



Test Report No:
2370075R-RFUSDFSV02-A

TEST REPORT (Dynamic Frequency Selection) FCC Rules&Regulations

Product Name	Mesh Wi-Fi Router
Brand Name	Castlenet
Model No.	EBM562UP, EBM562, EBM562P, EBM562U
FCC ID	RK9-EBM562
Applicant's Name / Address	CastleNet Technology Inc. No. 14, Ln. 141, Sec. 3, Beishen Rd., Shenkeng Dist., New Taipei City 22244, Taiwan (R.O.C.)
Manufacturer's Name / Address	CastleNet Technology Inc. No. 14, Ln. 141, Sec. 3, Beishen Rd., Shenkeng Dist., New Taipei City 22244, Taiwan (R.O.C.)
Test Method Requested, Standard	FCC CFR Title 47 Part 15 Subpart E Section 15.407 ANSI C63.10-2013
Verdict Summary	IN COMPLIANCE
Documented By	<i>Amelia Wu</i> Amelia Wu
Approved By	<i>Rueyyan Lin</i> Rueyyan Lin
Date of Receipt	Jul. 04, 2023
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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Aug. 11, 2023

Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)	Remark
5	DFS: UNII Detection Bandwidth Measurement	PASS	-
6	DFS: Initial Channel Availability Check Time	PASS	-
7	DFS: Radar Burst at the Beginning of the Channel Availability Check Time	PASS	-
8	DFS: Radar Burst at the End of the Channel Availability Check Time	PASS	-
9	DFS: In-Service Monitoring for Channel Move Time (CMT)	PASS	-
9	DFS: In-Service Monitoring for Channel Closing Transmission Time (CCTT)	PASS	-
9	DFS: In-Service Monitoring for Non-Occupancy Period (NOP)	PASS	-
10	DFS: Statistical Performance Check	PASS	-

Comments and Explanations

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1. General Information

1.1. EUT Description

DFS Frequency Range	5250 ~ 5350 MHz 5470 ~ 5725 MHz	
DFS Operating Frequency / Number of DFS Channels	IEEE 802.11a	5260~5320MHz / 4 Channels
	IEEE 802.11n/ac/ax (20 MHz)	5500~5720MHz / 12 Channels
	IEEE 802.11n/ac/ax (40 MHz)	5270~5310MHz / 2 Channels 5510~5710MHz / 6 Channels
	IEEE 802.11ac/ax (80 MHz)	5290MHz / 1 Channel 5530~5690MHz / 3 Channel
Type of Modulation	IEEE 802.11a/n	OFDM-BPSK, QPSK, 16QAM, 64QAM
	IEEE 802.11ac	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM
Channel Control	IEEE 802.11ax	OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
	Auto	
Channel Bandwidth	20/40/80/160MHz	

Accessories Information					
No.	Equipment Name	Brand Name	Model No.	Rating	Remark
1	Adapter 1	MOSO	MS-V1500R120-018 H0-US(SC411-U0)	INPUT:AC100 ~ 240V, 50/60Hz, 0.6A Max OUTPUT: DC 12.0V, 1.5A	For Model No.: EBM562UP / EBM562U
2	Adapter 2	MOSO	MS-V1000R120-012 H0-US(SA839-U1)	INPUT:AC 100 ~ 240V, 50/60Hz, 0.3A Max OUTPUT: DC 12.0V, 1.0A	For Model No.: EBM562P / EBM562
3	Adapter 3	Chenyang	CYAPYL18-120150U	INPUT:AC100 ~ 240V, 50/60Hz, 0.6A Max OUTPUT: DC 12.0V, 1.5A	For Model No.: EBM562UP / EBM562U
4	Adapter 4	Chenyang	CYXT18-120100U	INPUT:AC 100 ~ 240V, 50/60Hz, 0.3A Max OUTPUT: DC 12.0V, 1.0A	For Model No.: EBM562P / EBM562
No.	Equipment Name	Brand Name	Model No.	Description	
5	RJ-45 Cable 1	EEK SONG	PF01-C111	Non-Shielded, 1.0m	
6	RJ-45 Cable 2	EEK SONG	PF01-C122	Non-Shielded, 1.8m	
7	RJ-45 Cable 3	HOP	G-HOP802-223-001	Non-Shielded, 1.8m	

The difference for each model is shown as below:

EUT	Model No.	USB port	Power button	Adapter
1	EBM562UP	V	V	For 1. Adapter 1: brand name: MOSO, model No.:MS-V1500R120-018H0 -US(SC411-U0) 2. Adapter 3: brand name: Chenyang, model No.: CYAPYL18-120150U
2	EBM562	X	X	For 1. Adapter 2: brand name: MOSO, model No.: MS-V1000R120-012H0-US(SA839-U1) 2. Adapter 4: brand name: Chenyang, model No.: CYXT18-120100U
3	EBM562P	X	V	For 1. Adapter 2: brand name: MOSO, model No.: MS-V1000R120-012H0-US(SA839-U1) 2. Adapter 4: brand name: Chenyang, model No.: CYXT18-120100U
4	EBM562U	V	X	For 1. Adapter 1: brand name: MOSO, model No.: MS-V1500R120-018H0 -US(SC411-U0) 2. Adapter 3: brand name: Chenyang, model No.: CYAPYL18-120150U

From the above models, model: EBM562UP was selected as representative model for the test and its data was recorded in this report.

Antenna Information											
Ant.	Brand Name	Model No.	Type	Antenna Gain (dBi)				Directional Gain (dBi)			
				U-NII 1	U-NII 2A	U-NII 2C	U-NII 3	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3
0	Taiwan Anjie	AJDP1J-B0056	PCB	4.12	3.90	4.62	4.11	7.34	7.12	7.87	7.81
1	Taiwan Anjie	AJDP1J-B0086	PCB	4.53	4.32	5.09	5.43				

$$\text{Directional Gain} = 10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{\text{Ant}}]$$

For IEEE 802.11a Mode: (1TX, 1RX)

Only Ant. 0 can be used as transmitting/receiving antenna.

For IEEE 802.11n/ac/ax Mode: (2TX, 2RX)

Both Ant. 0 and Ant. 1 can be used as transmitting/receiving antennas, and they can transmit/receive signal simultaneously.

1.2. EUT Information

EUT Power Type	From Adapter		
Operating Mode	<input checked="" type="checkbox"/>	Master	
	<input type="checkbox"/>	Client with radar detection	
	<input type="checkbox"/>	Client without radar detection	
Communication Mode	<input checked="" type="checkbox"/>	IP Based (Load Based)	<input type="checkbox"/> Frame Based
TPC Function	<input checked="" type="checkbox"/>	With TPC Function	<input type="checkbox"/> Without TPC Function
Weather Band (5600 ~ 5650 MHz)	<input checked="" type="checkbox"/>	With 5600 ~ 5650 MHz	<input type="checkbox"/> Without 5600 ~ 5650 MHz
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/> Without beamforming

1.3. Applicable Standards

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

- FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

1.4. Testing Location Information

Testing Location Information	
Test Laboratory : DEKRA Testing and Certification Co., Ltd.	
1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958
2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958
Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.	

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
DFS	HC-SR10	Neil Yeh	24.7~27.3 / 60~62	2023/07/13~2023/07/18

1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Test item	Uncertainty
DFS	± 0.74 dB

1.6. List of Test Equipment

HC-SR10

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	9 kHz-26.5 GHz	2023/05/09	2024/05/08
MXG Vector Signal Generator	Keysight	N5182B	MY53052548	9 kHz-6 GHz	2023/01/06	2024/01/05
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	1G-18 GHz	2022/08/24	2023/08/23
EXA Signal Analyzer	Keysight	N9010A	MY51440132	10 Hz-44 GHz	2022/12/13	2023/12/12
Spectrum Analyzer	Keysight	N9030B	MY57140404	3 Hz-26.5 GHz	2023/04/24	2024/04/23
Signal & Spectrum Analyzer	R&S	FSV40	101869	10Hz-40GHz	2023/07/03	2024/07/02

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition	
Testing Voltage	AC 120V/60Hz

2.2. Test Channel Frequencies Configuration

IEEE Std.	Test Channel Frequency
802.11ax (20 MHz)	5500 MHz
802.11ax (40 MHz)	5510 MHz
802.11ax (80 MHz)	5530 MHz
802.11ax (160 MHz)	5570 MHz

2.3. The Worst Case Measurement Configuration

Tests Item	Dynamic Frequency Selection (DFS)
Test Condition	The EUT shall be configured to operate at the highest transmitter output power setting. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the lowest gain shall be used.

Note: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.4. Tested System Details

Instrument	Manufacturer	Type No.	Serial No	FCC ID
Laptop PC	DELL	Vostro A860	CD8BMH1	--
Laptop PC	ASUS	K45VD	0343G3110M	--
Wireless Router	ASUS	PCE-AX58BT	N/A	PD9AX200NG
ATT (Qty: 3)	Mini-Circuits	BW-S3W2 DC-18GHz	0025	--
RF Cable (Qty: 6)	Schaffner	--	25494/6	--

Software	Manufacturer	Function
Agilent Signal Studio for DFS_V1.0.0	Agilent	Radar Signal Generation Software
iperf-3.1.3-win64		Data Traffic Tool
Device Firmware Version	Broadcom	17.10.188.6401

2.5. Standard Requirement

FCC Part 15.407:

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

U-NII devices operating in the 5.25 ~ 5.35 GHz and 5.47 ~ 5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

2.6. UNII Device Description

(1) The EUT operates in the following DFS band:

1. 5250 ~ 5350 MHz
2. 5470 ~ 5725 MHz

(2) The U-NII device maximum power is 29.02 dBm (E.I.R.P).

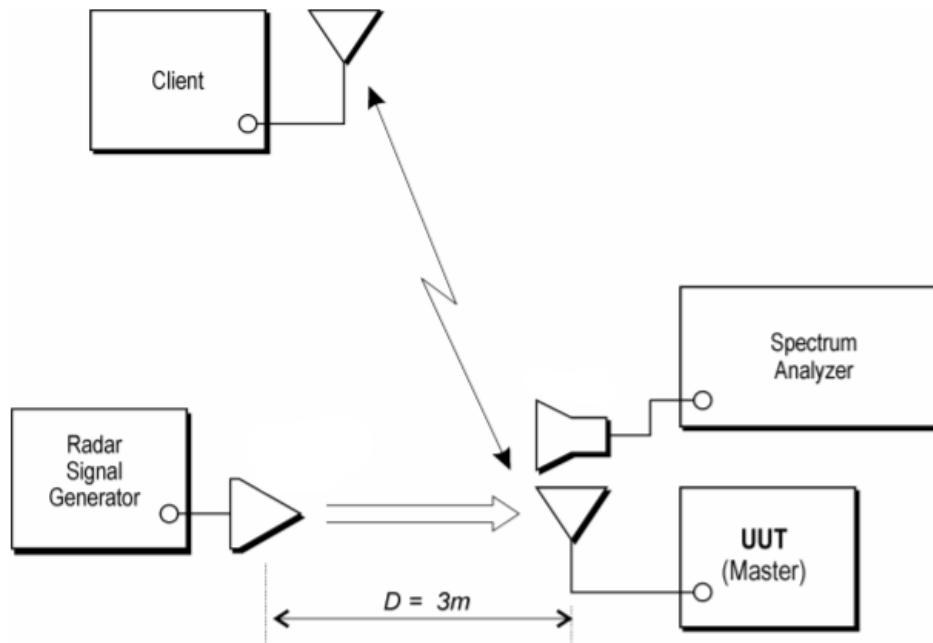
Below are the available 50 ohm antenna assemblies and their corresponding gains. 0dBi gain was used to set the -63 dBm threshold level (-64dBm +1 dB) during calibration of the test setup.

(3) WLAN traffic is generated by the test software "Iperf.exe" from the Master device to the Slave device in the transfer data rate >17%.

(4) For the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

3. General DFS Information

3.1. Test Setup



3.2. DFS Detection Thresholds

(1) Interference Threshold value, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

(2) DFS Response requirement values

Parameter	Value
Non-Occupancy Period	Minimum 30 Minutes
Channel Availability Check Time	60 Seconds
Channel Move Time	10 Seconds (See Note 1)
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period (See Note 1 and Note 2)
U-NII Detection Bandwidth	Minimum 100% of the 99% power bandwidth (See Note 3)
<p>Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.</p> <p>Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.</p> <p>Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.</p>	

3.3. User Access Restrictions

DFS controls (hardware or software) related to radar detection are NOT accessible to the user. Manufacturer statement confirming that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

4. Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

(1) Short Pulse Radar Test Waveforms

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

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

(2) Long Pulse Radar Test Signal

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

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

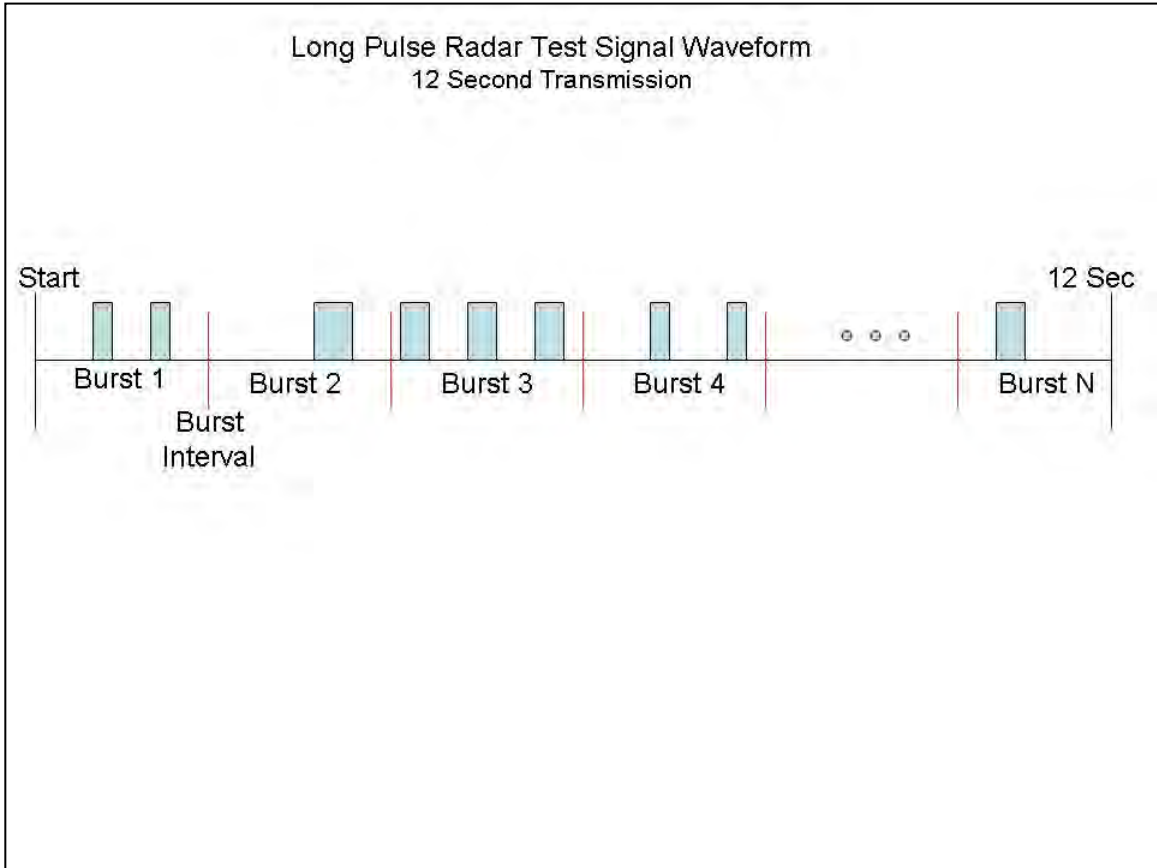
Each waveform is defined as follows:

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

A representative example of a Long Pulse radar test waveform:

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

Graphical Representation of a Long Pulse radar Test Waveform



(3) Frequency Hopping Radar Test Signal

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

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

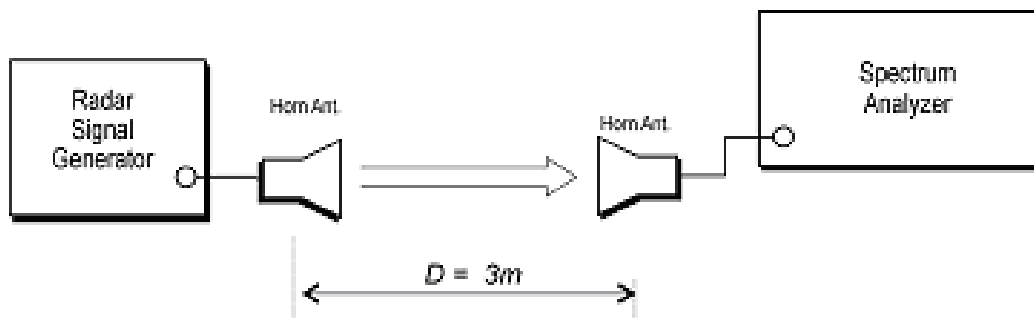
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues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

4.1. Radar Waveform Calibration

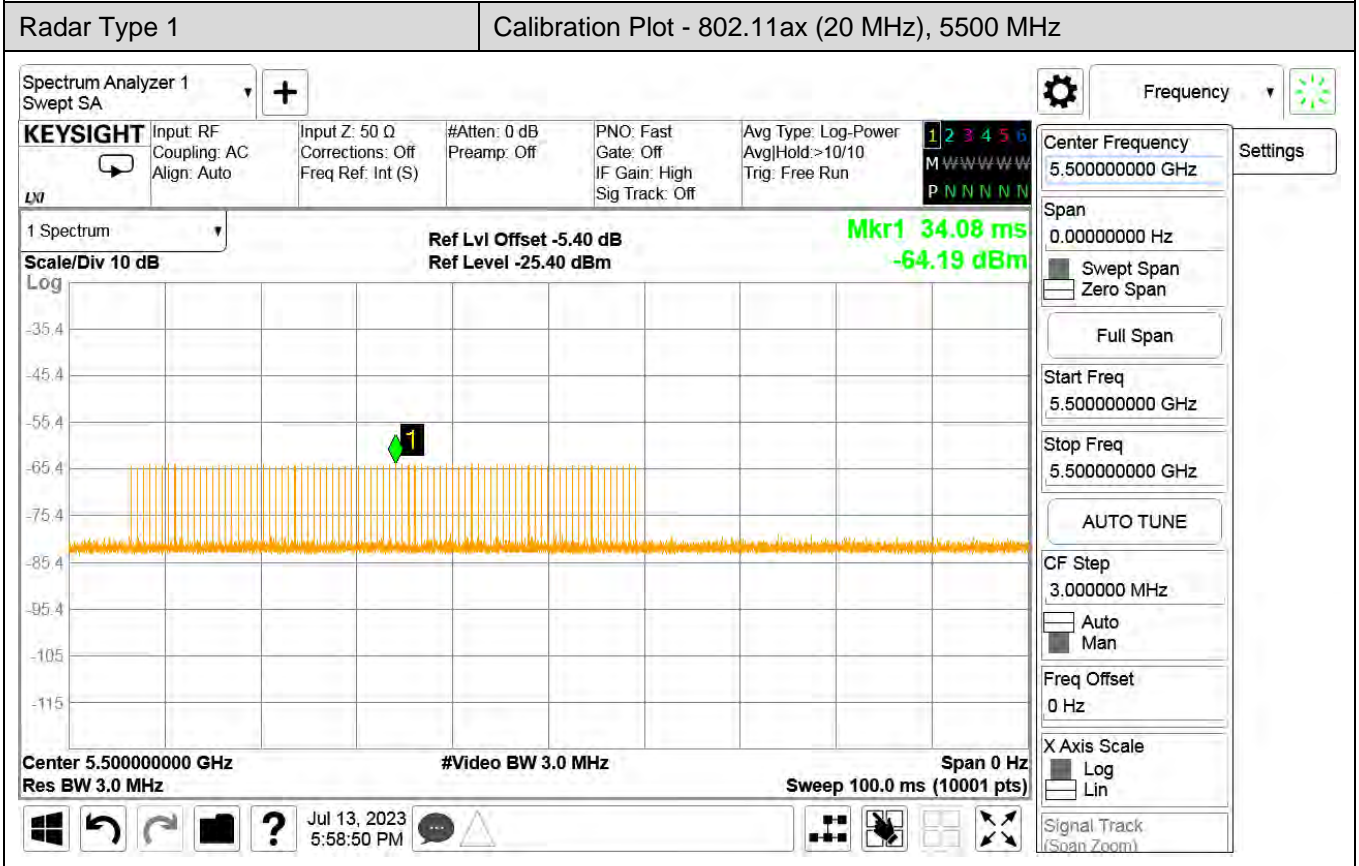
The following equipment setup was used to calibrate the conducted radar waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were replace 50ohm terminal from master and client device and no transmissions by either the master or client device. The spectrum analyzer was switched to the zero span (time domain) at the frequency of the radar waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3MHz and 50MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -64dBm due to the interference threshold level is not required.

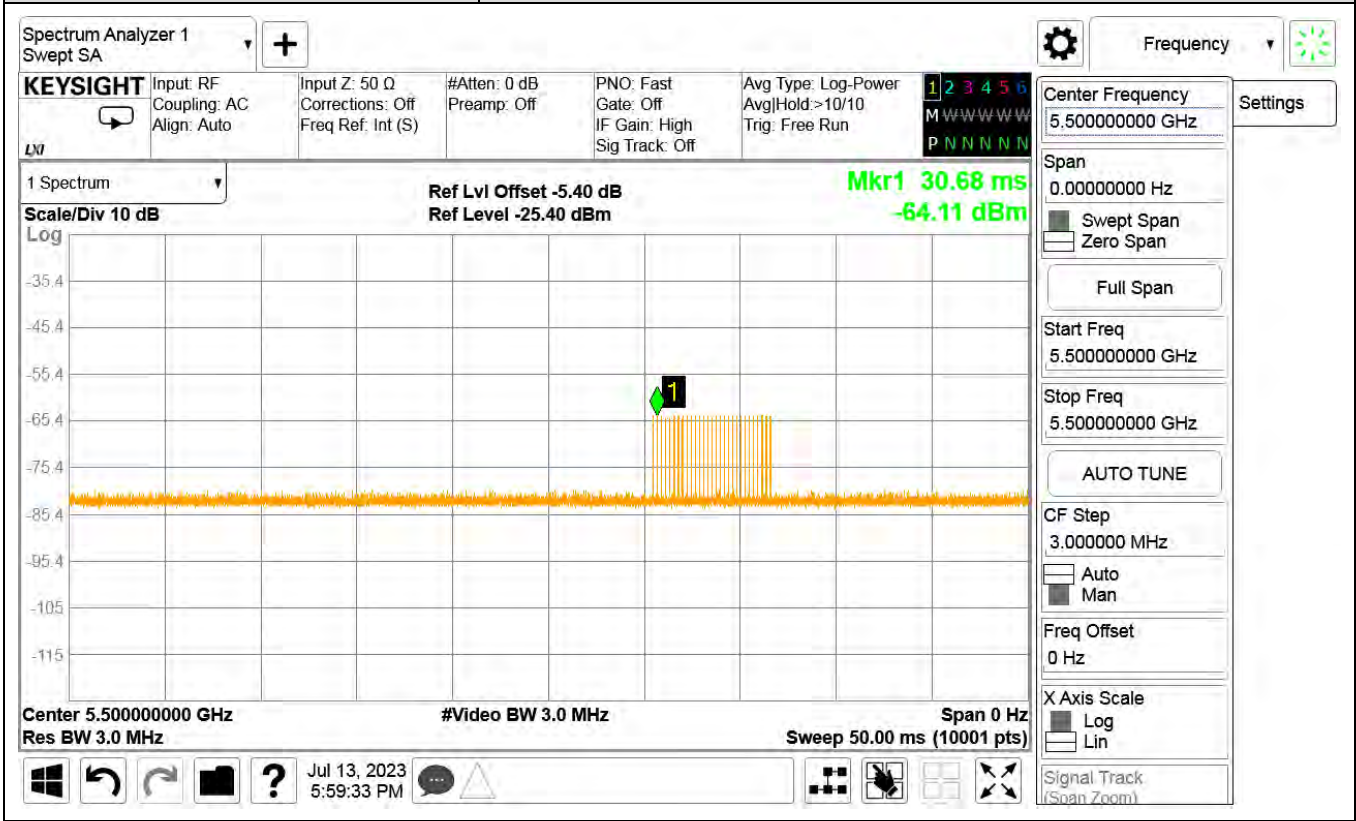
Radiated Calibration Setup



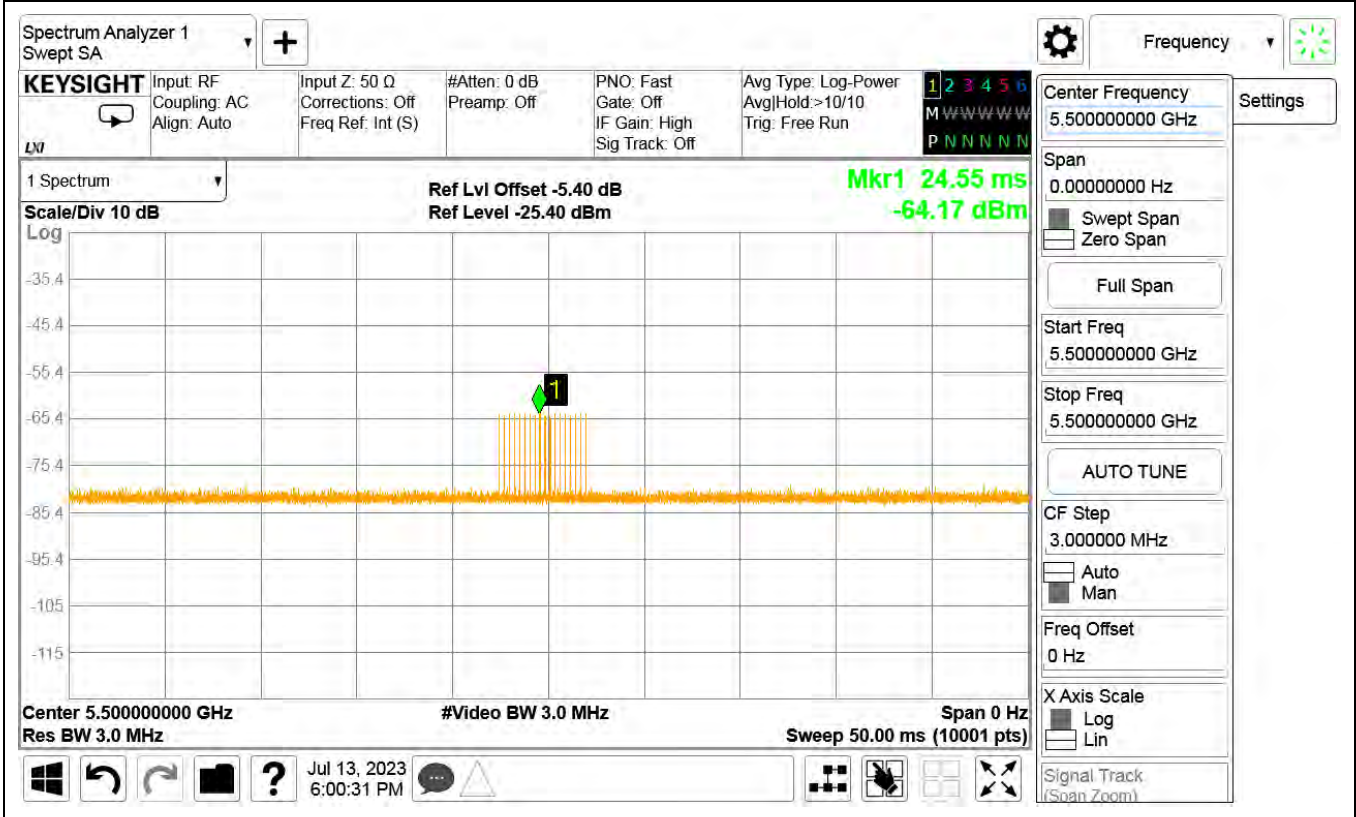
4.2. Radar Waveform Calibration Result



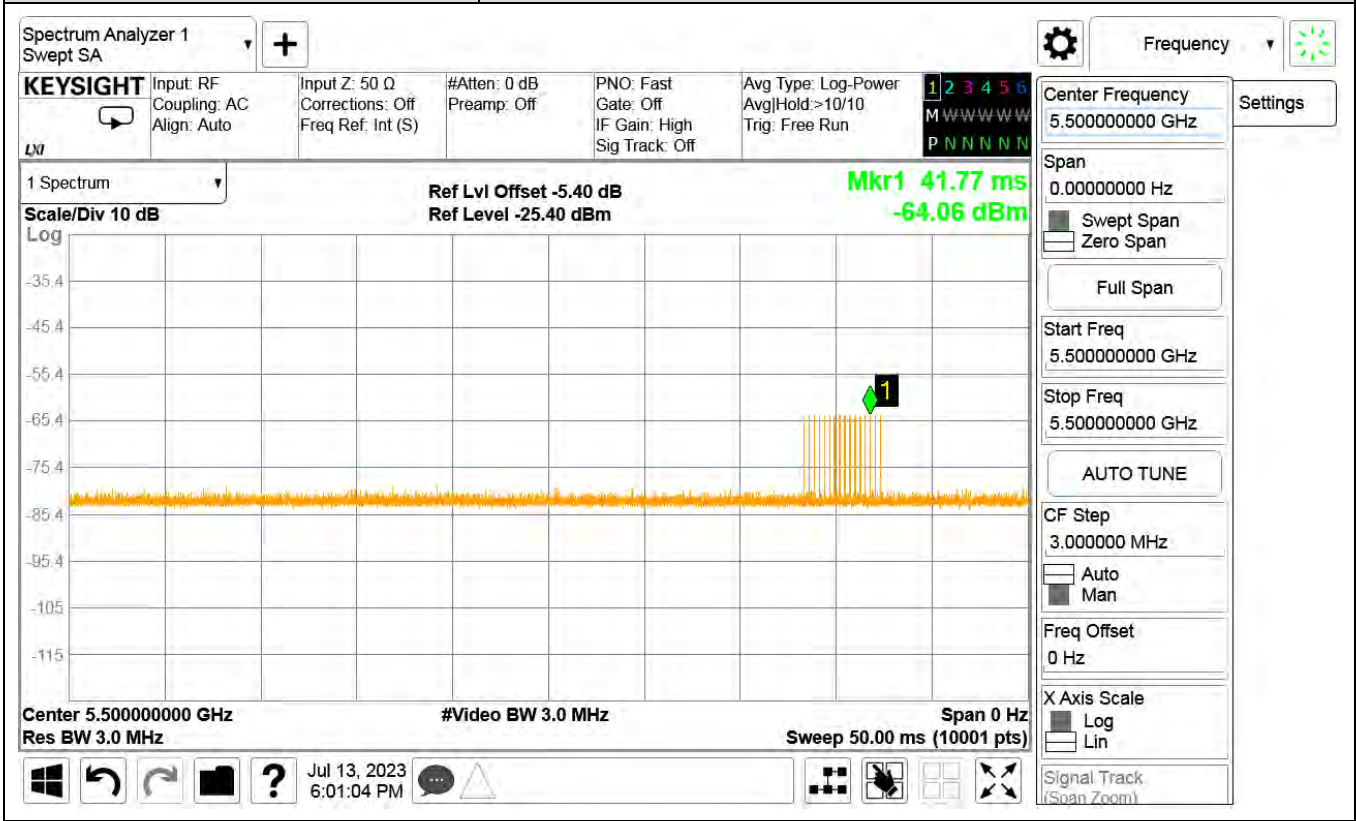
Radar Type 2 Calibration Plot - 802.11ax (20 MHz), 5500 MHz



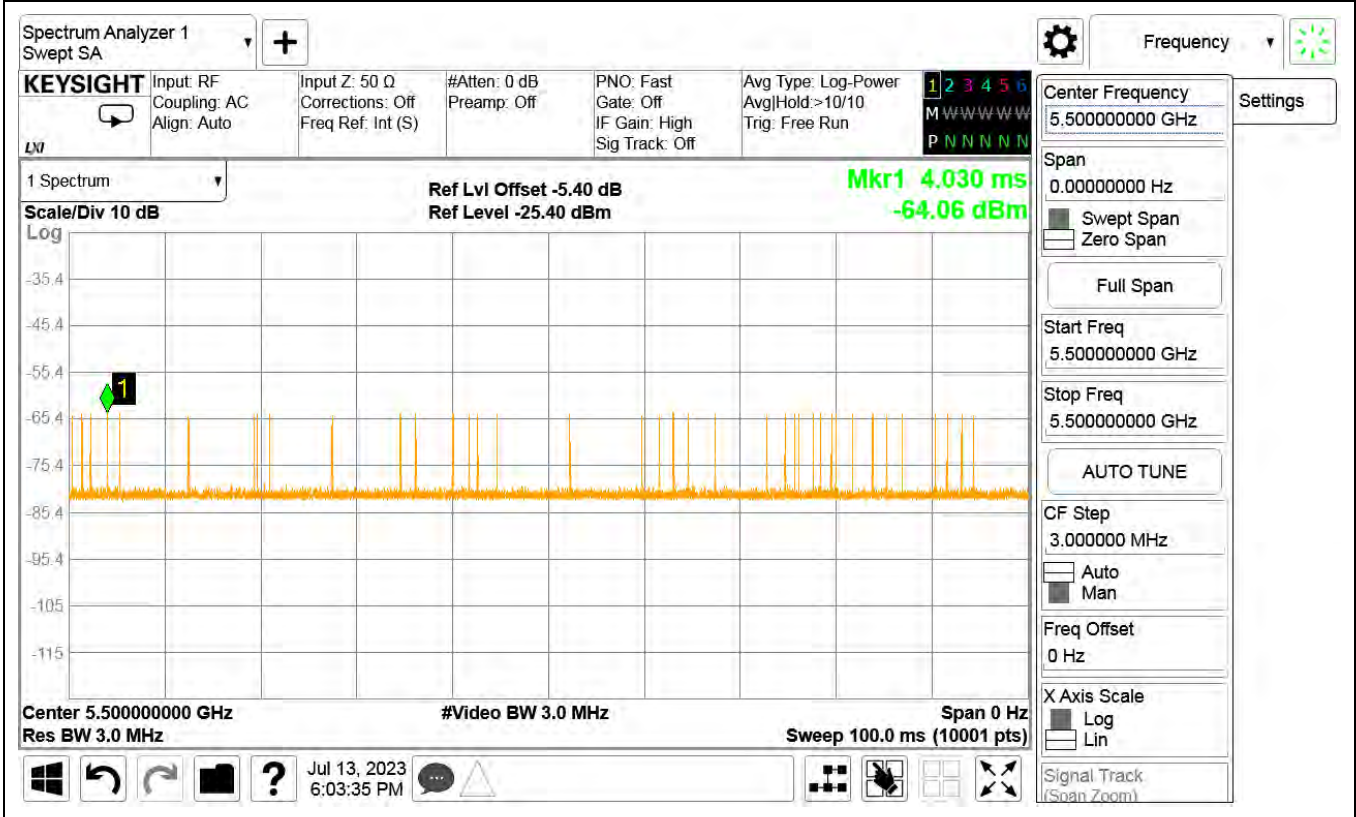
Radar Type 3 Calibration Plot - 802.11ax (20 MHz), 5500 MHz

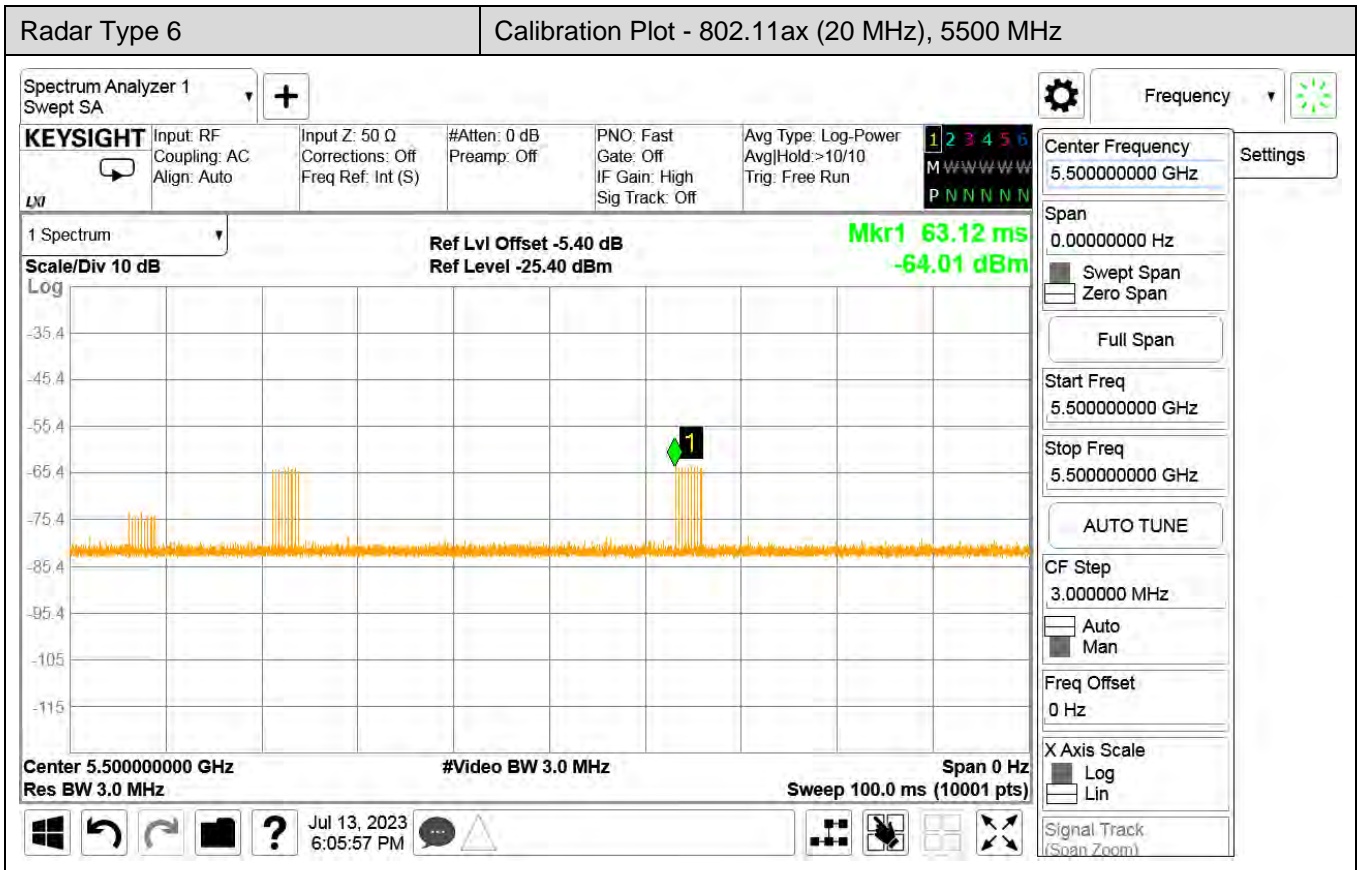


Radar Type 4 Calibration Plot - 802.11ax (20 MHz), 5500 MHz

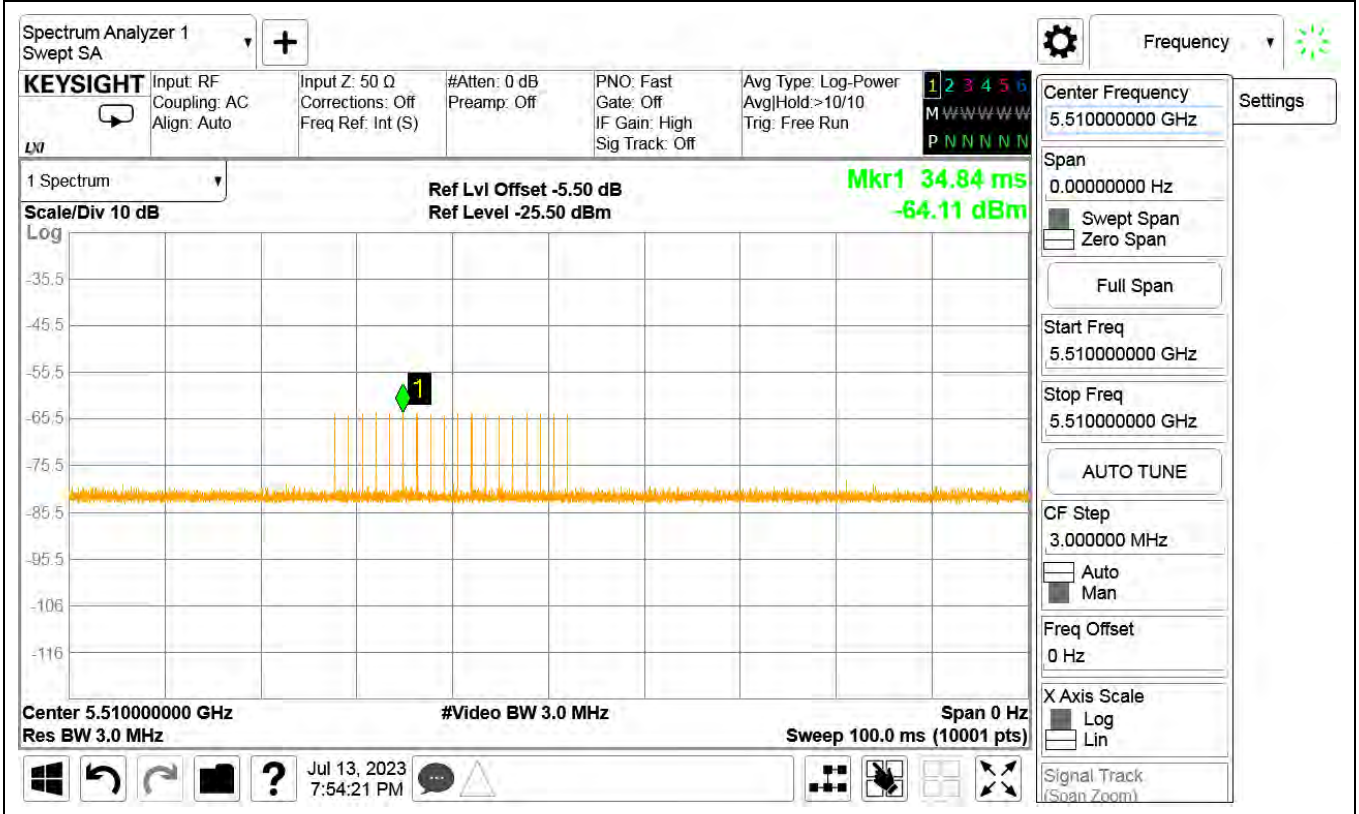


Radar Type 5 Calibration Plot - 802.11ax (20 MHz), 5500 MHz

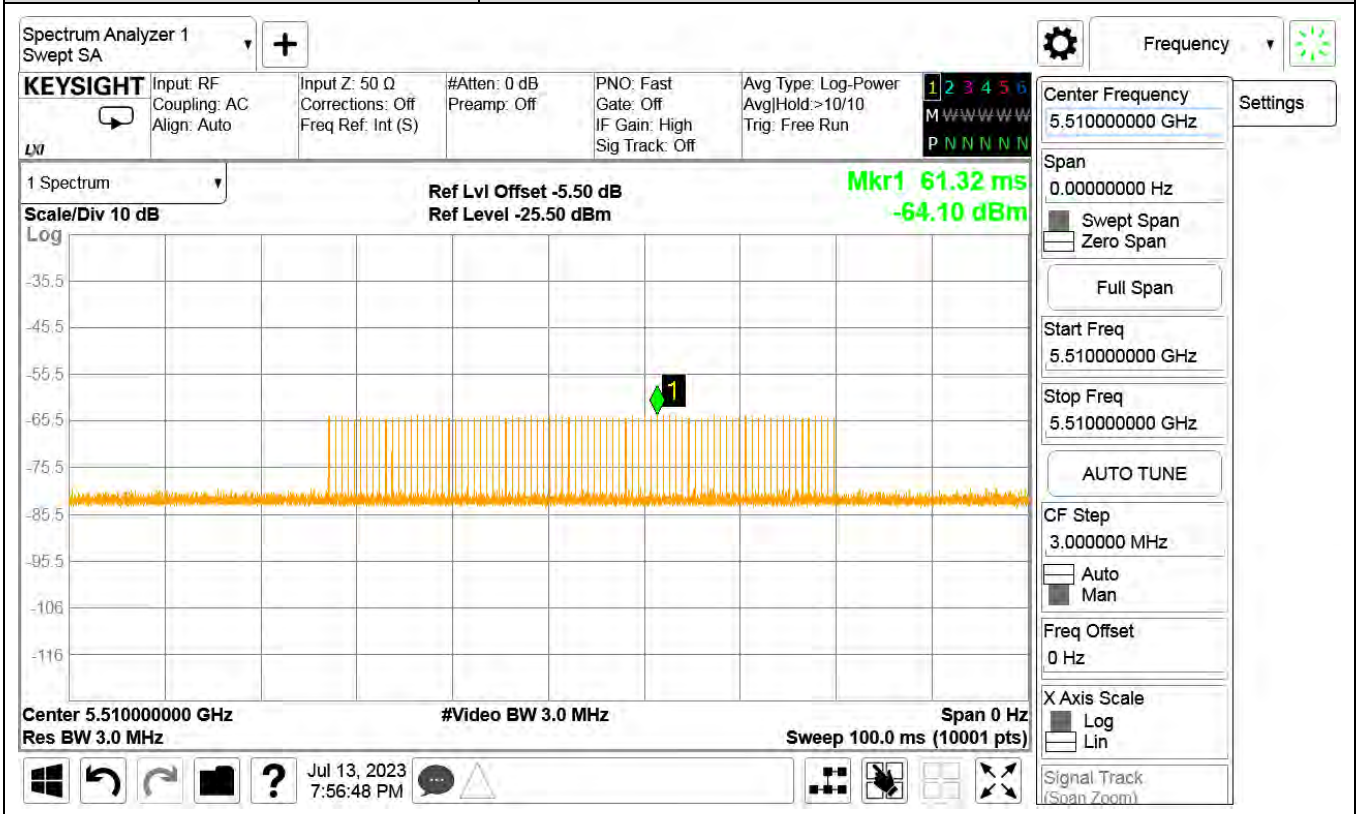




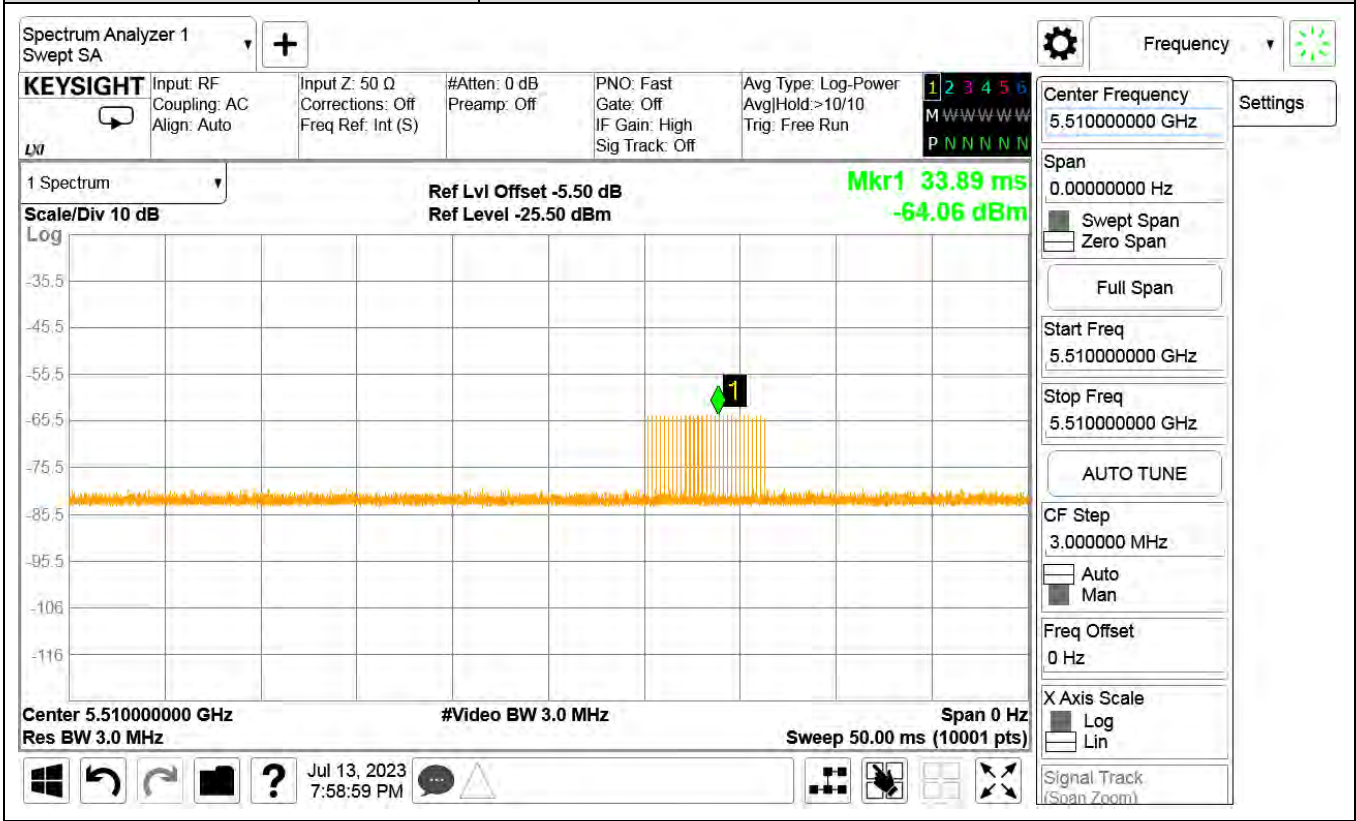
Radar Type 0 Calibration Plot - 802.11ax (40 MHz), 5510 MHz



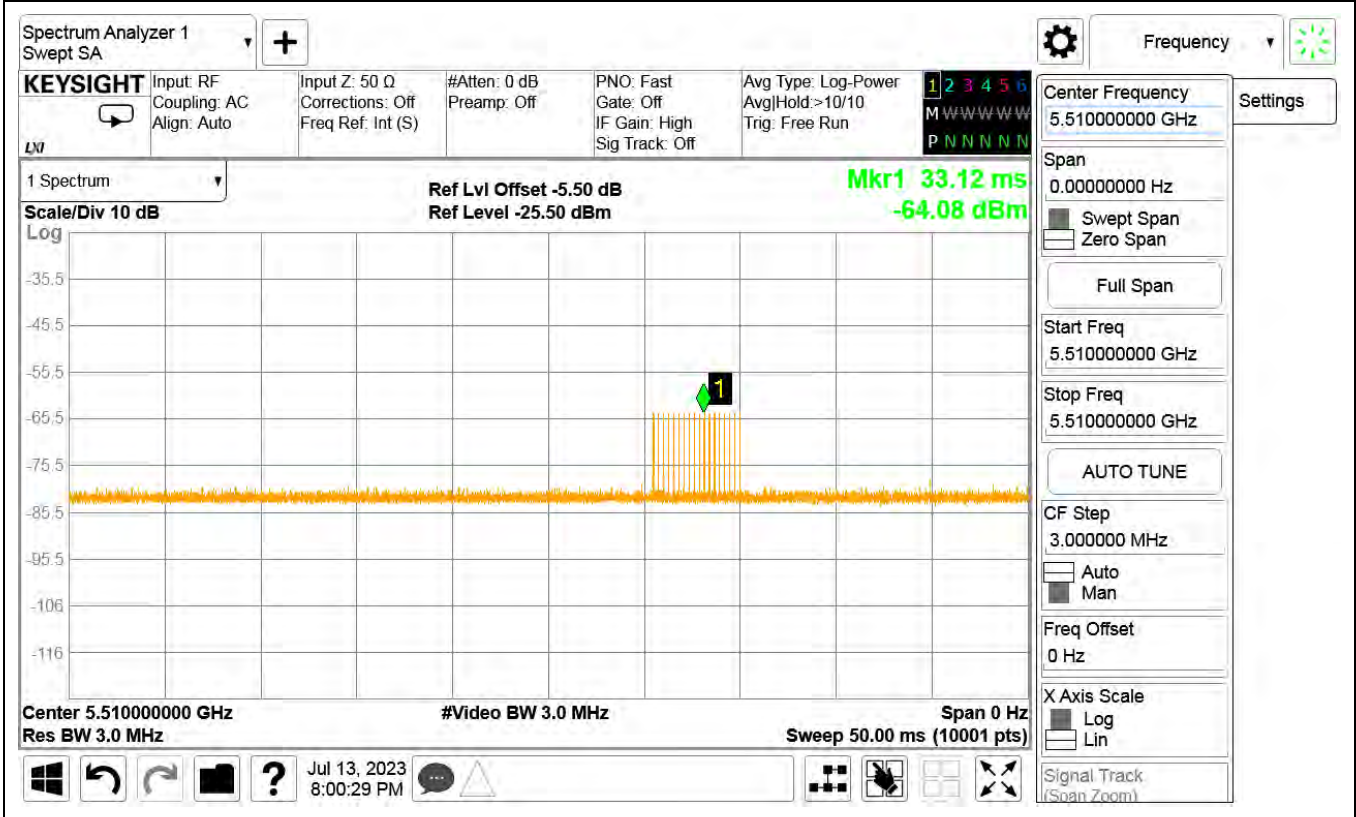
Radar Type 1 Calibration Plot - 802.11ax (40 MHz), 5510 MHz



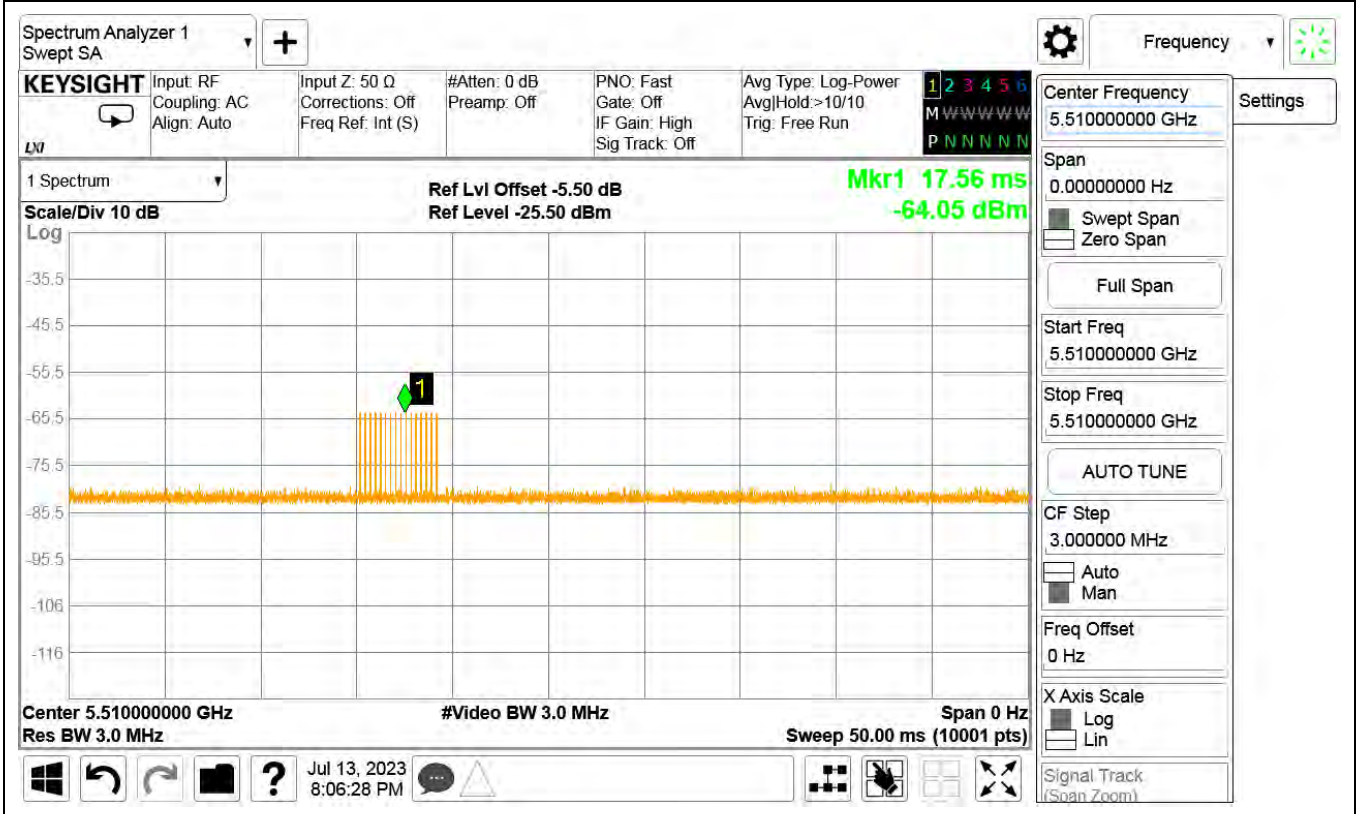
Radar Type 2 Calibration Plot - 802.11ax (40 MHz), 5510 MHz



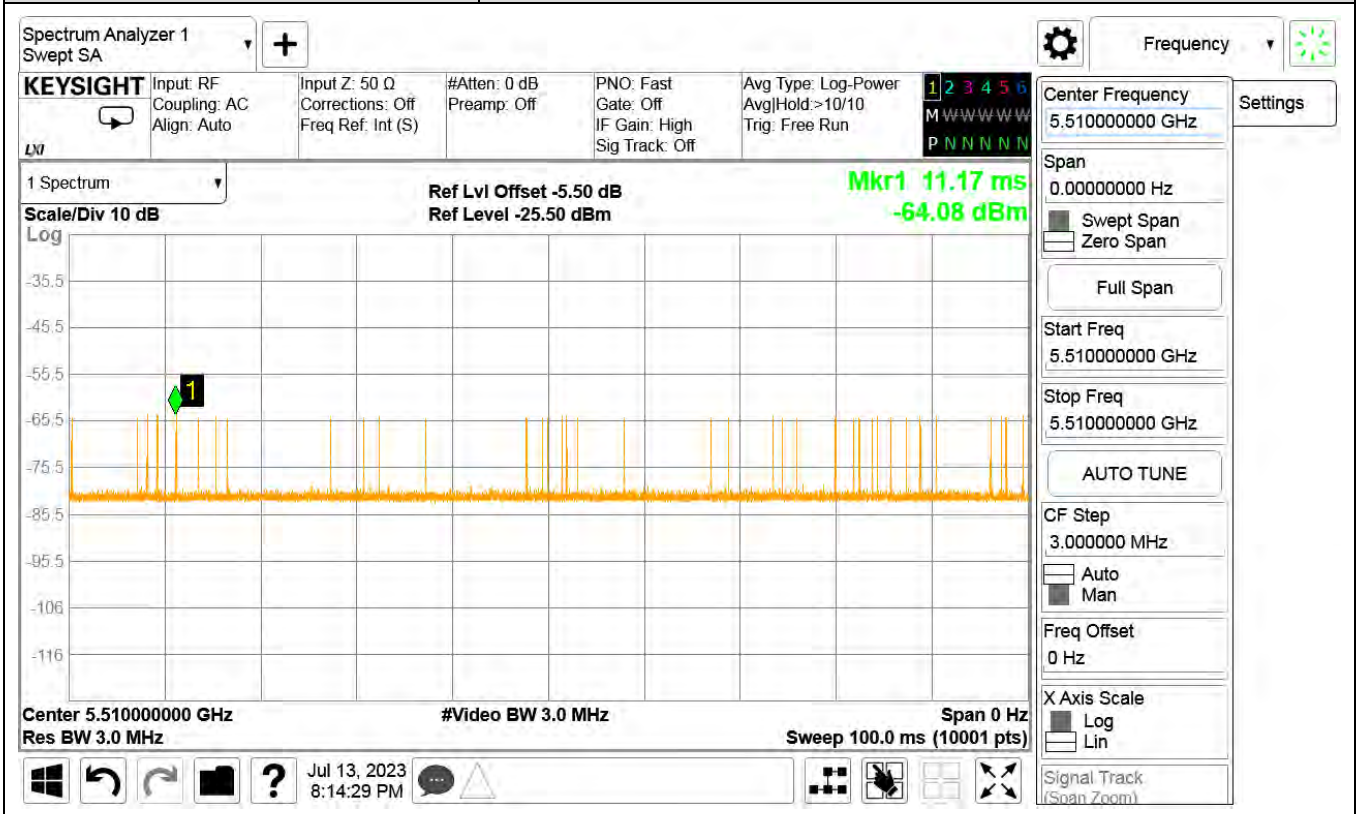
Radar Type 3 Calibration Plot - 802.11ax (40 MHz), 5510 MHz

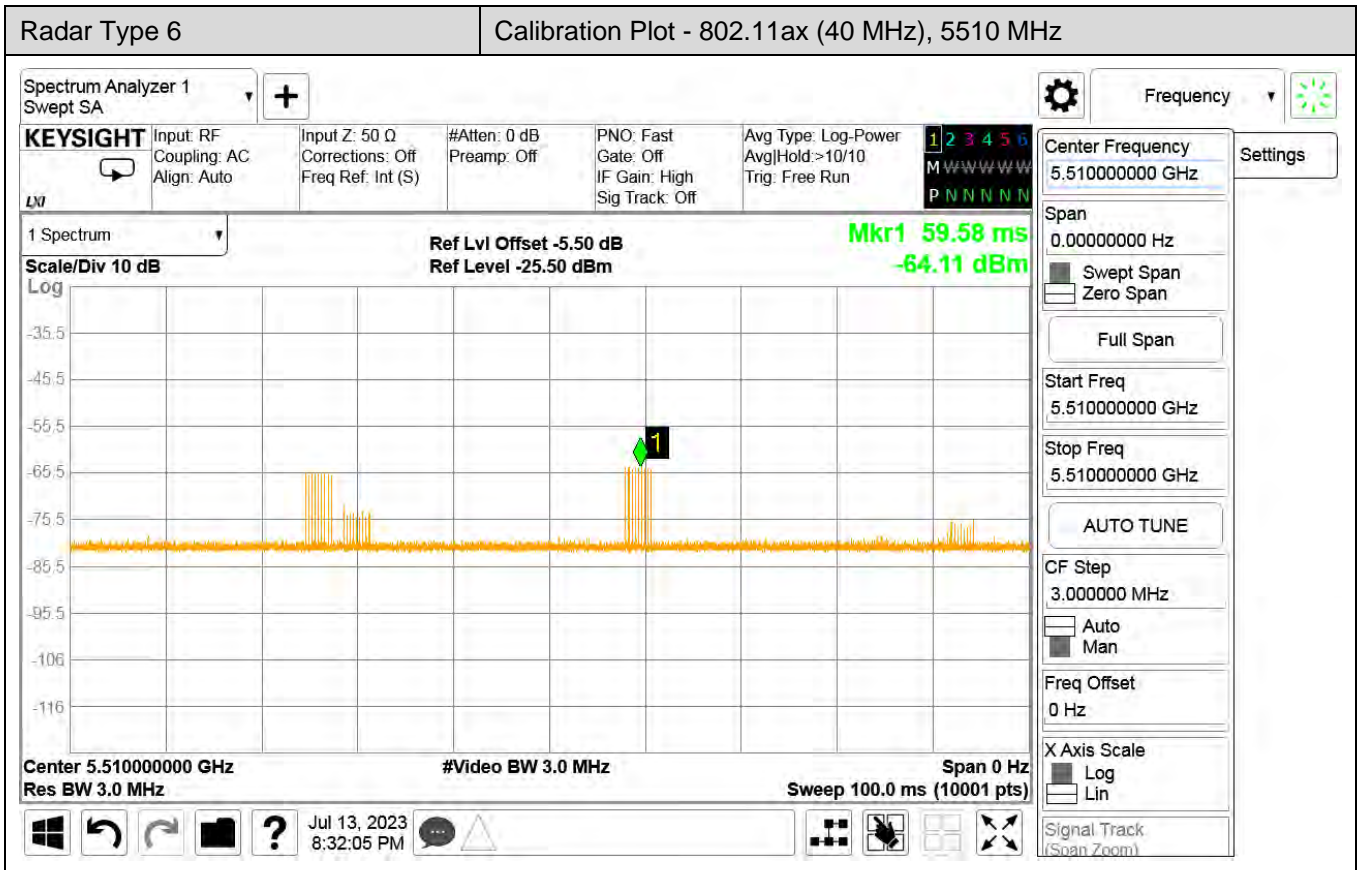


Radar Type 4 Calibration Plot - 802.11ax (40 MHz), 5510 MHz

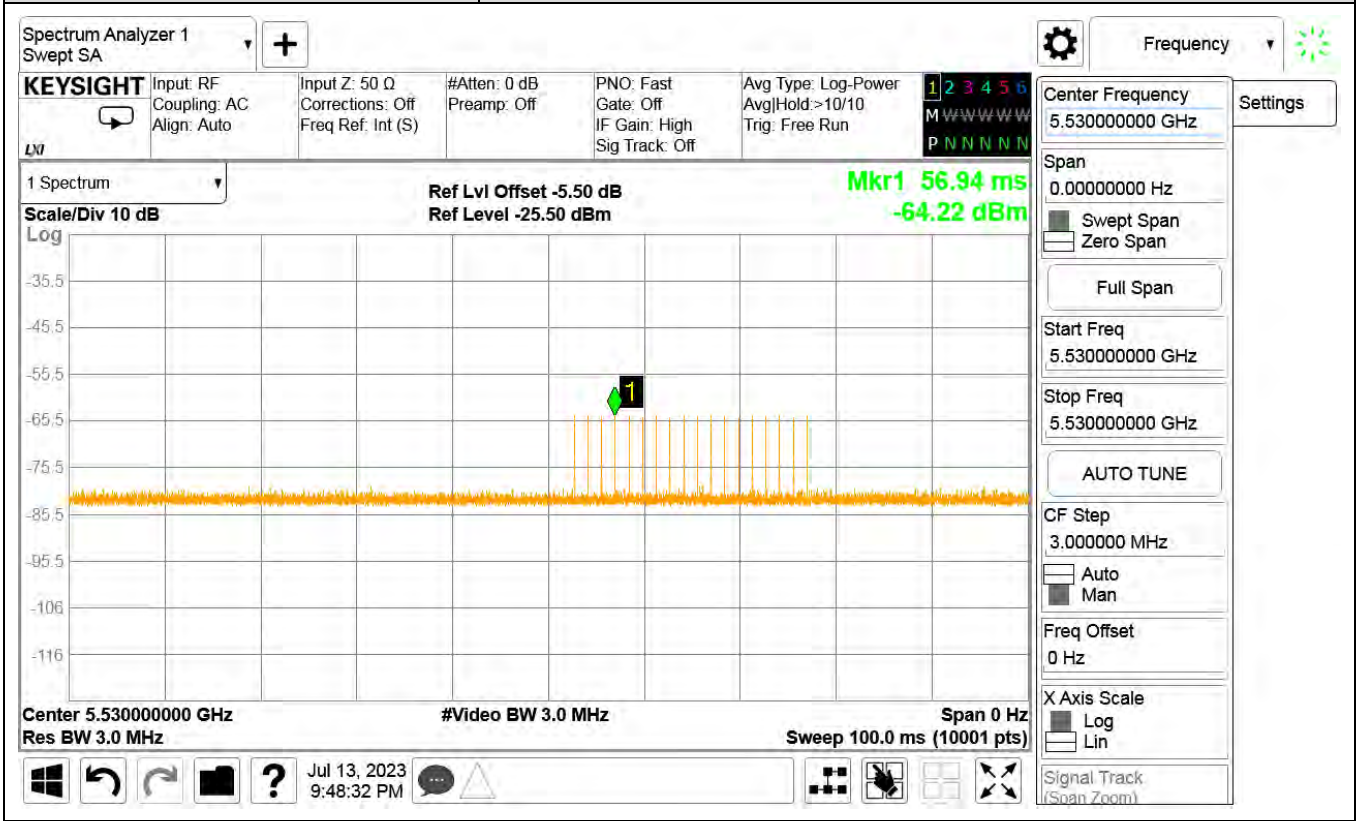


Radar Type 5 Calibration Plot - 802.11ax (40 MHz), 5510 MHz

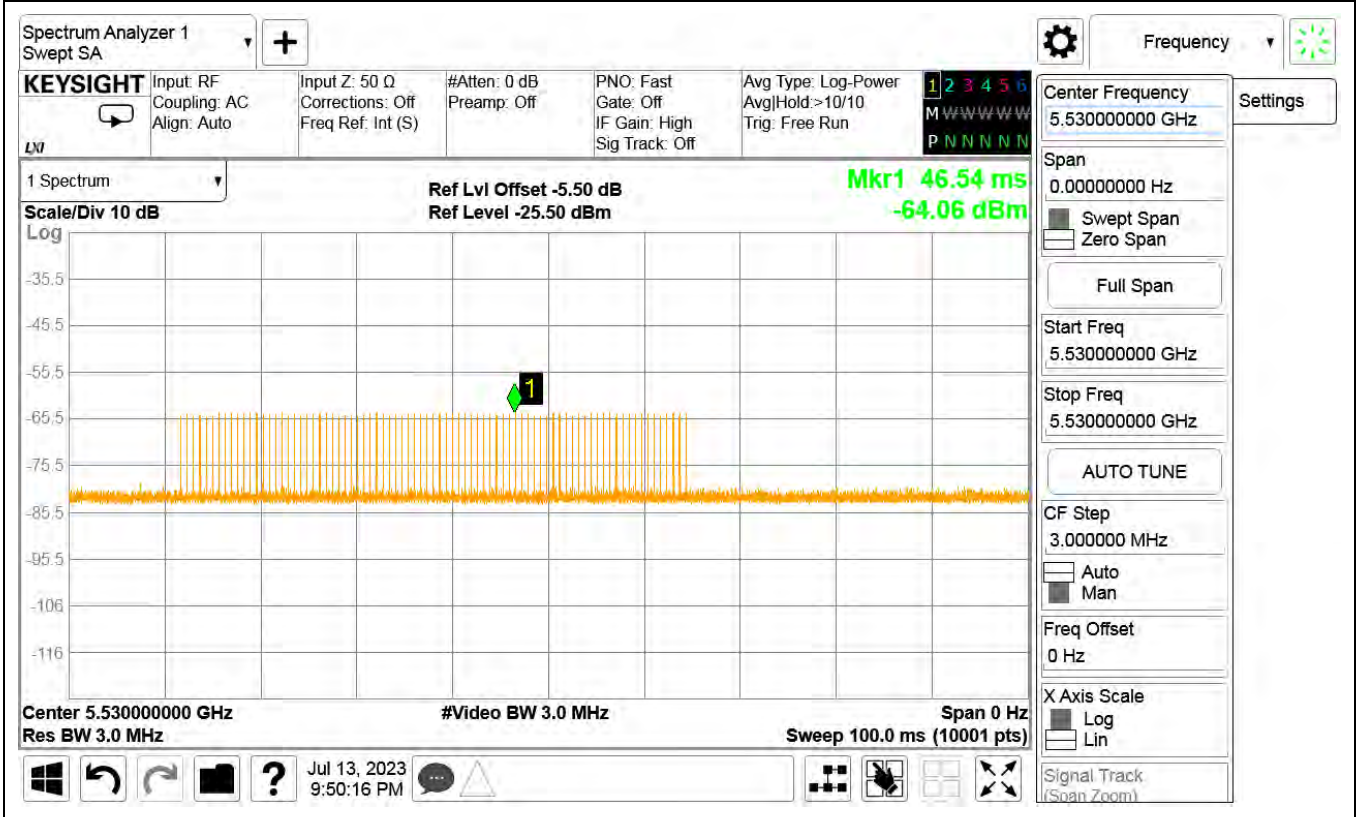




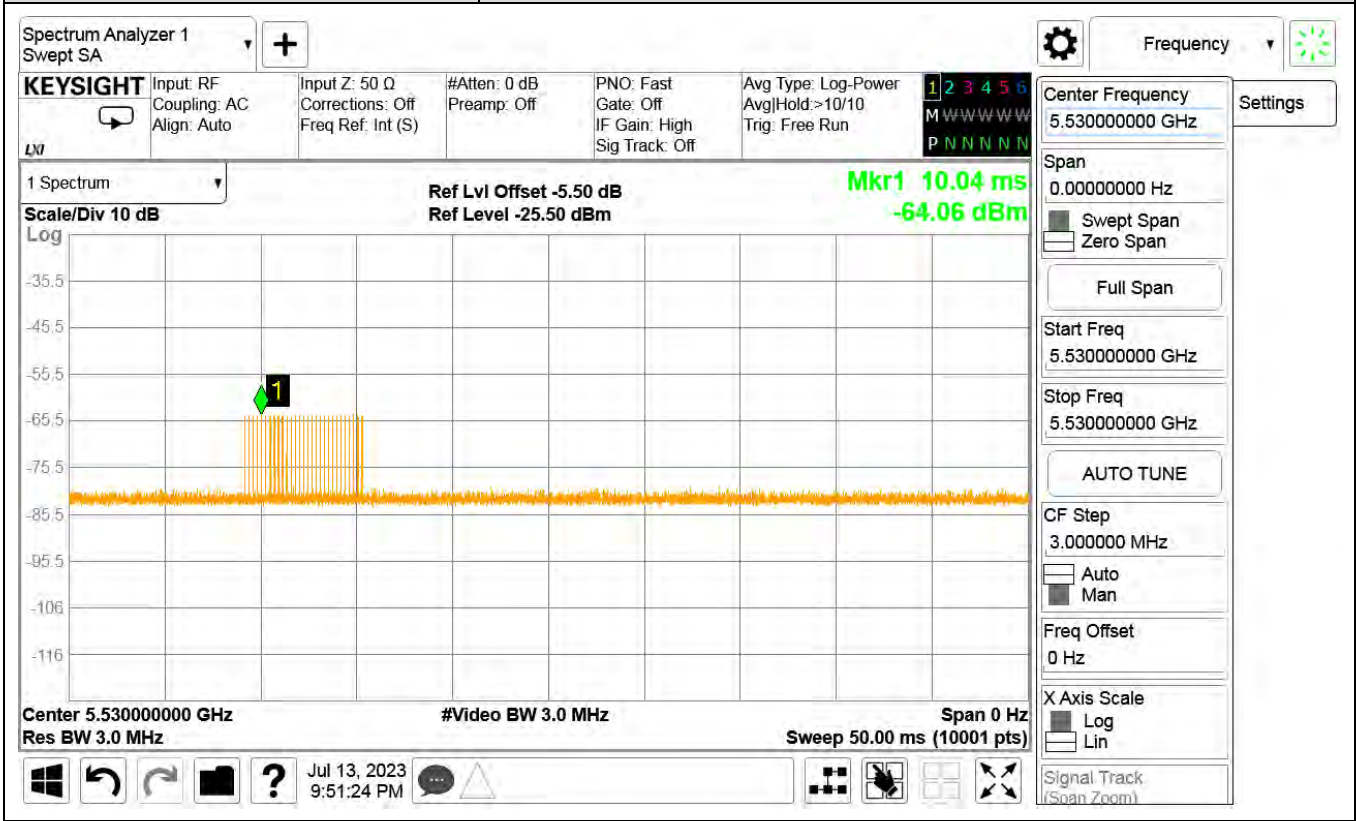
Radar Type 0 Calibration Plot - 802.11ax (80 MHz), 5530 MHz



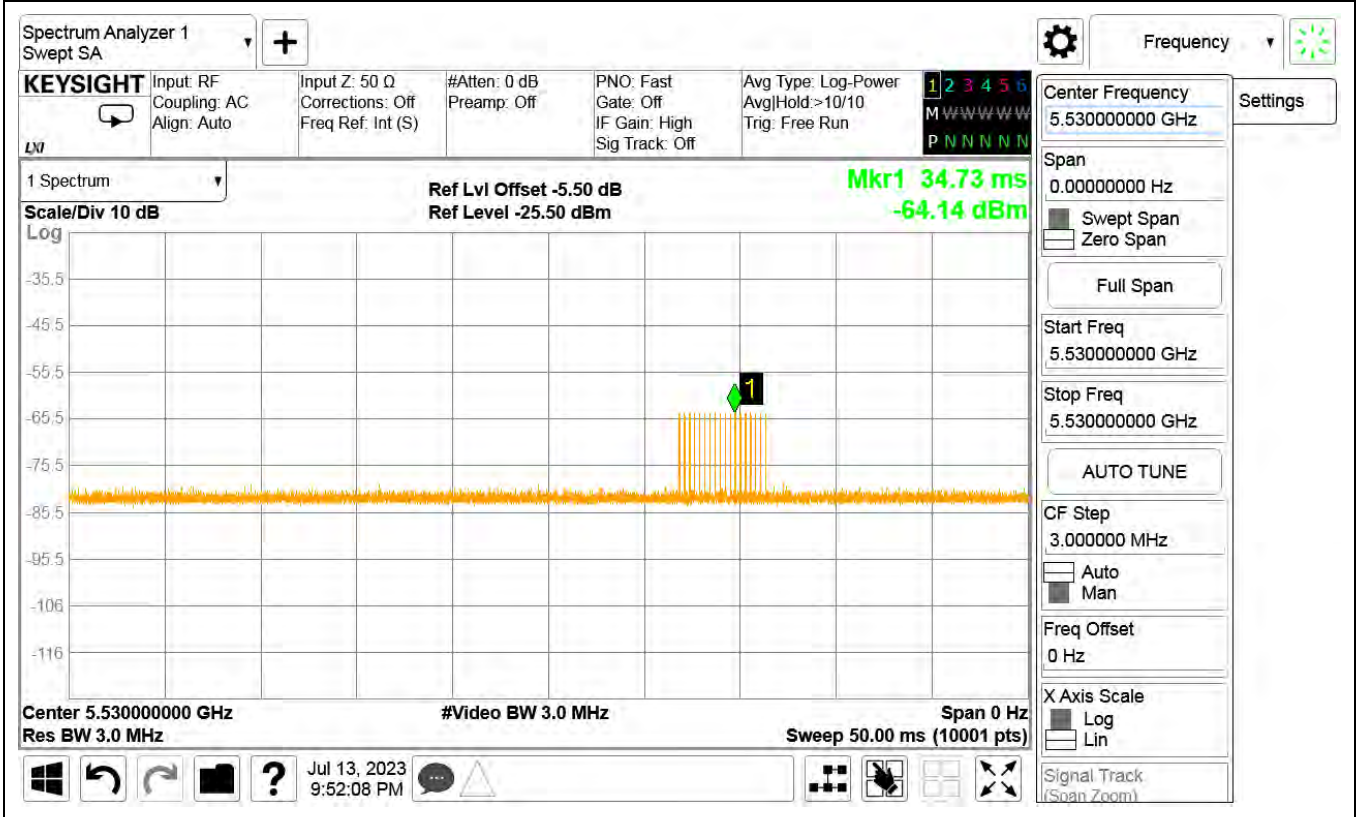
Radar Type 1 Calibration Plot - 802.11ax (80 MHz), 5530 MHz



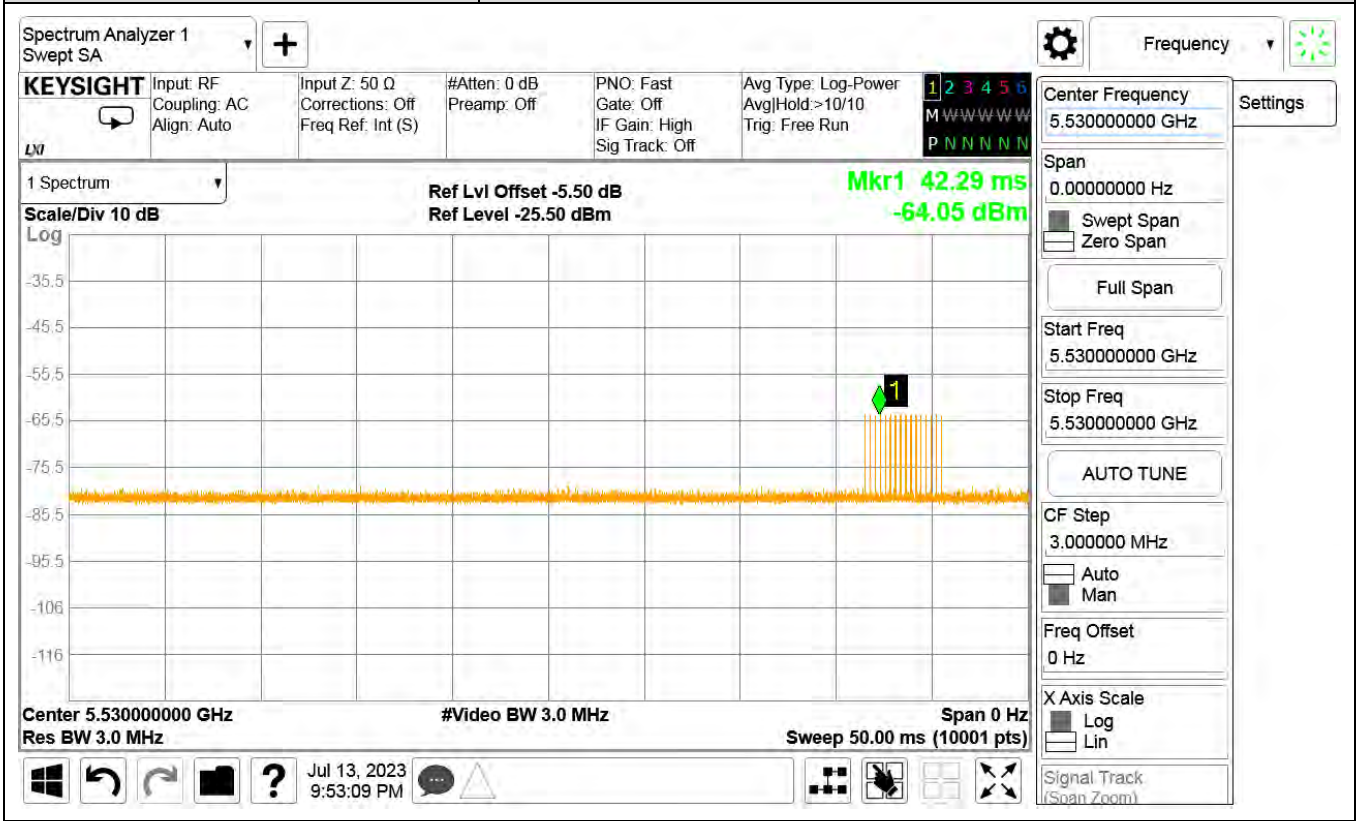
Radar Type 2 Calibration Plot - 802.11ax (80 MHz), 5530 MHz



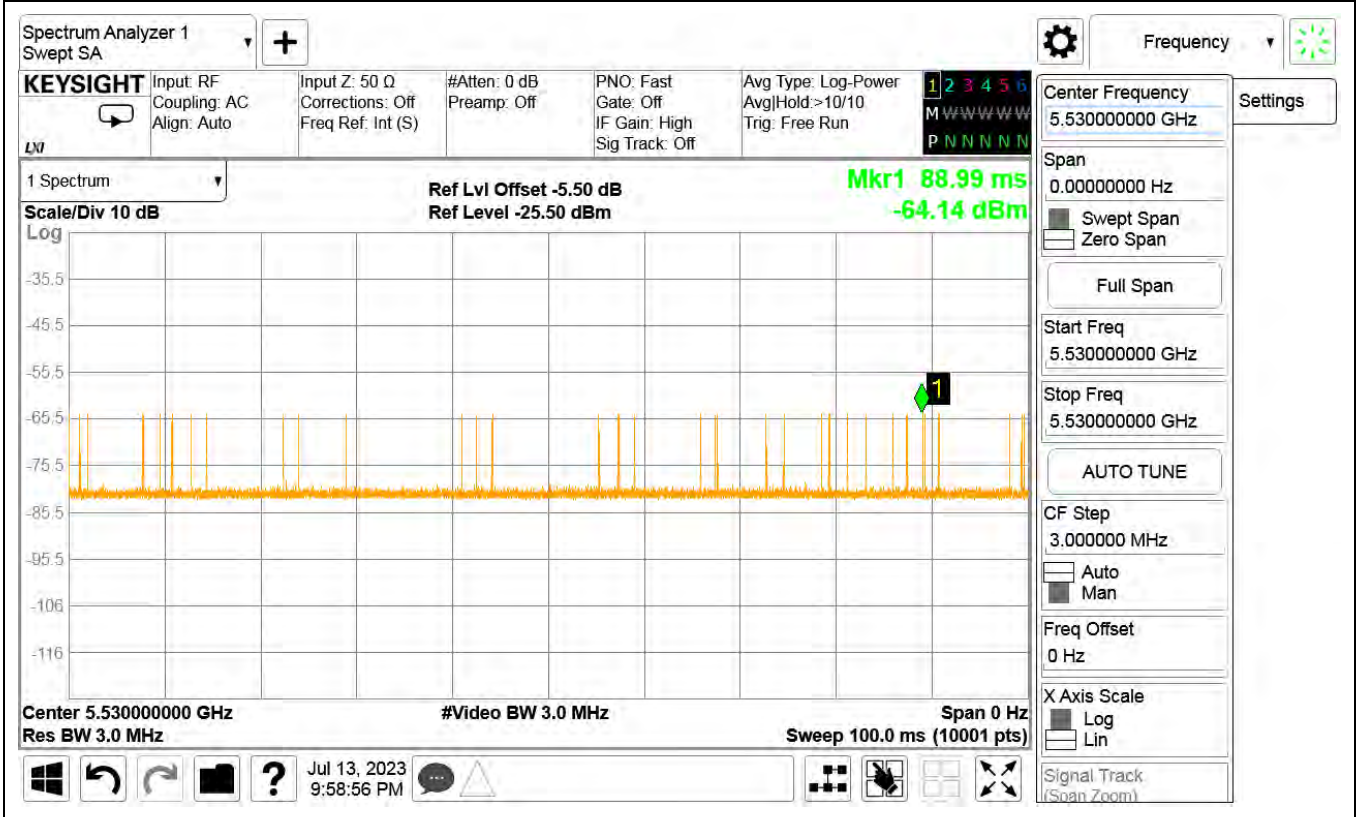
Radar Type 3 Calibration Plot - 802.11ax (80 MHz), 5530 MHz

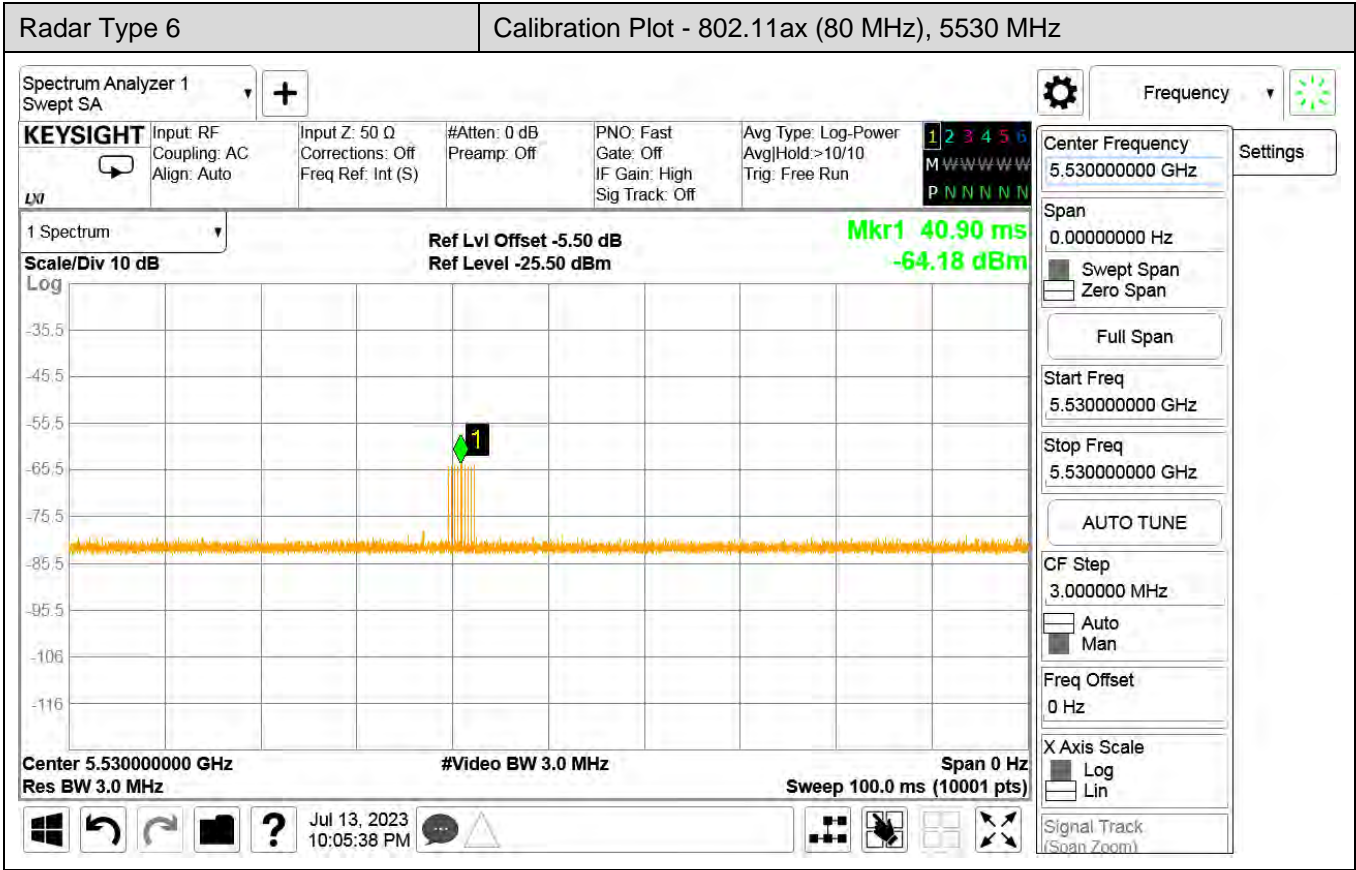


Radar Type 4 Calibration Plot - 802.11ax (80 MHz), 5530 MHz

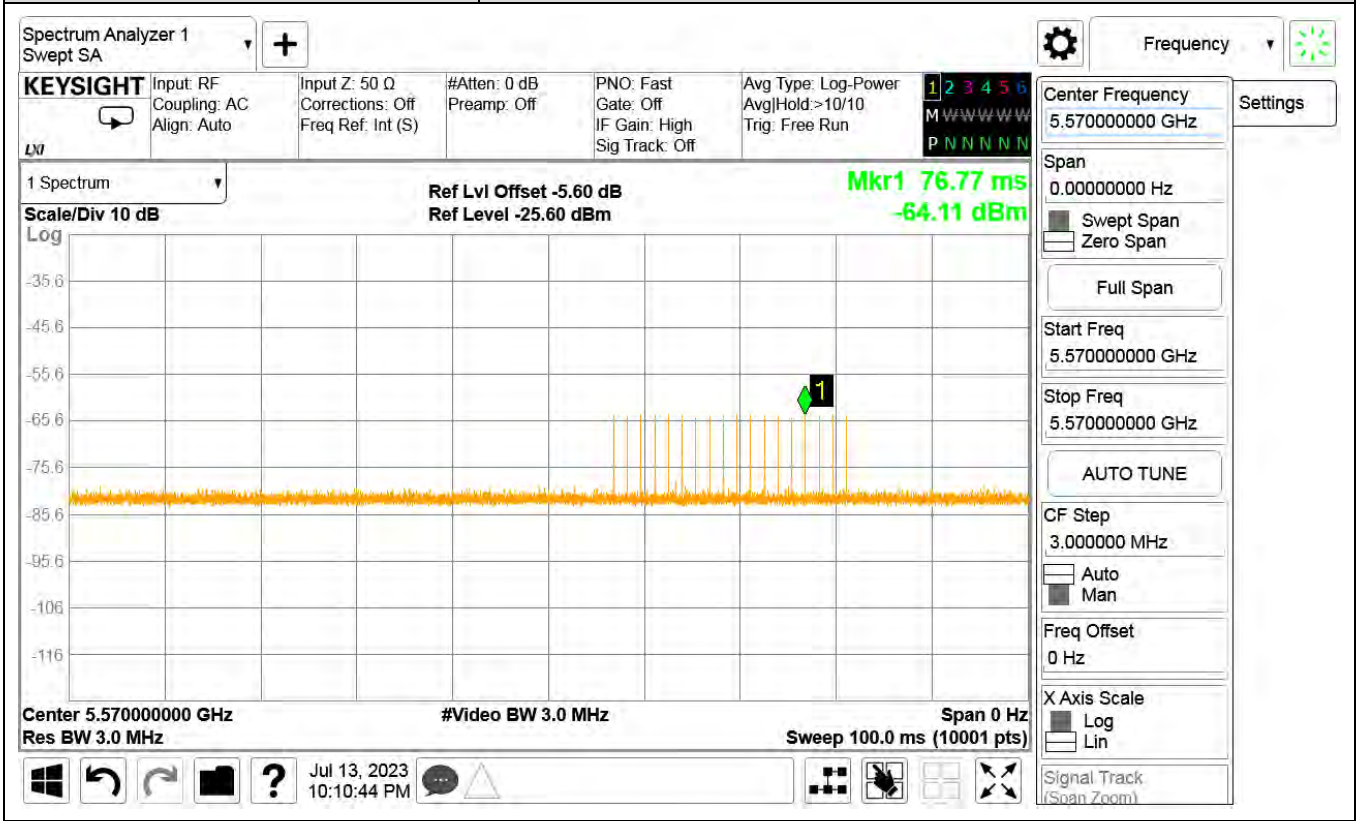


Radar Type 5 Calibration Plot - 802.11ax (80 MHz), 5530 MHz

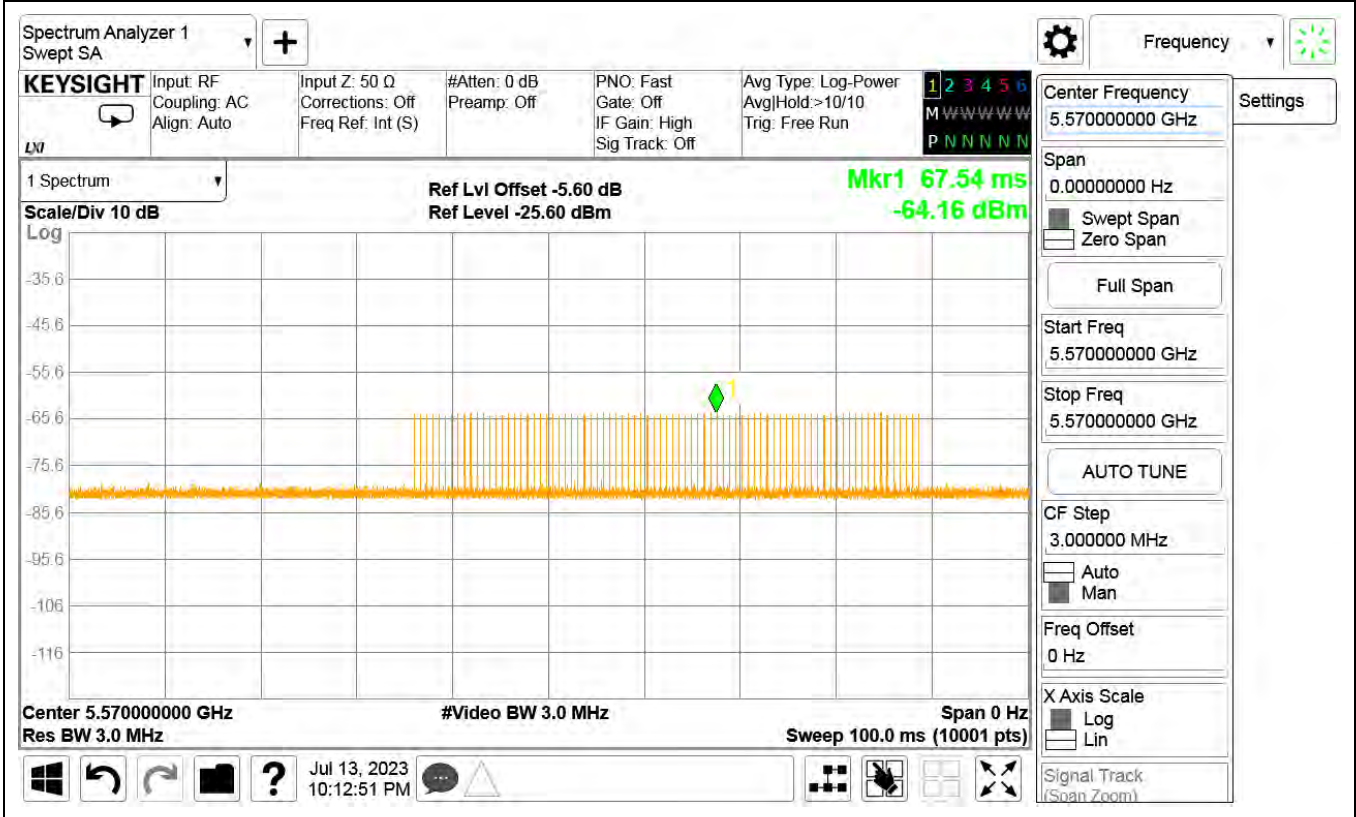




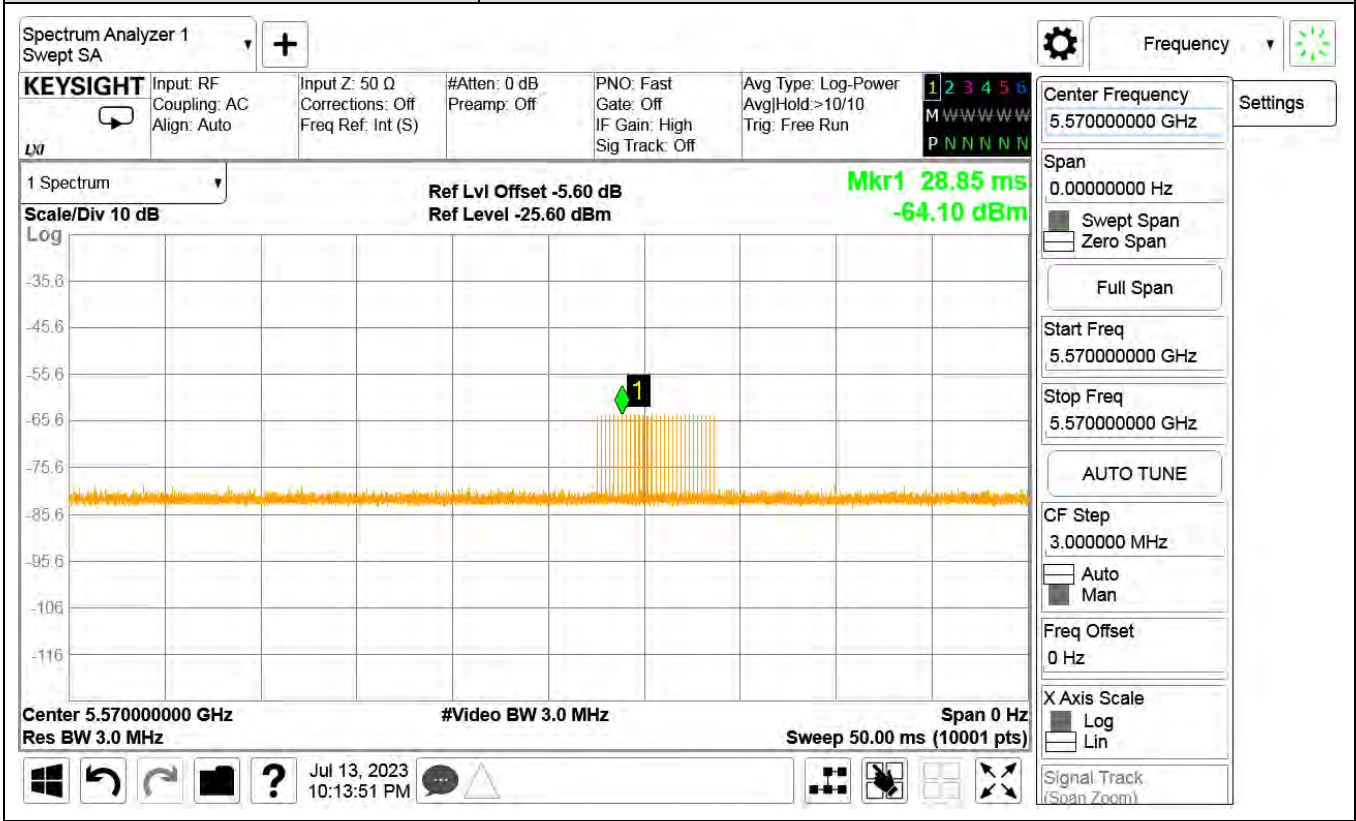
Radar Type 0 Calibration Plot - 802.11ax (160 MHz), 5570 MHz



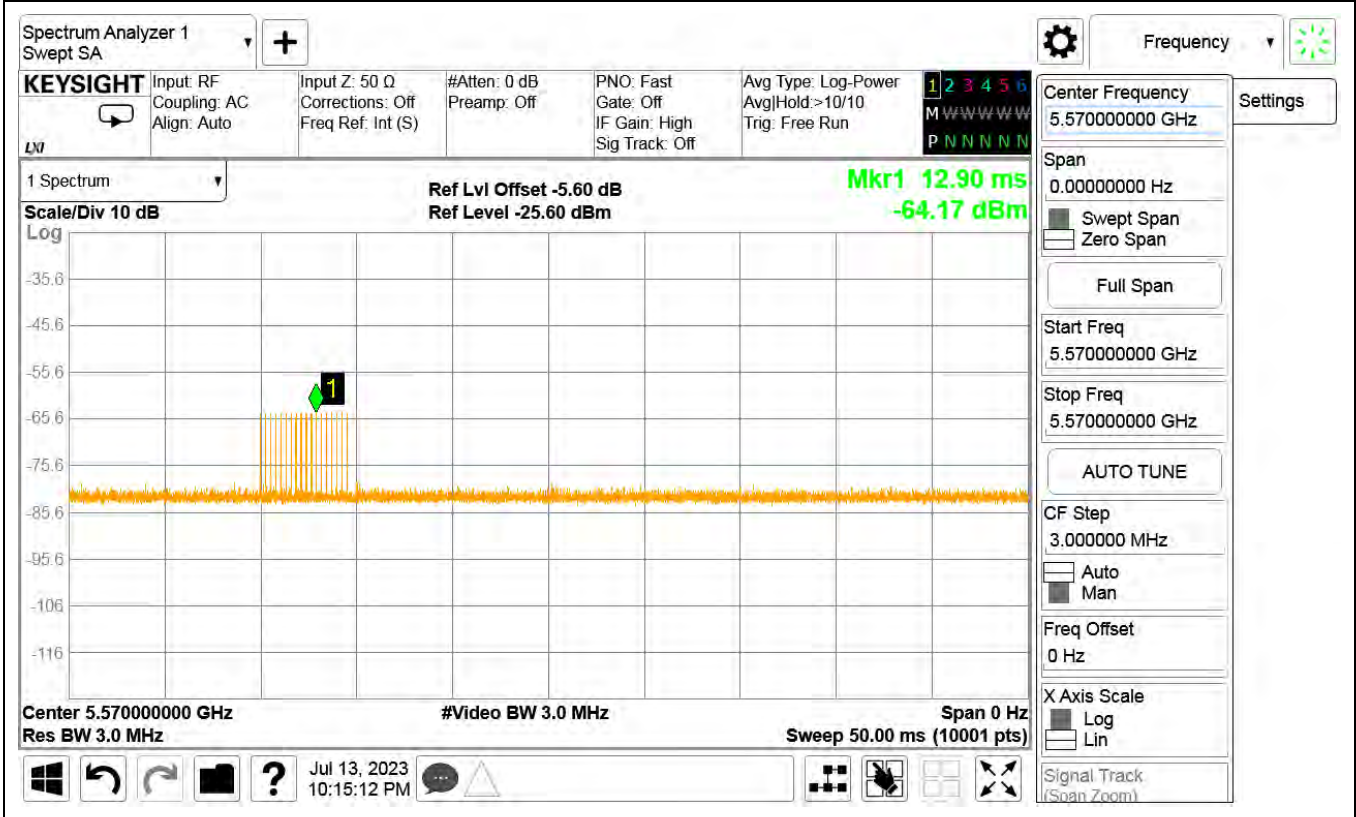
Radar Type 1 Calibration Plot - 802.11ax (160 MHz), 5570 MHz



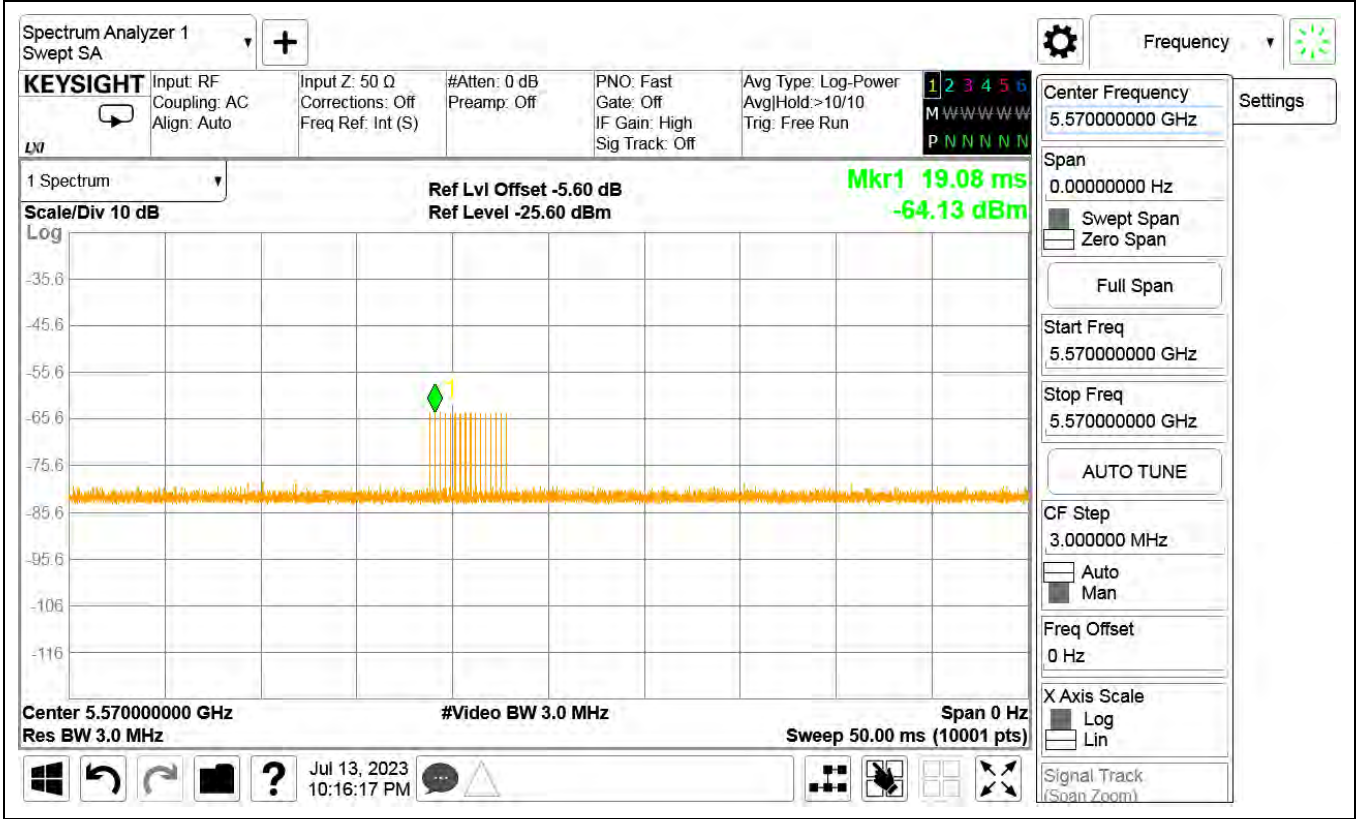
Radar Type 2 Calibration Plot - 802.11ax (160 MHz), 5570 MHz



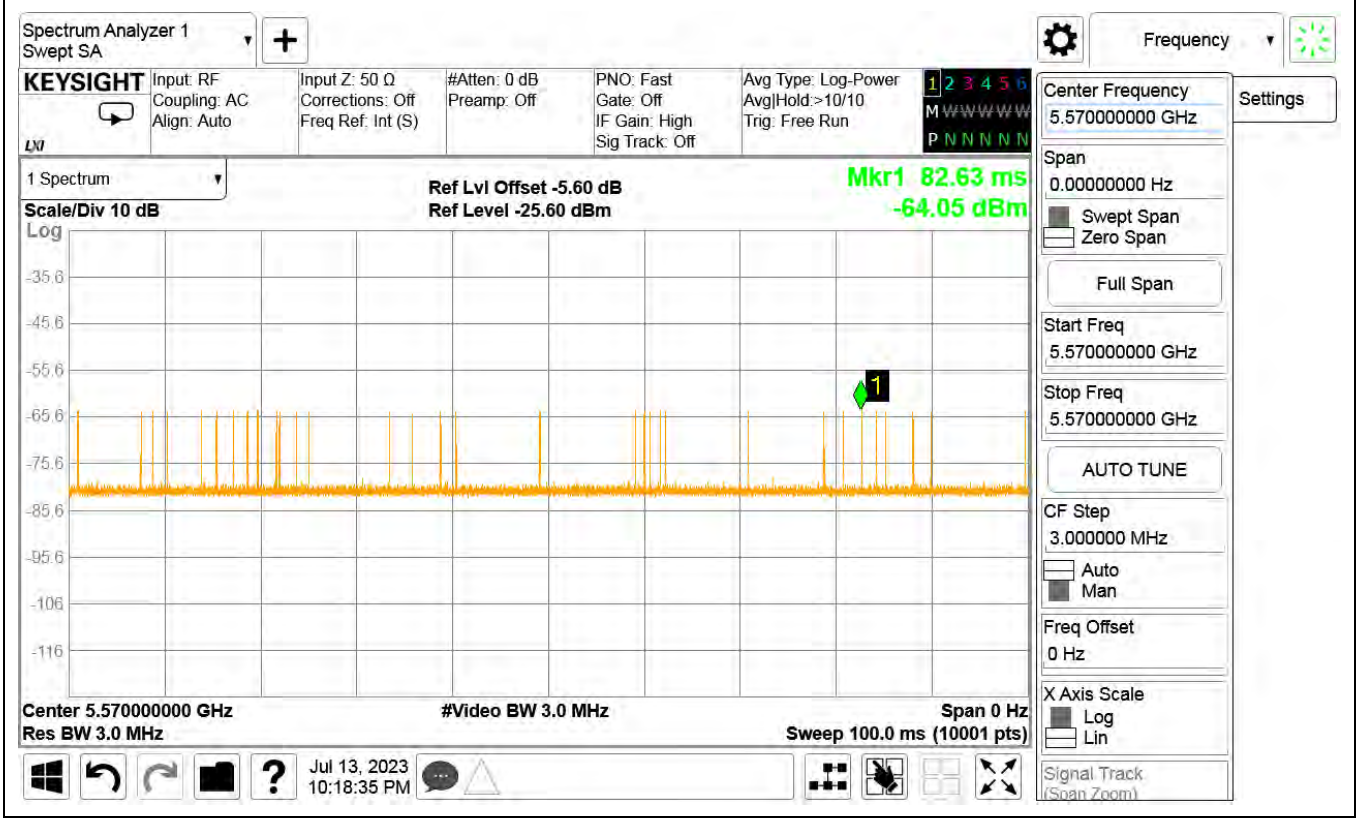
Radar Type 3 Calibration Plot - 802.11ax (160 MHz), 5570 MHz

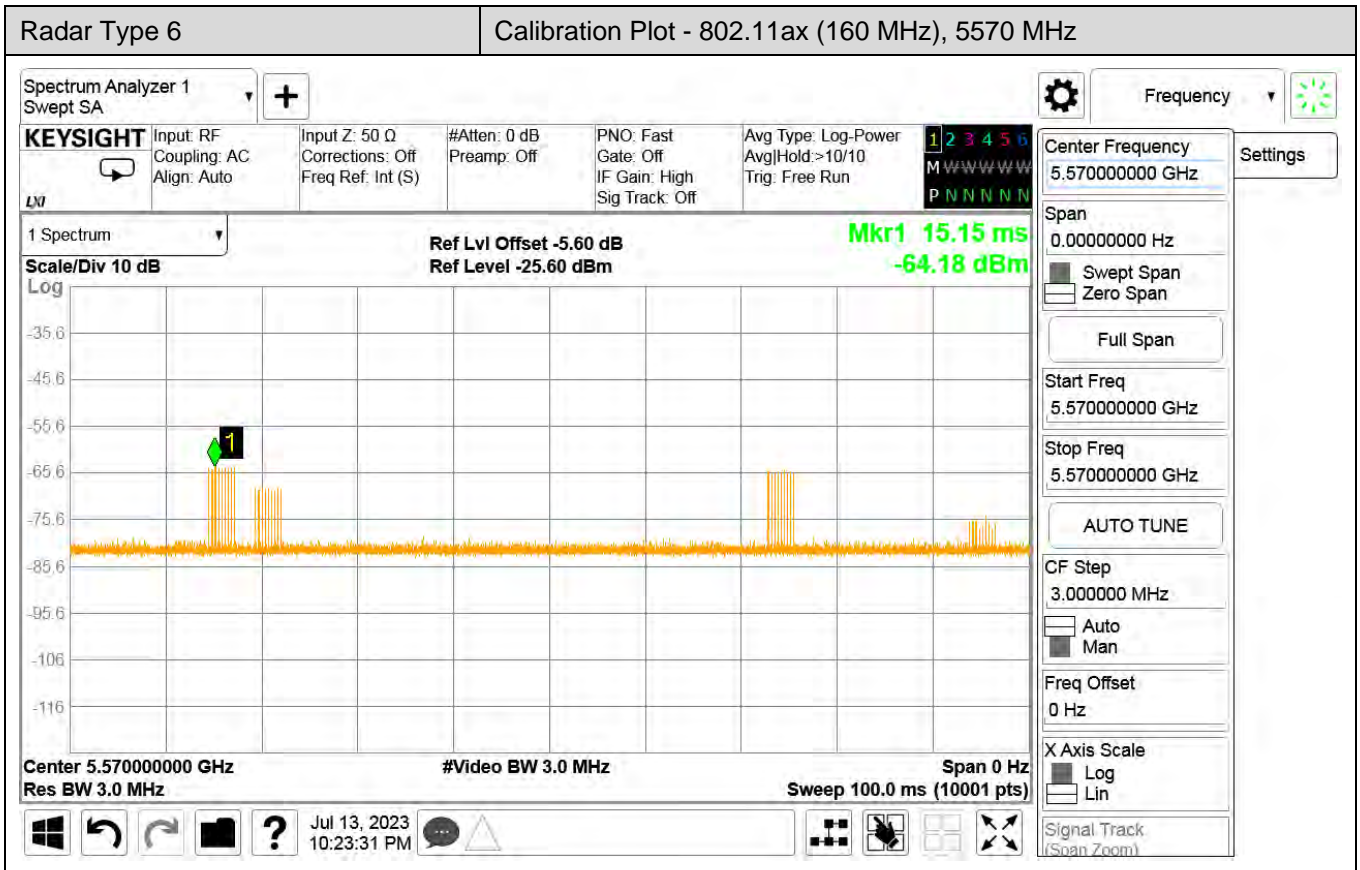


Radar Type 4 Calibration Plot - 802.11ax (160 MHz), 5570 MHz



Radar Type 5 Calibration Plot - 802.11ax (160 MHz), 5570 MHz

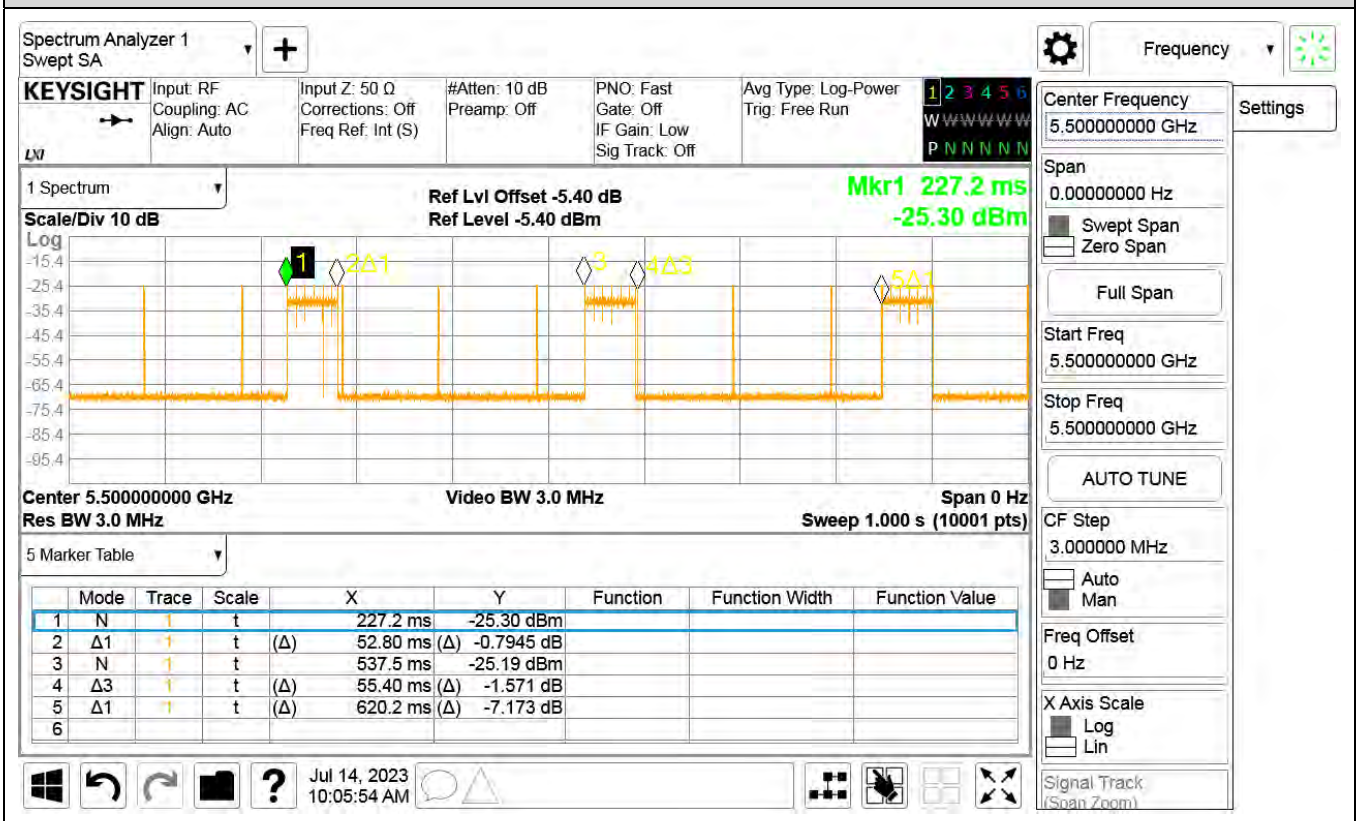




4.3. Master Data Traffic Plot Result

Modulation	Frequency (MHz)	Channel loading (%)	Requirement loading (%)	Result
802.11ax (20 MHz)	5500	17.446	> 17	Pass
802.11ax (40 MHz)	5510	18.196	> 17	Pass
802.11ax (80 MHz)	5530	19.246	> 17	Pass
802.11ax (160 MHz)	5570	18.298	> 17	Pass

Plot of WLAN Traffic - 802.11ax (20 MHz), 5500 MHz



Plot of WLAN Traffic - 802.11ax (40 MHz), 5510 MHz



Plot of WLAN Traffic - 802.11ax (80 MHz), 5530 MHz



Plot of WLAN Traffic - 802.11ax (160 MHz), 5570 MHz



5. UNII Detection Bandwidth

5.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

The generating equipment is configured as shown in the radiated Test Setup above.

During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic. The EUT is set up as a standalone device (no associated Client and no traffic). The radar frequency is increased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The highest frequency at which detection is greater than or equal to 90% is denoted as F_H . The radar frequency is decreased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The lowest frequency at which detection is greater than or equal to 90% is denoted as F_L . UNII Detection Bandwidth = $F_H - F_L$.

5.2. Test Requirement

UNII Detection Bandwidth is minimum 100% of the 99% power bandwidth. A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time.

5.3. Test Result of UNII Detection Bandwidth

802.11ax (20 MHz), 5500 MHz											
Frequency (MHz)		1	2	3	4	5	6	7	8	9	10
FL	5490	v	v	v	v	v	v	v	v	v	v
	5491	v	v	v	v	v	v	v	v	v	v
	5492	v	v	v	v	v	v	v	v	v	v
	5493	v	v	v	v	v	v	v	v	v	v
	5494	v	v	v	v	v	v	v	v	v	v
	5495	v	v	v	v	v	v	v	v	v	v
	5496	v	v	v	v	v	v	v	v	v	v
	5497	v	v	v	v	v	v	v	v	v	v
	5498	v	v	v	v	v	v	v	v	v	v
	5499	v	v	v	v	v	v	v	v	v	v
	5500	v	v	v	v	v	v	v	v	v	v
	5501	v	v	v	v	v	v	v	v	v	v
	5502	v	v	v	v	v	v	v	v	v	v
	5503	v	v	v	v	v	v	v	v	v	v
	5504	v	v	v	v	v	v	v	v	v	v
	5505	v	v	v	v	v	v	v	v	v	v
	5506	v	v	v	v	v	v	v	v	v	v
	5507	v	v	v	v	v	v	v	v	v	v
	5508	v	v	v	v	v	v	v	v	v	v
	5509	v	v	v	v	v	v	v	v	v	v
FH	5510	v	v	v	v	v	v	v	v	v	v
Detection Bandwidth = $F_H - F_L = 20$ MHz											
UNII Detection Bandwidth Min. Limit = 19.300 MHz											

802.11ax (40 MHz), 5510 MHz											
Frequency (MHz)		1	2	3	4	5	6	7	8	9	10
FL	5491	v	v	v	v	v	v	v	v	v	v
	5492	v	v	v	v	v	v	v	v	v	v
	5493	v	v	v	v	v	v	v	v	v	v
	5494	v	v	v	v	v	v	v	v	v	v
	5495	v	v	v	v	v	v	v	v	v	v
	5496	v	v	v	v	v	v	v	v	v	v
	5497	v	v	v	v	v	v	v	v	v	v
	5498	v	v	v	v	v	v	v	v	v	v
	5499	v	v	v	v	v	v	v	v	v	v
	5500	v	v	v	v	v	v	v	v	v	v
	5501	v	v	v	v	v	v	v	v	v	v
	5502	v	v	v	v	v	v	v	v	v	v
	5503	v	v	v	v	v	v	v	v	v	v
	5504	v	v	v	v	v	v	v	v	v	v
	5505	v	v	v	v	v	v	v	v	v	v
	5506	v	v	v	v	v	v	v	v	v	v
	5507	v	v	v	v	v	v	v	v	v	v
	5508	v	v	v	v	v	v	v	v	v	v
	5509	v	v	v	v	v	v	v	v	v	v
	5510	v	v	v	v	v	v	v	v	v	v
	5511	v	v	v	v	v	v	v	v	v	v
	5512	v	v	v	v	v	v	v	v	v	v
	5513	v	v	v	v	v	v	v	v	v	v
	5514	v	v	v	v	v	v	v	v	v	v
	5515	v	v	v	v	v	v	v	v	v	v
	5516	v	v	v	v	v	v	v	v	v	v
	5517	v	v	v	v	v	v	v	v	v	v
	5518	v	v	v	v	v	v	v	v	v	v
	5519	v	v	v	v	v	v	v	v	v	v
	5520	v	v	v	v	v	v	v	v	v	v
	5521	v	v	v	v	v	v	v	v	v	v

802.11ax (40 MHz), 5510 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5522	v	v	v	v	v	v	v	v	v	v	
5523	v	v	v	v	v	v	v	v	v	v	
5524	v	v	v	v	v	v	v	v	v	v	
5525	v	v	v	v	v	v	v	v	v	v	
5526	v	v	v	v	v	v	v	v	v	v	
5527	v	v	v	v	v	v	v	v	v	v	
5528	v	v	v	v	v	v	v	v	v	v	
F _H 5529	v	v	v	v	v	v	v	v	v	v	
Detection Bandwidth = F _H - F _L = 39 MHz											
UNII Detection Bandwidth Min. Lim = 37.562 MHz											

802.11ax (80 MHz), 5530 MHz											
Frequency (MHz)		1	2	3	4	5	6	7	8	9	10
FL	5491	v	v	v	v	v	v	v	v	v	v
	5492	v	v	v	v	v	v	v	v	v	v
	5493	v	v	v	v	v	v	v	v	v	v
	5494	v	v	v	v	v	v	v	v	v	v
	5495	v	v	v	v	v	v	v	v	v	v
	5496	v	v	v	v	v	v	v	v	v	v
	5497	v	v	v	v	v	v	v	v	v	v
	5498	v	v	v	v	v	v	v	v	v	v
	5499	v	v	v	v	v	v	v	v	v	v
	5500	v	v	v	v	v	v	v	v	v	v
	5501	v	v	v	v	v	v	v	v	v	v
	5502	v	v	v	v	v	v	v	v	v	v
	5503	v	v	v	v	v	v	v	v	v	v
	5504	v	v	v	v	v	v	v	v	v	v
	5505	v	v	v	v	v	v	v	v	v	v
	5506	v	v	v	v	v	v	v	v	v	v
	5507	v	v	v	v	v	v	v	v	v	v
	5508	v	v	v	v	v	v	v	v	v	v
	5509	v	v	v	v	v	v	v	v	v	v
	5510	v	v	v	v	v	v	v	v	v	v
	5511	v	v	v	v	v	v	v	v	v	v
	5512	v	v	v	v	v	v	v	v	v	v
	5513	v	v	v	v	v	v	v	v	v	v
	5514	v	v	v	v	v	v	v	v	v	v
	5515	v	v	v	v	v	v	v	v	v	v
	5516	v	v	v	v	v	v	v	v	v	v
	5517	v	v	v	v	v	v	v	v	v	v
	5518	v	v	v	v	v	v	v	v	v	v
	5519	v	v	v	v	v	v	v	v	v	v
	5520	v	v	v	v	v	v	v	v	v	v
	5521	v	v	v	v	v	v	v	v	v	v

802.11ax (80 MHz), 5530 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5522	v	v	v	v	v	v	v	v	v	v	
5523	v	v	v	v	v	v	v	v	v	v	
5524	v	v	v	v	v	v	v	v	v	v	
5525	v	v	v	v	v	v	v	v	v	v	
5526	v	v	v	v	v	v	v	v	v	v	
5527	v	v	v	v	v	v	v	v	v	v	
5528	v	v	v	v	v	v	v	v	v	v	
5529	v	v	v	v	v	v	v	v	v	v	
5530	v	v	v	v	v	v	v	v	v	v	
5531	v	v	v	v	v	v	v	v	v	v	
5532	v	v	v	v	v	v	v	v	v	v	
5533	v	v	v	v	v	v	v	v	v	v	
5534	v	v	v	v	v	v	v	v	v	v	
5535	v	v	v	v	v	v	v	v	v	v	
5536	v	v	v	v	v	v	v	v	v	v	
5537	v	v	v	v	v	v	v	v	v	v	
5538	v	v	v	v	v	v	v	v	v	v	
5539	v	v	v	v	v	v	v	v	v	v	
5540	v	v	v	v	v	v	v	v	v	v	
5541	v	v	v	v	v	v	v	v	v	v	
5542	v	v	v	v	v	v	v	v	v	v	
5543	v	v	v	v	v	v	v	v	v	v	
5544	v	v	v	v	v	v	v	v	v	v	
5545	v	v	v	v	v	v	v	v	v	v	
5546	v	v	v	v	v	v	v	v	v	v	
5547	v	v	v	v	v	v	v	v	v	v	
5548	v	v	v	v	v	v	v	v	v	v	
5549	v	v	v	v	v	v	v	v	v	v	
5550	v	v	v	v	v	v	v	v	v	v	
5551	v	v	v	v	v	v	v	v	v	v	
5552	v	v	v	v	v	v	v	v	v	v	

802.11ax (80 MHz), 5530 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5553	v	v	v	v	v	v	v	v	v	v	
5554	v	v	v	v	v	v	v	v	v	v	
5555	v	v	v	v	v	v	v	v	v	v	
5556	v	v	v	v	v	v	v	v	v	v	
5557	v	v	v	v	v	v	v	v	v	v	
5558	v	v	v	v	v	v	v	v	v	v	
5559	v	v	v	v	v	v	v	v	v	v	
5560	v	v	v	v	v	v	v	v	v	v	
5561	v	v	v	v	v	v	v	v	v	v	
5562	v	v	v	v	v	v	v	v	v	v	
5563	v	v	v	v	v	v	v	v	v	v	
5564	v	v	v	v	v	v	v	v	v	v	
5565	v	v	v	v	v	v	v	v	v	v	
5566	v	v	v	v	v	v	v	v	v	v	
5567	v	v	v	v	v	v	v	v	v	v	
F _H	5568	v	v	v	v	v	v	v	v	v	
Detection Bandwidth = F _H - F _L = 78 MHz											
UNII Detection Bandwidth Min. Limit = 76.883 MHz											

802.11ax (160 MHz), 5570 MHz											
Frequency (MHz)		1	2	3	4	5	6	7	8	9	10
FL	5492	v	v	v	v	v	v	v	v	v	v
	5493	v	v	v	v	v	v	v	v	v	v
	5494	v	v	v	v	v	v	v	v	v	v
	5495	v	v	v	v	v	v	v	v	v	v
	5496	v	v	v	v	v	v	v	v	v	v
	5497	v	v	v	v	v	v	v	v	v	v
	5498	v	v	v	v	v	v	v	v	v	v
	5499	v	v	v	v	v	v	v	v	v	v
	5500	v	v	v	v	v	v	v	v	v	v
	5501	v	v	v	v	v	v	v	v	v	v
	5502	v	v	v	v	v	v	v	v	v	v
	5503	v	v	v	v	v	v	v	v	v	v
	5504	v	v	v	v	v	v	v	v	v	v
	5505	v	v	v	v	v	v	v	v	v	v
	5506	v	v	v	v	v	v	v	v	v	v
	5507	v	v	v	v	v	v	v	v	v	v
	5508	v	v	v	v	v	v	v	v	v	v
	5509	v	v	v	v	v	v	v	v	v	v
	5510	v	v	v	v	v	v	v	v	v	v
	5511	v	v	v	v	v	v	v	v	v	v
	5512	v	v	v	v	v	v	v	v	v	v
	5513	v	v	v	v	v	v	v	v	v	v
	5514	v	v	v	v	v	v	v	v	v	v
	5515	v	v	v	v	v	v	v	v	v	v
	5516	v	v	v	v	v	v	v	v	v	v
	5517	v	v	v	v	v	v	v	v	v	v
	5518	v	v	v	v	v	v	v	v	v	v
	5519	v	v	v	v	v	v	v	v	v	v
	5520	v	v	v	v	v	v	v	v	v	v
	5521	v	v	v	v	v	v	v	v	v	v
	5522	v	v	v	v	v	v	v	v	v	v

802.11ax (160 MHz), 5570 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5523	v	v	v	v	v	v	v	v	v	v	
5524	v	v	v	v	v	v	v	v	v	v	
5525	v	v	v	v	v	v	v	v	v	v	
5526	v	v	v	v	v	v	v	v	v	v	
5527	v	v	v	v	v	v	v	v	v	v	
5528	v	v	v	v	v	v	v	v	v	v	
5529	v	v	v	v	v	v	v	v	v	v	
5530	v	v	v	v	v	v	v	v	v	v	
5531	v	v	v	v	v	v	v	v	v	v	
5532	v	v	v	v	v	v	v	v	v	v	
5533	v	v	v	v	v	v	v	v	v	v	
5534	v	v	v	v	v	v	v	v	v	v	
5535	v	v	v	v	v	v	v	v	v	v	
5536	v	v	v	v	v	v	v	v	v	v	
5537	v	v	v	v	v	v	v	v	v	v	
5538	v	v	v	v	v	v	v	v	v	v	
5539	v	v	v	v	v	v	v	v	v	v	
5540	v	v	v	v	v	v	v	v	v	v	
5541	v	v	v	v	v	v	v	v	v	v	
5542	v	v	v	v	v	v	v	v	v	v	
5543	v	v	v	v	v	v	v	v	v	v	
5544	v	v	v	v	v	v	v	v	v	v	
5545	v	v	v	v	v	v	v	v	v	v	
5546	v	v	v	v	v	v	v	v	v	v	
5547	v	v	v	v	v	v	v	v	v	v	
5548	v	v	v	v	v	v	v	v	v	v	
5549	v	v	v	v	v	v	v	v	v	v	
5550	v	v	v	v	v	v	v	v	v	v	
5551	v	v	v	v	v	v	v	v	v	v	
5552	v	v	v	v	v	v	v	v	v	v	
5553	v	v	v	v	v	v	v	v	v	v	

802.11ax (160 MHz), 5570 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5554	v	v	v	v	v	v	v	v	v	v	
5555	v	v	v	v	v	v	v	v	v	v	
5556	v	v	v	v	v	v	v	v	v	v	
5557	v	v	v	v	v	v	v	v	v	v	
5558	v	v	v	v	v	v	v	v	v	v	
5559	v	v	v	v	v	v	v	v	v	v	
5560	v	v	v	v	v	v	v	v	v	v	
5561	v	v	v	v	v	v	v	v	v	v	
5562	v	v	v	v	v	v	v	v	v	v	
5563	v	v	v	v	v	v	v	v	v	v	
5564	v	v	v	v	v	v	v	v	v	v	
5565	v	v	v	v	v	v	v	v	v	v	
5566	v	v	v	v	v	v	v	v	v	v	
5567	v	v	v	v	v	v	v	v	v	v	
5568	v	v	v	v	v	v	v	v	v	v	
5569	v	v	v	v	v	v	v	v	v	v	
5570	v	v	v	v	v	v	v	v	v	v	
5571	v	v	v	v	v	v	v	v	v	v	
5572	v	v	v	v	v	v	v	v	v	v	
5573	v	v	v	v	v	v	v	v	v	v	
5574	v	v	v	v	v	v	v	v	v	v	
5575	v	v	v	v	v	v	v	v	v	v	
5576	v	v	v	v	v	v	v	v	v	v	
5577	v	v	v	v	v	v	v	v	v	v	
5578	v	v	v	v	v	v	v	v	v	v	
5579	v	v	v	v	v	v	v	v	v	v	
5580	v	v	v	v	v	v	v	v	v	v	
5581	v	v	v	v	v	v	v	v	v	v	
5582	v	v	v	v	v	v	v	v	v	v	
5583	v	v	v	v	v	v	v	v	v	v	
5584	v	v	v	v	v	v	v	v	v	v	

802.11ax (160 MHz), 5570 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5585	v	v	v	v	v	v	v	v	v	v	
5586	v	v	v	v	v	v	v	v	v	v	
5587	v	v	v	v	v	v	v	v	v	v	
5588	v	v	v	v	v	v	v	v	v	v	
5589	v	v	v	v	v	v	v	v	v	v	
5590	v	v	v	v	v	v	v	v	v	v	
5591	v	v	v	v	v	v	v	v	v	v	
5592	v	v	v	v	v	v	v	v	v	v	
5593	v	v	v	v	v	v	v	v	v	v	
5594	v	v	v	v	v	v	v	v	v	v	
5595	v	v	v	v	v	v	v	v	v	v	
5596	v	v	v	v	v	v	v	v	v	v	
5597	v	v	v	v	v	v	v	v	v	v	
5598	v	v	v	v	v	v	v	v	v	v	
5599	v	v	v	v	v	v	v	v	v	v	
5600	v	v	v	v	v	v	v	v	v	v	
5601	v	v	v	v	v	v	v	v	v	v	
5602	v	v	v	v	v	v	v	v	v	v	
5603	v	v	v	v	v	v	v	v	v	v	
5604	v	v	v	v	v	v	v	v	v	v	
5605	v	v	v	v	v	v	v	v	v	v	
5606	v	v	v	v	v	v	v	v	v	v	
5607	v	v	v	v	v	v	v	v	v	v	
5608	v	v	v	v	v	v	v	v	v	v	
5609	v	v	v	v	v	v	v	v	v	v	
5610	v	v	v	v	v	v	v	v	v	v	
5611	v	v	v	v	v	v	v	v	v	v	
5612	v	v	v	v	v	v	v	v	v	v	
5613	v	v	v	v	v	v	v	v	v	v	
5614	v	v	v	v	v	v	v	v	v	v	
5615	v	v	v	v	v	v	v	v	v	v	

802.11ax (160 MHz), 5570 MHz											
Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	
5616	v	v	v	v	v	v	v	v	v	v	
5617	v	v	v	v	v	v	v	v	v	v	
5618	v	v	v	v	v	v	v	v	v	v	
5619	v	v	v	v	v	v	v	v	v	v	
5620	v	v	v	v	v	v	v	v	v	v	
5621	v	v	v	v	v	v	v	v	v	v	
5622	v	v	v	v	v	v	v	v	v	v	
5623	v	v	v	v	v	v	v	v	v	v	
5624	v	v	v	v	v	v	v	v	v	v	
5625	v	v	v	v	v	v	v	v	v	v	
5626	v	v	v	v	v	v	v	v	v	v	
5627	v	v	v	v	v	v	v	v	v	v	
5628	v	v	v	v	v	v	v	v	v	v	
5629	v	v	v	v	v	v	v	v	v	v	
5630	v	v	v	v	v	v	v	v	v	v	
5631	v	v	v	v	v	v	v	v	v	v	
5632	v	v	v	v	v	v	v	v	v	v	
5633	v	v	v	v	v	v	v	v	v	v	
5634	v	v	v	v	v	v	v	v	v	v	
5635	v	v	v	v	v	v	v	v	v	v	
5636	v	v	v	v	v	v	v	v	v	v	
5637	v	v	v	v	v	v	v	v	v	v	
5638	v	v	v	v	v	v	v	v	v	v	
5639	v	v	v	v	v	v	v	v	v	v	
5640	v	v	v	v	v	v	v	v	v	v	
5641	v	v	v	v	v	v	v	v	v	v	
5642	v	v	v	v	v	v	v	v	v	v	
5643	v	v	v	v	v	v	v	v	v	v	
5644	v	v	v	v	v	v	v	v	v	v	
5645	v	v	v	v	v	v	v	v	v	v	
5646	v	v	v	v	v	v	v	v	v	v	

802.11ax (80 MHz), 5530 MHz											
Frequency (MHz)		1	2	3	4	5	6	7	8	9	10
	5647	v	v	v	v	v	v	v	v	v	v
F _H	5648	v	v	v	v	v	v	v	v	v	v
Detection Bandwidth = F _H - F _L = 157 MHz											
UNII Detection Bandwidth Min. Limit = 155.044 MHz											

6. Initial Channel Availability Check Time

6.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

The U-NII device is powered on and instructed to operate at test channel frequency. At the same time the UUT is powered on, the spectrum analyzer is set to zero span mode with a 3 MHz resolution bandwidth at test channel frequency with a 2.5 minute sweep time. The analyzer's sweep will be started the same time power is applied to the U-NII device.

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

The initial power up time of the EUT is indicated by marker1 in the plot, Initial beacons/data transmissions are indicated by marker 1R.

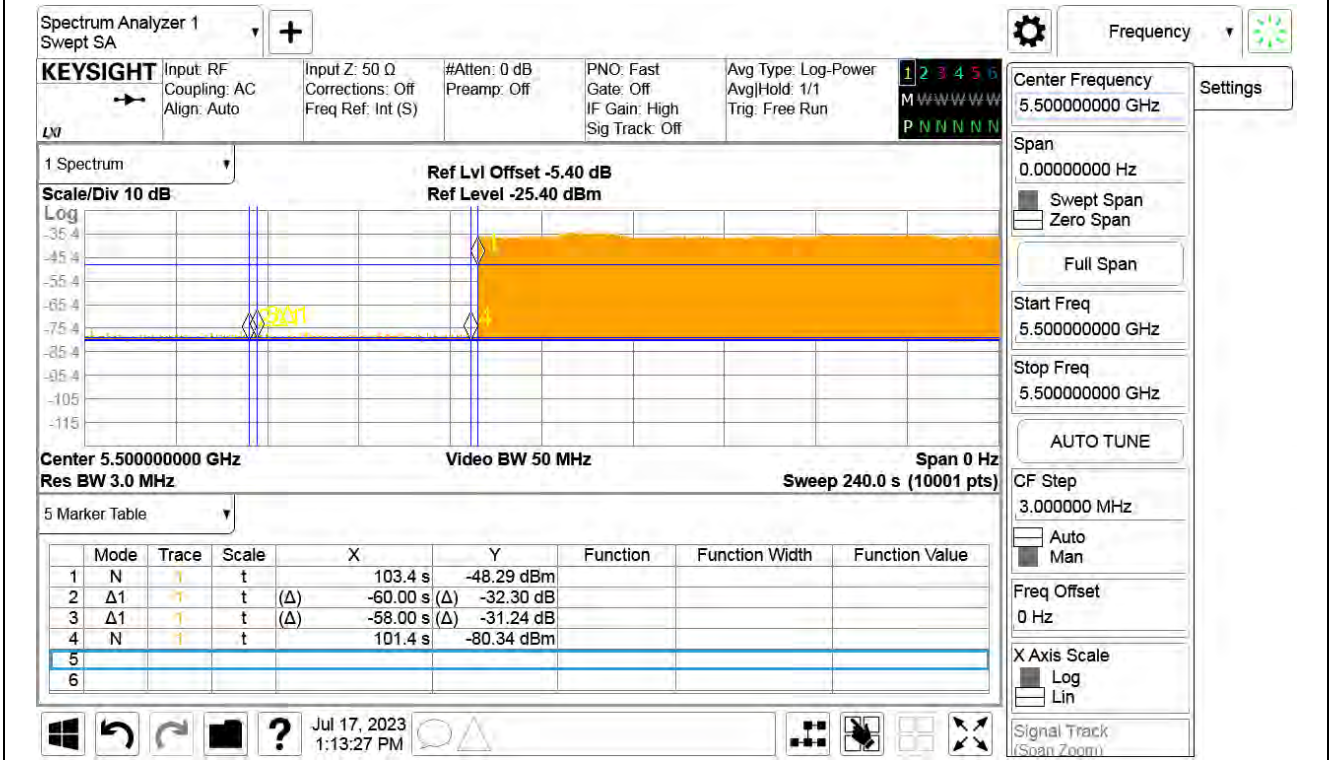
6.2. Test Requirement

The EUT shall perform a channel availability check to ensure that there is no radar operation on the channel, after power-up sequence, receiver at least 1 minute on the intended operation frequency.

6.3. Test Result of Initial Channel Availability Check Time

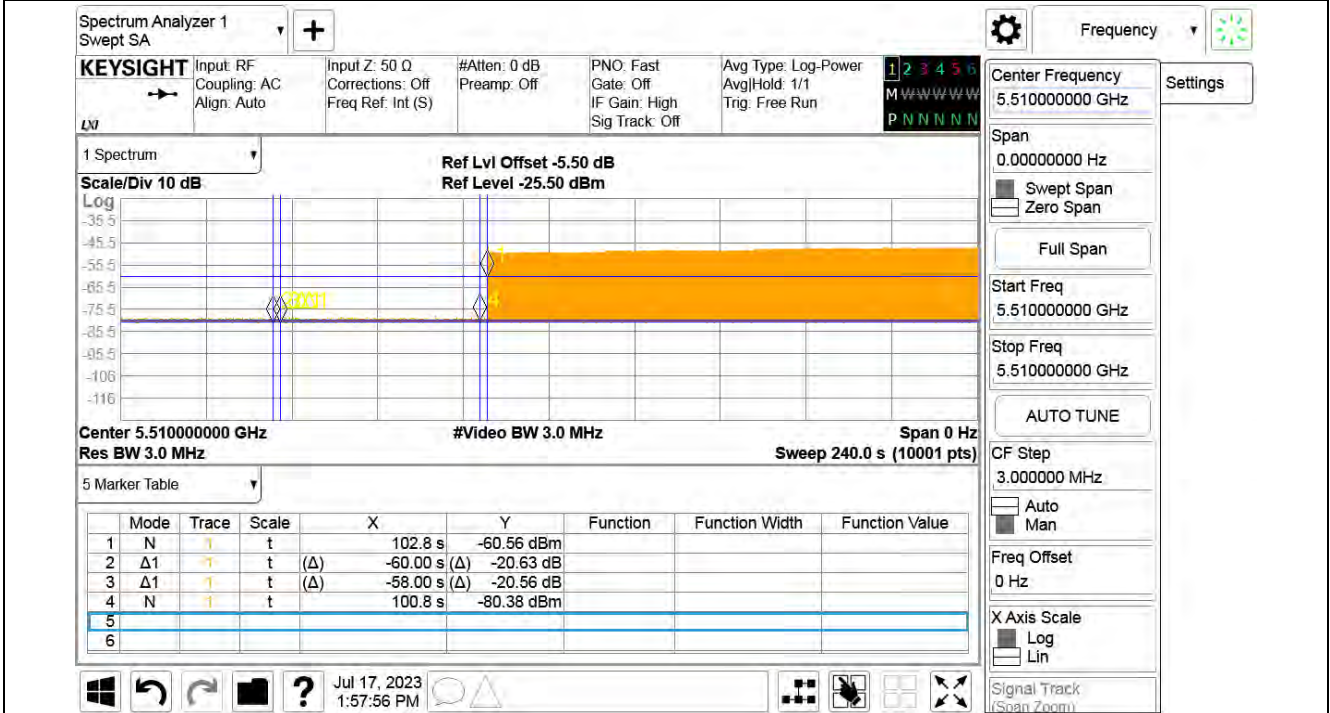
802.11ax (20 MHz), 5500 MHz

The EUT does not transmit any beacon or data transmission until at least 1 minute after the completion of the power-on cycle (43.4 sec). The initial power up time of the EUT is indicated by Marker 1 (103.4 sec) – CAC (60 sec). Initial beacons/data transmission is indicated by Marker 1 (103.4 sec)



802.11ax (40 MHz), 5510 MHz

The EUT does not transmit any beacon or data transmission until at least 1 minute after the completion of the power-on cycle (42.8 sec). The initial power up time of the EUT is indicated by Marker 1 (102.8 sec) – CAC (60 sec). Initial beacons/data transmission is indicated by Marker 1 (102.8 sec)



802.11ax (80 MHz), 5530 MHz

The EUT does not transmit any beacon or data transmission until at least 1 minute after the completion of the power-on cycle (42.9 sec). The initial power up time of the EUT is indicated by Marker 1 (102.9 sec) – CAC (60 sec). Initial beacons/data transmission is indicated by Marker 1 (102.9 sec)



802.11ax (160 MHz), 5570 MHz

The EUT does not transmit any beacon or data transmission until at least 1 minute after the completion of the power-on cycle (43.3 sec). The initial power up time of the EUT is indicated by Marker 1 (103.3 sec) – CAC (60 sec). Initial beacons/data transmission is indicated by Marker 1 (103.3 sec)



7. Radar Burst at the Beginning of the Channel Availability Check Time

7.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63dBm) occurs at the beginning of the Channel Availability Check Time.

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

A single Burst of short pulse of radar type 1 at -63dBm will commence within a 6 second window starting at T1.

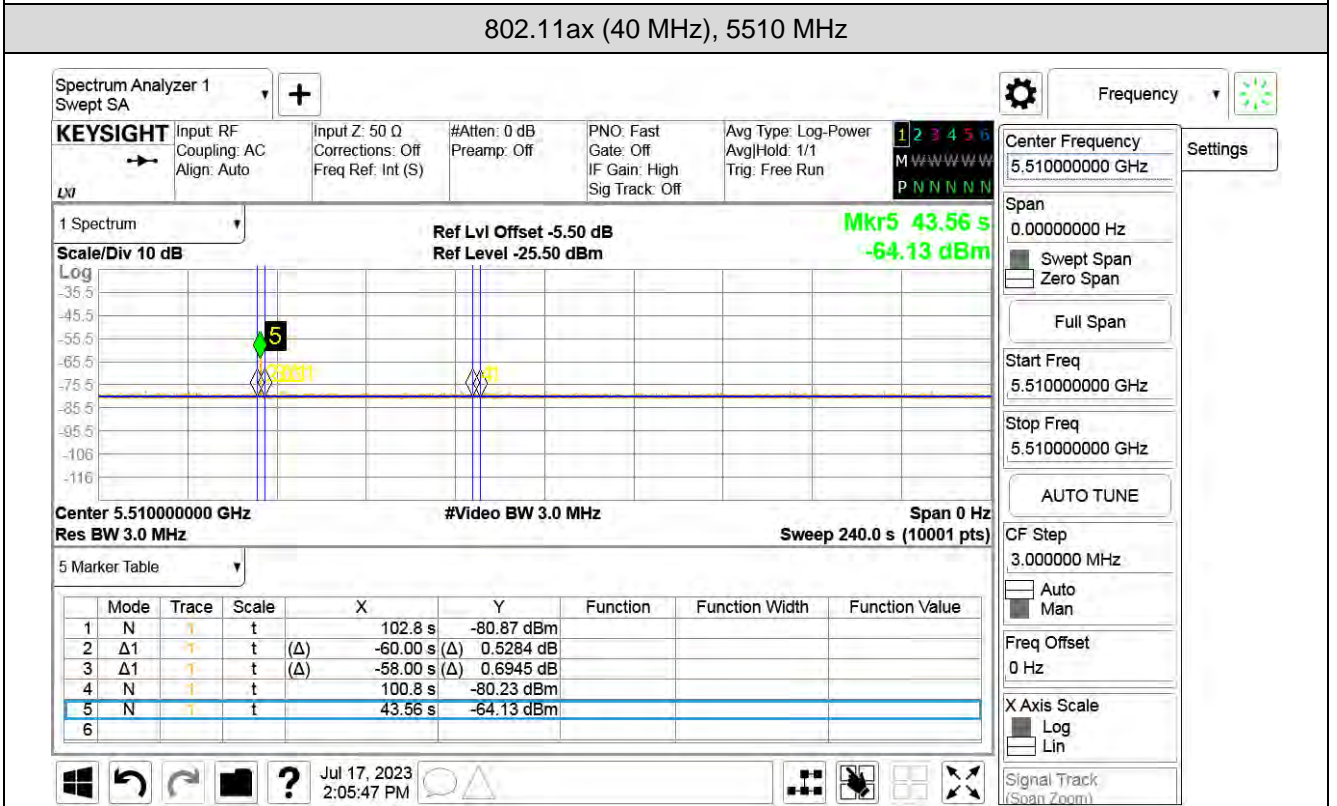
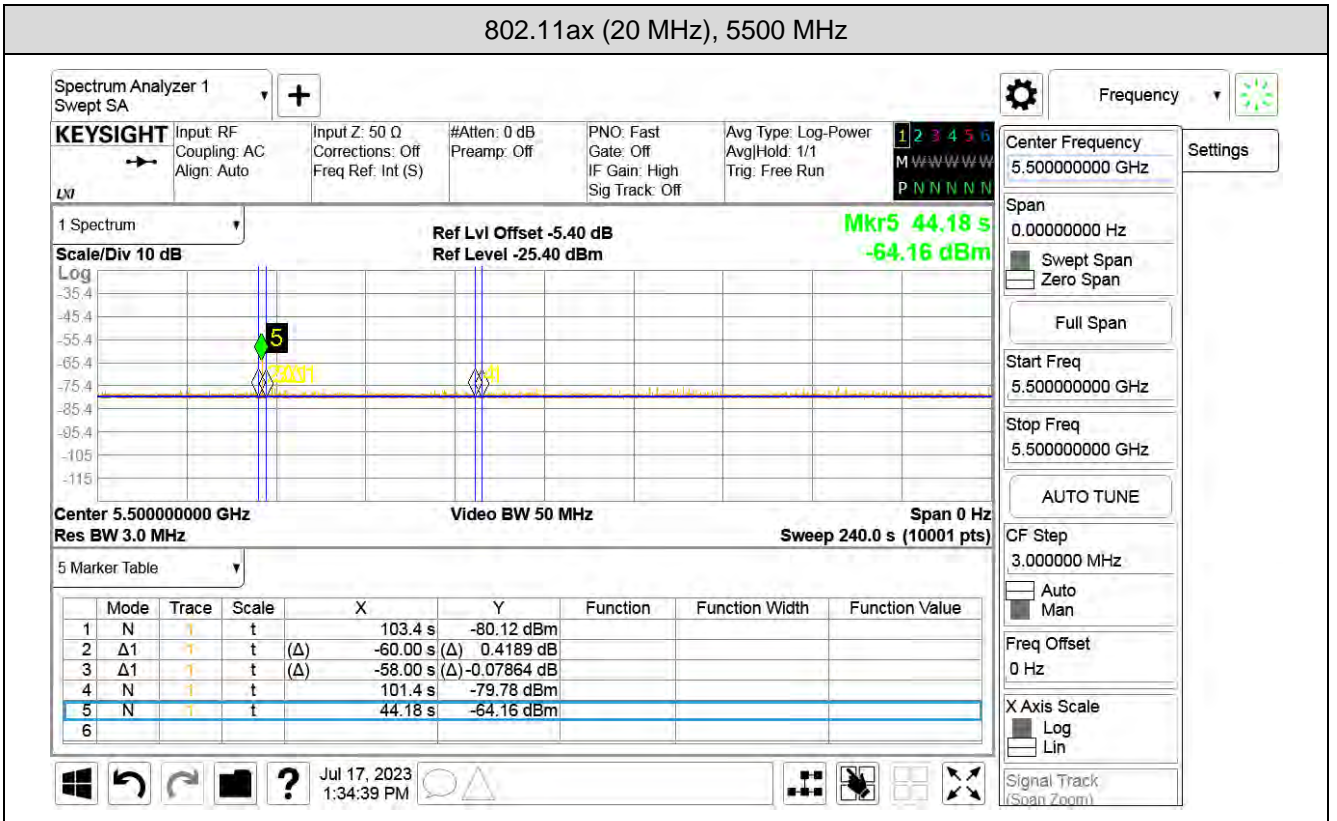
Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported.

Observation of emissions at test channel frequency will continue for 2.5 minutes after the radar Burst, Verify that during the 2.5 minute measurement window no EUT transmissions occurred at test channel frequency.

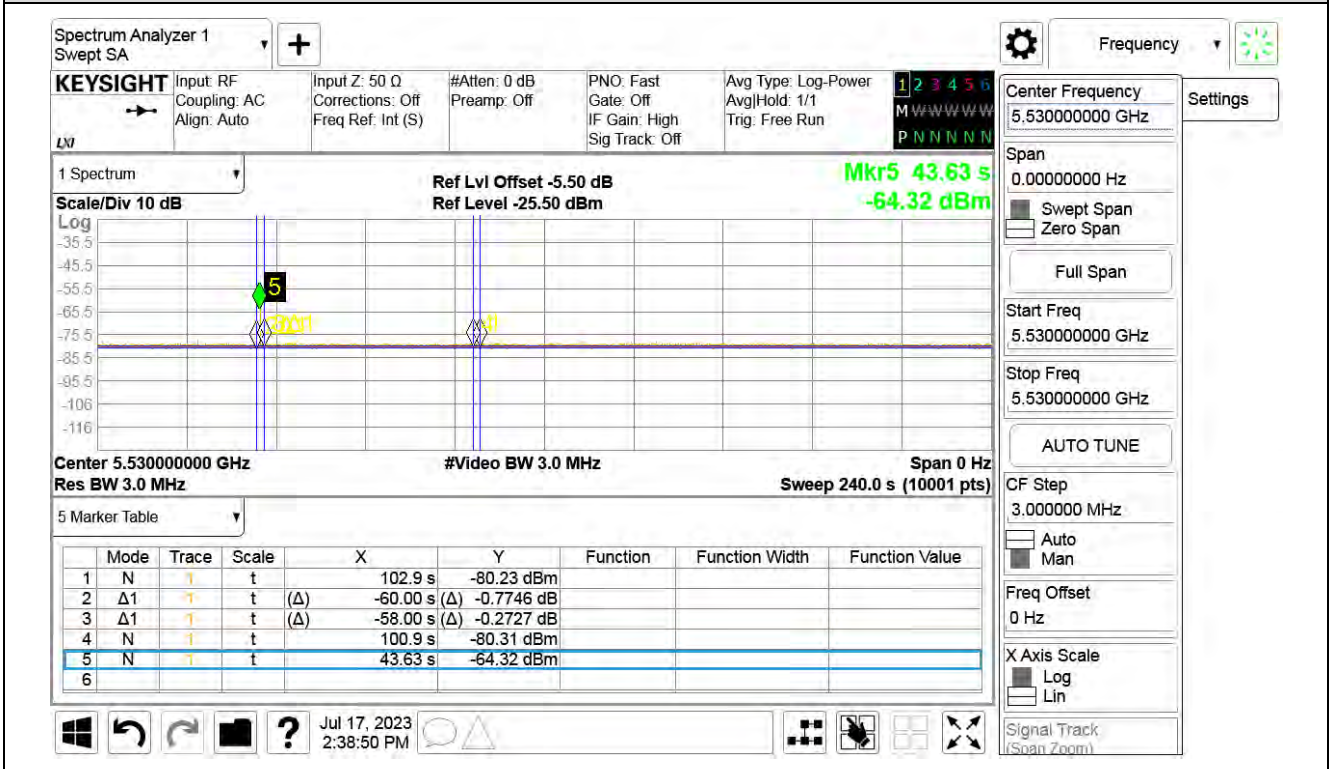
7.2. Test Requirement

In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC that channel.

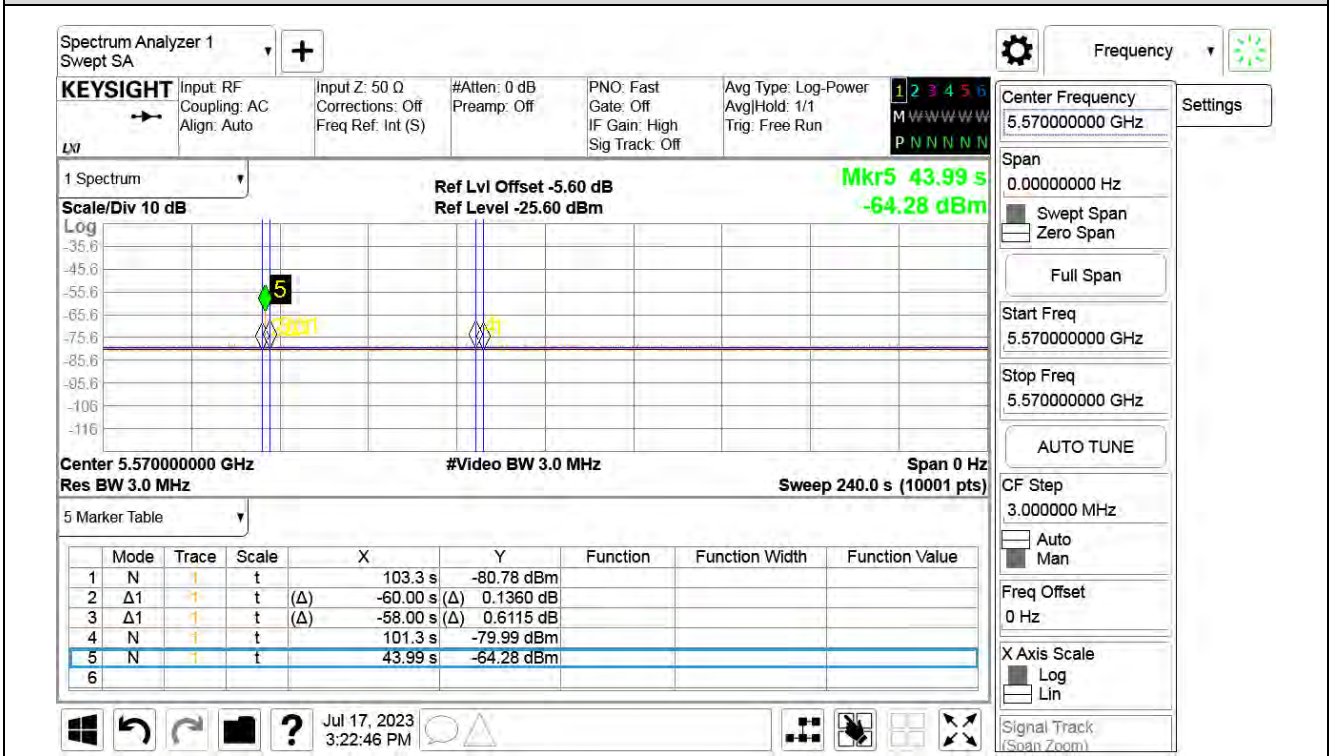
7.3. Test Result of Radar Burst at the Beginning of the Channel Availability Check Time



802.11ax (80 MHz), 5530 MHz



802.11ax (160 MHz), 5570 MHz



8. Radar Burst at the End of the Channel Availability Check Time

8.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63dBm) occurs at the end of the Channel Availability Check Time.

The UUT is powered on at T0. T1 denotes the instant when the UUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds. A single Burst of short pulse of radar type 1 at -63 dBm will commence within a 6 second window starting at T1+ 54 seconds.

Visual indication on the UUT of successful detection of the radar Burst will be recorded and reported.

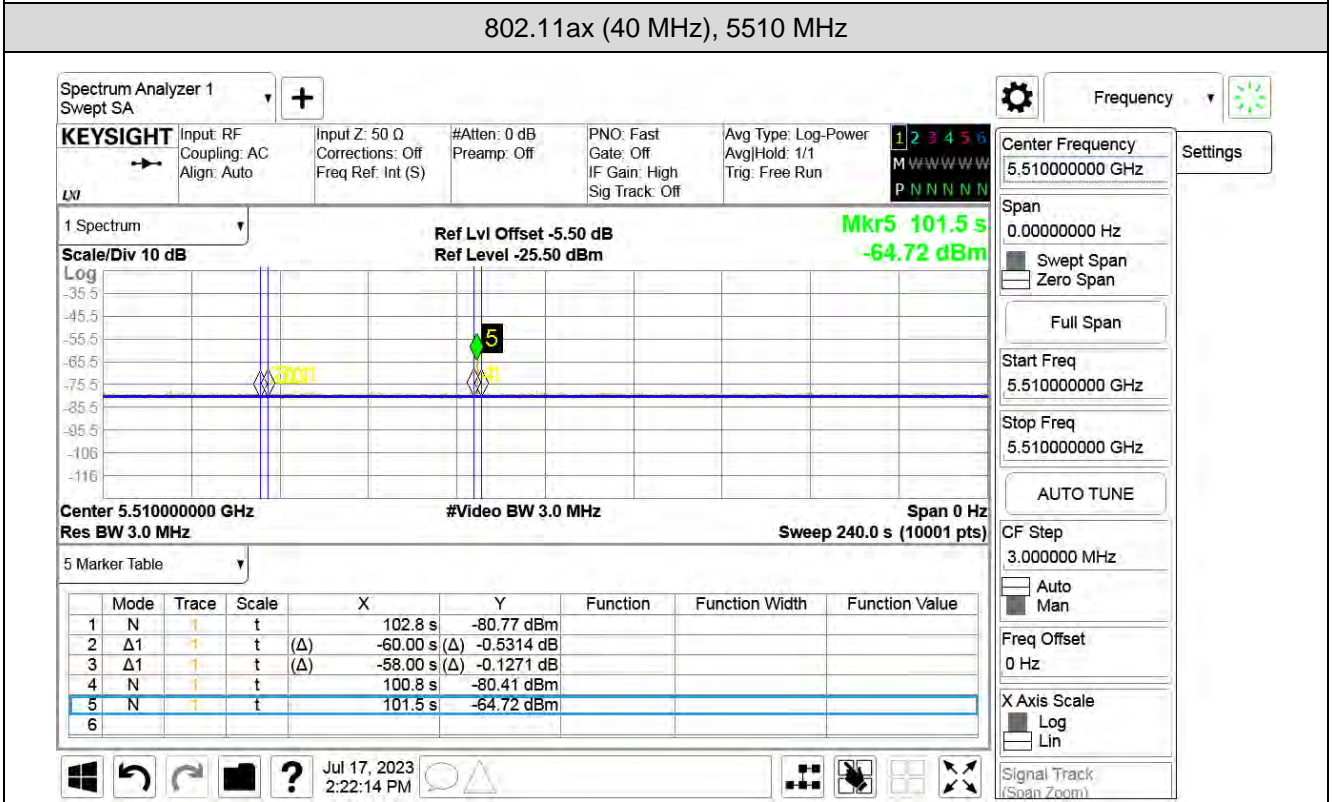
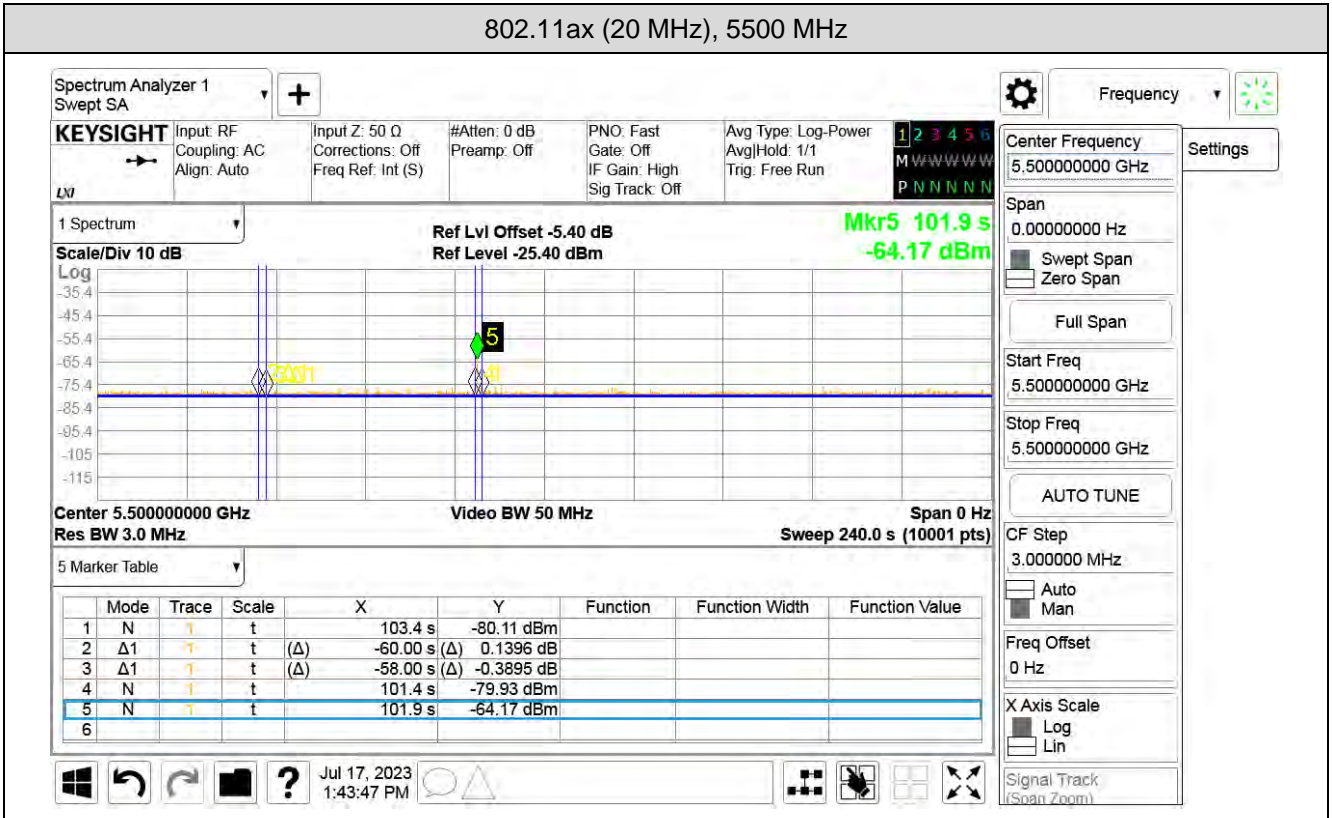
Observation of emissions at test channel frequency will continue for 2.5 minutes after the radar Burst has been generated.

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

8.2. Test Requirement

In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC that channel.

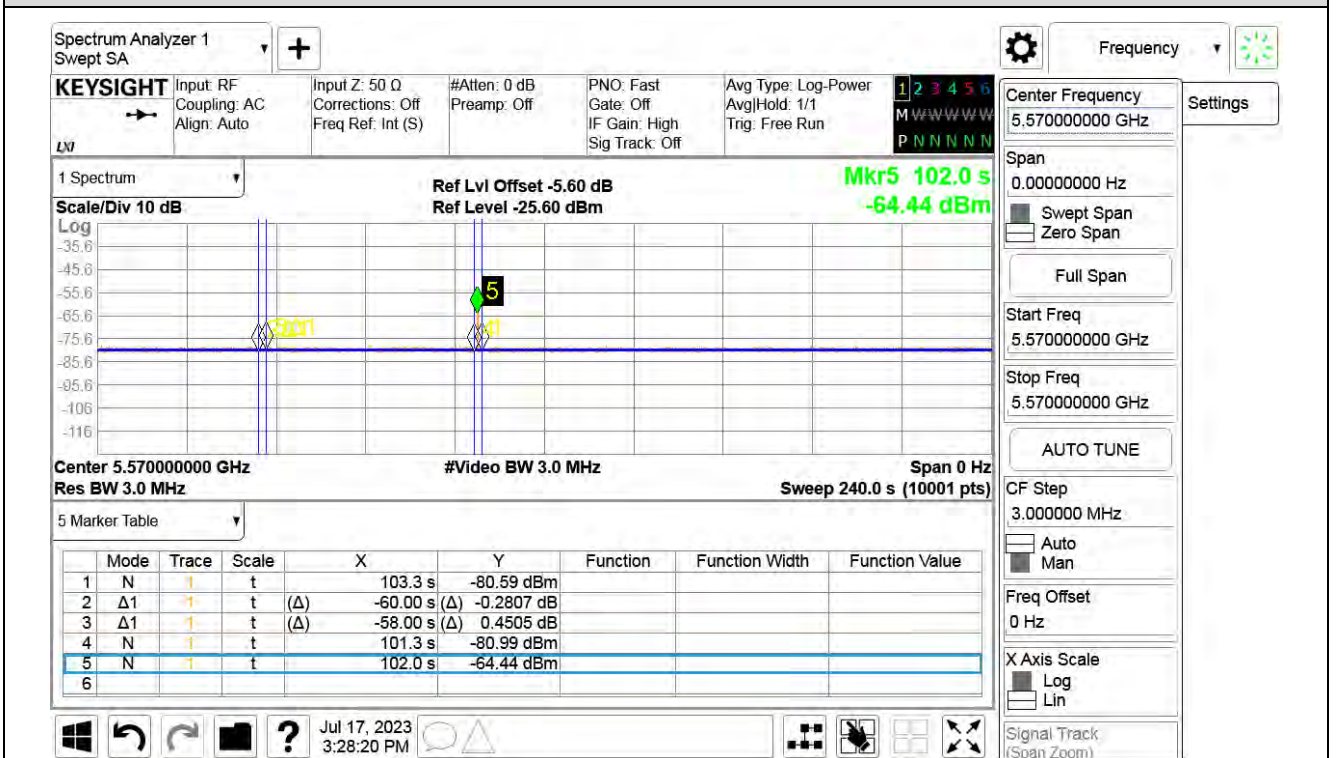
8.3. Test Result of Radar Burst at the End of the Channel Availability Check Time



802.11ax (80 MHz), 5530 MHz



802.11ax (160 MHz), 5570 MHz



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

9.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period. The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB (-63 dBm) is generated on the Operating Channel of the U-NII device.

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

At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -63 dBm. Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limit defined in the DFS Response requirement values table.

Measure the UUT for more than 30 minutes following the channel close/move time to verify that the UUT does not resume any transmissions on this Channel.

9.2. Test Requirement

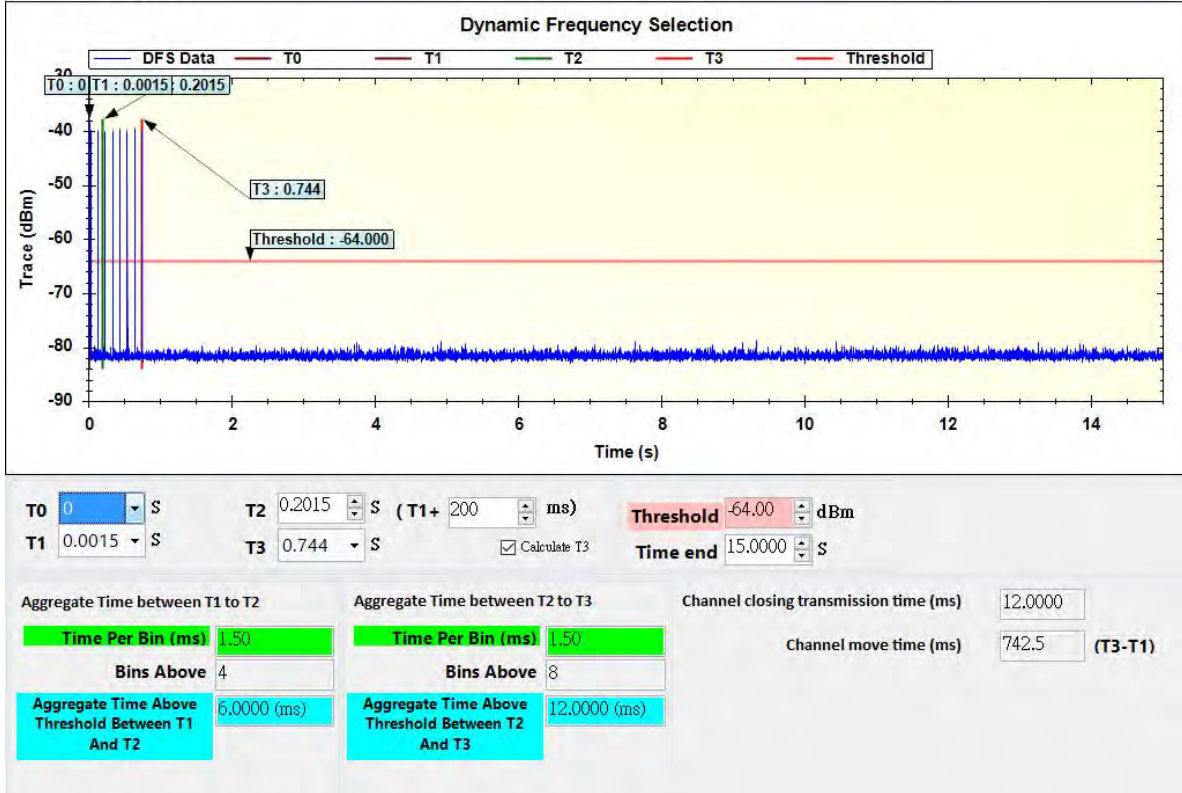
Parameter	Value
Channel Move Time	10 Seconds
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Non-Occupancy Period	Minimum 30 minutes

9.3. Test Result of Channel Move Time and Channel Closing Transmission Time

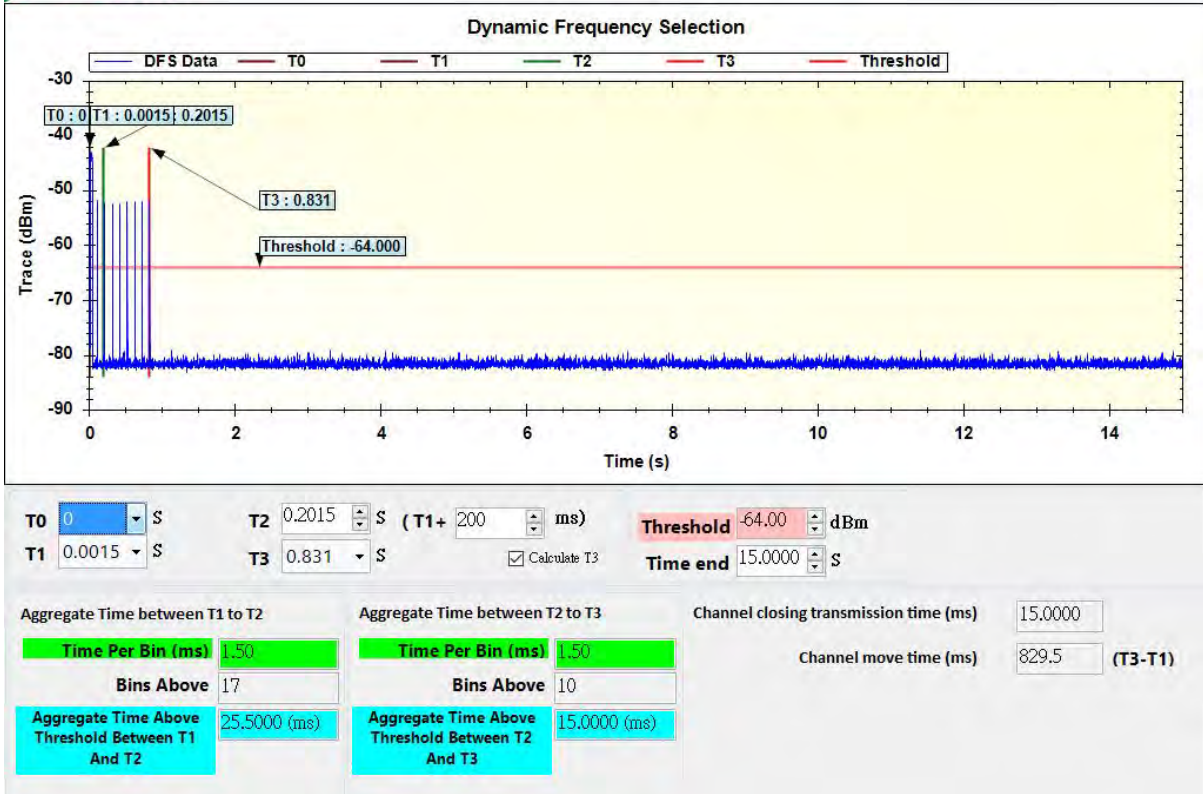
Modulation	Frequency (MHz)	Channel Closing Transmission (Sec.)	Channel Move Time (Sec.)	Limit (sec.)	
				Channel Closing Transmission	Channel Move Time
802.11ax (20 MHz)	5500	0.012	0.742	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period	10
802.11ax (40 MHz)	5510	0.015	0.829	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period	10
802.11ax (80 MHz)	5530	0.015	0.819	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period	10
802.11ax (160 MHz)	5570	0.016	0.910	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period	10

The results showed that after radar signal injected the channel move time was less than 10 seconds and channel transmission closing time less than 200 milliseconds and an aggregate of no more than 60 milliseconds.

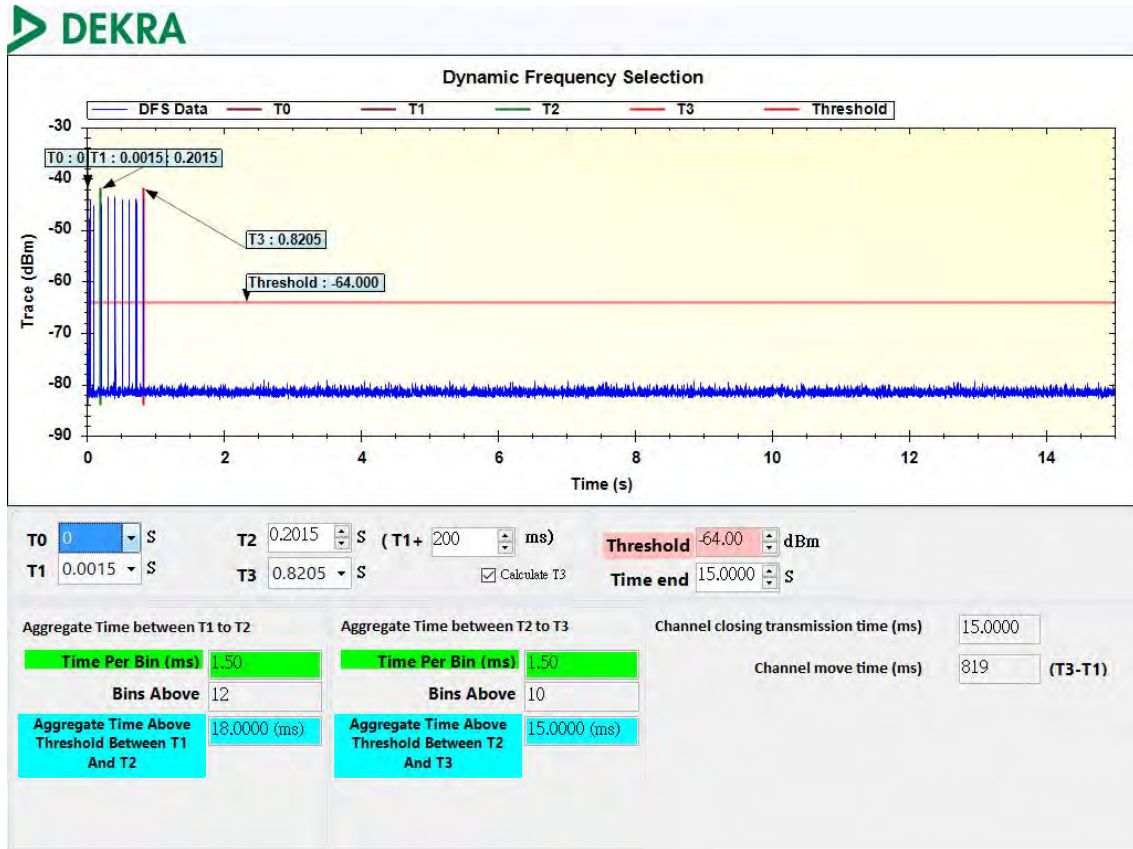
Channel Move Time and Channel Closing Transmission Time - 802.11ax (20 MHz), 5500 MHz



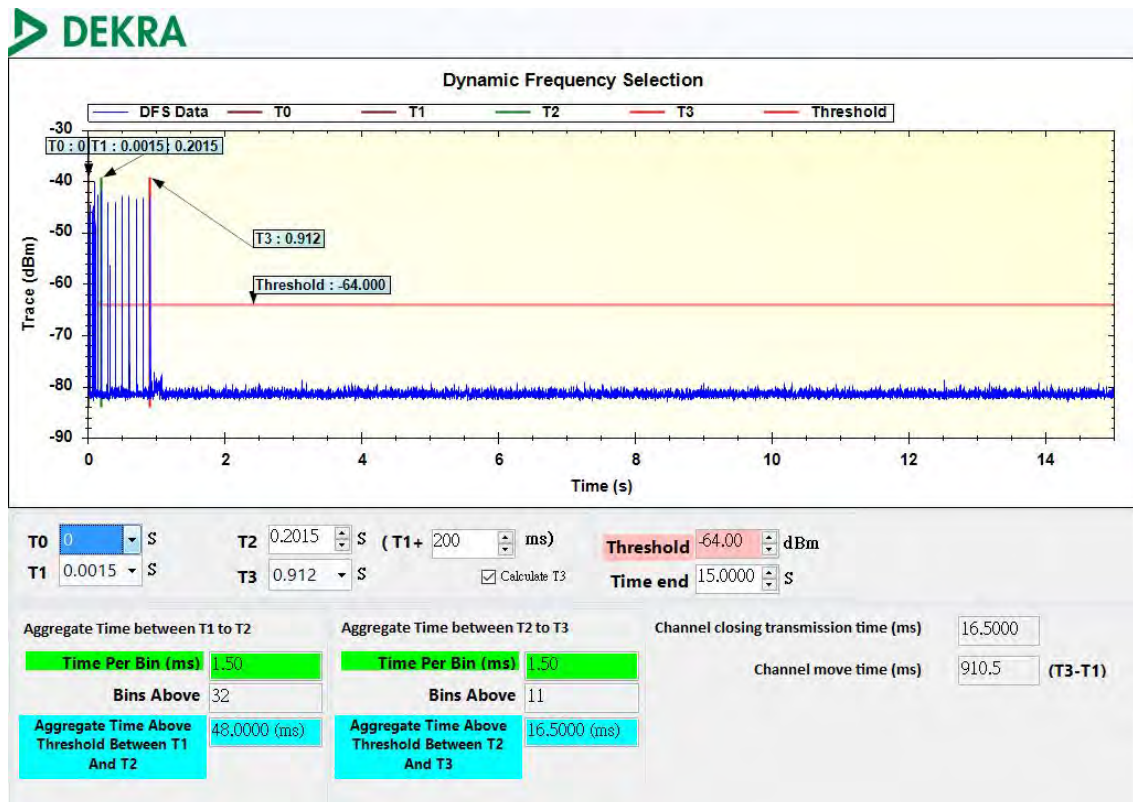
Channel Move Time and Channel Closing Transmission Time - 802.11ax (40 MHz), 5510 MHz



Channel Move Time and Channel Closing Transmission Time - 802.11ax (80 MHz), 5530 MHz



Channel Move Time and Channel Closing Transmission Time - 802.11ax (160 MHz), 5570 MHz



9.4. Test Result of Non-Occupancy Period

Non-Occupancy Period				
Modulation		Test Result (Minutes)	Limit (Minutes)	Result
802.11ax (20 MHz)	5500	> 30	> 30	Pass
802.11ax (40 MHz)	5510	> 30	> 30	Pass
802.11ax (80 MHz)	5530	> 30	> 30	Pass
802.11ax (160 MHz)	5570	> 30	> 30	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.





10. Statistical Performance Check

10.1. Test Procedure

The EUT was tested according to U-NII test procedure of KDB905462 D02 for compliance to FCC 47CFR 15.407 requirements.

The steps below define the procedure to determine the minimum percentage of detection when a radar burst with a level equal to the DFS Detection Threshold + 1dB (-63dBm) is generated on the Operating Channel of the U-NII device.

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

The Radar Waveform generator sends the individual waveform for each of the radar types 1-6 at -63 dBm. Statistical data will be gathered to determine the ability of the device to detect the radar test waveforms. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.

10.2. Test Requirement

The minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Minimum percentage of successful detections

Radar Type	Minimum Percentage of Successful Detection	Minimum Number of Trials
1	60%	30
2	60%	30
3	60%	30
4	60%	30
Aggregate (Radar Types 1-4)	80%	120
5	80%	30
6	70%	30

The percentage of successful detection is calculated by:

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

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

$$\frac{P_d 1 + P_d 2 + P_d 3 + P_d 4}{4}$$

10.3. Test Result of Statistical Performance Check

Radar Statistical Performance

802.11ax (20 MHz), 5500 MHz				
Radar Test Summary:				
Signal Type	Trial No.	Detection (%)	Limit (%)	Result
Type D.4.1	30	96.67	60	Pass
Type D.4.2	30	83.33	60	Pass
Type D.4.3	30	83.33	60	Pass
Type D.4.4	30	83.33	60	Pass
Type D.4.5	30	96.67	60	Pass
Type D.4.6	30	100.00	60	Pass

Note: The aggregate should be 80 percent that the average of the percentage of successful detections of Short Pulse Radar Types 1-4.

802.11ax (20 MHz), 5500 MHz						
	Type_1	Type_2	Type_3	Type_4	Type_5	Type_6
1	v	v	v	v	v	v
2	v	v	x	v	v	v
3	v	v	v	v	v	v
4	x	v	v	v	v	v
5	v	v	x	v	v	v
6	v	x	x	v	v	v
7	v	v	v	v	v	v
8	v	v	v	v	v	v
9	v	x	v	x	v	v
10	v	x	v	v	v	v
11	v	v	x	v	v	v
12	v	v	v	v	x	v
13	v	x	v	v	v	v
14	v	v	v	x	v	v
15	v	v	v	v	v	v
16	v	v	v	v	v	v
17	v	v	v	v	v	v
18	v	x	v	v	v	v
19	v	v	v	v	v	v
20	v	v	v	x	v	v
21	v	v	v	v	v	v
22	v	v	v	v	v	v
23	v	v	v	v	v	v
24	v	v	v	x	v	v
25	v	v	v	v	v	v
26	v	v	v	x	v	v
27	v	v	v	v	v	v
28	v	v	v	v	v	v
29	v	v	x	v	v	v
30	v	v	v	v	v	v
Number of Successful	29	25	25	25	29	30
% of Successful	96.67%	83.33%	83.33%	83.33%	96.67%	100.00%
	86.67%					

802.11ax (20 MHz), 5500 MHz					
Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 1	1	658	81	53298
1	Type 1	1	798	67	53466
2	Type 1	1	738	72	53136
3	Type 1	1	938	57	53466
4	Type 1	1	558	95	53010
5	Type 1	1	518	102	52836
6	Type 1	1	3066	18	55188
7	Type 1	1	878	61	53558
8	Type 1	1	718	74	53132
9	Type 1	1	678	78	52884
10	Type 1	1	918	58	53244
11	Type 1	1	898	59	52982
12	Type 1	1	638	83	52954
13	Type 1	1	618	86	53148
14	Type 1	1	598	89	53222
15	Type 1	1	1182	45	53190
16	Type 1	1	909	59	53631
17	Type 1	1	530	100	53000
18	Type 1	1	1946	28	54488
19	Type 1	1	2259	24	54216
20	Type 1	1	2009	27	54243
21	Type 1	1	865	62	53630
22	Type 1	1	2218	24	53232
23	Type 1	1	1480	36	53280
24	Type 1	1	2523	21	52983
25	Type 1	1	2876	19	54644
26	Type 1	1	2496	22	54912
27	Type 1	1	3046	18	54828
28	Type 1	1	2057	26	53482
29	Type 1	1	2719	20	54380

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 2	4.8	218	29	6322
1	Type 2	2.1	206	24	4944
2	Type 2	1.9	201	24	4824
3	Type 2	3.4	226	27	6102
4	Type 2	4.1	192	28	5376
5	Type 2	4.4	221	28	6188
6	Type 2	4.1	172	28	4816
7	Type 2	3.5	150	27	4050
8	Type 2	3.6	186	27	5022
9	Type 2	4.7	154	29	4466
10	Type 2	1.3	194	23	4462
11	Type 2	1	166	23	3818
12	Type 2	3.6	212	27	5724
13	Type 2	3	228	26	5928
14	Type 2	4	211	28	5908
15	Type 2	4.7	151	29	4379
16	Type 2	1.1	179	23	4117
17	Type 2	2.7	175	25	4375
18	Type 2	1.5	165	24	3960
19	Type 2	1.6	167	24	4008
20	Type 2	4.8	173	29	5017
21	Type 2	3.7	189	27	5103
22	Type 2	5	185	29	5365
23	Type 2	4.7	215	29	6235
24	Type 2	3.8	159	27	4293
25	Type 2	2.3	170	25	4250
26	Type 2	4.8	168	29	4872
27	Type 2	1.9	213	24	5112
28	Type 2	1.3	190	23	4370
29	Type 2	1.5	205	23	4715

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 3	9.8	265	18	4770
1	Type 3	7.1	240	16	3840
2	Type 3	6.9	299	16	4784
3	Type 3	8.4	262	17	4454
4	Type 3	9.1	446	18	8028
5	Type 3	9.4	223	18	4014
6	Type 3	9.1	224	18	4032
7	Type 3	8.5	493	17	8381
8	Type 3	8.6	443	17	7531
9	Type 3	9.7	403	18	7254
10	Type 3	6.3	471	16	7536
11	Type 3	6	248	16	3968
12	Type 3	8.6	454	17	7718
13	Type 3	8	227	17	3859
14	Type 3	9	448	18	8064
15	Type 3	9.7	300	18	5400
16	Type 3	6.1	400	16	6400
17	Type 3	7.7	467	17	7939
18	Type 3	6.5	222	16	3552
19	Type 3	6.6	252	16	4032
20	Type 3	9.8	412	18	7416
21	Type 3	8.7	294	18	5292
22	Type 3	10	413	18	7434
23	Type 3	9.7	386	18	6948
24	Type 3	8.8	317	18	5706
25	Type 3	7.3	472	17	8024
26	Type 3	9.8	258	18	4644
27	Type 3	6.9	250	16	4000
28	Type 3	6.3	447	16	7152
29	Type 3	6.5	314	16	5024

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 4	19.4	265	16	4240
1	Type 4	13.4	240	13	3120
2	Type 4	13.1	299	13	3887
3	Type 4	16.4	262	15	3930
4	Type 4	18	446	15	6690
5	Type 4	18.5	223	16	3568
6	Type 4	17.9	224	15	3360
7	Type 4	16.5	493	15	7395
8	Type 4	16.8	443	15	6645
9	Type 4	19.2	403	16	6448
10	Type 4	11.7	471	12	5652
11	Type 4	11.1	248	12	2976
12	Type 4	16.9	454	15	6810
13	Type 4	15.4	227	14	3178
14	Type 4	17.7	448	15	6720
15	Type 4	19.3	300	16	4800
16	Type 4	11.3	400	12	4800
17	Type 4	14.8	467	14	6538
18	Type 4	12.3	222	12	2664
19	Type 4	12.3	252	12	3024
20	Type 4	19.4	412	16	6592
21	Type 4	17	294	15	4410
22	Type 4	19.9	413	16	6608
23	Type 4	19.2	386	16	6176
24	Type 4	17.4	317	15	4755
25	Type 4	14	472	13	6136
26	Type 4	19.4	258	16	4128
27	Type 4	13.2	250	13	3250
28	Type 4	11.7	447	12	5364
29	Type 4	12.2	314	12	3768

Trial Id	Radar Type	Number of Bursts	Burst Period(s)	Waveform Length(s)	Center Frequency (GHz)
0	Type 5	20	0.6	12	5.5
1	Type 5	11	1.090909	12	5.5
2	Type 5	11	1.090909	12	5.5
3	Type 5	15	0.8	12	5.5
4	Type 5	18	0.666667	12	5.5
5	Type 5	18	0.666667	12	5.5
6	Type 5	17	0.705882	12	5.5
7	Type 5	15	0.8	12	5.5
8	Type 5	16	0.75	12	5.5
9	Type 5	19	0.631579	12	5.5
10	Type 5	9	1.333333	12	5.492
11	Type 5	8	1.5	12	5.492
12	Type 5	16	0.75	12	5.496
13	Type 5	14	0.857143	12	5.495
14	Type 5	17	0.705882	12	5.496
15	Type 5	19	0.631579	12	5.498
16	Type 5	8	1.5	12	5.492
17	Type 5	13	0.923077	12	5.494
18	Type 5	9	1.333333	12	5.493
19	Type 5	9	1.333333	12	5.493
20	Type 5	20	0.6	12	5.502
21	Type 5	16	0.75	12	5.504
22	Type 5	20	0.6	12	5.502
23	Type 5	19	0.631579	12	5.502
24	Type 5	17	0.705882	12	5.504
25	Type 5	12	1	12	5.506
26	Type 5	20	0.6	12	5.502
27	Type 5	11	1.090909	12	5.507
28	Type 5	9	1.333333	12	5.508
29	Type 5	9	1.333333	12	5.507

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

802.11ax (40 MHz), 5510 MHz				
Radar Test Summary:				
Signal Type	Trial No.	Detection (%)	Limit (%)	Result
Type D.4.1	30	96.67	60	Pass
Type D.4.2	30	83.33	60	Pass
Type D.4.3	30	86.67	60	Pass
Type D.4.4	30	83.33	60	Pass
Type D.4.5	30	100.00	60	Pass
Type D.4.6	30	96.67	60	Pass

Note: The aggregate should be 80 percent that the average of the percentage of successful detections of Short Pulse Radar Types 1-4.

802.11ax (40 MHz), 5510 MHz						
	Type_1	Type_2	Type_3	Type_4	Type_5	Type_6
1	v	v	v	v	v	v
2	v	v	v	v	v	v
3	v	v	x	v	v	x
4	v	v	v	x	v	v
5	v	v	x	v	v	v
6	v	v	v	v	v	v
7	v	x	v	v	v	v
8	v	v	x	v	v	v
9	v	v	v	v	v	v
10	v	v	v	v	v	v
11	v	v	v	v	v	v
12	v	v	v	v	v	v
13	v	x	v	v	v	v
14	v	v	v	v	v	v
15	v	v	v	x	v	v
16	v	v	v	v	v	v
17	v	v	v	x	v	v
18	v	v	v	v	v	v
19	v	v	v	v	v	v
20	v	v	v	v	v	v
21	v	v	v	v	v	v
22	v	v	v	v	v	v
23	v	v	v	v	v	v
24	v	v	v	x	v	v
25	v	x	v	v	v	v
26	v	v	v	v	v	v
27	v	v	v	v	v	v
28	v	v	v	v	v	v
29	v	x	x	v	v	v
30	x	x	v	x	v	v
Number of Successful	29	25	26	25	30	29
% of Successful	96.67%	83.33%	86.67%	83.33%	100.00%	96.67%
	87.50%					

802.11ax (40 MHz), 5510 MHz					
Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 1	1	658	81	53298
1	Type 1	1	798	67	53466
2	Type 1	1	738	72	53136
3	Type 1	1	938	57	53466
4	Type 1	1	558	95	53010
5	Type 1	1	518	102	52836
6	Type 1	1	3066	18	55188
7	Type 1	1	878	61	53558
8	Type 1	1	718	74	53132
9	Type 1	1	678	78	52884
10	Type 1	1	918	58	53244
11	Type 1	1	898	59	52982
12	Type 1	1	638	83	52954
13	Type 1	1	618	86	53148
14	Type 1	1	598	89	53222
15	Type 1	1	1182	45	53190
16	Type 1	1	909	59	53631
17	Type 1	1	530	100	53000
18	Type 1	1	1946	28	54488
19	Type 1	1	2259	24	54216
20	Type 1	1	2009	27	54243
21	Type 1	1	865	62	53630
22	Type 1	1	2218	24	53232
23	Type 1	1	1480	36	53280
24	Type 1	1	2523	21	52983
25	Type 1	1	2876	19	54644
26	Type 1	1	2496	22	54912
27	Type 1	1	3046	18	54828
28	Type 1	1	2057	26	53482
29	Type 1	1	2719	20	54380

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 2	4.8	218	29	6322
1	Type 2	2.1	206	24	4944
2	Type 2	1.9	201	24	4824
3	Type 2	3.4	226	27	6102
4	Type 2	4.1	192	28	5376
5	Type 2	4.4	221	28	6188
6	Type 2	4.1	172	28	4816
7	Type 2	3.5	150	27	4050
8	Type 2	3.6	186	27	5022
9	Type 2	4.7	154	29	4466
10	Type 2	1.3	194	23	4462
11	Type 2	1	166	23	3818
12	Type 2	3.6	212	27	5724
13	Type 2	3	228	26	5928
14	Type 2	4	211	28	5908
15	Type 2	4.7	151	29	4379
16	Type 2	1.1	179	23	4117
17	Type 2	2.7	175	25	4375
18	Type 2	1.5	165	24	3960
19	Type 2	1.6	167	24	4008
20	Type 2	4.8	173	29	5017
21	Type 2	3.7	189	27	5103
22	Type 2	5	185	29	5365
23	Type 2	4.7	215	29	6235
24	Type 2	3.8	159	27	4293
25	Type 2	2.3	170	25	4250
26	Type 2	4.8	168	29	4872
27	Type 2	1.9	213	24	5112
28	Type 2	1.3	190	23	4370
29	Type 2	1.5	205	23	4715

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 3	9.8	265	18	4770
1	Type 3	7.1	240	16	3840
2	Type 3	6.9	299	16	4784
3	Type 3	8.4	262	17	4454
4	Type 3	9.1	446	18	8028
5	Type 3	9.4	223	18	4014
6	Type 3	9.1	224	18	4032
7	Type 3	8.5	493	17	8381
8	Type 3	8.6	443	17	7531
9	Type 3	9.7	403	18	7254
10	Type 3	6.3	471	16	7536
11	Type 3	6	248	16	3968
12	Type 3	8.6	454	17	7718
13	Type 3	8	227	17	3859
14	Type 3	9	448	18	8064
15	Type 3	9.7	300	18	5400
16	Type 3	6.1	400	16	6400
17	Type 3	7.7	467	17	7939
18	Type 3	6.5	222	16	3552
19	Type 3	6.6	252	16	4032
20	Type 3	9.8	412	18	7416
21	Type 3	8.7	294	18	5292
22	Type 3	10	413	18	7434
23	Type 3	9.7	386	18	6948
24	Type 3	8.8	317	18	5706
25	Type 3	7.3	472	17	8024
26	Type 3	9.8	258	18	4644
27	Type 3	6.9	250	16	4000
28	Type 3	6.3	447	16	7152
29	Type 3	6.5	314	16	5024

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 4	19.4	265	16	4240
1	Type 4	13.4	240	13	3120
2	Type 4	13.1	299	13	3887
3	Type 4	16.4	262	15	3930
4	Type 4	18	446	15	6690
5	Type 4	18.5	223	16	3568
6	Type 4	17.9	224	15	3360
7	Type 4	16.5	493	15	7395
8	Type 4	16.8	443	15	6645
9	Type 4	19.2	403	16	6448
10	Type 4	11.7	471	12	5652
11	Type 4	11.1	248	12	2976
12	Type 4	16.9	454	15	6810
13	Type 4	15.4	227	14	3178
14	Type 4	17.7	448	15	6720
15	Type 4	19.3	300	16	4800
16	Type 4	11.3	400	12	4800
17	Type 4	14.8	467	14	6538
18	Type 4	12.3	222	12	2664
19	Type 4	12.3	252	12	3024
20	Type 4	19.4	412	16	6592
21	Type 4	17	294	15	4410
22	Type 4	19.9	413	16	6608
23	Type 4	19.2	386	16	6176
24	Type 4	17.4	317	15	4755
25	Type 4	14	472	13	6136
26	Type 4	19.4	258	16	4128
27	Type 4	13.2	250	13	3250
28	Type 4	11.7	447	12	5364
29	Type 4	12.2	314	12	3768

Trial Id	Radar Type	Number of Bursts	Burst Period(s)	Waveform Length(s)	Center Frequency (GHz)
0	Type 5	20	0.6	12	5.5
1	Type 5	11	1.090909	12	5.5
2	Type 5	11	1.090909	12	5.5
3	Type 5	15	0.8	12	5.5
4	Type 5	18	0.666667	12	5.5
5	Type 5	18	0.666667	12	5.5
6	Type 5	17	0.705882	12	5.5
7	Type 5	15	0.8	12	5.5
8	Type 5	16	0.75	12	5.5
9	Type 5	19	0.631579	12	5.5
10	Type 5	9	1.333333	12	5.484
11	Type 5	8	1.5	12	5.484
12	Type 5	16	0.75	12	5.488
13	Type 5	14	0.857143	12	5.486
14	Type 5	17	0.705882	12	5.488
15	Type 5	19	0.631579	12	5.489
16	Type 5	8	1.5	12	5.484
17	Type 5	13	0.923077	12	5.486
18	Type 5	9	1.333333	12	5.484
19	Type 5	9	1.333333	12	5.484
20	Type 5	20	0.6	12	5.511
21	Type 5	16	0.75	12	5.512
22	Type 5	20	0.6	12	5.51
23	Type 5	19	0.631579	12	5.511
24	Type 5	17	0.705882	12	5.512
25	Type 5	12	1	12	5.514
26	Type 5	20	0.6	12	5.511
27	Type 5	11	1.090909	12	5.515
28	Type 5	9	1.333333	12	5.516
29	Type 5	9	1.333333	12	5.516

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

802.11ax (80 MHz), 5530 MHz				
Radar Test Summary:				
Signal Type	Trial No.	Detection (%)	Limit (%)	Result
Type D.4.1	30	100.00	60	Pass
Type D.4.2	30	93.33	60	Pass
Type D.4.3	30	80.00	60	Pass
Type D.4.4	30	86.67	60	Pass
Type D.4.5	30	90.00	60	Pass
Type D.4.6	30	100.00	60	Pass
Note: The aggregate should be 80 percent that the average of the percentage of successful detections of Short Pulse Radar Types 1-4.				

802.11ax (80 MHz), 5530 MHz						
	Type_1	Type_2	Type_3	Type_4	Type_5	Type_6
1	v	x	x	v	v	v
2	v	v	v	v	x	v
3	v	v	v	v	v	v
4	v	v	v	v	v	v
5	v	v	v	v	v	v
6	v	x	v	v	v	v
7	v	v	v	v	v	v
8	v	v	v	x	v	v
9	v	v	v	v	v	v
10	v	v	v	v	v	v
11	v	v	x	v	v	v
12	v	v	v	v	v	v
13	v	v	v	v	v	v
14	v	v	v	x	x	v
15	v	v	x	v	v	v
16	v	v	x	v	v	v
17	v	v	v	v	v	v
18	v	v	v	v	v	v
19	v	v	v	v	v	v
20	v	v	v	v	v	v
21	v	v	v	v	v	v
22	v	v	v	v	v	v
23	v	v	v	x	v	v
24	v	v	v	v	x	v
25	v	v	x	v	v	v
26	v	v	v	v	v	v
27	v	v	x	v	v	v
28	v	v	v	v	v	v
29	v	v	v	x	v	v
30	v	v	v	v	v	v
Number of Successful	30	28	24	26	27	30
% of Successful	100.00%	93.33%	80.00%	86.67%	90.00%	100.00%
	90.00%					

802.11ax (80 MHz), 5530 MHz					
Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 1	1	658	81	53298
1	Type 1	1	798	67	53466
2	Type 1	1	738	72	53136
3	Type 1	1	938	57	53466
4	Type 1	1	558	95	53010
5	Type 1	1	518	102	52836
6	Type 1	1	3066	18	55188
7	Type 1	1	878	61	53558
8	Type 1	1	718	74	53132
9	Type 1	1	678	78	52884
10	Type 1	1	918	58	53244
11	Type 1	1	898	59	52982
12	Type 1	1	638	83	52954
13	Type 1	1	618	86	53148
14	Type 1	1	598	89	53222
15	Type 1	1	1182	45	53190
16	Type 1	1	909	59	53631
17	Type 1	1	530	100	53000
18	Type 1	1	1946	28	54488
19	Type 1	1	2259	24	54216
20	Type 1	1	2009	27	54243
21	Type 1	1	865	62	53630
22	Type 1	1	2218	24	53232
23	Type 1	1	1480	36	53280
24	Type 1	1	2523	21	52983
25	Type 1	1	2876	19	54644
26	Type 1	1	2496	22	54912
27	Type 1	1	3046	18	54828
28	Type 1	1	2057	26	53482
29	Type 1	1	2719	20	54380

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 2	4.8	218	29	6322
1	Type 2	2.1	206	24	4944
2	Type 2	1.9	201	24	4824
3	Type 2	3.4	226	27	6102
4	Type 2	4.1	192	28	5376
5	Type 2	4.4	221	28	6188
6	Type 2	4.1	172	28	4816
7	Type 2	3.5	150	27	4050
8	Type 2	3.6	186	27	5022
9	Type 2	4.7	154	29	4466
10	Type 2	1.3	194	23	4462
11	Type 2	1	166	23	3818
12	Type 2	3.6	212	27	5724
13	Type 2	3	228	26	5928
14	Type 2	4	211	28	5908
15	Type 2	4.7	151	29	4379
16	Type 2	1.1	179	23	4117
17	Type 2	2.7	175	25	4375
18	Type 2	1.5	165	24	3960
19	Type 2	1.6	167	24	4008
20	Type 2	4.8	173	29	5017
21	Type 2	3.7	189	27	5103
22	Type 2	5	185	29	5365
23	Type 2	4.7	215	29	6235
24	Type 2	3.8	159	27	4293
25	Type 2	2.3	170	25	4250
26	Type 2	4.8	168	29	4872
27	Type 2	1.9	213	24	5112
28	Type 2	1.3	190	23	4370
29	Type 2	1.5	205	23	4715

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 3	9.8	265	18	4770
1	Type 3	7.1	240	16	3840
2	Type 3	6.9	299	16	4784
3	Type 3	8.4	262	17	4454
4	Type 3	9.1	446	18	8028
5	Type 3	9.4	223	18	4014
6	Type 3	9.1	224	18	4032
7	Type 3	8.5	493	17	8381
8	Type 3	8.6	443	17	7531
9	Type 3	9.7	403	18	7254
10	Type 3	6.3	471	16	7536
11	Type 3	6	248	16	3968
12	Type 3	8.6	454	17	7718
13	Type 3	8	227	17	3859
14	Type 3	9	448	18	8064
15	Type 3	9.7	300	18	5400
16	Type 3	6.1	400	16	6400
17	Type 3	7.7	467	17	7939
18	Type 3	6.5	222	16	3552
19	Type 3	6.6	252	16	4032
20	Type 3	9.8	412	18	7416
21	Type 3	8.7	294	18	5292
22	Type 3	10	413	18	7434
23	Type 3	9.7	386	18	6948
24	Type 3	8.8	317	18	5706
25	Type 3	7.3	472	17	8024
26	Type 3	9.8	258	18	4644
27	Type 3	6.9	250	16	4000
28	Type 3	6.3	447	16	7152
29	Type 3	6.5	314	16	5024

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 4	19.4	265	16	4240
1	Type 4	13.4	240	13	3120
2	Type 4	13.1	299	13	3887
3	Type 4	16.4	262	15	3930
4	Type 4	18	446	15	6690
5	Type 4	18.5	223	16	3568
6	Type 4	17.9	224	15	3360
7	Type 4	16.5	493	15	7395
8	Type 4	16.8	443	15	6645
9	Type 4	19.2	403	16	6448
10	Type 4	11.7	471	12	5652
11	Type 4	11.1	248	12	2976
12	Type 4	16.9	454	15	6810
13	Type 4	15.4	227	14	3178
14	Type 4	17.7	448	15	6720
15	Type 4	19.3	300	16	4800
16	Type 4	11.3	400	12	4800
17	Type 4	14.8	467	14	6538
18	Type 4	12.3	222	12	2664
19	Type 4	12.3	252	12	3024
20	Type 4	19.4	412	16	6592
21	Type 4	17	294	15	4410
22	Type 4	19.9	413	16	6608
23	Type 4	19.2	386	16	6176
24	Type 4	17.4	317	15	4755
25	Type 4	14	472	13	6136
26	Type 4	19.4	258	16	4128
27	Type 4	13.2	250	13	3250
28	Type 4	11.7	447	12	5364
29	Type 4	12.2	314	12	3768

Trial Id	Radar Type	Number of Bursts	Burst Period(s)	Waveform Length(s)	Center Frequency (GHz)
0	Type 5	20	0.6	12	5.5
1	Type 5	11	1.090909	12	5.5
2	Type 5	11	1.090909	12	5.5
3	Type 5	15	0.8	12	5.5
4	Type 5	18	0.666667	12	5.5
5	Type 5	18	0.666667	12	5.5
6	Type 5	17	0.705882	12	5.5
7	Type 5	15	0.8	12	5.5
8	Type 5	16	0.75	12	5.5
9	Type 5	19	0.631579	12	5.5
10	Type 5	9	1.333333	12	5.464
11	Type 5	8	1.5	12	5.464
12	Type 5	16	0.75	12	5.468
13	Type 5	14	0.857143	12	5.466
14	Type 5	17	0.705882	12	5.468
15	Type 5	19	0.631579	12	5.469
16	Type 5	8	1.5	12	5.464
17	Type 5	13	0.923077	12	5.466
18	Type 5	9	1.333333	12	5.464
19	Type 5	9	1.333333	12	5.464
20	Type 5	20	0.6	12	5.531
21	Type 5	16	0.75	12	5.532
22	Type 5	20	0.6	12	5.53
23	Type 5	19	0.631579	12	5.531
24	Type 5	17	0.705882	12	5.532
25	Type 5	12	1	12	5.534
26	Type 5	20	0.6	12	5.531
27	Type 5	11	1.090909	12	5.535
28	Type 5	9	1.333333	12	5.536
29	Type 5	9	1.333333	12	5.536

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

802.11ax (160 MHz), 5570 MHz				
Radar Test Summary:				
Signal Type	Trial No.	Detection (%)	Limit (%)	Result
Type D.4.1	30	100.00	60	Pass
Type D.4.2	30	90.00	60	Pass
Type D.4.3	30	73.33	60	Pass
Type D.4.4	30	73.33	60	Pass
Type D.4.5	30	86.67	60	Pass
Type D.4.6	30	100.00	60	Pass

Note: The aggregate should be 80 percent that the average of the percentage of successful detections of Short Pulse Radar Types 1-4.

802.11ax (160 MHz), 5570 MHz						
	Type_1	Type_2	Type_3	Type_4	Type_5	Type_6
1	v	v	v	v	x	v
2	v	x	v	x	v	v
3	v	v	x	x	v	v
4	v	v	x	v	v	v
5	v	v	v	v	v	v
6	v	v	v	v	v	v
7	v	v	v	v	v	v
8	v	v	x	v	v	v
9	v	v	v	x	v	v
10	v	v	v	v	v	v
11	v	v	x	x	v	v
12	v	v	v	v	v	v
13	v	v	v	v	v	v
14	v	v	x	x	v	v
15	v	v	x	v	v	v
16	v	v	v	x	v	v
17	v	v	v	v	v	v
18	v	v	v	v	v	v
19	v	v	v	v	v	v
20	v	v	x	v	v	v
21	v	v	v	v	v	v
22	v	x	v	v	v	v
23	v	x	x	x	v	v
24	v	v	v	x	v	v
25	v	v	v	v	v	v
26	v	v	v	v	x	v
27	v	v	v	v	v	v
28	v	v	v	v	x	v
29	v	v	v	v	x	v
30	v	v	v	v	v	v
Number of Successful	30	27	22	22	26	30
% of Successful	100.00%	90.00%	73.33%	73.33%	86.67%	100.00%
	84.17%					

802.11ax (160 MHz), 5570 MHz					
Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 1	1	658	81	53298
1	Type 1	1	798	67	53466
2	Type 1	1	738	72	53136
3	Type 1	1	938	57	53466
4	Type 1	1	558	95	53010
5	Type 1	1	518	102	52836
6	Type 1	1	3066	18	55188
7	Type 1	1	878	61	53558
8	Type 1	1	718	74	53132
9	Type 1	1	678	78	52884
10	Type 1	1	918	58	53244
11	Type 1	1	898	59	52982
12	Type 1	1	638	83	52954
13	Type 1	1	618	86	53148
14	Type 1	1	598	89	53222
15	Type 1	1	1182	45	53190
16	Type 1	1	909	59	53631
17	Type 1	1	530	100	53000
18	Type 1	1	1946	28	54488
19	Type 1	1	2259	24	54216
20	Type 1	1	2009	27	54243
21	Type 1	1	865	62	53630
22	Type 1	1	2218	24	53232
23	Type 1	1	1480	36	53280
24	Type 1	1	2523	21	52983
25	Type 1	1	2876	19	54644
26	Type 1	1	2496	22	54912
27	Type 1	1	3046	18	54828
28	Type 1	1	2057	26	53482
29	Type 1	1	2719	20	54380

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 2	4.8	218	29	6322
1	Type 2	2.1	206	24	4944
2	Type 2	1.9	201	24	4824
3	Type 2	3.4	226	27	6102
4	Type 2	4.1	192	28	5376
5	Type 2	4.4	221	28	6188
6	Type 2	4.1	172	28	4816
7	Type 2	3.5	150	27	4050
8	Type 2	3.6	186	27	5022
9	Type 2	4.7	154	29	4466
10	Type 2	1.3	194	23	4462
11	Type 2	1	166	23	3818
12	Type 2	3.6	212	27	5724
13	Type 2	3	228	26	5928
14	Type 2	4	211	28	5908
15	Type 2	4.7	151	29	4379
16	Type 2	1.1	179	23	4117
17	Type 2	2.7	175	25	4375
18	Type 2	1.5	165	24	3960
19	Type 2	1.6	167	24	4008
20	Type 2	4.8	173	29	5017
21	Type 2	3.7	189	27	5103
22	Type 2	5	185	29	5365
23	Type 2	4.7	215	29	6235
24	Type 2	3.8	159	27	4293
25	Type 2	2.3	170	25	4250
26	Type 2	4.8	168	29	4872
27	Type 2	1.9	213	24	5112
28	Type 2	1.3	190	23	4370
29	Type 2	1.5	205	23	4715

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 3	9.8	265	18	4770
1	Type 3	7.1	240	16	3840
2	Type 3	6.9	299	16	4784
3	Type 3	8.4	262	17	4454
4	Type 3	9.1	446	18	8028
5	Type 3	9.4	223	18	4014
6	Type 3	9.1	224	18	4032
7	Type 3	8.5	493	17	8381
8	Type 3	8.6	443	17	7531
9	Type 3	9.7	403	18	7254
10	Type 3	6.3	471	16	7536
11	Type 3	6	248	16	3968
12	Type 3	8.6	454	17	7718
13	Type 3	8	227	17	3859
14	Type 3	9	448	18	8064
15	Type 3	9.7	300	18	5400
16	Type 3	6.1	400	16	6400
17	Type 3	7.7	467	17	7939
18	Type 3	6.5	222	16	3552
19	Type 3	6.6	252	16	4032
20	Type 3	9.8	412	18	7416
21	Type 3	8.7	294	18	5292
22	Type 3	10	413	18	7434
23	Type 3	9.7	386	18	6948
24	Type 3	8.8	317	18	5706
25	Type 3	7.3	472	17	8024
26	Type 3	9.8	258	18	4644
27	Type 3	6.9	250	16	4000
28	Type 3	6.3	447	16	7152
29	Type 3	6.5	314	16	5024

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	Type 4	19.4	265	16	4240
1	Type 4	13.4	240	13	3120
2	Type 4	13.1	299	13	3887
3	Type 4	16.4	262	15	3930
4	Type 4	18	446	15	6690
5	Type 4	18.5	223	16	3568
6	Type 4	17.9	224	15	3360
7	Type 4	16.5	493	15	7395
8	Type 4	16.8	443	15	6645
9	Type 4	19.2	403	16	6448
10	Type 4	11.7	471	12	5652
11	Type 4	11.1	248	12	2976
12	Type 4	16.9	454	15	6810
13	Type 4	15.4	227	14	3178
14	Type 4	17.7	448	15	6720
15	Type 4	19.3	300	16	4800
16	Type 4	11.3	400	12	4800
17	Type 4	14.8	467	14	6538
18	Type 4	12.3	222	12	2664
19	Type 4	12.3	252	12	3024
20	Type 4	19.4	412	16	6592
21	Type 4	17	294	15	4410
22	Type 4	19.9	413	16	6608
23	Type 4	19.2	386	16	6176
24	Type 4	17.4	317	15	4755
25	Type 4	14	472	13	6136
26	Type 4	19.4	258	16	4128
27	Type 4	13.2	250	13	3250
28	Type 4	11.7	447	12	5364
29	Type 4	12.2	314	12	3768

Trial Id	Radar Type	Number of Bursts	Burst Period(s)	Waveform Length(s)	Center Frequency (GHz)
0	Type 5	20	0.6	12	5.5
1	Type 5	11	1.090909	12	5.5
2	Type 5	11	1.090909	12	5.5
3	Type 5	15	0.8	12	5.5
4	Type 5	18	0.666667	12	5.5
5	Type 5	18	0.666667	12	5.5
6	Type 5	17	0.705882	12	5.5
7	Type 5	15	0.8	12	5.5
8	Type 5	16	0.75	12	5.5
9	Type 5	19	0.631579	12	5.5
10	Type 5	9	1.333333	12	5.425
11	Type 5	8	1.5	12	5.424
12	Type 5	16	0.75	12	5.428
13	Type 5	14	0.857143	12	5.427
14	Type 5	17	0.705882	12	5.429
15	Type 5	19	0.631579	12	5.43
16	Type 5	8	1.5	12	5.424
17	Type 5	13	0.923077	12	5.427
18	Type 5	9	1.333333	12	5.425
19	Type 5	9	1.333333	12	5.425
20	Type 5	20	0.6	12	5.57
21	Type 5	16	0.75	12	5.572
22	Type 5	20	0.6	12	5.57
23	Type 5	19	0.631579	12	5.57
24	Type 5	17	0.705882	12	5.571
25	Type 5	12	1	12	5.574
26	Type 5	20	0.6	12	5.57
27	Type 5	11	1.090909	12	5.574
28	Type 5	9	1.333333	12	5.575
29	Type 5	9	1.333333	12	5.575

Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Pulses per Hop	Hopping Rate (KHz)	Hopping Sequence Length (ms)	Visible Frequency Number
0	Type 6	1	333.3	9	0.3333	300	27
1	Type 6	1	333.3	9	0.3333	300	35
2	Type 6	1	333.3	9	0.3333	300	30
3	Type 6	1	333.3	9	0.3333	300	38
4	Type 6	1	333.3	9	0.3333	300	33
5	Type 6	1	333.3	9	0.3333	300	44
6	Type 6	1	333.3	9	0.3333	300	37
7	Type 6	1	333.3	9	0.3333	300	32
8	Type 6	1	333.3	9	0.3333	300	27
9	Type 6	1	333.3	9	0.3333	300	33
10	Type 6	1	333.3	9	0.3333	300	32
11	Type 6	1	333.3	9	0.3333	300	36
12	Type 6	1	333.3	9	0.3333	300	36
13	Type 6	1	333.3	9	0.3333	300	39
14	Type 6	1	333.3	9	0.3333	300	32
15	Type 6	1	333.3	9	0.3333	300	33
16	Type 6	1	333.3	9	0.3333	300	30
17	Type 6	1	333.3	9	0.3333	300	34
18	Type 6	1	333.3	9	0.3333	300	37
19	Type 6	1	333.3	9	0.3333	300	26
20	Type 6	1	333.3	9	0.3333	300	33
21	Type 6	1	333.3	9	0.3333	300	30
22	Type 6	1	333.3	9	0.3333	300	37
23	Type 6	1	333.3	9	0.3333	300	38
24	Type 6	1	333.3	9	0.3333	300	35
25	Type 6	1	333.3	9	0.3333	300	33
26	Type 6	1	333.3	9	0.3333	300	32
27	Type 6	1	333.3	9	0.3333	300	33
28	Type 6	1	333.3	9	0.3333	300	34
29	Type 6	1	333.3	9	0.3333	300	31