888
    ]
}
],
"requestId": "0",
"availabilityExpireTime": "2023-12-12T08:08:03Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
```

```
}

##### 2023-12-11T08:18:39Z #####

{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "1",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        },
        "location": {
          "ellipse": {
            "center": {
              "longitude": -121,
              "latitude": 38
            },
            "majorAxis": 32,
            "minorAxis": 32,

```

```
        "orientation": 0
      },
      "elevation": {
        "height": 0,
        "heightType": "AMSL",
        "verticalUncertainty": 10
      },
      "indoorDeployment": 2
    },
    "inquiredFrequencyRange": [
      {
        "lowFrequency": 5925,
        "highFrequency": 6425
      },
      {
        "lowFrequency": 6525,
        "highFrequency": 6875
      }
    ],
    "inquiredChannels": [
      {
        "globalOperatingClass": 131,
        "channelCfi": [
          1,
          5,
          9,
          13,
          17,
          21,
          25,
          29,
          33,
          37,
          41,
          45,
          49,
          53,
```

```
57,  
61,  
65,  
69,  
73,  
77,  
81,  
85,  
89,  
93,  
117,  
121,  
125,  
129,  
133,  
137,  
141,  
145,  
149,  
153,  
157,  
161,  
165,  
169,  
173,  
177,  
181  
]  
,  
{  
  "globalOperatingClass": 132,  
  "channelCfi": [  
    3,  
    11,  
    19,  
    27,  
    35,
```

```
        43,  
        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,
```

```
        143
      ]
    },
    {
      "globalOperatingClass": 137,
      "channelCfi": [
        63
      ]
    }
  ],
  "minDesiredPower": -10
}
]
}
}

##### 2023-12-11T08:18:39Z #####
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 5965,
            "lowFrequency": 5945
          },
          "maxPsd": 13.101103419394152
        },
        {
          "frequencyRange": {
            "highFrequency": 5985,
            "lowFrequency": 5965
          }
        }
      ]
    }
  ]
}
```

```
"maxPsd": 17.93735017394413
},
{
  "frequencyRange": {
    "highFrequency": 6005,
    "lowFrequency": 5985
  },
  "maxPsd": 10.124964859737824
},
{
  "frequencyRange": {
    "highFrequency": 6025,
    "lowFrequency": 6005
  },
  "maxPsd": 11.521303876357509
},
{
  "frequencyRange": {
    "highFrequency": 6045,
    "lowFrequency": 6025
  },
  "maxPsd": 19.675350126692493
},
{
  "frequencyRange": {
    "highFrequency": 6065,
    "lowFrequency": 6045
  },
  "maxPsd": 9.291721630146832
},
{
  "frequencyRange": {
    "highFrequency": 6085,
    "lowFrequency": 6065
  },
  "maxPsd": 21.089710367449143
},
},
```

```
{
  "frequencyRange": {
    "highFrequency": 6105,
    "lowFrequency": 6085
  },
  "maxPsd": 19.853111325335053
},
{
  "frequencyRange": {
    "highFrequency": 6285,
    "lowFrequency": 6265
  },
  "maxPsd": 15.834861002736435
},
{
  "frequencyRange": {
    "highFrequency": 6305,
    "lowFrequency": 6285
  },
  "maxPsd": 13.316417613735819
},
{
  "frequencyRange": {
    "highFrequency": 6325,
    "lowFrequency": 6305
  },
  "maxPsd": 16.975811393790764
},
{
  "frequencyRange": {
    "highFrequency": 6345,
    "lowFrequency": 6325
  },
  "maxPsd": 19.647146328819154
},
{
  "frequencyRange": {
```

```
        "highFrequency": 6365,
        "lowFrequency": 6345
    },
    "maxPsd": 12.635247751550608
},
{
    "frequencyRange": {
        "highFrequency": 6385,
        "lowFrequency": 6365
    },
    "maxPsd": 19.49777064315484
},
{
    "frequencyRange": {
        "highFrequency": 6405,
        "lowFrequency": 6385
    },
    "maxPsd": 21.28989552875174
},
{
    "frequencyRange": {
        "highFrequency": 6425,
        "lowFrequency": 6405
    },
    "maxPsd": 8.998674484515666
},
{
    "frequencyRange": {
        "highFrequency": 6605,
        "lowFrequency": 6585
    },
    "maxPsd": 13.922935615192266
},
{
    "frequencyRange": {
        "highFrequency": 6625,
        "lowFrequency": 6605
```

```
    },
    "maxPsd": 10.531531732243067
  },
  {
    "frequencyRange": {
      "highFrequency": 6645,
      "lowFrequency": 6625
    },
    "maxPsd": 8.205118232115474
  },
  {
    "frequencyRange": {
      "highFrequency": 6665,
      "lowFrequency": 6645
    },
    "maxPsd": 21.04715850533862
  },
  {
    "frequencyRange": {
      "highFrequency": 6685,
      "lowFrequency": 6665
    },
    "maxPsd": 12.14629196170311
  },
  {
    "frequencyRange": {
      "highFrequency": 6705,
      "lowFrequency": 6685
    },
    "maxPsd": 12.712684737021165
  },
  {
    "frequencyRange": {
      "highFrequency": 6725,
      "lowFrequency": 6705
    },
    "maxPsd": 16.47504449619729
  }
```

```
    },
    {
      "frequencyRange": {
        "highFrequency": 6745,
        "lowFrequency": 6725
      },
      "maxPsd": 9.43448069337123
    }
  ],
  "availableChannelInfo": [
    {
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        65,
        69,
        73,
        77,
        81,
        85,
        89,
        93,
        129,
        133,
        137,
        141,
        145,
        149,
        153,
        157
      ]
    }
  ],
```

```
"globalOperatingClass": 131,  
"maxEirp": [  
    26.111403376033962,  
    30.94765013058394,  
    23.135264816377635,  
    24.53160383299732,  
    32.685650083332305,  
    22.302021586786644,  
    34.100010324088956,  
    32.86341128197486,  
    28.845160959376248,  
    26.32671757037563,  
    29.986111350430576,  
    32.65744628545897,  
    25.64554770819042,  
    32.50807059979465,  
    34.300195485391555,  
    22.00897444115548,  
    26.93323557183208,  
    23.54183168888288,  
    21.215418188755287,  
    34.05745846197843,  
    25.156591918342922,  
    25.722984693660976,  
    29.485344452837104,  
    22.44478065001104  
]  
},  
{  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        67,  
        75,  
        83,
```

```
    91,  
    131,  
    139,  
    147,  
    155  
  ],  
  "globalOperatingClass": 132,  
  "maxEirp": [  
    29.121703332673775,  
    26.145564773017448,  
    25.312321543426457,  
    35.873711238614675,  
    29.337017527015444,  
    32.99641130707039,  
    28.655847664830233,  
    25.019274397795293,  
    26.552131645522692,  
    24.2257181453951,  
    28.166891874982735,  
    25.455080606650853  
  ]  
},  
{  
  "channelCfi": [  
    7,  
    23,  
    71,  
    87,  
    135,  
    151  
  ],  
  "globalOperatingClass": 133,  
  "maxEirp": [  
    29.15586472965726,  
    28.322621500066266,  
    32.34731748365525,  
    28.0295743544351,
```

```
        27.236018102034908,
        28.465380563290665
    ]
},
{
    "channelCfi": [
        15,
        79,
        143
    ],
    "globalOperatingClass": 134,
    "maxEirp": [
        31.33292145670608,
        31.039874311074918,
        30.246318058674724
    ]
}
],
"requestId": "1",
"availabilityExpireTime": "2023-12-12T08:18:39Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
}
```

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_40MHz_10626_1

2023-12-11T08:36:38Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        }
      }
    ],
    "location": {
      "ellipse": {
        "center": {
          "longitude": -121,
          "latitude": 38
        },
        "majorAxis": 32,
        "minorAxis": 32,
        "orientation": 0
      }
    }
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,  
        143
```

```
    ]
  },
  {
    "globalOperatingClass": 137,
    "channelCfi": [
      63
    ]
  }
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T08:36:38Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 6125,
            "lowFrequency": 6105
          },
          "maxPsd": 21.93557504916629
        },
        {
          "frequencyRange": {
            "highFrequency": 6145,
            "lowFrequency": 6125
          },
          "maxPsd": 14.42536160812454
        }
      ]
    }
  ]
}
```

```
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6165,  
        "lowFrequency": 6145  
      },  
      "maxPsd": 18.815563753156056  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6185,  
        "lowFrequency": 6165  
      },  
      "maxPsd": 20.122730332410804  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6205,  
        "lowFrequency": 6185  
      },  
      "maxPsd": 15.17538355760422  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6225,  
        "lowFrequency": 6205  
      },  
      "maxPsd": 19.60136597639511  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6245,  
        "lowFrequency": 6225  
      },  
      "maxPsd": 17.95426308981295  
    },  
    {
```

```
"frequencyRange": {
  "highFrequency": 6265,
  "lowFrequency": 6245
},
"maxPsd": 10.626886369407774
},
{
  "frequencyRange": {
    "highFrequency": 6605,
    "lowFrequency": 6585
  },
  "maxPsd": 13.968591353811046
},
{
  "frequencyRange": {
    "highFrequency": 6625,
    "lowFrequency": 6605
  },
  "maxPsd": 16.56907186459974
},
{
  "frequencyRange": {
    "highFrequency": 6645,
    "lowFrequency": 6625
  },
  "maxPsd": 19.376470711551583
},
{
  "frequencyRange": {
    "highFrequency": 6665,
    "lowFrequency": 6645
  },
  "maxPsd": 14.565606303882003
},
{
  "frequencyRange": {
    "highFrequency": 6685,
```

```
        "lowFrequency": 6665
      },
      "maxPsd": 15.930026036925081
    },
    {
      "frequencyRange": {
        "highFrequency": 6705,
        "lowFrequency": 6685
      },
      "maxPsd": 9.543193034297309
    },
    {
      "frequencyRange": {
        "highFrequency": 6725,
        "lowFrequency": 6705
      },
      "maxPsd": 16.4110220945957
    },
    {
      "frequencyRange": {
        "highFrequency": 6745,
        "lowFrequency": 6725
      },
      "maxPsd": 8.58020302005626
    }
  ],
  "availableChannelInfo": [
    {
      "channelCfi": [
        33,
        37,
        41,
        45,
        49,
        53,
        57,
        61,
```

```
129,
133,
137,
141,
145,
149,
153,
157
],
"globalOperatingClass": 131,
"maxEirp": [
34.9458750058061,
27.435661564764352,
31.82586370979587,
33.133030289050616,
28.185683514244033,
32.61166593303492,
30.964563046452763,
23.637186326047587,
26.97889131045086,
29.57937182123955,
32.386770668191396,
27.575906260521815,
28.940325993564894,
22.553492990937123,
29.421322051235514,
21.590502976696072
]
},
{
"channelCfi": [
35,
43,
51,
59,
131,
139,
```

```
        147,  
        155  
    ],  
    "globalOperatingClass": 132,  
    "maxEirp": [  
        30.445961521404165,  
        34.83616366643568,  
        31.195983470883846,  
        26.6474862826874,  
        29.98919126709067,  
        30.586206217161628,  
        25.563792947576935,  
        24.600802933335885  
    ]  
},  
{  
    "channelCfi": [  
        39,  
        55,  
        135,  
        151  
    ],  
    "globalOperatingClass": 133,  
    "maxEirp": [  
        33.45626147804397,  
        29.65778623932721,  
        32.99949122373048,  
        27.611102889975694  
    ]  
},  
{  
    "channelCfi": [  
        47,  
        143  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  

```

```
32.66808619596702,
30.62140284661551
    ]
  }
],
"requestId": "0",
"availabilityExpireTime": "2023-12-12T08:36:38Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
}

##### 2023-12-11T08:42:52Z #####
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "1",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        }
      }
    ]
  }
}
```

```
    }
  ]
},
"location": {
  "ellipse": {
    "center": {
      "longitude": -121,
      "latitude": 38
    },
    "majorAxis": 32,
    "minorAxis": 32,
    "orientation": 0
  },
  "elevation": {
    "height": 0,
    "heightType": "AMSL",
    "verticalUncertainty": 10
  },
  "indoorDeployment": 2
},
"inquiredFrequencyRange": [
  {
    "lowFrequency": 5925,
    "highFrequency": 6425
  },
  {
    "lowFrequency": 6525,
    "highFrequency": 6875
  }
],
"inquiredChannels": [
  {
    "globalOperatingClass": 131,
    "channelCfi": [
      1,
      5,
      9,
```

13,
17,
21,
25,
29,
33,
37,
41,
45,
49,
53,
57,
61,
65,
69,
73,
77,
81,
85,
89,
93,
117,
121,
125,
129,
133,
137,
141,
145,
149,
153,
157,
161,
165,
169,
173,
177,

```
181
    ]
  },
  {
    "globalOperatingClass": 132,
    "channelCfi": [
      3,
      11,
      19,
      27,
      35,
      43,
      51,
      59,
      67,
      75,
      83,
      91,
      123,
      131,
      139,
      147,
      155,
      163,
      171,
      179
    ]
  },
  {
    "globalOperatingClass": 133,
    "channelCfi": [
      7,
      23,
      39,
      55,
      71,
      87,
```

```
        135,
        151,
        167
    ]
},
{
    "globalOperatingClass": 134,
    "channelCfi": [
        15,
        47,
        79,
        143
    ]
},
{
    "globalOperatingClass": 137,
    "channelCfi": [
        63
    ]
}
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T08:42:52Z

```
{
    "availableSpectrumInquiryResponses": [
        {
            "response": {
                "responseCode": 0,
                "shortDescription": "SUCCESS"
            },
            "availableFrequencyInfo": [
                {
```

```
"frequencyRange": {
  "highFrequency": 5965,
  "lowFrequency": 5945
},
"maxPsd": 13.905148026352151
},
{
  "frequencyRange": {
    "highFrequency": 5985,
    "lowFrequency": 5965
  },
  "maxPsd": 11.913048425819031
},
{
  "frequencyRange": {
    "highFrequency": 6005,
    "lowFrequency": 5985
  },
  "maxPsd": 17.14748398893486
},
{
  "frequencyRange": {
    "highFrequency": 6025,
    "lowFrequency": 6005
  },
  "maxPsd": 14.299375795268949
},
{
  "frequencyRange": {
    "highFrequency": 6045,
    "lowFrequency": 6025
  },
  "maxPsd": 13.816023626678156
},
{
  "frequencyRange": {
    "highFrequency": 6065,
```

```
        "lowFrequency": 6045
      },
      "maxPsd": 17.711811921488383
    },
    {
      "frequencyRange": {
        "highFrequency": 6085,
        "lowFrequency": 6065
      },
      "maxPsd": 21.62911828387025
    },
    {
      "frequencyRange": {
        "highFrequency": 6105,
        "lowFrequency": 6085
      },
      "maxPsd": 20.134512128903356
    },
    {
      "frequencyRange": {
        "highFrequency": 6285,
        "lowFrequency": 6265
      },
      "maxPsd": 13.907919930186852
    },
    {
      "frequencyRange": {
        "highFrequency": 6305,
        "lowFrequency": 6285
      },
      "maxPsd": 12.975553991812905
    },
    {
      "frequencyRange": {
        "highFrequency": 6325,
        "lowFrequency": 6305
      },
    },
```

```
"maxPsd": 15.162821368787991
},
{
  "frequencyRange": {
    "highFrequency": 6345,
    "lowFrequency": 6325
  },
  "maxPsd": 21.277062514689725
},
{
  "frequencyRange": {
    "highFrequency": 6365,
    "lowFrequency": 6345
  },
  "maxPsd": 13.687834805923739
},
{
  "frequencyRange": {
    "highFrequency": 6385,
    "lowFrequency": 6365
  },
  "maxPsd": 13.199022096342354
},
{
  "frequencyRange": {
    "highFrequency": 6405,
    "lowFrequency": 6385
  },
  "maxPsd": 8.079072530519527
},
{
  "frequencyRange": {
    "highFrequency": 6425,
    "lowFrequency": 6405
  },
  "maxPsd": 14.400193755716014
}
```

```
],
"availableChannelInfo": [
  {
    "channelCfi": [
      1,
      5,
      9,
      13,
      17,
      21,
      25,
      29,
      65,
      69,
      73,
      77,
      81,
      85,
      89,
      93
    ],
    "globalOperatingClass": 131,
    "maxEirp": [
      26.915447982991964,
      24.923348382458844,
      30.15778394557467,
      27.309675751908763,
      26.82632358331797,
      30.722111878128196,
      34.63941824051006,
      33.144812085543165,
      26.918219886826662,
      25.985853948452718,
      28.173121325427804,
      34.28736247132954,
      26.69813476256355,
      26.209322052982166,
```

```
                21.089372487159338,
                27.410493712355827
            ]
        },
        {
            "channelCfi": [
                3,
                11,
                19,
                27,
                67,
                75,
                83,
                91
            ],
            "globalOperatingClass": 132,
            "maxEirp": [
                27.933648339098657,
                30.319975708548576,
                29.83662353995778,
                36.0,
                28.99615390509253,
                31.183421282067616,
                29.21962200962198,
                24.09967244379915
            ]
        },
        {
            "channelCfi": [
                7,
                23,
                71,
                87
            ],
            "globalOperatingClass": 133,
            "maxEirp": [
                30.943948295738466,
```

```
        32.84692349659759,  
        32.00645386173234,  
        27.109972400438963  
    ]  
  },  
  {  
    "channelCfi": [  
      15,  
      79  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  
      33.95424825237828,  
      30.120272357078775  
    ]  
  }  
],  
"requestId": "1",  
"availabilityExpireTime": "2023-12-12T08:42:52Z",  
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"  
}  
],  
"version": "1.4"  
}
```

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_80MHz_10627_1

2023-12-11T08:53:15Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        },
        "location": {
          "ellipse": {
            "center": {
              "longitude": -121,
              "latitude": 38
            },
            "majorAxis": 32,
            "minorAxis": 32,
            "orientation": 0
          }
        }
      }
    ]
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,  
        143
```

```
        ]
      },
      {
        "globalOperatingClass": 137,
        "channelCfi": [
          63
        ]
      }
    ],
    "minDesiredPower": -10
  }
]
}
```

2023-12-11T08:53:15Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 6285,
            "lowFrequency": 6265
          },
          "maxPsd": 13.275854593055536
        },
        {
          "frequencyRange": {
            "highFrequency": 6305,
            "lowFrequency": 6285
          },
          "maxPsd": 9.551631170697613
        }
      ]
    }
  ]
}
```

```
    },
    {
      "frequencyRange": {
        "highFrequency": 6325,
        "lowFrequency": 6305
      },
      "maxPsd": 20.72997539530958
    },
    {
      "frequencyRange": {
        "highFrequency": 6345,
        "lowFrequency": 6325
      },
      "maxPsd": 18.771289939174324
    },
    {
      "frequencyRange": {
        "highFrequency": 6365,
        "lowFrequency": 6345
      },
      "maxPsd": 16.05215183147213
    },
    {
      "frequencyRange": {
        "highFrequency": 6385,
        "lowFrequency": 6365
      },
      "maxPsd": 21.0720163452802
    },
    {
      "frequencyRange": {
        "highFrequency": 6405,
        "lowFrequency": 6385
      },
      "maxPsd": 20.64737330925304
    },
    {

```

```
"frequencyRange": {
  "highFrequency": 6425,
  "lowFrequency": 6405
},
"maxPsd": 10.477771053985894
},
{
  "frequencyRange": {
    "highFrequency": 6605,
    "lowFrequency": 6585
  },
  "maxPsd": 19.89867897874652
},
{
  "frequencyRange": {
    "highFrequency": 6625,
    "lowFrequency": 6605
  },
  "maxPsd": 11.097847907851367
},
{
  "frequencyRange": {
    "highFrequency": 6645,
    "lowFrequency": 6625
  },
  "maxPsd": 19.010077601047165
},
{
  "frequencyRange": {
    "highFrequency": 6665,
    "lowFrequency": 6645
  },
  "maxPsd": 18.238586641177413
},
{
  "frequencyRange": {
    "highFrequency": 6685,
```

```
        "lowFrequency": 6665
      },
      "maxPsd": 17.497915720962048
    },
    {
      "frequencyRange": {
        "highFrequency": 6705,
        "lowFrequency": 6685
      },
      "maxPsd": 18.55828730632971
    },
    {
      "frequencyRange": {
        "highFrequency": 6725,
        "lowFrequency": 6705
      },
      "maxPsd": 14.91884505967408
    },
    {
      "frequencyRange": {
        "highFrequency": 6745,
        "lowFrequency": 6725
      },
      "maxPsd": 8.636032013288384
    }
  ],
  "availableChannelInfo": [
    {
      "channelCfi": [
        65,
        69,
        73,
        77,
        81,
        85,
        89,
        93,
```

```
        129,
        133,
        137,
        141,
        145,
        149,
        153,
        157
    ],
    "globalOperatingClass": 131,
    "maxEirp": [
        26.286154549695347,
        22.561931127337424,
        33.74027535194939,
        31.781589895814136,
        29.062451788111943,
        34.08231630192002,
        33.65767326589285,
        23.488071010625706,
        32.90897893538633,
        24.10814786449118,
        32.02037755768698,
        31.248886597817226,
        30.50821567760186,
        31.568587262969523,
        27.929145016313893,
        21.646331969928198
    ]
},
{
    "channelCfi": [
        67,
        75,
        83,
        91,
        131,
        139,
```

```
        147,  
        155  
    ],  
    "globalOperatingClass": 132,  
    "maxEirp": [  
        25.572231083977236,  
        34.79188985245395,  
        32.072751744751756,  
        26.49837096726552,  
        27.118447821130992,  
        34.25918655445704,  
        33.51851563424167,  
        24.65663192656801  
    ]  
},  
{  
    "channelCfi": [  
        71,  
        87,  
        135,  
        151  
    ],  
    "globalOperatingClass": 133,  
    "maxEirp": [  
        28.58253104061705,  
        29.508670923905328,  
        30.1287477777708,  
        27.666931883207816  
    ]  
},  
{  
    "channelCfi": [  
        79,  
        143  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  

```

```
        31.59283099725686,
        30.677231839847636
    ]
}
],
"requestId": "0",
"availabilityExpireTime": "2023-12-12T08:53:15Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
}

##### 2023-12-11T08:58:08Z #####
{
    "headers": {
        "Host": "testserver.wfatestorg.org",
        "Accept": "*/*",
        "Content-Type": "application/json",
        "Authorization": "na",
        "X-Forwarded-For": "192.168.1.1",
        "X-Forwarded-Host": "testserver.wfatestorg.org",
        "X-Forwarded-Server": "testserver.wfatestorg.org",
        "Content-Length": "1217",
        "Connection": "Keep-Alive"
    },
    "body": {
        "version": "1.4",
        "availableSpectrumInquiryRequests": [
            {
                "requestId": "1",
                "deviceDescriptor": {
                    "serialNumber": "CXNK0155B520",
                    "certificationId": [
                        {
                            "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
                            "id": "2ABLKU6HE"
                        }
                    ]
                }
            }
        ]
    }
}
```

```
    }
  ]
},
"location": {
  "ellipse": {
    "center": {
      "longitude": -121,
      "latitude": 38
    },
    "majorAxis": 32,
    "minorAxis": 32,
    "orientation": 0
  },
  "elevation": {
    "height": 0,
    "heightType": "AMSL",
    "verticalUncertainty": 10
  },
  "indoorDeployment": 2
},
"inquiredFrequencyRange": [
  {
    "lowFrequency": 5925,
    "highFrequency": 6425
  },
  {
    "lowFrequency": 6525,
    "highFrequency": 6875
  }
],
"inquiredChannels": [
  {
    "globalOperatingClass": 131,
    "channelCfi": [
      1,
      5,
      9,
```

13,
17,
21,
25,
29,
33,
37,
41,
45,
49,
53,
57,
61,
65,
69,
73,
77,
81,
85,
89,
93,
117,
121,
125,
129,
133,
137,
141,
145,
149,
153,
157,
161,
165,
169,
173,
177,

```
181
    ]
  },
  {
    "globalOperatingClass": 132,
    "channelCfi": [
      3,
      11,
      19,
      27,
      35,
      43,
      51,
      59,
      67,
      75,
      83,
      91,
      123,
      131,
      139,
      147,
      155,
      163,
      171,
      179
    ]
  },
  {
    "globalOperatingClass": 133,
    "channelCfi": [
      7,
      23,
      39,
      55,
      71,
      87,
```

```
        135,
        151,
        167
    ]
},
{
    "globalOperatingClass": 134,
    "channelCfi": [
        15,
        47,
        79,
        143
    ]
},
{
    "globalOperatingClass": 137,
    "channelCfi": [
        63
    ]
}
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T08:58:08Z

```
{
    "availableSpectrumInquiryResponses": [
        {
            "response": {
                "responseCode": 0,
                "shortDescription": "SUCCESS"
            },
            "availableFrequencyInfo": [
                {
```

```
"frequencyRange": {
  "highFrequency": 5965,
  "lowFrequency": 5945
},
"maxPsd": 10.791511957026405
},
{
  "frequencyRange": {
    "highFrequency": 5985,
    "lowFrequency": 5965
  },
  "maxPsd": 20.307701391185304
},
{
  "frequencyRange": {
    "highFrequency": 6005,
    "lowFrequency": 5985
  },
  "maxPsd": 20.489721416302775
},
{
  "frequencyRange": {
    "highFrequency": 6025,
    "lowFrequency": 6005
  },
  "maxPsd": 15.663956657817163
},
{
  "frequencyRange": {
    "highFrequency": 6045,
    "lowFrequency": 6025
  },
  "maxPsd": 14.64654135877061
},
{
  "frequencyRange": {
    "highFrequency": 6065,
```

```
        "lowFrequency": 6045
      },
      "maxPsd": 11.87868565138238
    },
    {
      "frequencyRange": {
        "highFrequency": 6085,
        "lowFrequency": 6065
      },
      "maxPsd": 20.90927669042798
    },
    {
      "frequencyRange": {
        "highFrequency": 6105,
        "lowFrequency": 6085
      },
      "maxPsd": 21.679075899737313
    },
    {
      "frequencyRange": {
        "highFrequency": 6125,
        "lowFrequency": 6105
      },
      "maxPsd": 10.24474592512868
    },
    {
      "frequencyRange": {
        "highFrequency": 6145,
        "lowFrequency": 6125
      },
      "maxPsd": 12.557198547401892
    },
    {
      "frequencyRange": {
        "highFrequency": 6165,
        "lowFrequency": 6145
      },
```

```
"maxPsd": 8.563437940466812
},
{
  "frequencyRange": {
    "highFrequency": 6185,
    "lowFrequency": 6165
  },
  "maxPsd": 16.33371992976647
},
{
  "frequencyRange": {
    "highFrequency": 6205,
    "lowFrequency": 6185
  },
  "maxPsd": 9.561084215963598
},
{
  "frequencyRange": {
    "highFrequency": 6225,
    "lowFrequency": 6205
  },
  "maxPsd": 10.048332056885405
},
{
  "frequencyRange": {
    "highFrequency": 6245,
    "lowFrequency": 6225
  },
  "maxPsd": 9.89628210966503
},
{
  "frequencyRange": {
    "highFrequency": 6265,
    "lowFrequency": 6245
  },
  "maxPsd": 15.929092704585399
}
```

```
],  
  "availableChannelInfo": [  
    {  
      "channelCfi": [  
        1,  
        5,  
        9,  
        13,  
        17,  
        21,  
        25,  
        29,  
        33,  
        37,  
        41,  
        45,  
        49,  
        53,  
        57,  
        61  
      ],  
      "globalOperatingClass": 131,  
      "maxEirp": [  
        23.801811913666217,  
        33.31800134782512,  
        33.500021372942584,  
        28.674256614456976,  
        27.656841315410425,  
        24.888985608022193,  
        33.91957664706779,  
        34.689375856377126,  
        23.255045881768492,  
        25.567498504041705,  
        21.573737897106625,  
        29.344019886406283,  
        22.57138417260341,  
        23.05863201352522,
```

```
                22.906582066304843,
                28.939392661225213
            ]
        },
        {
            "channelCfi": [
                3,
                11,
                19,
                27,
                35,
                43,
                51,
                59
            ],
            "globalOperatingClass": 132,
            "maxEirp": [
                26.81211187030603,
                31.68455657109679,
                27.899285564662005,
                36.0,
                26.265345838408305,
                24.584037853746437,
                25.58168412924322,
                25.916882022944655
            ]
        },
        {
            "channelCfi": [
                7,
                23,
                39,
                55
            ],
            "globalOperatingClass": 133,
            "maxEirp": [
                29.82241182694584,
```

```
        30.909585521301814,  
        27.594337810386246,  
        28.591984085883034  
    ]  
  },  
  {  
    "channelCfi": [  
      15,  
      47  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  
      32.83271178358565,  
      30.604637767026063  
    ]  
  }  
],  
"requestId": "1",  
"availabilityExpireTime": "2023-12-12T08:58:08Z",  
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"  
}  
],  
"version": "1.4"  
}
```

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_160MHz_10628_1

2023-12-11T09:05:55Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        }
      }
    ],
    "location": {
      "ellipse": {
        "center": {
          "longitude": -121,
          "latitude": 38
        },
        "majorAxis": 32,
        "minorAxis": 32,
        "orientation": 0
      }
    }
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,  
        143
```

```
    ]
  },
  {
    "globalOperatingClass": 137,
    "channelCfi": [
      63
    ]
  }
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T09:05:55Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 6285,
            "lowFrequency": 6265
          },
          "maxPsd": 11.238131024354132
        },
        {
          "frequencyRange": {
            "highFrequency": 6305,
            "lowFrequency": 6285
          },
          "maxPsd": 13.062870900334335
        }
      ]
    }
  ]
}
```

```
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6325,  
        "lowFrequency": 6305  
      },  
      "maxPsd": 13.176694032193526  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6345,  
        "lowFrequency": 6325  
      },  
      "maxPsd": 9.876185432627304  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6365,  
        "lowFrequency": 6345  
      },  
      "maxPsd": 20.90525965466951  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6385,  
        "lowFrequency": 6365  
      },  
      "maxPsd": 16.99241754957765  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6405,  
        "lowFrequency": 6385  
      },  
      "maxPsd": 21.81338845896281  
    },  
    {
```

```
"frequencyRange": {
  "highFrequency": 6425,
  "lowFrequency": 6405
},
"maxPsd": 13.13861427078542
},
{
  "frequencyRange": {
    "highFrequency": 6605,
    "lowFrequency": 6585
  },
  "maxPsd": 10.45173130455597
},
{
  "frequencyRange": {
    "highFrequency": 6625,
    "lowFrequency": 6605
  },
  "maxPsd": 9.782777010605939
},
{
  "frequencyRange": {
    "highFrequency": 6645,
    "lowFrequency": 6625
  },
  "maxPsd": 11.69589053883045
},
{
  "frequencyRange": {
    "highFrequency": 6665,
    "lowFrequency": 6645
  },
  "maxPsd": 9.851181286448973
},
{
  "frequencyRange": {
    "highFrequency": 6685,
```

```
        "lowFrequency": 6665
      },
      "maxPsd": 11.494298883612215
    },
    {
      "frequencyRange": {
        "highFrequency": 6705,
        "lowFrequency": 6685
      },
      "maxPsd": 19.847924891556197
    },
    {
      "frequencyRange": {
        "highFrequency": 6725,
        "lowFrequency": 6705
      },
      "maxPsd": 16.819907016924176
    },
    {
      "frequencyRange": {
        "highFrequency": 6745,
        "lowFrequency": 6725
      },
      "maxPsd": 21.241105417672284
    }
  ],
  "availableChannelInfo": [
    {
      "channelCfi": [
        65,
        69,
        73,
        77,
        81,
        85,
        89,
        93,
```

```
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157  
    ],  
    "globalOperatingClass": 131,  
    "maxEirp": [  
        24.248430980993945,  
        26.073170856974148,  
        26.186993988833336,  
        22.886485389267115,  
        33.91555961130932,  
        30.00271750621746,  
        34.82368841560262,  
        26.14891422742523,  
        23.462031261195783,  
        22.793076967245753,  
        24.706190495470263,  
        22.861481243088786,  
        24.50459884025203,  
        32.85822484819601,  
        29.83020697356399,  
        34.2514053743121  
    ]  
},  
{  
    "channelCfi": [  
        67,  
        75,  
        83,  
        91,  
        131,  
        139,
```

```
        147,  
        155  
    ],  
    "globalOperatingClass": 132,  
    "maxEirp": [  
        27.258730937633757,  
        25.896785345906927,  
        33.01301746285728,  
        29.159214184065043,  
        25.803376923885565,  
        25.8717811997286,  
        27.514898796891842,  
        32.8405069302038  
    ]  
},  
{  
    "channelCfi": [  
        71,  
        87,  
        135,  
        151  
    ],  
    "globalOperatingClass": 133,  
    "maxEirp": [  
        28.90708530254674,  
        32.169514140704855,  
        28.81367688052537,  
        30.525198753531647  
    ]  
},  
{  
    "channelCfi": [  
        79,  
        143  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  

```

```
31.917385259186553,
31.82397683716519
]
}
],
"requestId": "0",
"availabilityExpireTime": "2023-12-12T09:05:55Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
}

##### 2023-12-11T09:20:17Z #####
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "1",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        }
      }
    ]
  }
}
```

```
    }
  ]
},
"location": {
  "ellipse": {
    "center": {
      "longitude": -121,
      "latitude": 38
    },
    "majorAxis": 32,
    "minorAxis": 32,
    "orientation": 0
  },
  "elevation": {
    "height": 0,
    "heightType": "AMSL",
    "verticalUncertainty": 10
  },
  "indoorDeployment": 2
},
"inquiredFrequencyRange": [
  {
    "lowFrequency": 5925,
    "highFrequency": 6425
  },
  {
    "lowFrequency": 6525,
    "highFrequency": 6875
  }
],
"inquiredChannels": [
  {
    "globalOperatingClass": 131,
    "channelCfi": [
      1,
      5,
      9,
```

13,
17,
21,
25,
29,
33,
37,
41,
45,
49,
53,
57,
61,
65,
69,
73,
77,
81,
85,
89,
93,
117,
121,
125,
129,
133,
137,
141,
145,
149,
153,
157,
161,
165,
169,
173,
177,

```
181
    ]
  },
  {
    "globalOperatingClass": 132,
    "channelCfi": [
      3,
      11,
      19,
      27,
      35,
      43,
      51,
      59,
      67,
      75,
      83,
      91,
      123,
      131,
      139,
      147,
      155,
      163,
      171,
      179
    ]
  },
  {
    "globalOperatingClass": 133,
    "channelCfi": [
      7,
      23,
      39,
      55,
      71,
      87,
```

```
        135,
        151,
        167
    ]
},
{
    "globalOperatingClass": 134,
    "channelCfi": [
        15,
        47,
        79,
        143
    ]
},
{
    "globalOperatingClass": 137,
    "channelCfi": [
        63
    ]
}
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T09:20:17Z

```
{
    "availableSpectrumInquiryResponses": [
        {
            "response": {
                "responseCode": 0,
                "shortDescription": "SUCCESS"
            },
            "availableFrequencyInfo": [
                {
```

```
"frequencyRange": {
  "highFrequency": 5965,
  "lowFrequency": 5945
},
"maxPsd": 8.81955842811631
},
{
  "frequencyRange": {
    "highFrequency": 5985,
    "lowFrequency": 5965
  },
  "maxPsd": 15.096340218831907
},
{
  "frequencyRange": {
    "highFrequency": 6005,
    "lowFrequency": 5985
  },
  "maxPsd": 15.98527774336878
},
{
  "frequencyRange": {
    "highFrequency": 6025,
    "lowFrequency": 6005
  },
  "maxPsd": 21.96989164749833
},
{
  "frequencyRange": {
    "highFrequency": 6045,
    "lowFrequency": 6025
  },
  "maxPsd": 21.707519298096365
},
{
  "frequencyRange": {
    "highFrequency": 6065,
```

```
        "lowFrequency": 6045
      },
      "maxPsd": 13.446389319051201
    },
    {
      "frequencyRange": {
        "highFrequency": 6085,
        "lowFrequency": 6065
      },
      "maxPsd": 8.649047358322726
    },
    {
      "frequencyRange": {
        "highFrequency": 6105,
        "lowFrequency": 6085
      },
      "maxPsd": 18.13328313534672
    },
    {
      "frequencyRange": {
        "highFrequency": 6125,
        "lowFrequency": 6105
      },
      "maxPsd": 19.519567860869852
    },
    {
      "frequencyRange": {
        "highFrequency": 6145,
        "lowFrequency": 6125
      },
      "maxPsd": 18.8319452325789
    },
    {
      "frequencyRange": {
        "highFrequency": 6165,
        "lowFrequency": 6145
      },
```

```
"maxPsd": 15.014047197719453
},
{
  "frequencyRange": {
    "highFrequency": 6185,
    "lowFrequency": 6165
  },
  "maxPsd": 17.860820794398037
},
{
  "frequencyRange": {
    "highFrequency": 6205,
    "lowFrequency": 6185
  },
  "maxPsd": 12.11464787375662
},
{
  "frequencyRange": {
    "highFrequency": 6225,
    "lowFrequency": 6205
  },
  "maxPsd": 14.560688249677263
},
{
  "frequencyRange": {
    "highFrequency": 6245,
    "lowFrequency": 6225
  },
  "maxPsd": 10.871301635756508
},
{
  "frequencyRange": {
    "highFrequency": 6265,
    "lowFrequency": 6245
  },
  "maxPsd": 13.300473038177099
}
```

```
],  
  "availableChannelInfo": [  
    {  
      "channelCfi": [  
        1,  
        5,  
        9,  
        13,  
        17,  
        21,  
        25,  
        29,  
        33,  
        37,  
        41,  
        45,  
        49,  
        53,  
        57,  
        61  
      ],  
      "globalOperatingClass": 131,  
      "maxEirp": [  
        21.829858384756122,  
        28.106640175471718,  
        28.995577700008592,  
        34.98019160413814,  
        34.71781925473618,  
        26.456689275691012,  
        21.659347314962538,  
        31.14358309198653,  
        32.52986781750967,  
        31.842245189218712,  
        28.024347154359265,  
        30.87112075103785,  
        25.124947830396433,  
        27.570988206317075,
```

```
        23.881601592396322,  
        26.31077299481691  
    ]  
},  
{  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,  
        51,  
        59  
    ],  
    "globalOperatingClass": 132,  
    "maxEirp": [  
        24.840158341395934,  
        32.00587765664841,  
        29.466989232330825,  
        24.66964727160235,  
        34.85254514585853,  
        31.034647110999078,  
        28.135247787036246,  
        26.891901549036135  
    ]  
},  
{  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55  
    ],  
    "globalOperatingClass": 133,  
    "maxEirp": [  
        27.850458298035743,
```

```
        27.67994722824216,  
        34.04494706763889,  
        29.90220150567594  
    ]  
  },  
  {  
    "channelCfi": [  
      15,  
      47  
    ],  
    "globalOperatingClass": 134,  
    "maxEirp": [  
      30.690247184881976,  
      32.91250146231576  
    ]  
  }  
],  
"requestId": "1",  
"availabilityExpireTime": "2023-12-12T09:20:17Z",  
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"  
}  
],  
"version": "1.4"  
}
```

CT_AFC_SP_AP_AFCDUSA32_FrequencyChannel_10629_1

2023-12-11T11:23:24Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        },
        "location": {
          "ellipse": {
            "center": {
              "longitude": -121,
              "latitude": 38
            },
            "majorAxis": 32,
            "minorAxis": 32,
            "orientation": 0
          }
        }
      }
    ]
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,  
        59,  
        67,  
        75,  
        83,  
        91,  
        123,  
        131,  
        139,  
        147,  
        155,  
        163,  
        171,  
        179  
    ]  
},  
{  
    "globalOperatingClass": 133,  
    "channelCfi": [  
        7,  
        23,  
        39,  
        55,  
        71,  
        87,  
        135,  
        151,  
        167  
    ]  
},  
{  
    "globalOperatingClass": 134,  
    "channelCfi": [  
        15,  
        47,  
        79,  
        143
```

```
    ]
  },
  {
    "globalOperatingClass": 137,
    "channelCfi": [
      63
    ]
  }
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T11:23:24Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [],
      "availableChannelInfo": [],
      "requestId": "0",
      "availabilityExpireTime": "2023-12-12T11:23:24Z",
      "rulesetId": "US_47_CFR_PART_15_SUBPART_E"
    }
  ],
  "version": "1.4"
}
```

CT_AFC_SP_AP_AFCDSAU33_FrequencyChannel_10630_1

2023-12-11T11:27:41Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "1",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        },
        "location": {
          "ellipse": {
            "center": {
              "longitude": -121,
              "latitude": 38
            },
            "majorAxis": 32,
            "minorAxis": 32,
            "orientation": 0
          }
        }
      }
    ]
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,
        59,
        67,
        75,
        83,
        91,
        123,
        131,
        139,
        147,
        155,
        163,
        171,
        179
    ]
},
{
    "globalOperatingClass": 133,
    "channelCfi": [
        7,
        23,
        39,
        55,
        71,
        87,
        135,
        151,
        167
    ]
},
{
    "globalOperatingClass": 134,
    "channelCfi": [
        15,
        47,
        79,
        143
    ]
}
```

```
    ]
  },
  {
    "globalOperatingClass": 137,
    "channelCfi": [
      63
    ]
  }
],
"minDesiredPower": -10
}
]
}
}
```

2023-12-11T11:27:41Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 5965,
            "lowFrequency": 5945
          },
          "maxPsd": 11.959206385077854
        },
        {
          "frequencyRange": {
            "highFrequency": 5985,
            "lowFrequency": 5965
          },
          "maxPsd": 15.13841176998547
        }
      ]
    }
  ]
}
```

```
},
{
  "frequencyRange": {
    "highFrequency": 6005,
    "lowFrequency": 5985
  },
  "maxPsd": 17.423830722805995
},
{
  "frequencyRange": {
    "highFrequency": 6025,
    "lowFrequency": 6005
  },
  "maxPsd": 10.799531934622488
},
{
  "frequencyRange": {
    "highFrequency": 6045,
    "lowFrequency": 6025
  },
  "maxPsd": 17.689095493062737
},
{
  "frequencyRange": {
    "highFrequency": 6065,
    "lowFrequency": 6045
  },
  "maxPsd": 15.523314879462268
},
{
  "frequencyRange": {
    "highFrequency": 6085,
    "lowFrequency": 6065
  },
  "maxPsd": 17.36101978303602
},
{

```

```
"frequencyRange": {
  "highFrequency": 6105,
  "lowFrequency": 6085
},
"maxPsd": 8.874428214398296
},
{
  "frequencyRange": {
    "highFrequency": 6125,
    "lowFrequency": 6105
  },
  "maxPsd": 9.301074048922926
},
{
  "frequencyRange": {
    "highFrequency": 6145,
    "lowFrequency": 6125
  },
  "maxPsd": 21.82841531111487
},
{
  "frequencyRange": {
    "highFrequency": 6165,
    "lowFrequency": 6145
  },
  "maxPsd": 20.386146472145548
},
{
  "frequencyRange": {
    "highFrequency": 6185,
    "lowFrequency": 6165
  },
  "maxPsd": 9.611430198695134
},
{
  "frequencyRange": {
    "highFrequency": 6205,
```

```
        "lowFrequency": 6185
      },
      "maxPsd": 15.17789546442271
    },
    {
      "frequencyRange": {
        "highFrequency": 6225,
        "lowFrequency": 6205
      },
      "maxPsd": 21.59136127625943
    },
    {
      "frequencyRange": {
        "highFrequency": 6245,
        "lowFrequency": 6225
      },
      "maxPsd": 21.339510122368818
    },
    {
      "frequencyRange": {
        "highFrequency": 6265,
        "lowFrequency": 6245
      },
      "maxPsd": 8.501260128419117
    },
    {
      "frequencyRange": {
        "highFrequency": 6605,
        "lowFrequency": 6585
      },
      "maxPsd": 17.913437030131057
    },
    {
      "frequencyRange": {
        "highFrequency": 6625,
        "lowFrequency": 6605
      },
    },
```

```
"maxPsd": 18.67943722940528
},
{
  "frequencyRange": {
    "highFrequency": 6645,
    "lowFrequency": 6625
  },
  "maxPsd": 17.36517025225281
},
{
  "frequencyRange": {
    "highFrequency": 6665,
    "lowFrequency": 6645
  },
  "maxPsd": 16.868581936669198
},
{
  "frequencyRange": {
    "highFrequency": 6685,
    "lowFrequency": 6665
  },
  "maxPsd": 20.2934544286792
},
{
  "frequencyRange": {
    "highFrequency": 6705,
    "lowFrequency": 6685
  },
  "maxPsd": 13.62625493695821
},
{
  "frequencyRange": {
    "highFrequency": 6725,
    "lowFrequency": 6705
  },
  "maxPsd": 8.980119162459044
},
},
```

```
{
  "frequencyRange": {
    "highFrequency": 6745,
    "lowFrequency": 6725
  },
  "maxPsd": 17.728372806491404
}
],
"availableChannelInfo": [
  {
    "channelCfi": [
      1,
      5,
      9,
      13,
      17,
      21,
      25,
      29,
      33,
      37,
      41,
      45,
      49,
      53,
      57,
      61,
      129,
      133,
      137,
      141,
      145,
      149,
      153,
      157
    ]
  },
  "globalOperatingClass": 131,
```

```
"maxEirp": [  
    24.96950634171767,  
    28.148711726625283,  
    30.434130679445808,  
    23.8098318912623,  
    30.69939544970255,  
    28.533614836102082,  
    30.371319739675833,  
    21.88472817103811,  
    22.31137400556274,  
    34.83871526775468,  
    33.39644642878536,  
    22.621730155334944,  
    28.188195421062524,  
    34.60166123289925,  
    34.349810079008634,  
    21.51156008505893,  
    30.92373698677087,  
    31.689737186045093,  
    30.375470208892622,  
    29.87888189330901,  
    33.30375438531901,  
    26.636554893598024,  
    21.990419119098856,  
    30.738672763131216  
]  
},  
{  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,  
        51,  
        59,
```

```
        131,
        139,
        147,
        155
    ],
    "globalOperatingClass": 132,
    "maxEirp": [
        27.97980629835748,
        26.82013184790211,
        31.543914792741894,
        24.89502812767792,
        25.321673962202553,
        25.632030111974757,
        31.198495377702336,
        24.521860041698744,
        33.93403694341068,
        32.88918184994883,
        29.646854850237837,
        25.00071907573867
    ]
},
{
    "channelCfi": [
        7,
        23,
        39,
        55,
        135,
        151
    ],
    "globalOperatingClass": 133,
    "maxEirp": [
        29.830431804541924,
        27.90532808431773,
        28.33197391884236,
        27.53215999833855,
        35.89948180658863,
```

```
28.011019032378478
]
},
{
  "channelCfi": [
    15,
    47,
    143
  ],
  "globalOperatingClass": 134,
  "maxEirp": [
    30.915628040957547,
    30.54245995497837,
    31.021318989018294
  ]
}
],
"requestId": "1",
"availabilityExpireTime": "2023-12-12T11:27:41Z",
"rulesetId": "US_47_CFR_PART_15_SUBPART_E"
}
],
"version": "1.4"
}
```

CT_AFC_SP_AP_AFCDUUAU34_FrequencyChannel_10631_1

2023-12-11T12:15:13Z

```
{
  "headers": {
    "Host": "testserver.wfatestorg.org",
    "Accept": "*/*",
    "Content-Type": "application/json",
    "Authorization": "na",
    "X-Forwarded-For": "192.168.1.1",
    "X-Forwarded-Host": "testserver.wfatestorg.org",
    "X-Forwarded-Server": "testserver.wfatestorg.org",
    "Content-Length": "1217",
    "Connection": "Keep-Alive"
  },
  "body": {
    "version": "1.4",
    "availableSpectrumInquiryRequests": [
      {
        "requestId": "0",
        "deviceDescriptor": {
          "serialNumber": "CXNK0155B520",
          "certificationId": [
            {
              "rulesetId": "US_47_CFR_PART_15_SUBPART_E",
              "id": "2ABLKU6HE"
            }
          ]
        }
      }
    ],
    "location": {
      "ellipse": {
        "center": {
          "longitude": -121,
          "latitude": 38
        },
        "majorAxis": 32,
        "minorAxis": 32,
        "orientation": 0
      }
    }
  }
}
```

```
    },
    "elevation": {
      "height": 0,
      "heightType": "AMSL",
      "verticalUncertainty": 10
    },
    "indoorDeployment": 2
  },
  "inquiredFrequencyRange": [
    {
      "lowFrequency": 5925,
      "highFrequency": 6425
    },
    {
      "lowFrequency": 6525,
      "highFrequency": 6875
    }
  ],
  "inquiredChannels": [
    {
      "globalOperatingClass": 131,
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
```

```
        61,  
        65,  
        69,  
        73,  
        77,  
        81,  
        85,  
        89,  
        93,  
        117,  
        121,  
        125,  
        129,  
        133,  
        137,  
        141,  
        145,  
        149,  
        153,  
        157,  
        161,  
        165,  
        169,  
        173,  
        177,  
        181  
    ]  
},  
{  
    "globalOperatingClass": 132,  
    "channelCfi": [  
        3,  
        11,  
        19,  
        27,  
        35,  
        43,
```

```
        51,
        59,
        67,
        75,
        83,
        91,
        123,
        131,
        139,
        147,
        155,
        163,
        171,
        179
    ]
},
{
    "globalOperatingClass": 133,
    "channelCfi": [
        7,
        23,
        39,
        55,
        71,
        87,
        135,
        151,
        167
    ]
},
{
    "globalOperatingClass": 134,
    "channelCfi": [
        15,
        47,
        79,
        143
    ]
}
```

```
        ]
      },
      {
        "globalOperatingClass": 137,
        "channelCfi": [
          63
        ]
      }
    ],
    "minDesiredPower": -10
  }
]
}
}
```

2023-12-11T12:15:13Z

```
{
  "availableSpectrumInquiryResponses": [
    {
      "response": {
        "responseCode": 0,
        "shortDescription": "SUCCESS"
      },
      "availableFrequencyInfo": [
        {
          "frequencyRange": {
            "highFrequency": 5945,
            "lowFrequency": 5925
          },
          "maxPsd": 23
        },
        {
          "frequencyRange": {
            "highFrequency": 5965,
            "lowFrequency": 5945
          },
          "maxPsd": 23
        }
      ]
    }
  ]
}
```

```
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 5985,  
        "lowFrequency": 5965  
      },  
      "maxPsd": 23  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6005,  
        "lowFrequency": 5985  
      },  
      "maxPsd": 23  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6025,  
        "lowFrequency": 6005  
      },  
      "maxPsd": 23  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6045,  
        "lowFrequency": 6025  
      },  
      "maxPsd": 23  
    },  
    {  
      "frequencyRange": {  
        "highFrequency": 6065,  
        "lowFrequency": 6045  
      },  
      "maxPsd": 23  
    },  
    {
```

```
"frequencyRange": {
  "highFrequency": 6085,
  "lowFrequency": 6065
},
"maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6105,
    "lowFrequency": 6085
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6125,
    "lowFrequency": 6105
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6145,
    "lowFrequency": 6125
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6165,
    "lowFrequency": 6145
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6185,
```

```
        "lowFrequency": 6165
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6205,
        "lowFrequency": 6185
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6245,
        "lowFrequency": 6225
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6265,
        "lowFrequency": 6245
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6285,
        "lowFrequency": 6265
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6305,
        "lowFrequency": 6285
      },

```

```
"maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6325,
    "lowFrequency": 6305
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6345,
    "lowFrequency": 6325
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6365,
    "lowFrequency": 6345
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6385,
    "lowFrequency": 6365
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6405,
    "lowFrequency": 6385
  },
  "maxPsd": 23
},
},
```

```
{
  "frequencyRange": {
    "highFrequency": 6425,
    "lowFrequency": 6405
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6545,
    "lowFrequency": 6525
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6565,
    "lowFrequency": 6545
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6585,
    "lowFrequency": 6565
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
    "highFrequency": 6605,
    "lowFrequency": 6585
  },
  "maxPsd": 23
},
{
  "frequencyRange": {
```

```
        "highFrequency": 6625,
        "lowFrequency": 6605
    },
    "maxPsd": 23
},
{
    "frequencyRange": {
        "highFrequency": 6645,
        "lowFrequency": 6625
    },
    "maxPsd": 23
},
{
    "frequencyRange": {
        "highFrequency": 6665,
        "lowFrequency": 6645
    },
    "maxPsd": 23
},
{
    "frequencyRange": {
        "highFrequency": 6685,
        "lowFrequency": 6665
    },
    "maxPsd": 23
},
{
    "frequencyRange": {
        "highFrequency": 6705,
        "lowFrequency": 6685
    },
    "maxPsd": 23
},
{
    "frequencyRange": {
        "highFrequency": 6725,
        "lowFrequency": 6705
```

```
    },
    "maxPsd": 23
  },
  {
    "frequencyRange": {
      "highFrequency": 6745,
      "lowFrequency": 6725
    },
    "maxPsd": 23
  },
  {
    "frequencyRange": {
      "highFrequency": 6765,
      "lowFrequency": 6745
    },
    "maxPsd": 23
  },
  {
    "frequencyRange": {
      "highFrequency": 6785,
      "lowFrequency": 6765
    },
    "maxPsd": 23
  },
  {
    "frequencyRange": {
      "highFrequency": 6805,
      "lowFrequency": 6785
    },
    "maxPsd": 23
  },
  {
    "frequencyRange": {
      "highFrequency": 6825,
      "lowFrequency": 6805
    },
    "maxPsd": 23
  }
```

```
    },
    {
      "frequencyRange": {
        "highFrequency": 6845,
        "lowFrequency": 6825
      },
      "maxPsd": 23
    },
    {
      "frequencyRange": {
        "highFrequency": 6865,
        "lowFrequency": 6845
      },
      "maxPsd": 23
    }
  ],
  "availableChannelInfo": [
    {
      "channelCfi": [
        1,
        5,
        9,
        13,
        17,
        21,
        25,
        29,
        33,
        37,
        41,
        45,
        49,
        53,
        57,
        61,
        65,
        69,
```

[illegible]

[illegible]

```

        36.0,
        36.0,
        36.0
    ]
},
{
    "channelCfi": [
        7,
        23,
        39,
        55,
        71,
        87,
        135,
        151,
        167
    ],
    "globalOperatingClass": 133,
    "maxEirp": [
        36.0,
        36.0,
        36.0,
        36.0,
        36.0,
        36.0,
        36.0,
        36.0,
        36.0
    ]
},
{
    "channelCfi": [
        15,
        47,
        79,
        143
    ],

```

```
    "globalOperatingClass": 134,  
    "maxEirp": [  
        36.0,  
        36.0,  
        36.0,  
        36.0  
    ]  
  }  
],  
  "requestId": "0",  
  "availabilityExpireTime": "2023-12-12T12:15:13Z",  
  "rulesetId": "US_47_CFR_PART_15_SUBPART_E"  
}  
],  
"version": "1.4"  
}
```

AFC capability - Inquired Frequency & Channel

AFCD.RSA: Successful registration and spectrum access request											
Freq. (MHz)	Mode (LPI or SP)	Bandwidth (MHz)	Antenna Gain (dBi)	Power (dBm)	EIRP (dBm)	AFC Response Limit (dBm)	Result	PSD (dBm/MHz)	EIRP PSD (dBm/MHz)	AFC Response Limit (dBm/MHz)	Result
6215	SP	20	5.2	20.80	26	34.21	Pass	7.83	13.03	21.20	Pass
6375	SP	20	5.2	21.36	26.56	32.50	Pass	8.37	13.57	19.49	Pass
6205	SP	40	5.2	23.04	28.24	31.19	Pass	6.35	11.55	15.17	Pass
6045	SP	40	5.2	23.40	28.6	29.83	Pass	7.75	12.95	13.81	Pass
6625	SP	80	5.6	21.47	27.07	30.12	Pass	3.13	8.73	11.09	Pass
6065	SP	80	5.2	22.58	27.78	30.90	Pass	3.53	8.73	11.87	Pass
6345	SP	160	5.2	21.99	27.19	31.91	Pass	-0.49	4.71	9.87	Pass
6185	SP	160	5.2	22.30	27.5	32.91	Pass	0.59	5.79	10.87	Pass

AFCD.SAU: Successful spectrum access update											
Freq. (MHz)	Mode (LPI or SP)	Bandwidth (MHz)	Antenna Gain (dBi)	Power (dBm)	EIRP (dBm)	AFC Response Limit (dBm)	Result	PSD (dBm/MHz)	EIRP PSD (dBm/MHz)	AFC Response Limit (dBm/MHz)	Result
6615	SP	20	5.6	19.51	25.11	31.68	Pass	4.96	10.56	18.67	Pass

AFCD.UAU: Unsuccessful spectrum access update											
Freq. (MHz)	Mode (LPI or SP)	Bandwidth (MHz)	Antenna Gain (dBi)	Power (dBm)	EIRP (dBm)	AFC Response Limit (dBm)	Result	PSD (dBm/MHz)	EIRP PSD (dBm/MHz)	AFC Response Limit (dBm/MHz)	Result
5975	SP	20	5.2	21.91	27.11	36.00	Pass	7.59	12.79	23.00	Pass

AFC capability - Inquired Frequency & Channel

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_20MHz_10625_1

Frequency (MHz): 6215

5.925-6.425GHz_802.11ax HEW20_1TX

AV Power

6215MHz_TX

11/12/2023

CF (Hz)
6.215G

Span (Hz)
30M

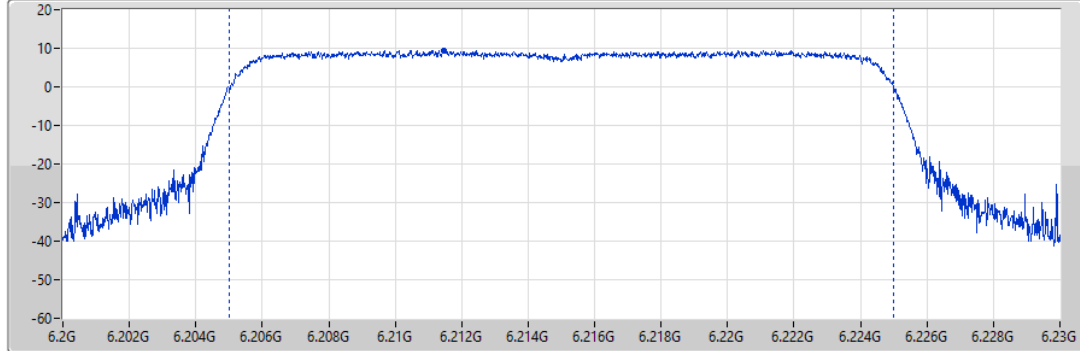
RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
1.067m

Detector Type
RMS

CP BW (Hz)
20M



Port 1

Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
20.80	20.80

5.925-6.425GHz_802.11ax HEW20_1TX

PSD

6215MHz

11/12/2023

CF (Hz)
6.215G

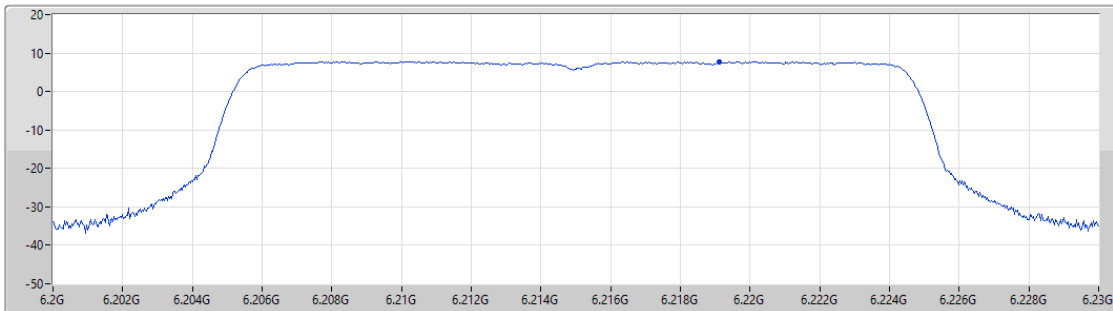
Span (Hz)
30M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
20m

Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.83	7.83	7.83

Frequency (MHz): 6375

5.925-6.425GHz_802.11ax HEW20_1TX

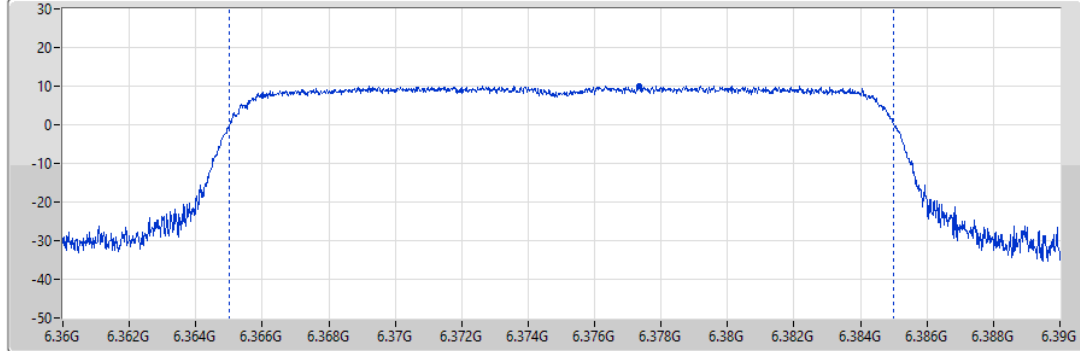
AV Power

6375MHz_TX

11/12/2023

CF (Hz)
6.375G
Span (Hz)
30M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
1.067m
Detector Type
RMS
CP BW (Hz)
20M

Sum=Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
21.36	21.36

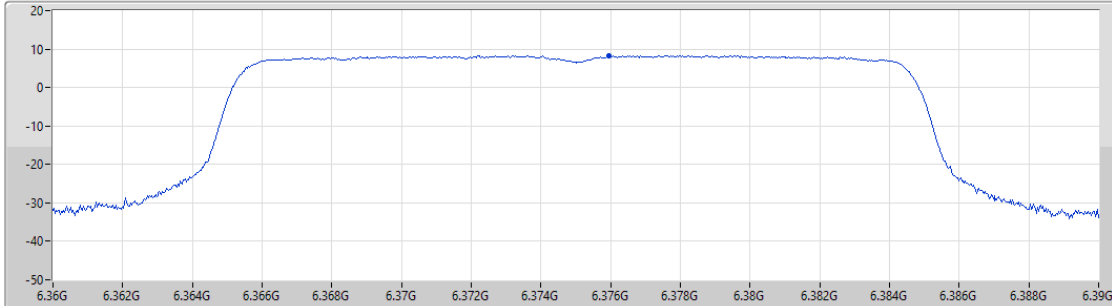
5.925-6.425GHz_802.11ax HEW20_1TX

PSD

6375MHz

11/12/2023

CF (Hz)
6.375G
Span (Hz)
30M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
8.37	8.37	8.37

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_40MHz_10626_1

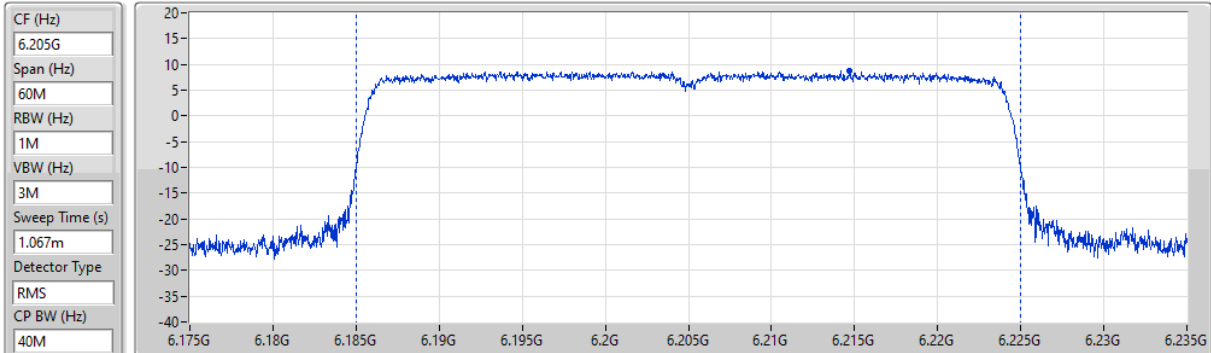
Frequency (MHz): 6205

5.925-6.425GHz_802.11ax HEW40_1TX

AV Power

6205MHz_TX

11/12/2023



Sum=Total Power
 PX=Port X

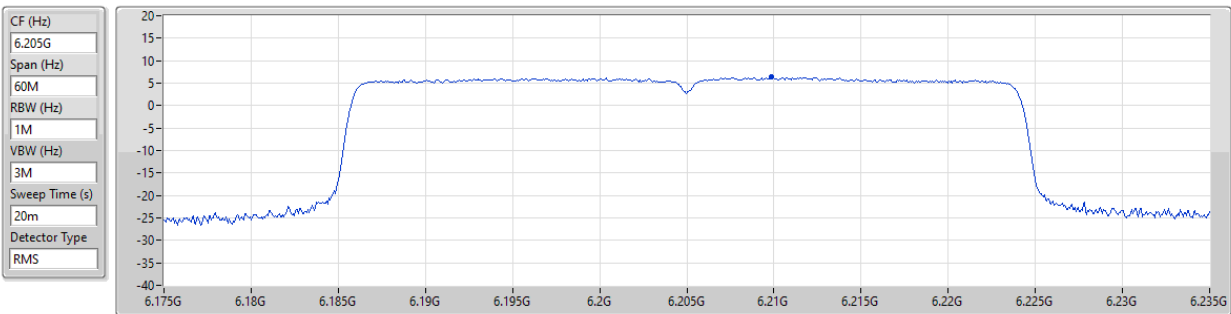
Sum(dBm)	P1(dBm)
23.04	23.04

5.925-6.425GHz_802.11ax HEW40_1TX

PSD

6205MHz

11/12/2023



Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
6.35	6.35	6.35

Frequency (MHz): 6045

5.925-6.425GHz_802.11ax HEW40_1TX

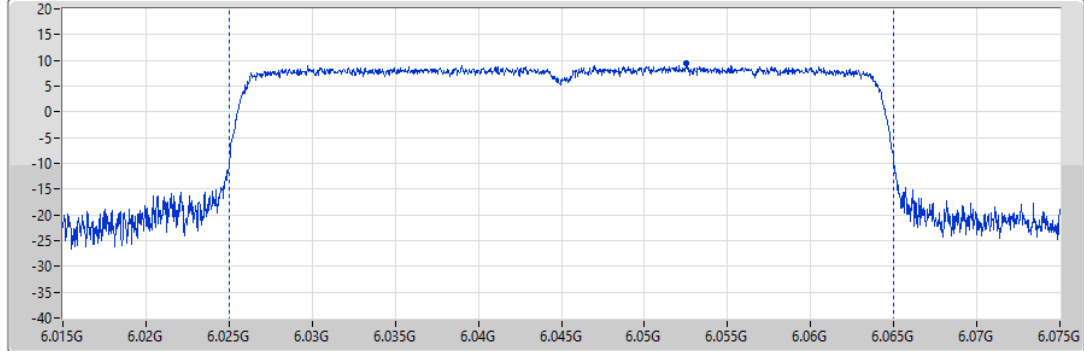
AV Power

6045MHz_TX

11/12/2023

CF (Hz)
6.045G
Span (Hz)
60M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
1.067m
Detector Type
RMS
CP BW (Hz)
40M

Sum=Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
23.40	23.40

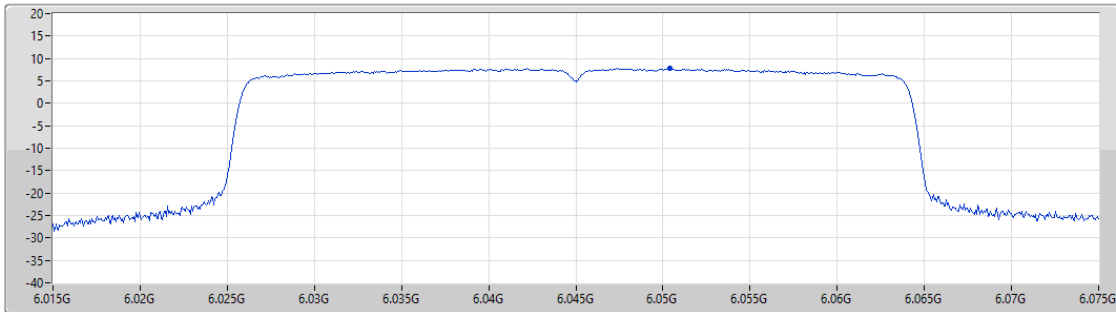
5.925-6.425GHz_802.11ax HEW40_1TX

PSD

6045MHz

11/12/2023

CF (Hz)
6.045G
Span (Hz)
60M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum (dBm/Hz)	PD (dBm/Hz)	Port 1 (dBm/Hz)
7.75	7.75	7.75

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_80MHz_10627_1

Frequency (MHz): 6625

6.525-6.875GHz_802.11ax HEW80_1TX

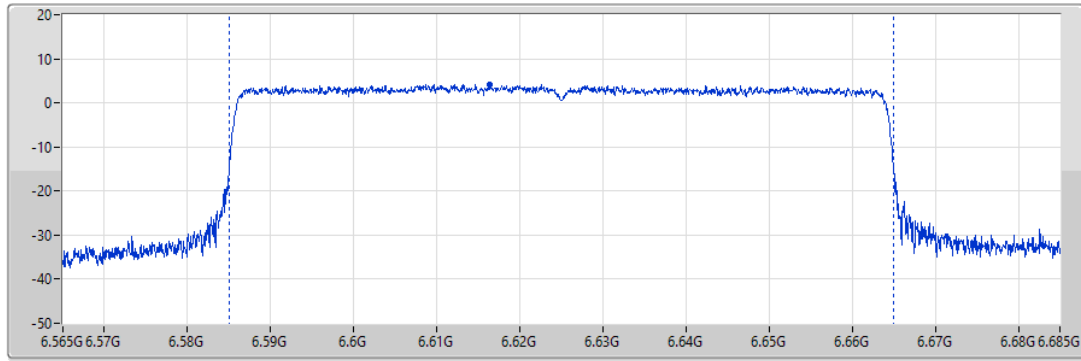
AV Power

6625MHz_TX

11/12/2023

CF (Hz)
6.625G
Span (Hz)
120M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
1.067m
Detector Type
RMS
CP BW (Hz)
80M

Sum=Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
21.47	21.47

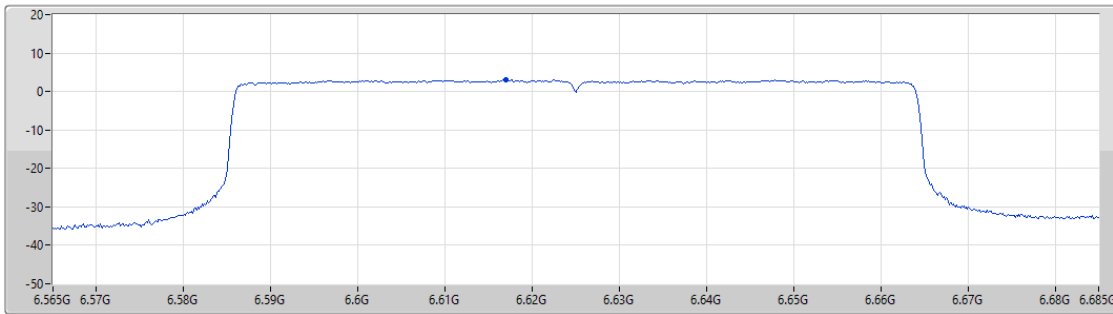
6.525-6.875GHz_802.11ax HEW80_1TX

PSD

6625MHz

11/12/2023

CF (Hz)
6.625G
Span (Hz)
120M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.13	3.13	3.13

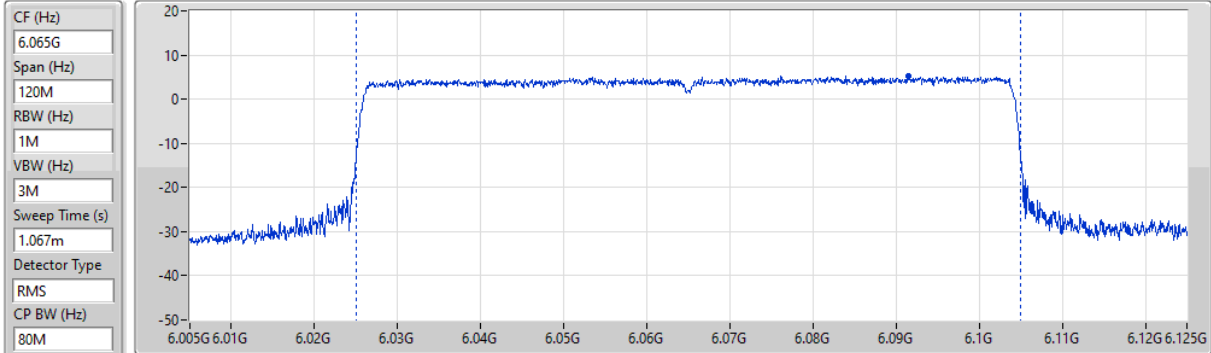
Frequency (MHz): 6065

5.925-6.425GHz_802.11ax HEW80_1TX

AV Power

6065MHz_TX

11/12/2023



Sum=Total Power
PX=Port X

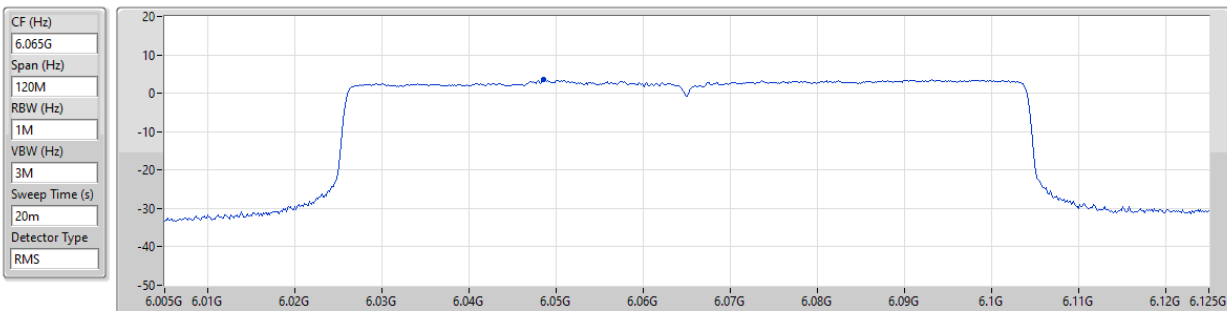
Sum(dBm)	P1(dBm)
22.58	22.58

5.925-6.425GHz_802.11ax HEW80_1TX

PSD

6065MHz

11/12/2023



Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
3.53	3.53	3.53

CT_AFC_SP_AP_AFCDRSA31_FrequencyChannel_160MHz_10628_1

Frequency (MHz): 6345

5.925-6.425GHz_802.11ax HEW160_1TX

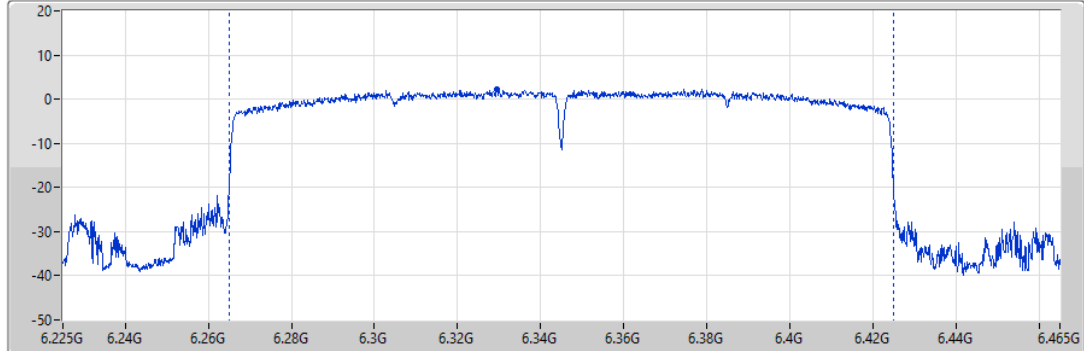
AV Power

6345MHz_TX

11/12/2023

CF (Hz)
6.345G
Span (Hz)
240M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
1.067m
Detector Type
RMS
CP BW (Hz)
160M

Sum=Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
21.99	21.99

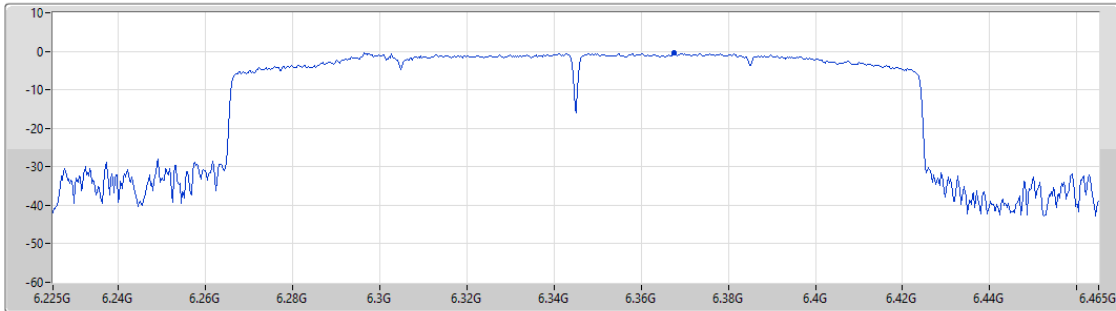
5.925-6.425GHz_802.11ax HEW160_1TX

PSD

6345MHz

11/12/2023

CF (Hz)
6.345G
Span (Hz)
240M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.49	-0.49	-0.49

Frequency (MHz): 6185

5.925-6.425GHz_802.11ax HEW160_1TX

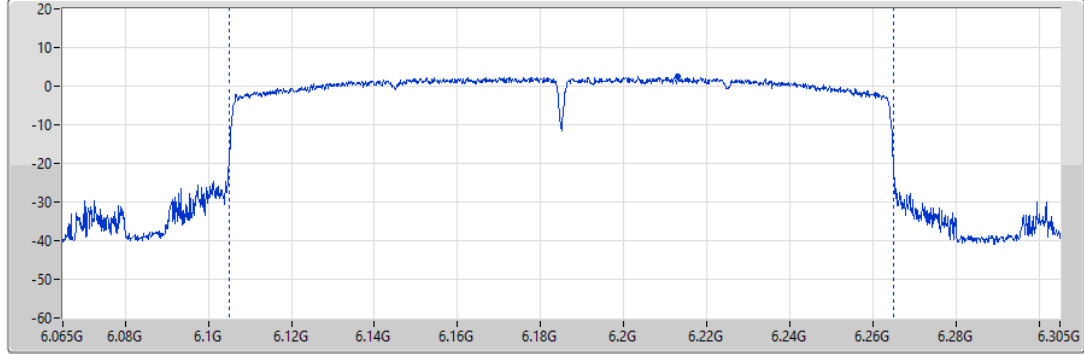
AV Power

6185MHz_TX

11/12/2023

CF (Hz)
6.185G
Span (Hz)
240M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
1.067m
Detector Type
RMS
CP BW (Hz)
160M

Sum=Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
22.30	22.30

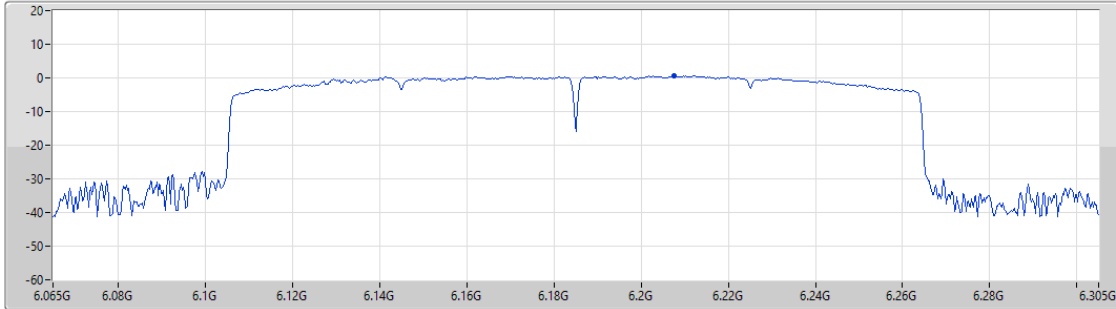
5.925-6.425GHz_802.11ax HEW160_1TX

PSD

6185MHz

11/12/2023

CF (Hz)
6.185G
Span (Hz)
240M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.59	0.59	0.59

CT_AFC_SP_AP_AFCDSAU33_FrequencyChannel_10630_1

Bandwidth: 20MHz

Frequency (MHz): 6615

6.525-6.875GHz_802.11ax HEW20_1TX

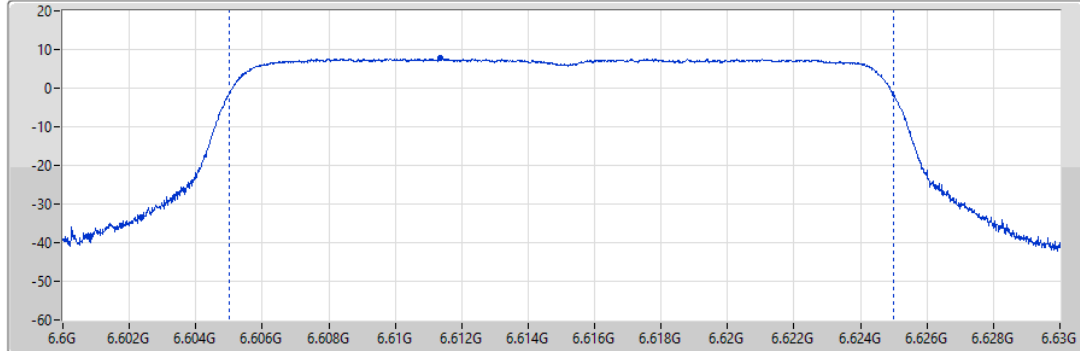
AV Power

6615MHz_TX

11/12/2023

CF (Hz)
6.615G
Span (Hz)
30M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS
CP BW (Hz)
20M

Sum= Total Power
PX=Port X



Port 1

Sum(dBm)	P1(dBm)
19.51	19.51

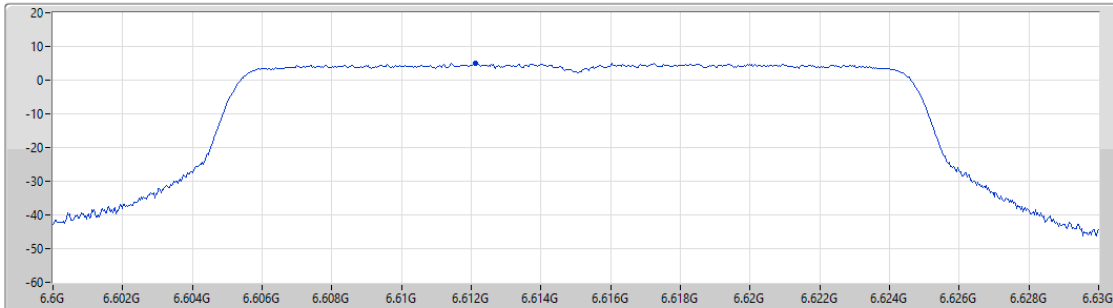
6.525-6.875GHz_802.11ax HEW20_1TX

PSD

6615MHz

11/12/2023

CF (Hz)
6.615G
Span (Hz)
30M
RBW (Hz)
1M
VBW (Hz)
3M
Sweep Time (s)
20m
Detector Type
RMS



Port 1

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.96	4.96	4.96

CT_AFC_SP_AP_AFCDUAU34_FrequencyChannel_10631_1

Bandwidth: 20MHz

Frequency (MHz): 5975

5.925-6.425GHz_802.11ax HEW20_1TX

AV Power

5975MHz_TX

11/12/2023

CF (Hz)
5.975G

Span (Hz)
30M

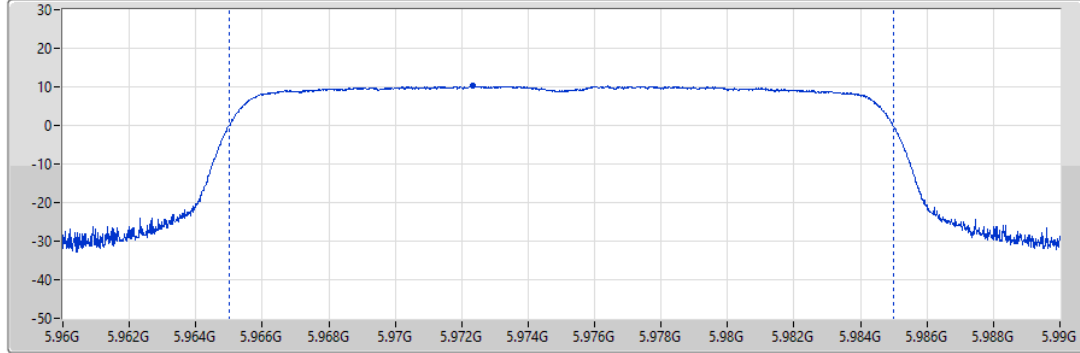
RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
20m

Detector Type
RMS

CP BW (Hz)
20M



Port 1

Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
21.91	21.91

5.925-6.425GHz_802.11ax HEW20_1TX

PSD

5975MHz

11/12/2023

CF (Hz)
5.975G

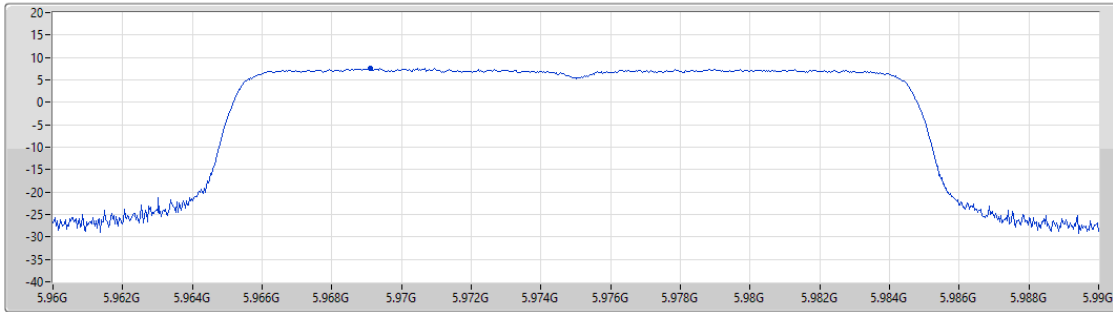
Span (Hz)
30M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
20m

Detector Type
RMS



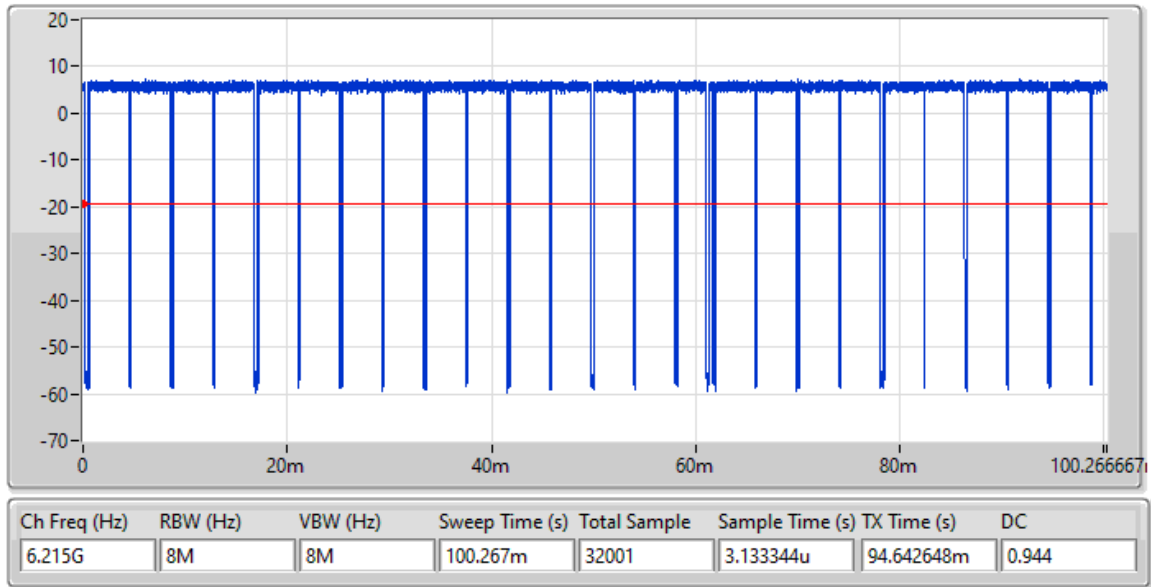
Port 1

Sum (dBm/RBW)	PD (dBm/RBW)	Port 1 (dBm/RBW)
7.59	7.59	7.59

Duty Cycle

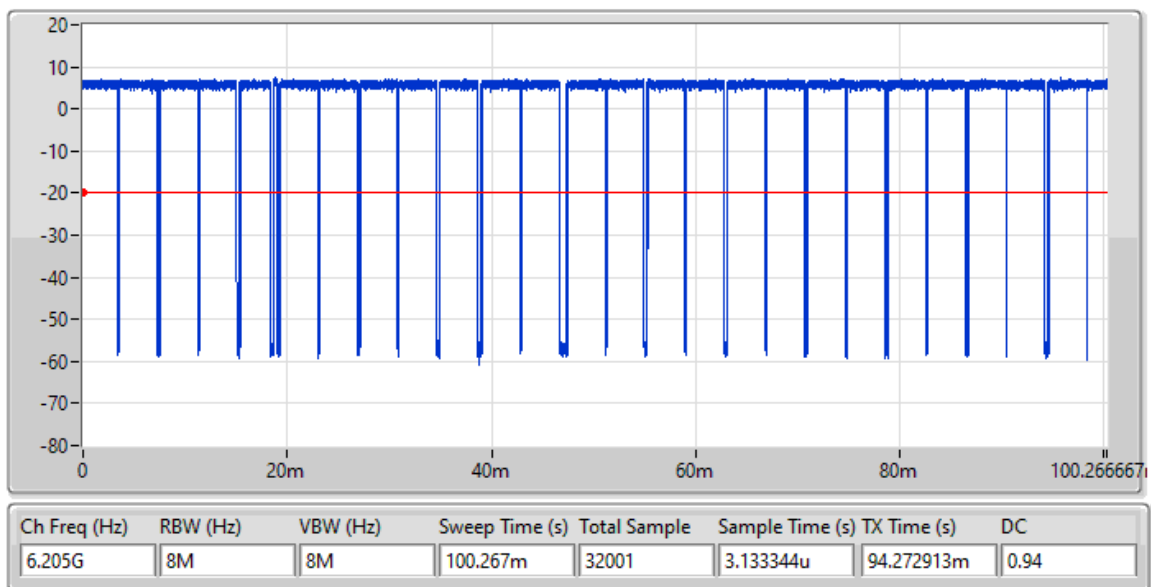
Bandwidth: 20MHz

DC;ax20;BWch:20



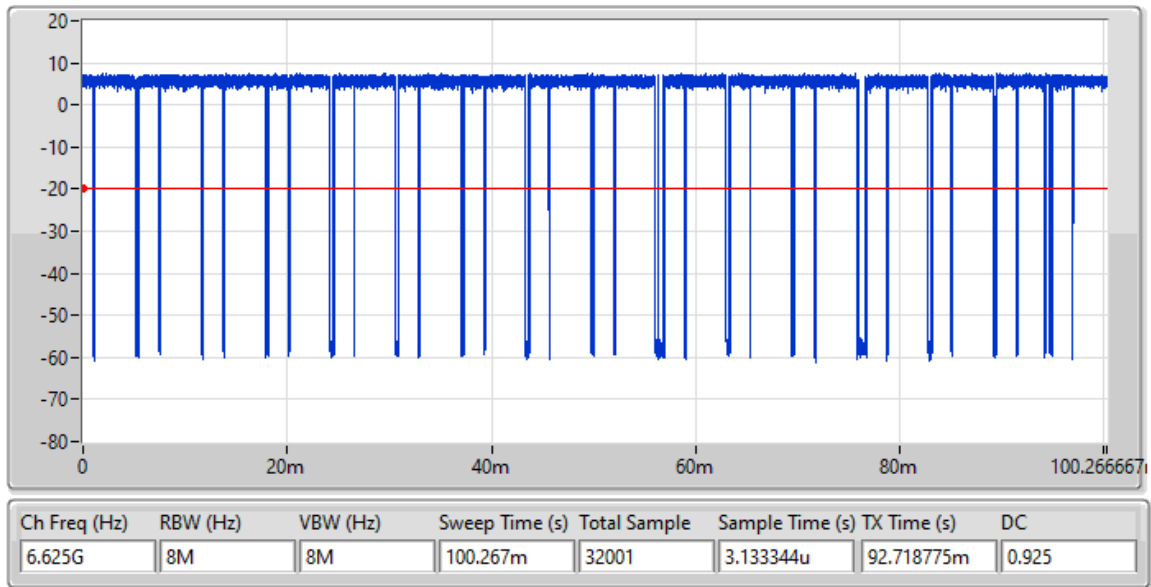
Bandwidth: 40MHz

DC;ax40;BWch:40



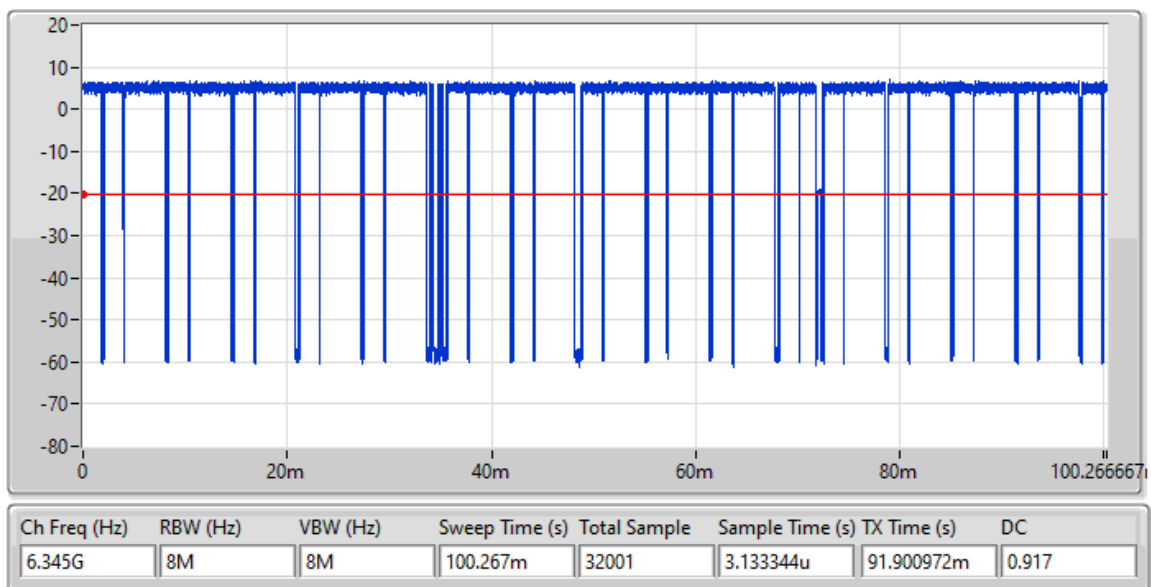
Bandwidth: 80MHz

DC;ax80;BWch:80



Bandwidth: 160MHz

DC;ax160;BWch:160



—THE END—