Dynamic Frequency Selection (DFS)

Test Report

Product Name	:	Tablet
Brand Name	:	MiTAC
Model No.	:	Cappuccino-Tablet
FCC ID	:	2ADL6-CAPPUCCINO
Applicant	:	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	:	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Date of Receipt	:	Jan. 26, 2022
Issued Date	:	Mar. 16, 2022
Report No.	:	2210786R-RFUSDFSV01-A
Report Version	:	V1.0

Testing Laboratory
3024

Test Report Certification

Product Name	:	Tablet
Applicant	:	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	:	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Manufacturer	:	MITAC COMPUTING TECHNOLOGY CORPORATION
Address	:	No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist., TAOYUAN, 33383 Taiwan
Model No.	:	Cappuccino-Tablet
FCC ID	:	2ADL6-CAPPUCCINO
EUT Voltage	:	AC 120 ~ 240V, 50-60Hz (Adapter) DC 7.6V (Battery)
Testing Voltage	:	AC 120V/60Hz
Brand Name	:	MiTAC
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407 ANSI C63.10: 2013
Laboratory Name	:	Hsin Chu Laboratory
Address	:	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
Test Result	:	Complied

Documented By : Hailey Peng

(Hailey Peng / Senior Engineer)

Approved By : Louis Hsu

(Louis Hsu / Deputy Manager)

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of DEKRA Testing and Certification Co., Ltd.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Mar. 16, 2022

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Description **Page**

1. General Information

1.1. EUT Description

Product Name	Tablet	
Brand Name	MiTAC	
Model No.	Cappuccino-Tablet	
DFS Frequency Range / Number of DFS Channels	IEEE 802.11a / IEEE 802.11n (20 MHz) / IEEE 802.11ac (20 MHz)	5260 ~ 5320 MHz / 4 Channels 5500 ~ 5700 MHz / 11 Channels
	IEEE 802.11n (40 MHz) / IEEE 802.11ac (40 MHz)	5270 ~ 5310 MHz / 2 Channels 5510 ~ 5670 MHz / 5 Channels
	IEEE 802.11ac (80 MHz)	5290 MHz / 1 Channel 5530 ~ 5610 MHz / 2 Channels
Type of Modulation	IEEE 802.11a/n/ac	OFDM
Data Rate	IEEE 802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0 ~ MCS 15 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0 ~ MCS 9 and bandwidth defined in 802.11ac
Channel Control	Auto	
Channel Bandwidth	20/40/80MHz	
DFS Function	☐	Master
	☐	Client with radar detection
	☒	Client without radar detection
TPC Function	☐	With TPC Function
	☒	Without TPC Function
Weather Band (5600~5650MHz)	☒	With 5600~5650MHz
	☐	Without 5600~5650MHz
Communication Mode	☒	IP Based Systems
	☐	Frame Based System
	☐	Other System

Accessories Information				
No.	Equipment Name	Brand Name	Model No.	Rating
1	Power Adapter with power cord (for EUT)	APD	NB65B19	INPUT: 100 ~ 240V,50/60Hz, 1.6A OUTPUT: 19V, 3.42A Cable In: Non-Shielded, 0.9 m Cable Out: Non-Shielded, 1.7m
2	Power Adapter (for Docking Station or Extension Cover)	DELTA	DPS-180AB-21	INPUT: 100 ~ 240V,50/60Hz, 3-1.5A OUTPUT: 24V, 7.5A Cable Out: Non-Shielded, 1.2m with 2 ferrite cores
3	Power cord (for Docking Station or Extension Cover)	DELTA	CCBL-0317	Cable In: Non-Shielded, 1.7 m
4	Battery	Getac	BP-CAP-21/2570 VKB	7.6V, 2570mAh, 19.532Wh
No.	Equipment Name	Brand Name		Model No.
5	Docking Station	Cappuccino		Cappuccino-Docking Station
6	Extension Cover	Cappuccino		Cappuccino-Extension Cover
7	Charging Cradle	Cappuccino		Cappuccino-Charging Cradle
No.	Equipment Name	Remark		
8	Strap	1Pcs		

Antenna Information						
Ant.	Brand Name	Model No.	Type	Antenna Gain (dBi)	Maximum Antenna Gain (dBi)	Directional Gain (dBi)
0	ARISTOTLE	RFA-25-AP957-MAIN	PIFA Antenna	4.06	4.06	7.01
1	ARISTOTLE	RFA-25-AP957-AUX	PIFA Antenna	3.94		

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

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

Channel List

IEEE 802.11a & IEEE 802.11n/ac (20 MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260 MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500 MHz	104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz	-	-

IEEE 802.11n/ac (40 MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270MHz	62	5310 MHz	102	5510 MHz	110	5550 MHz
118	5590MHz	126	5630 MHz	134	5670 MHz	-	-

IEEE 802.11ac (80 MHz)

Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	122	5610 MHz	-	-

Test Mode	Mode 1: Normal Link

Note:

1. The above EUT information is declared by the manufacturer.
2. This product is an extension of original one reported under DEKRA project number: 2040094R.
   Adding 5GHz band 2~band 3 for the changed of the product with respect to the original one, and it was performance checked for all test items.

1.2. 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.

1.3. 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 14.417 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 “Lan Tx Rx Test Utility Version 2.0.0.2” 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.

1.4. Test Facility

USA	**:**	**FCC Registration Number: TW3024**
Canada		**CAB identifier : TW3024**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw

If you have any comments, please don't hesitate to contact us. Our test sites as below:

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
Address	1. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. 2. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.
Phone number	1. +886-3-582-8001 2. +886-3-582-8001
Fax number	1. +886-3-582-8958 2. +886-3-582-8958
E mail address	info.tw@dekra.com
Website	http://www.dekra.com.tw
Note: Test site number for address 1 includes SR2-H. Test site number for address 2 includes CB2-H, CB3-H, CB4-H, SR10-H and SR12-H.	

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
DFS	SR10-H	Neil Yeh	19.7 / 67	2022/2/14

1.5. Test Equipment

SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2021/05/28	2022/05/27
ESG Vector Signal Generator	Agilent	E4438C	MY45095759	2021/04/23	2022/04/22
MXG Vector Signal Generator	Keysight	N5182B	MY53052548	2022/01/17	2023/01/16
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2021/05/17	2022/05/16
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2021/09/29	2022/09/28
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2022/01/07	2023/01/06
Spectrum Analyzer	Keysight	N9030B	MY57140404	2021/05/14	2022/05/13
Signal & Spectrum Analyzer	R&S	FSV40	101049	2021/03/31	2022/03/30

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

Instrument	Manufacturer	Type No.	Serial No	FCC ID
Laptop PC	DELL	Vostro A860	CD8BMH1	--
Laptop PC	ASUS	K45VD	0343G3110M	--
Wireless Router	ASUS	RT-AX88U	JCITHP000063	MSQ-RTAXHP00
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
Lan Tx Rx Test Utility Version 2.0.0.2	-	LanTest2.0
Device Firmware Version	MiTAC	12.0.0.927

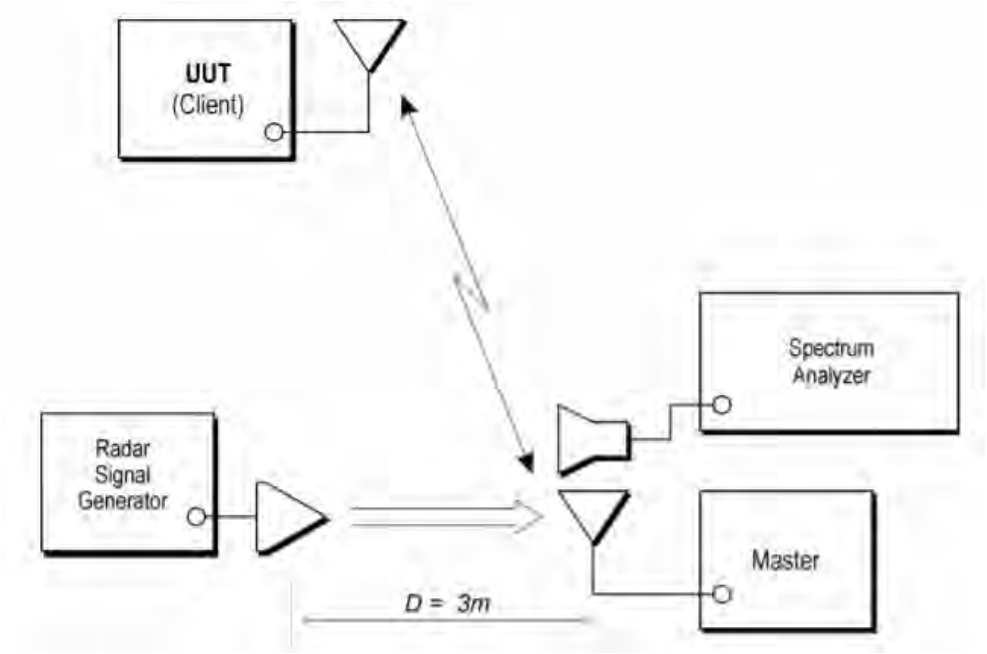
1.6. Measurement Uncertainty

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

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

1.7. Test Setup



1.8. 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)
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

1.9. 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	$Roundup = \left\{ \left(\frac{1}{360}\right) \cdot \left(\frac{19.10^6}{\mathrm{PRI}_{\mu sec}}\right) \right\}$	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate(Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

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.

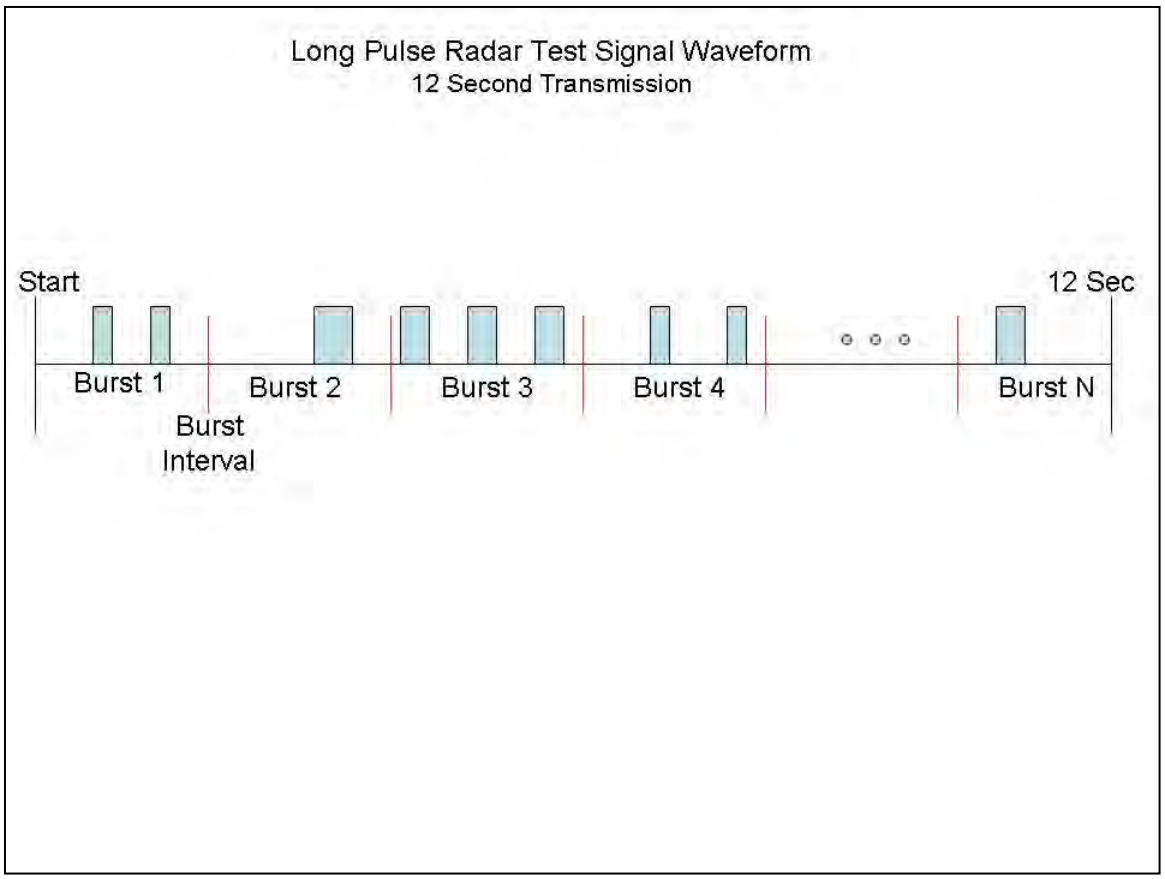
Each waveform is defined as follows:

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 / 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 / Burst_Count) – (Total Burst Length) + (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[1] from the hopping sequence defined by the following algorithm:

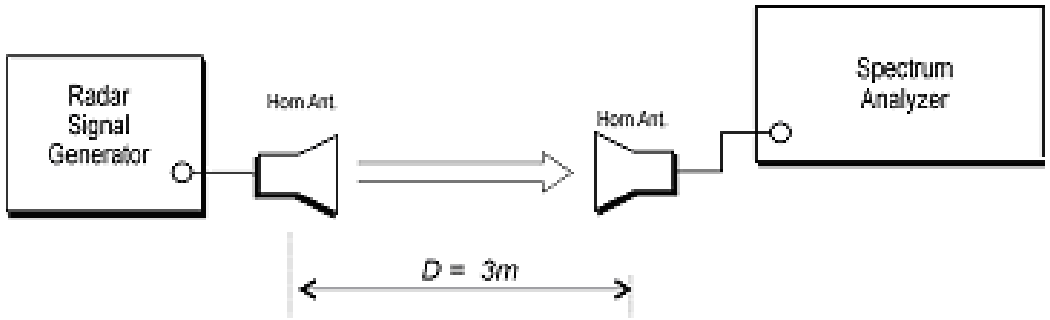
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues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

1.10. 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 1MHz and 1MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -63dBm due to the interference threshold level is not required.

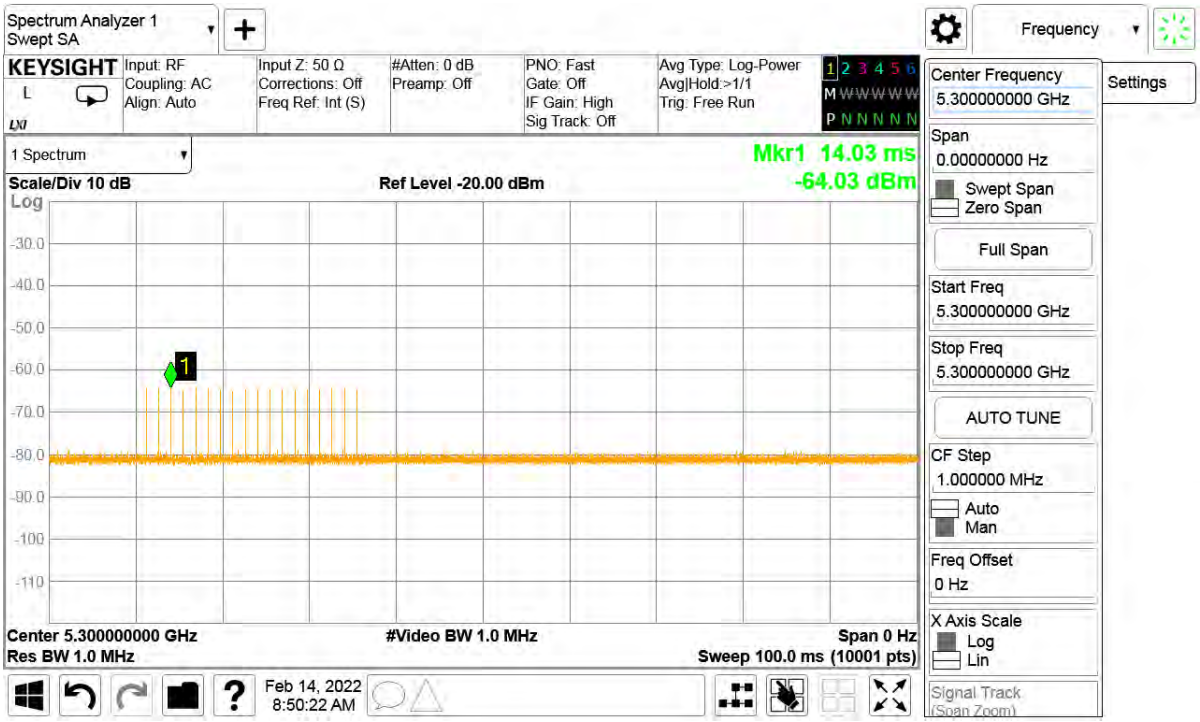
Radiated Calibration Setup



1.11. Radar Waveform Calibration Result

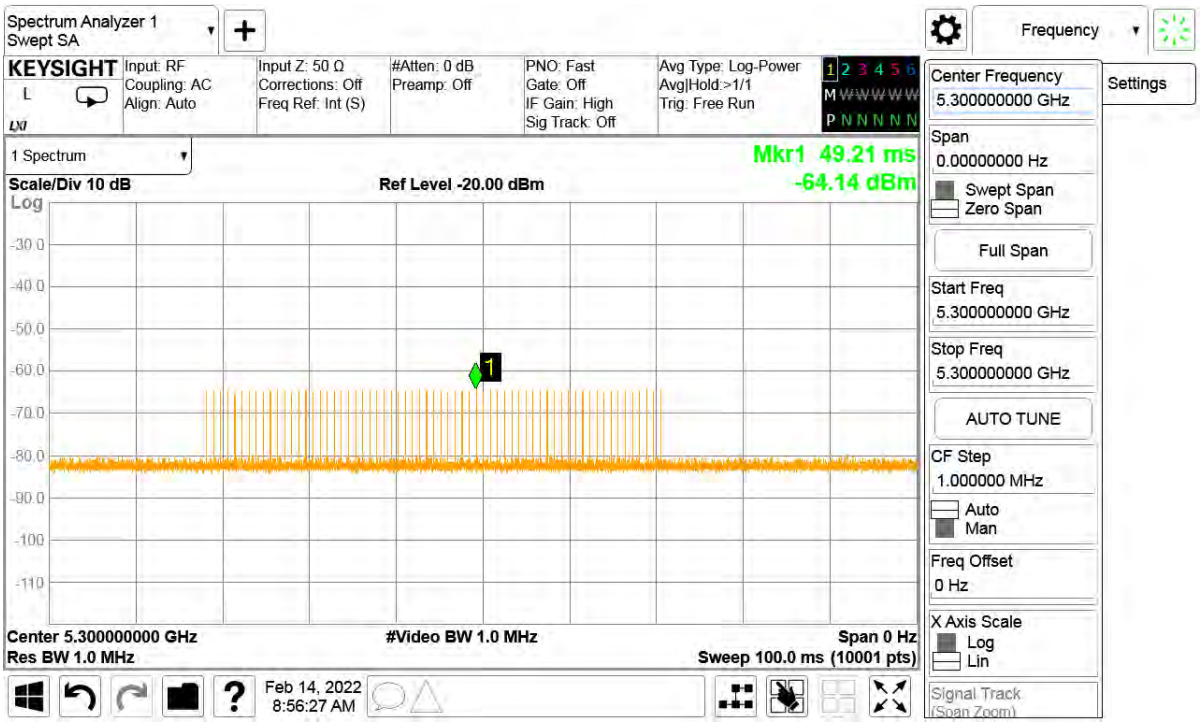
Radar Type 0

Calibration Plot - 802.11ac (20 MHz), 5300 MHz



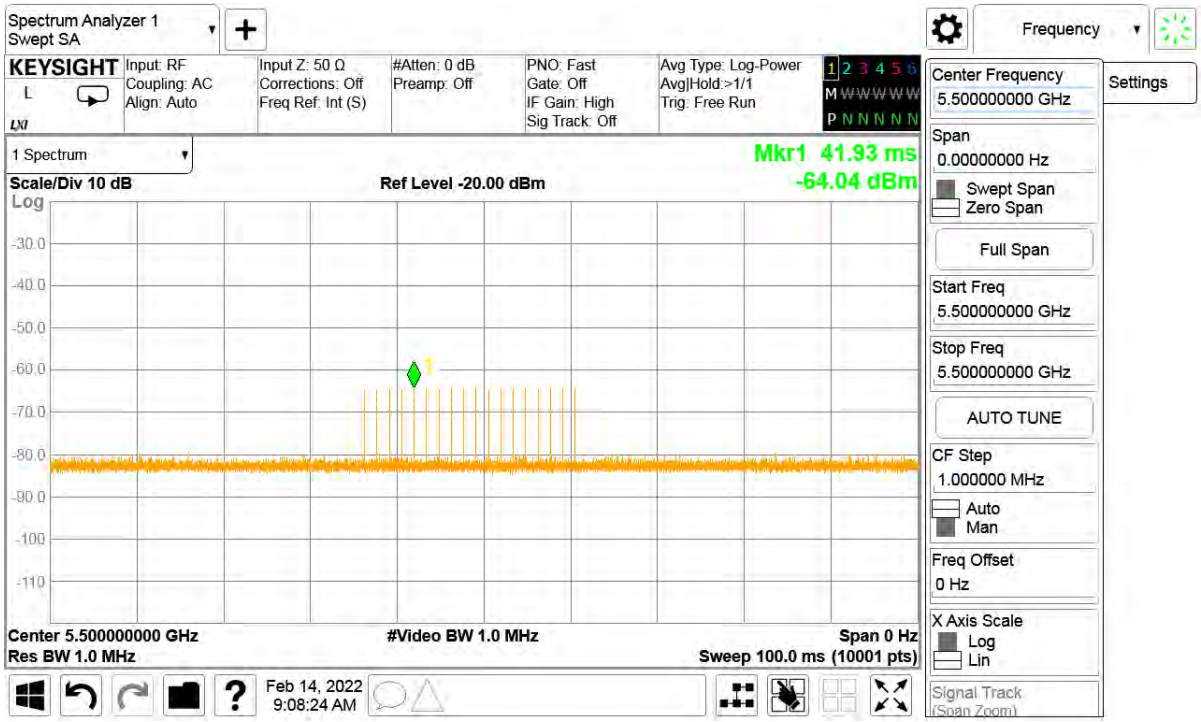
Radar Type 1

Calibration Plot - 802.11ac (20 MHz), 5300 MHz



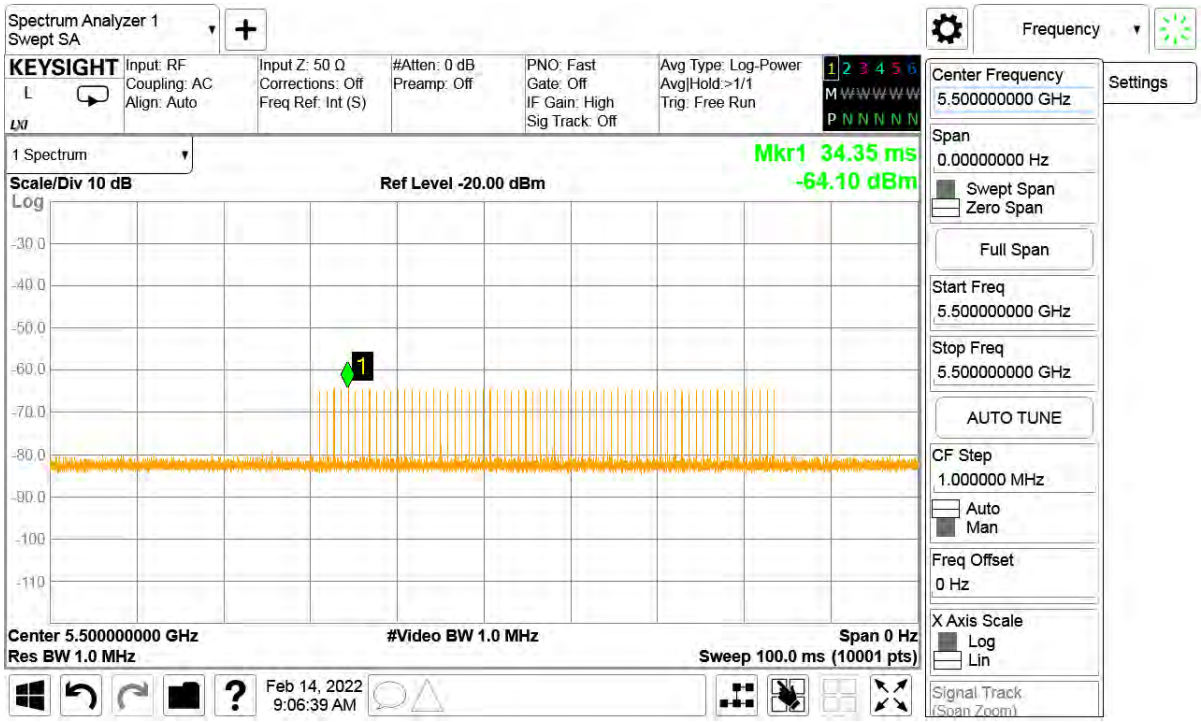
Radar Type 0

Calibration Plot - 802.11ac (20 MHz), 5500 MHz



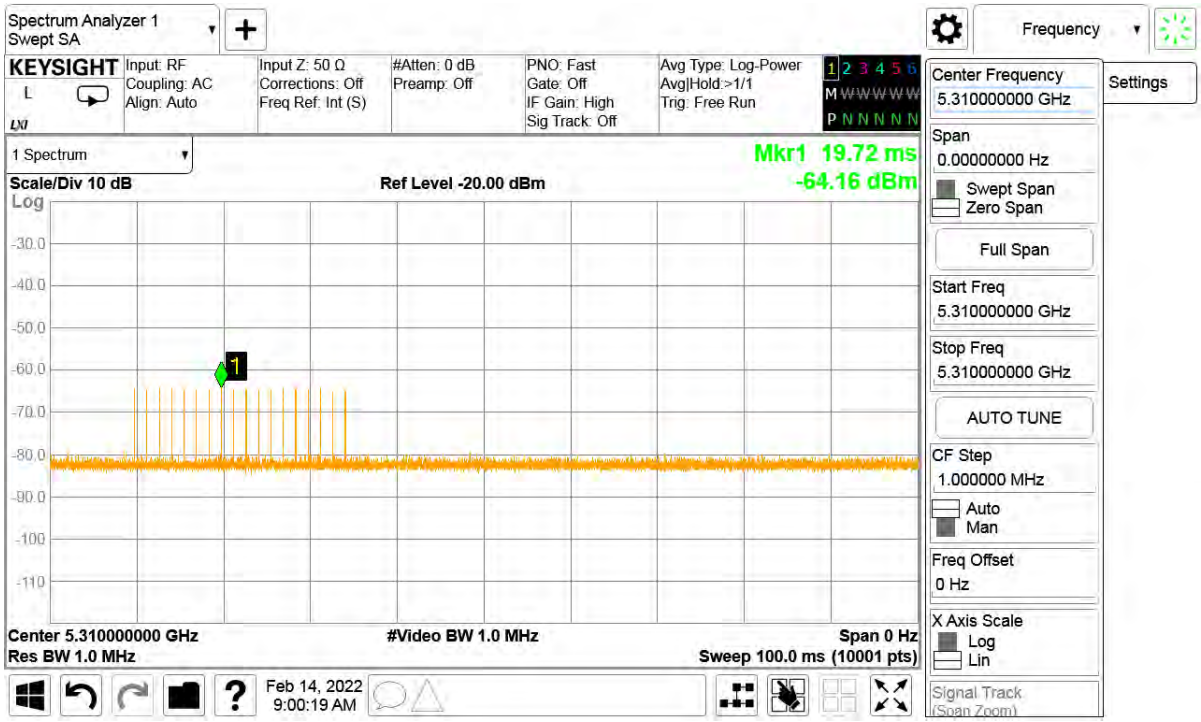
Radar Type 1

Calibration Plot - 802.11ac (20 MHz), 5500 MHz



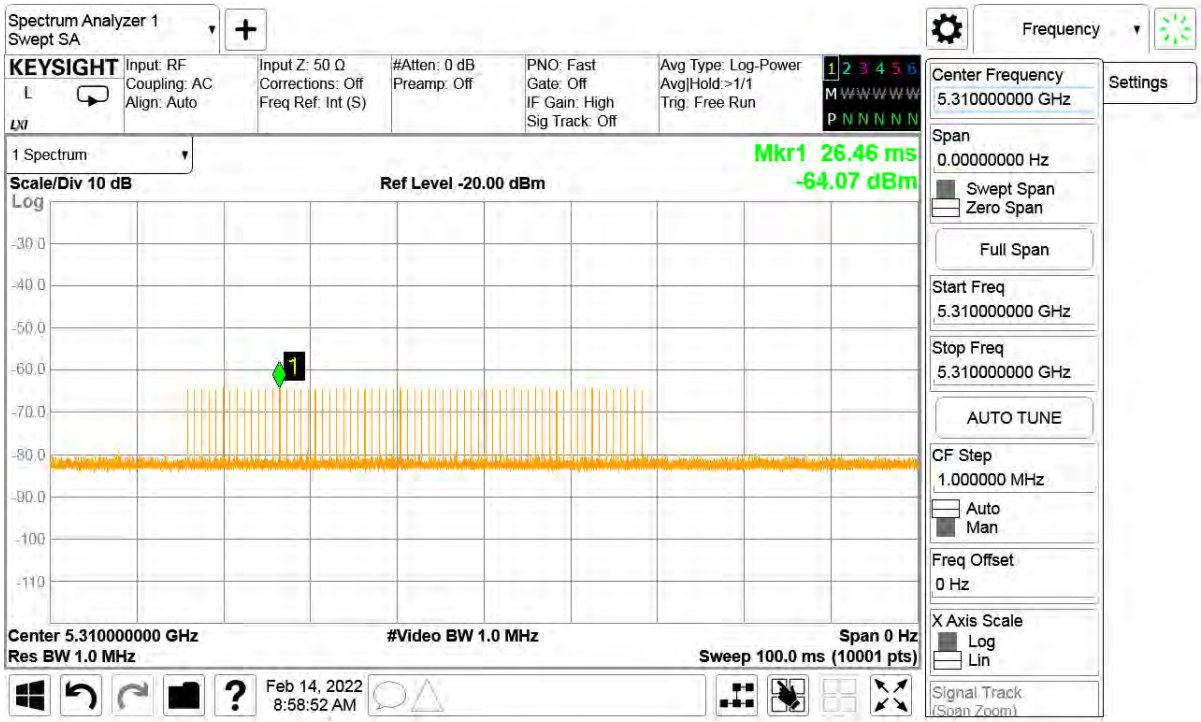
Radar Type 0

Calibration Plot - 802.11ac (40 MHz), 5310 MHz



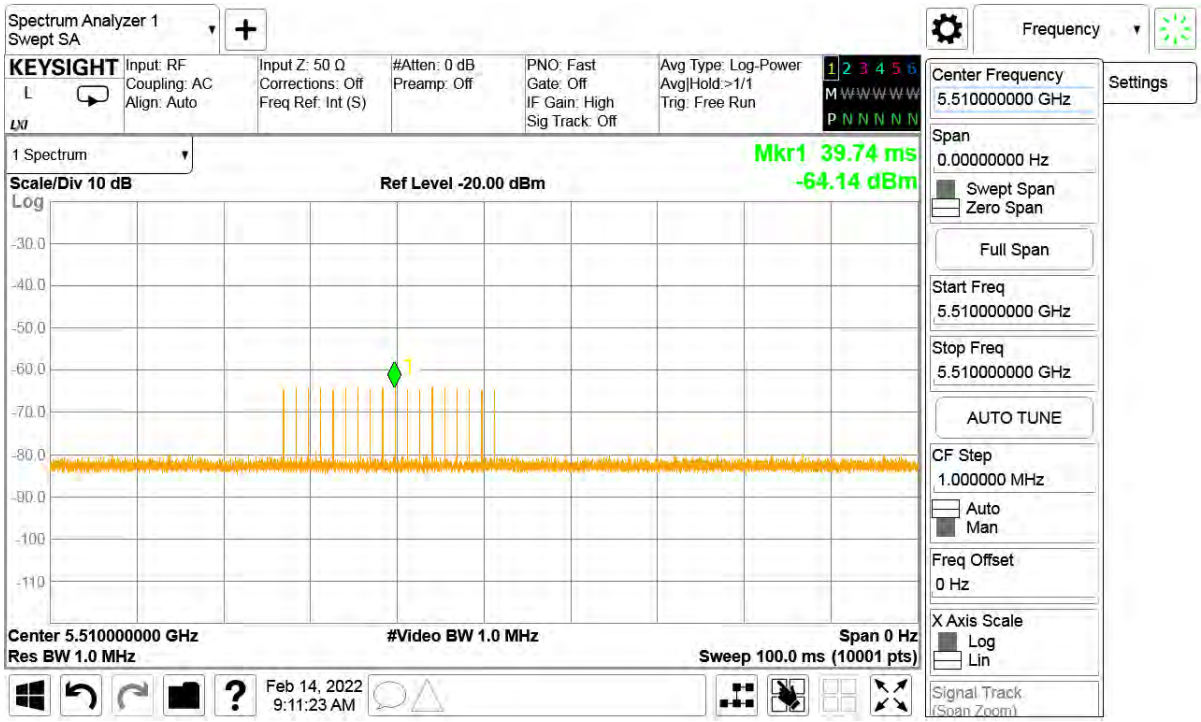
Radar Type 1

Calibration Plot - 802.11ac (40 MHz), 5310 MHz



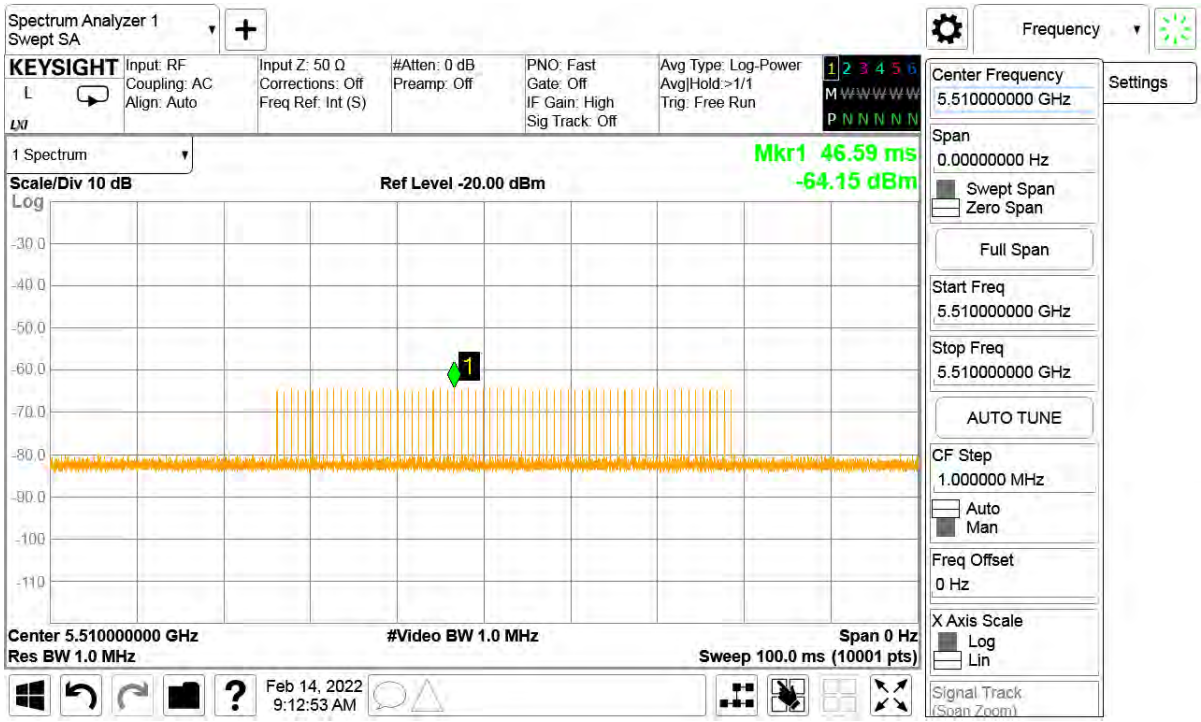
Radar Type 0

Calibration Plot - 802.11ac (40 MHz), 5510 MHz



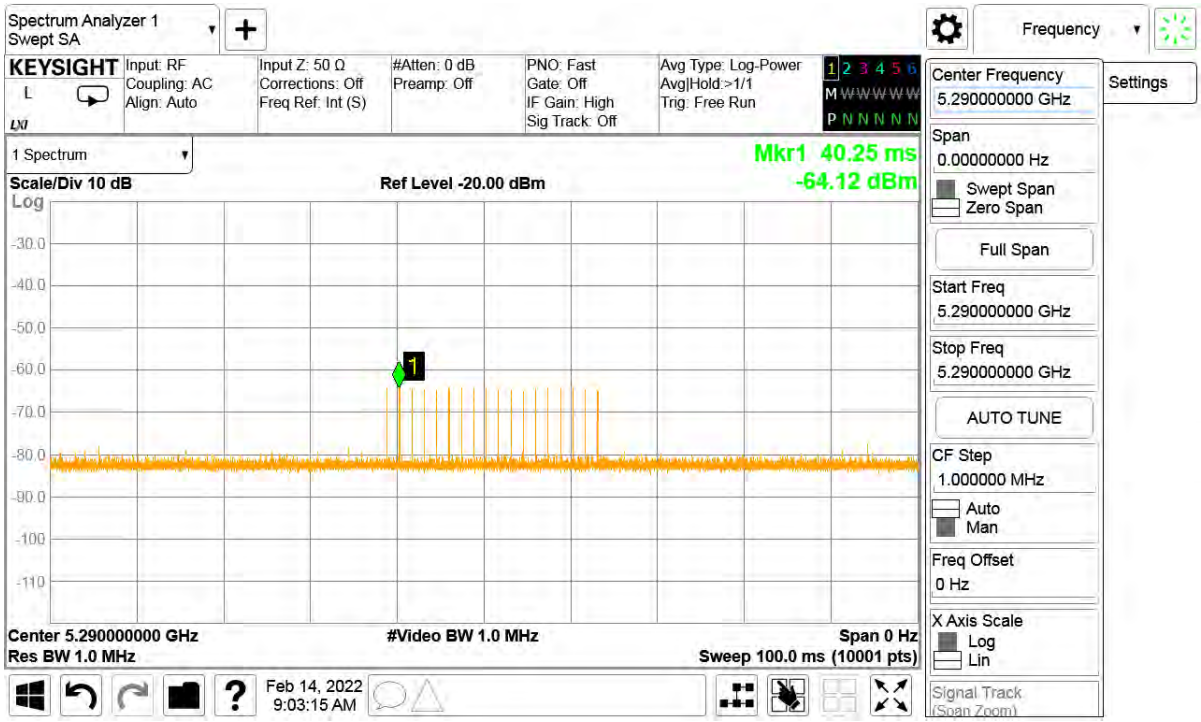
Radar Type 1

Calibration Plot - 802.11ac (40 MHz), 5510 MHz



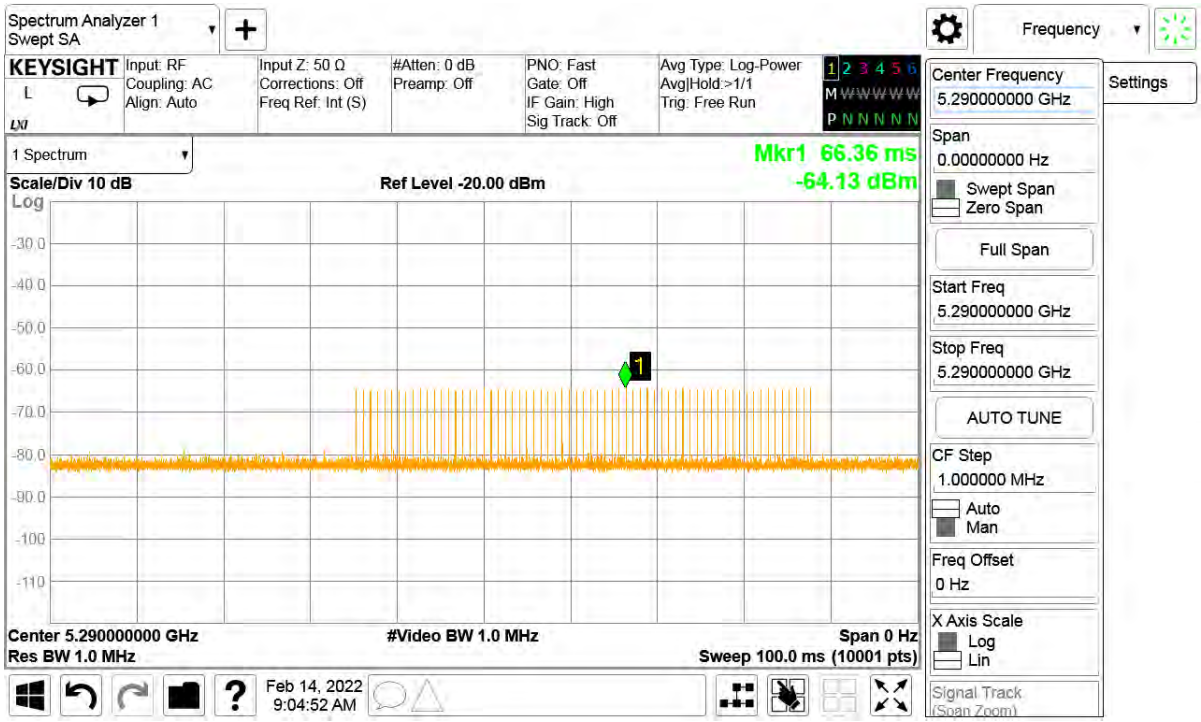
Radar Type 0

Calibration Plot - 802.11ac (80 MHz), 5290 MHz



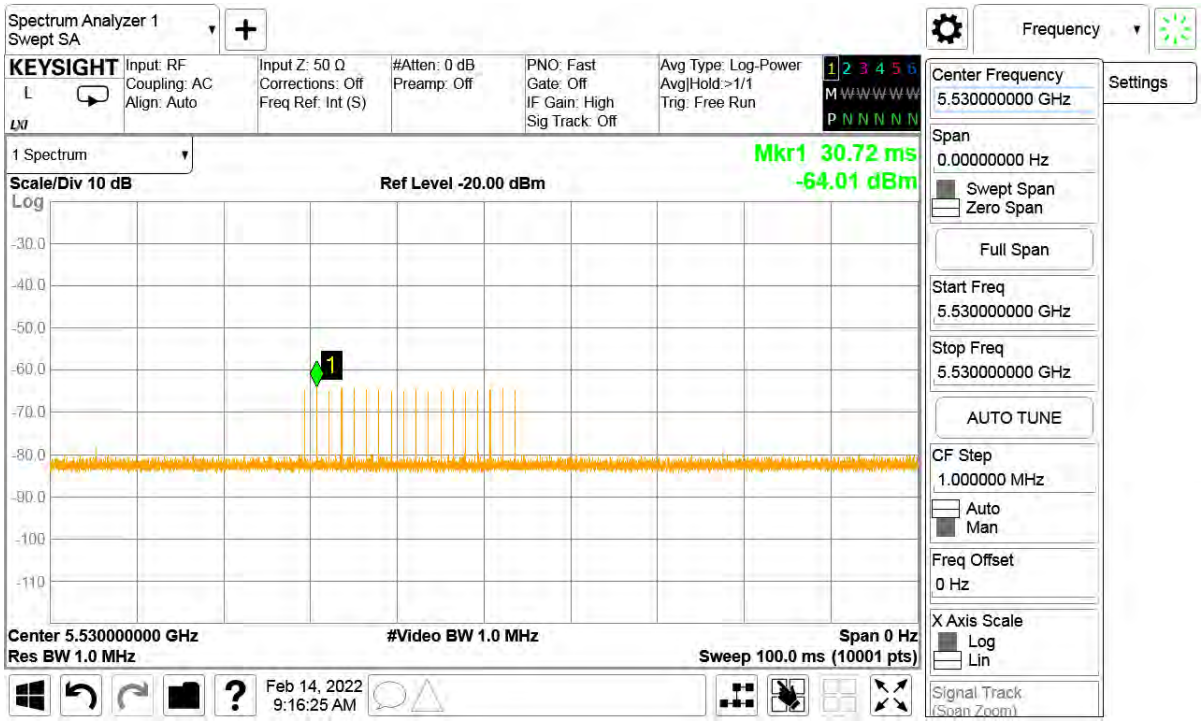
Radar Type 1

Calibration Plot - 802.11ac (80 MHz), 5290 MHz



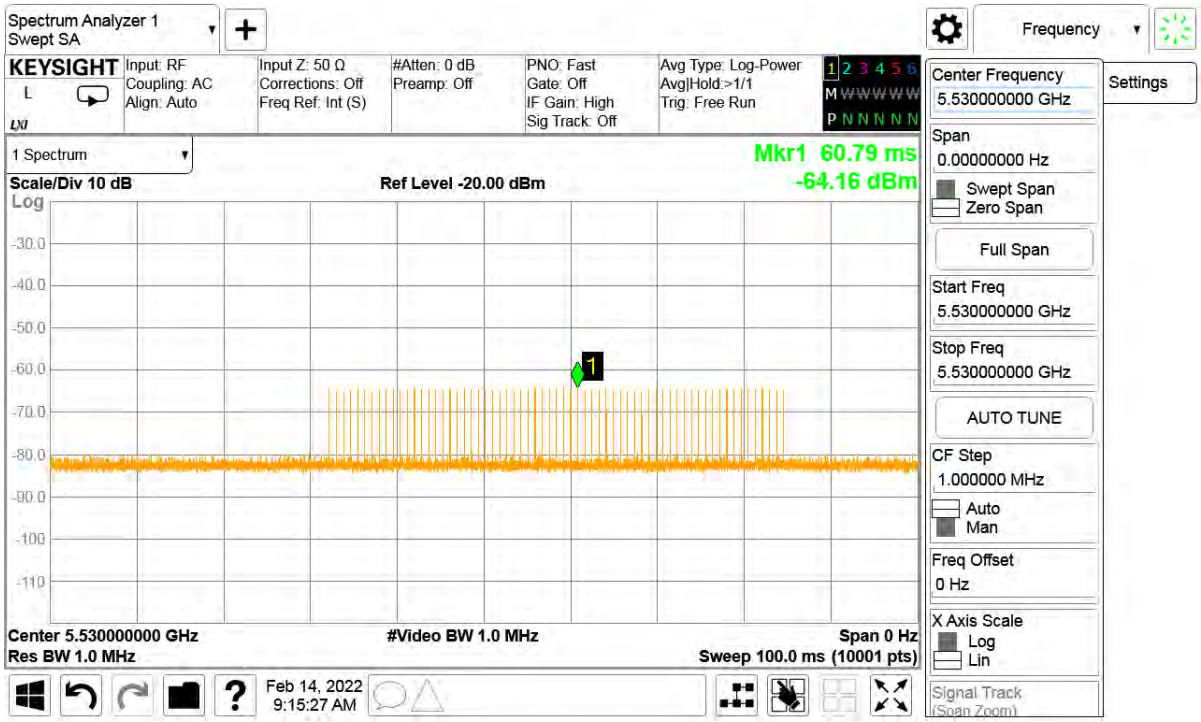
Radar Type 0

Calibration Plot - 802.11ac (80 MHz), 5530 MHz



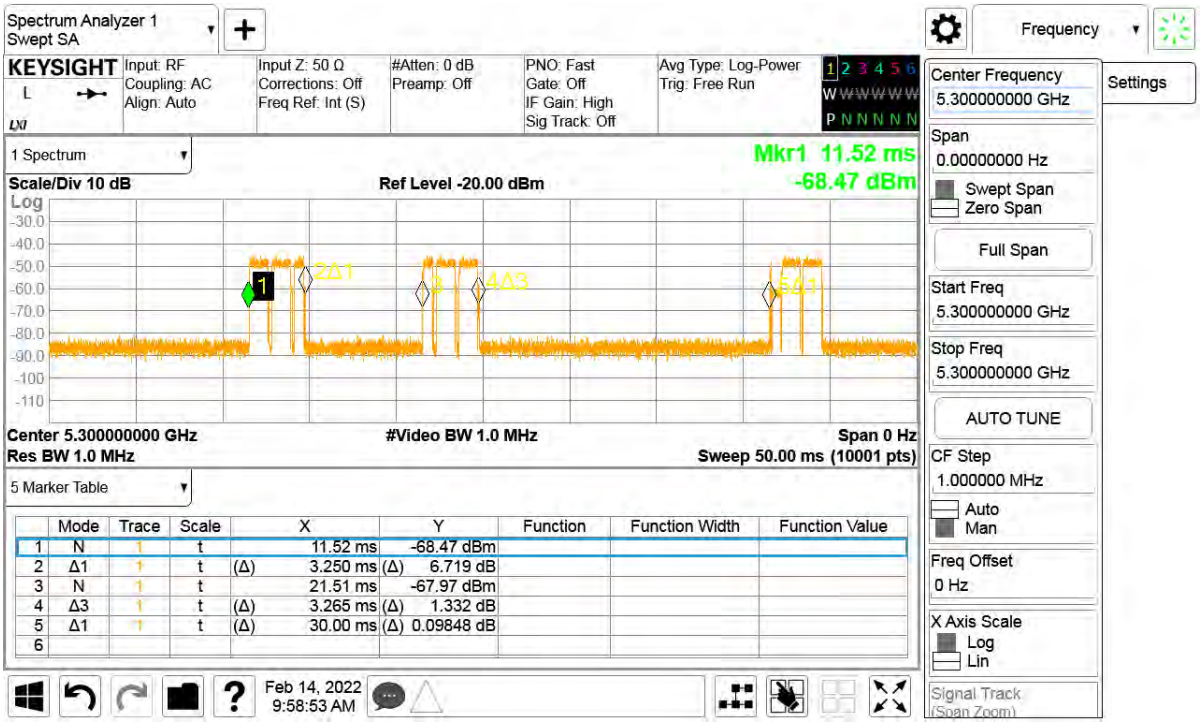
Radar Type 1

Calibration Plot - 802.11ac (80 MHz), 5530 MHz



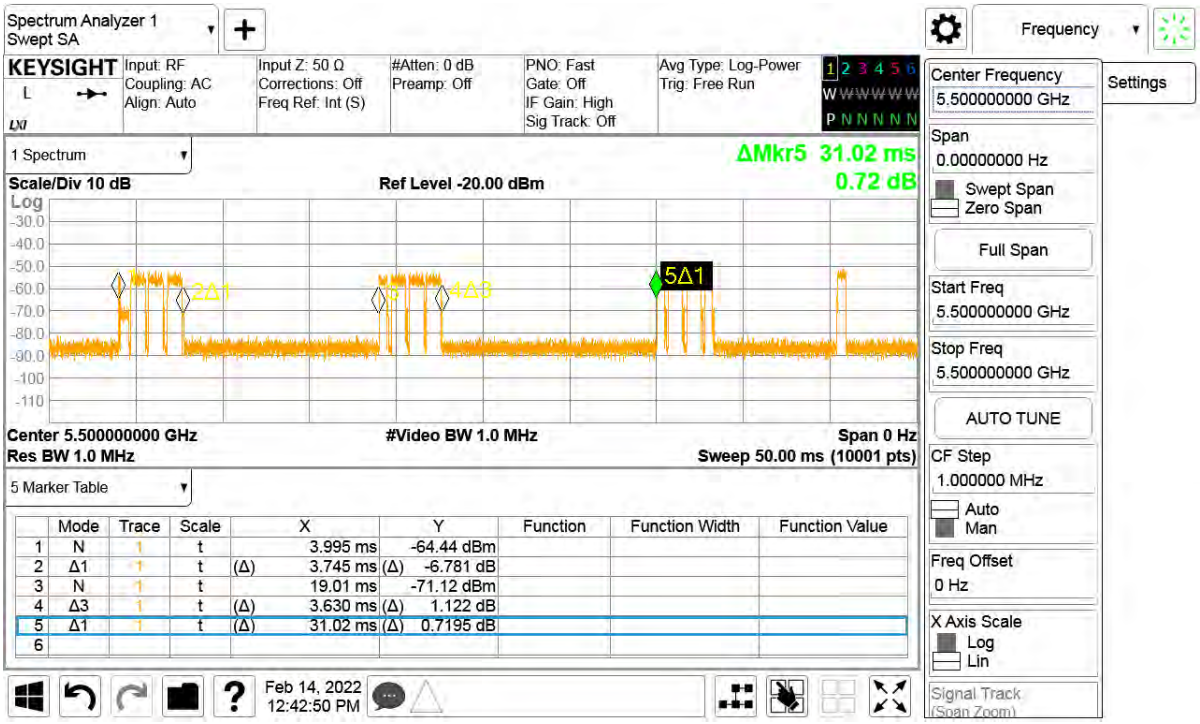
1.12. Master Data Traffic Plot Result

Plot of WLAN Traffic - 802.11ac (20 MHz), 5300 MHz



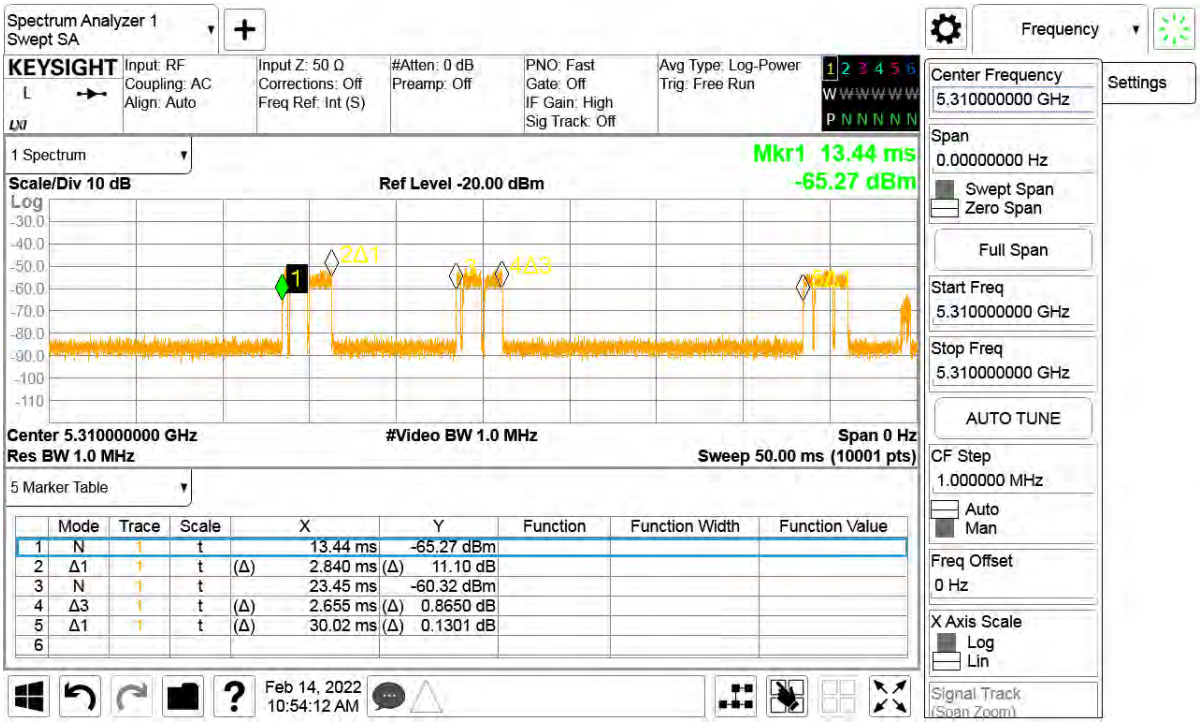
Channel loading	Requirement loading
21.72%	>17%

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



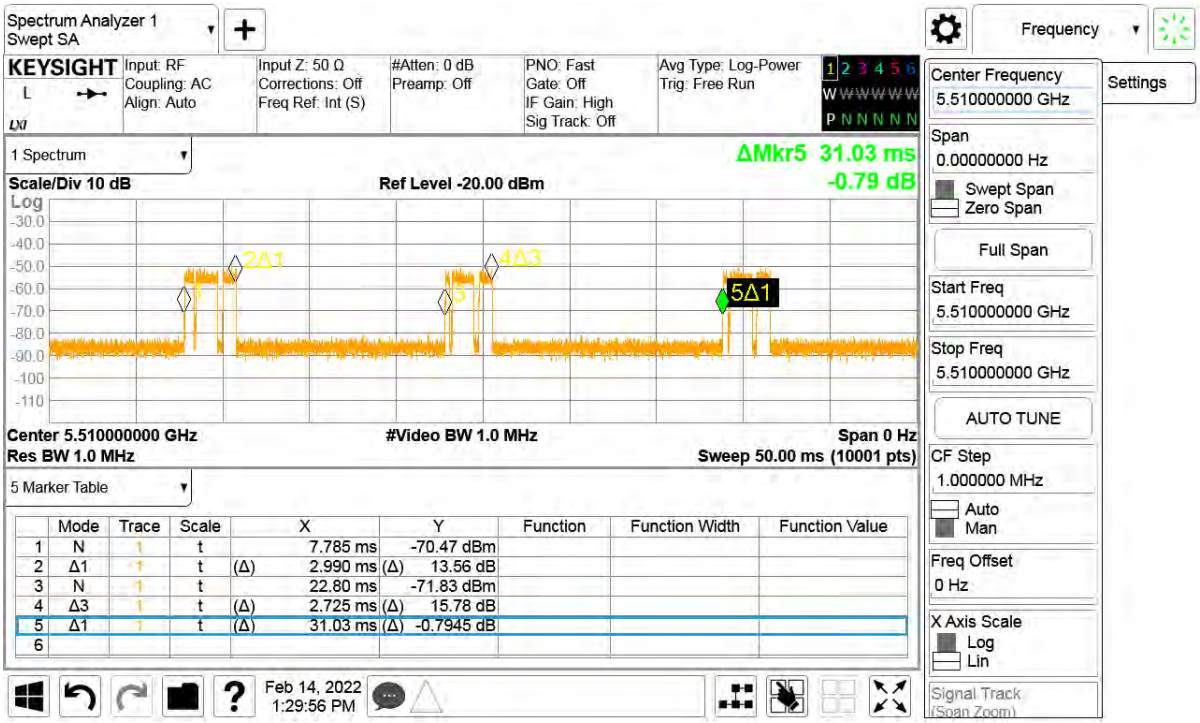
Channel loading	Requirement loading
23.77%	>17%

Plot of WLAN Traffic - 802.11ac (40 MHz), 5310 MHz



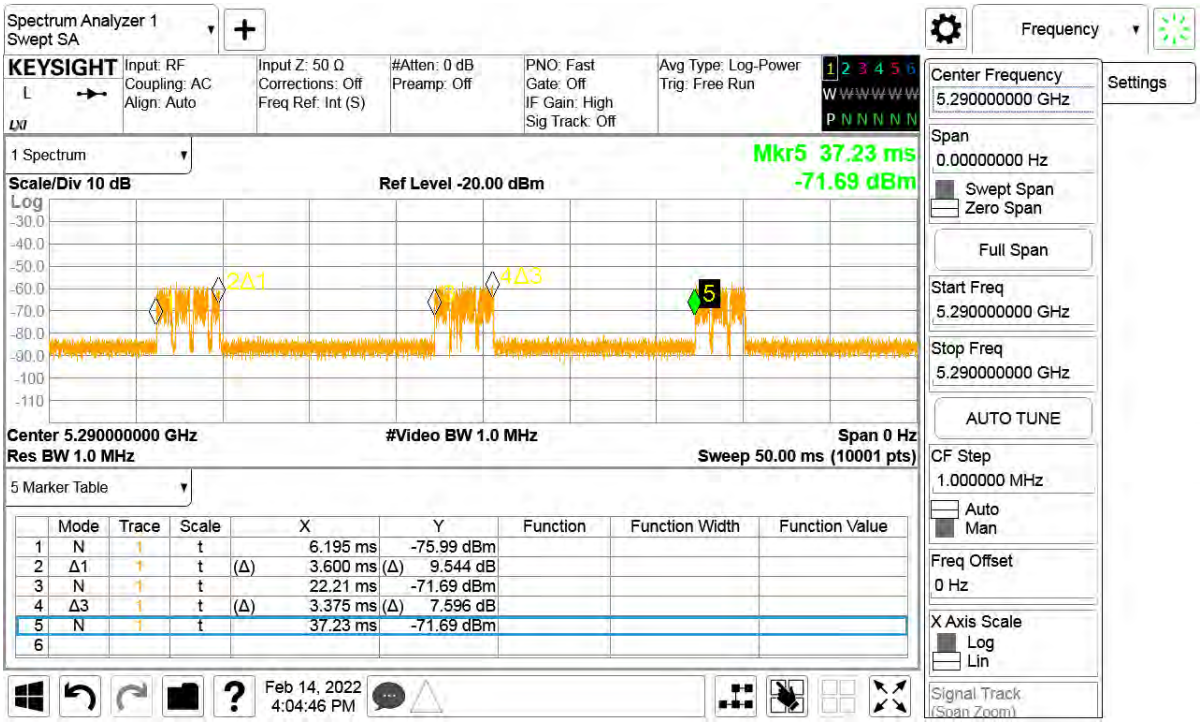
Channel loading	Requirement loading
18.30%	>17%

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



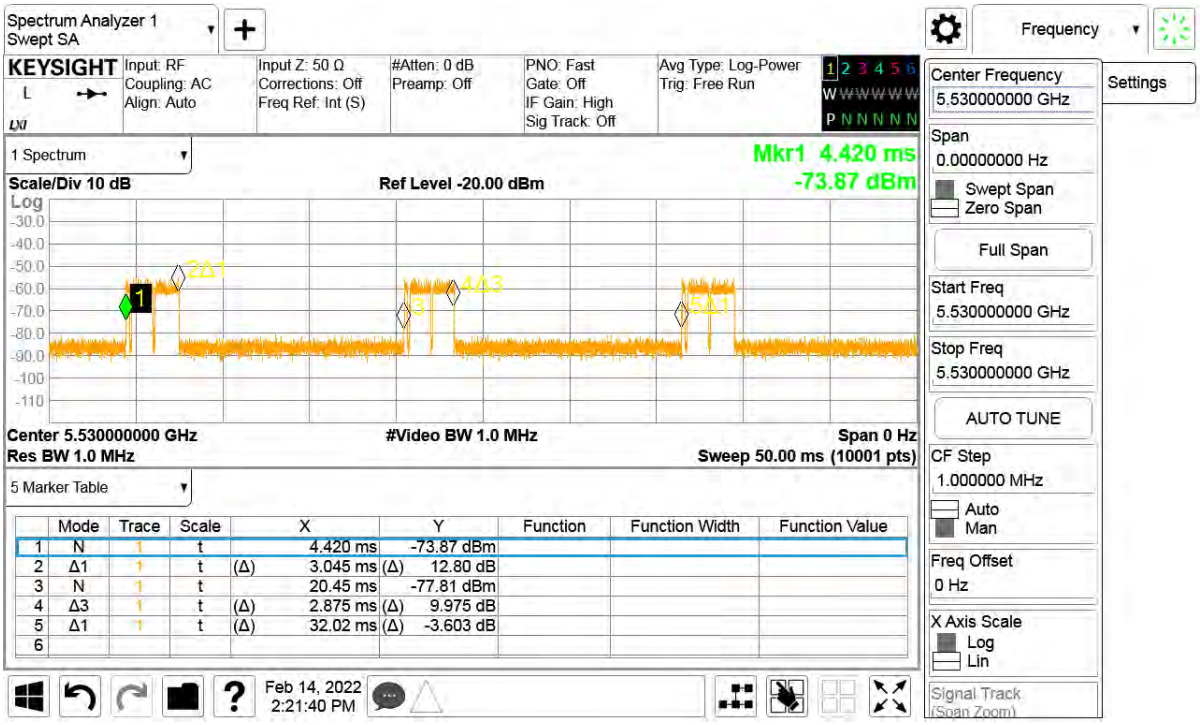
Channel loading	Requirement loading
18.42%	>17%

Plot of WLAN Traffic - 802.11ac (80 MHz), 5290 MHz



Channel loading	Requirement loading
18.73%	>17%

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



Channel loading	Requirement loading
18.49%	>17%

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

2.1. 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 5300 MHz/ 5510 MHz and 5630 MHz.

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.

2.2. Test Requirement

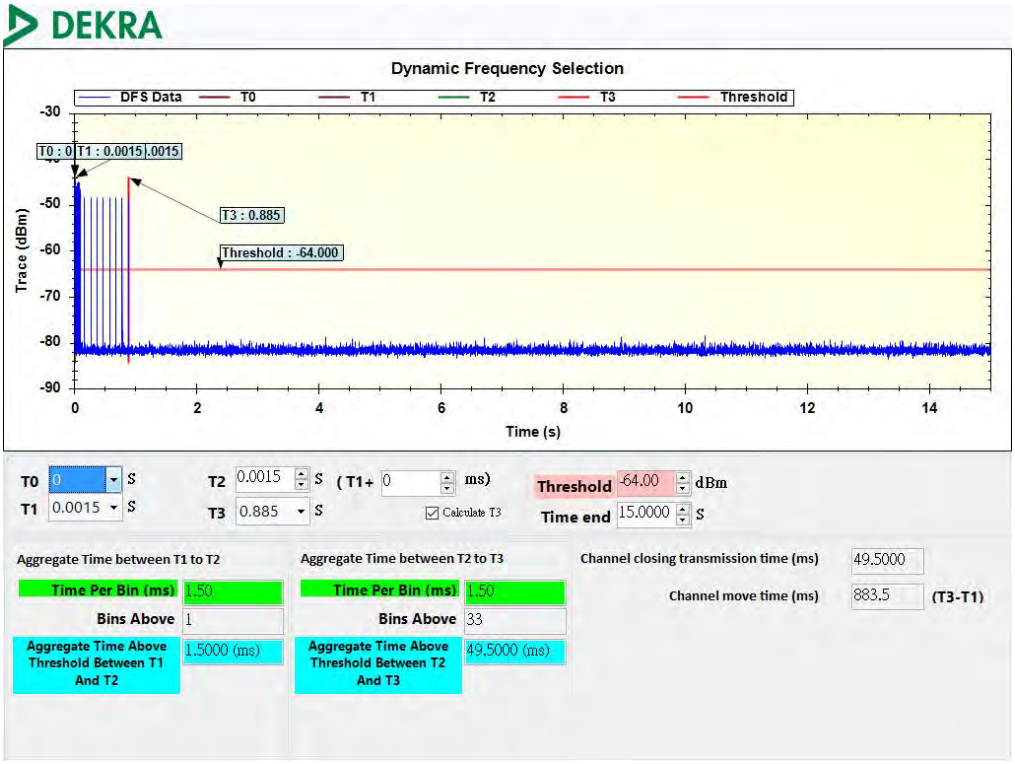
Parameter	Value
Channel Move Time	10 Seconds
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Non-Occupancy Period	Minimum 30 minutes

2.3. Uncertainty

± 1 ms.

2.4. Test Result of Channel Move Time and Channel Closing Transmission Time and Non-Occupancy Period

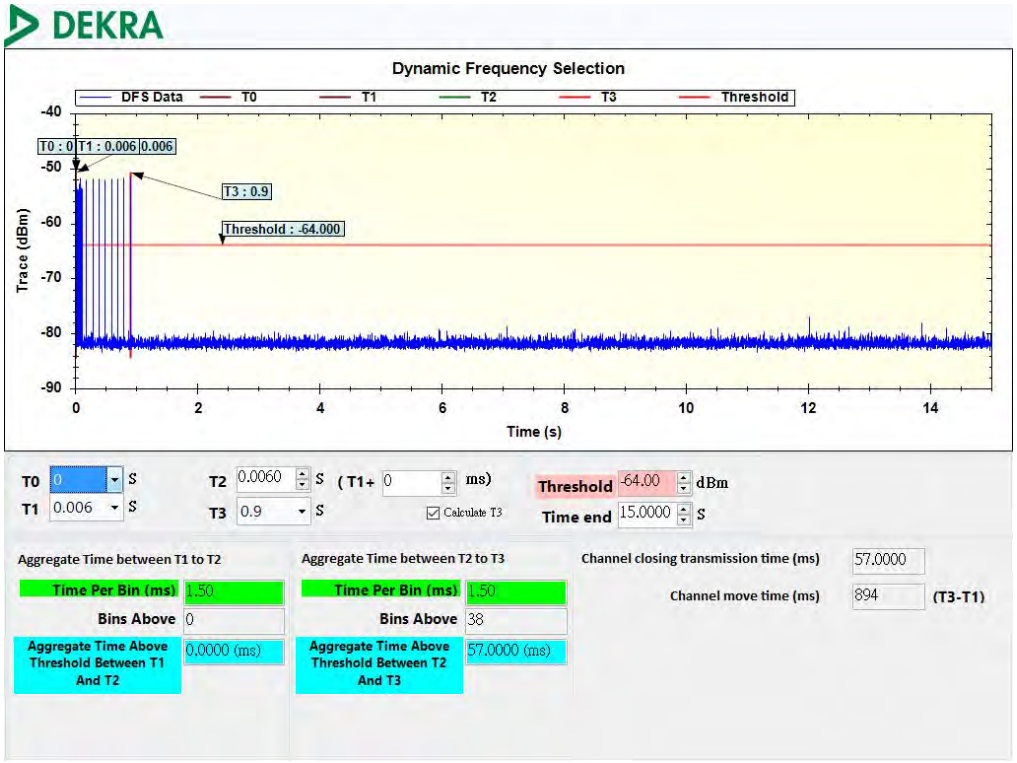
Channel Move Time and Channel Closing Transmission Time - 802.11ac (20 MHz), 5300 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.049	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.883	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.

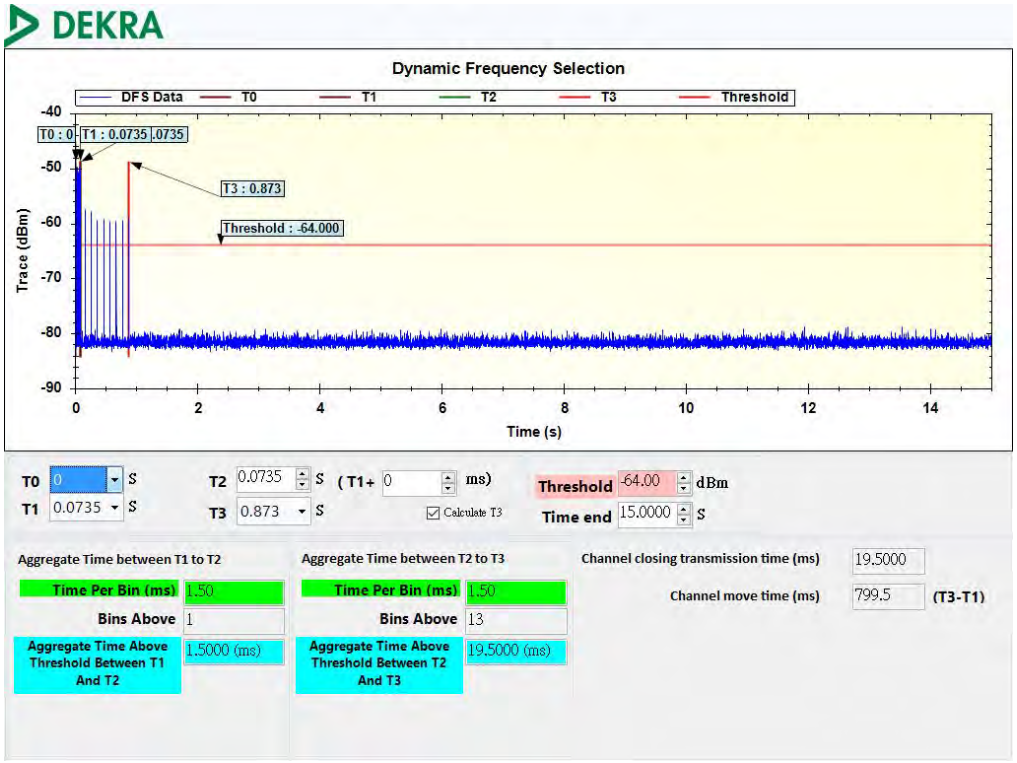
Channel Move Time and Channel Closing Transmission Time - 802.11ac (20 MHz), 5500 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.057	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.894	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.

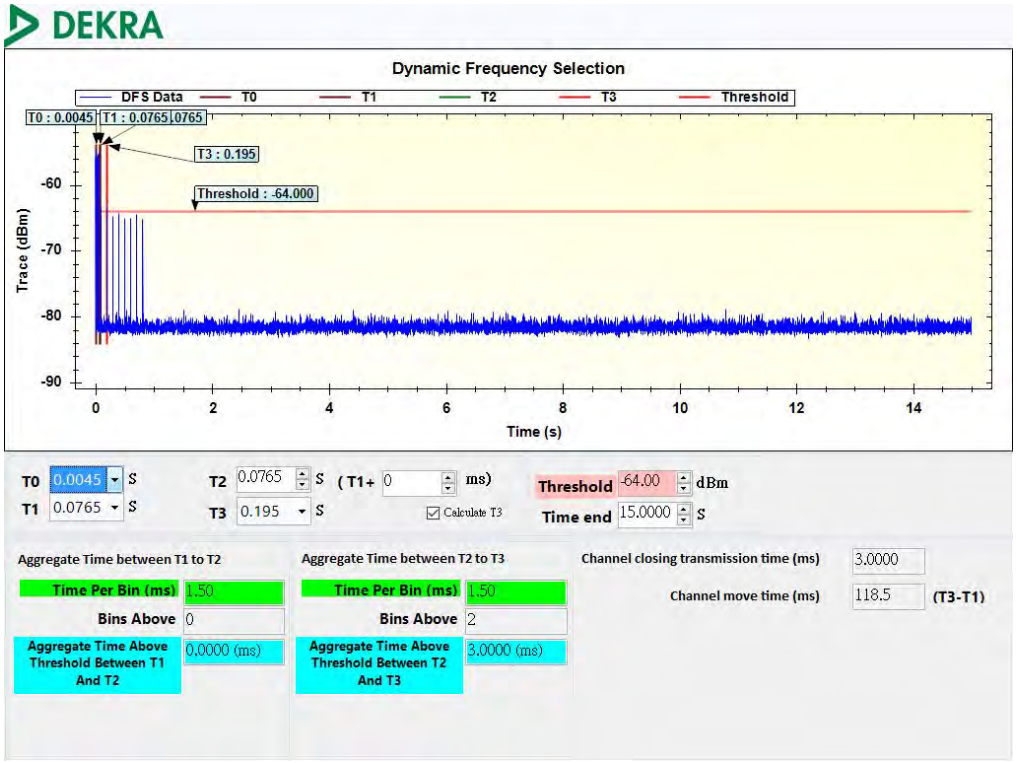
Channel Move Time and Channel Closing Transmission Time - 802.11ac (80 MHz), 5290 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.019	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.799	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.

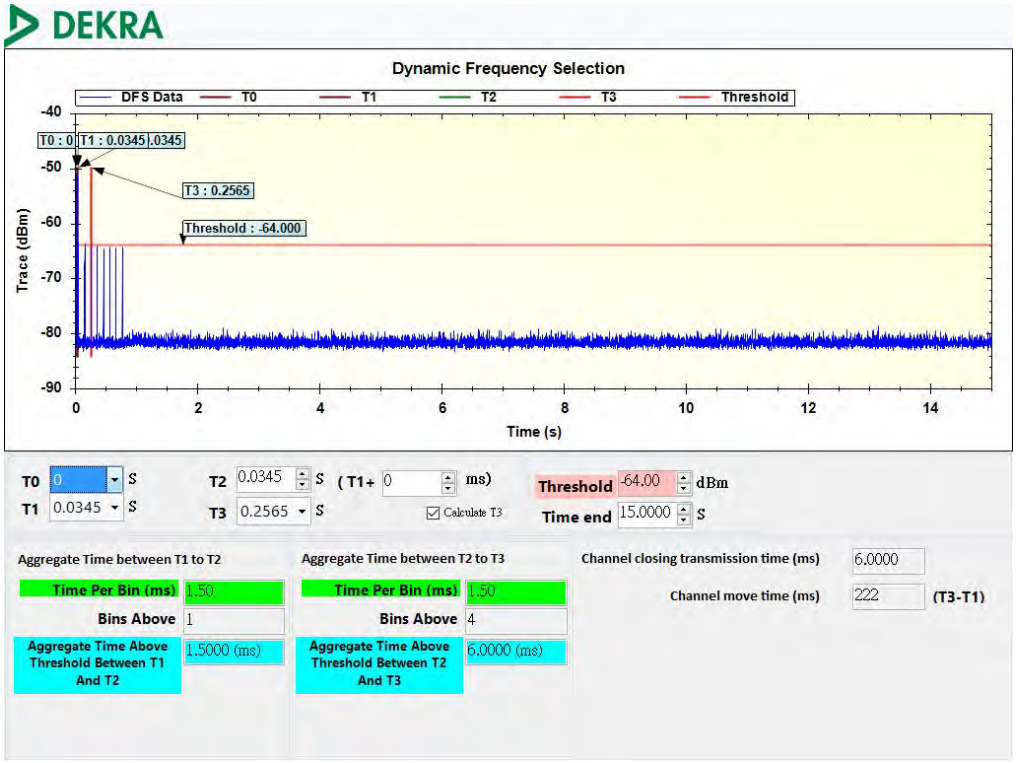
Channel Move Time and Channel Closing Transmission Time - 802.11ac (80 MHz), 5530 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.003	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.118	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.

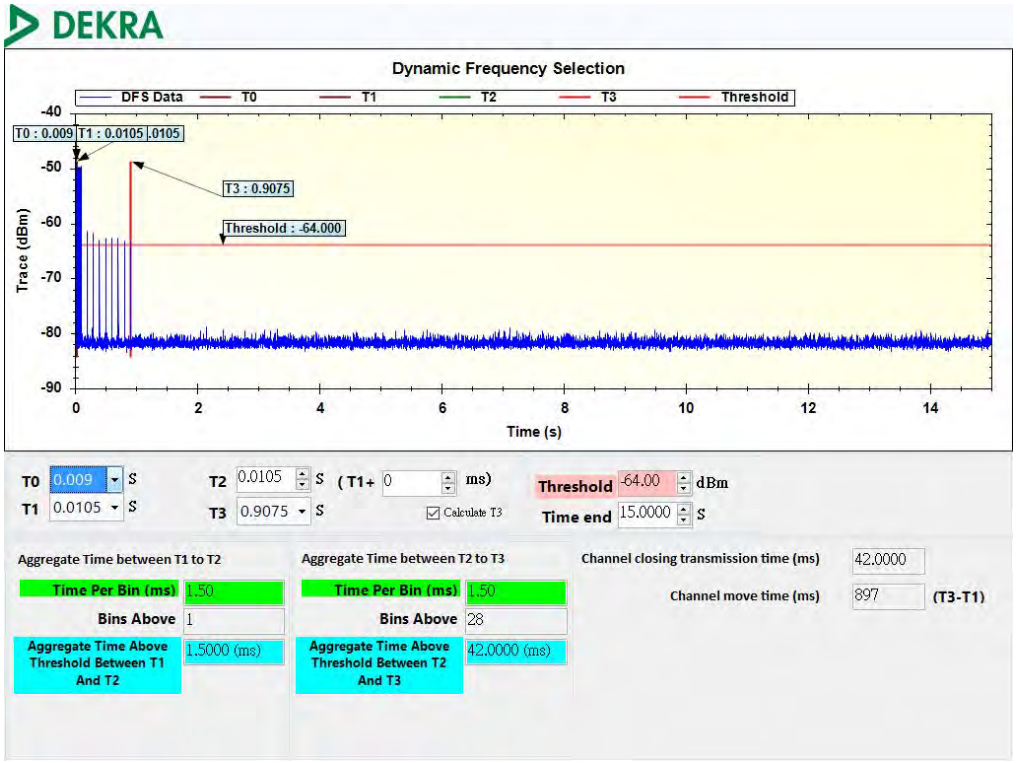
Channel Move Time and Channel Closing Transmission Time - 802.11ac (40 MHz), 5310 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.006	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.222	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.

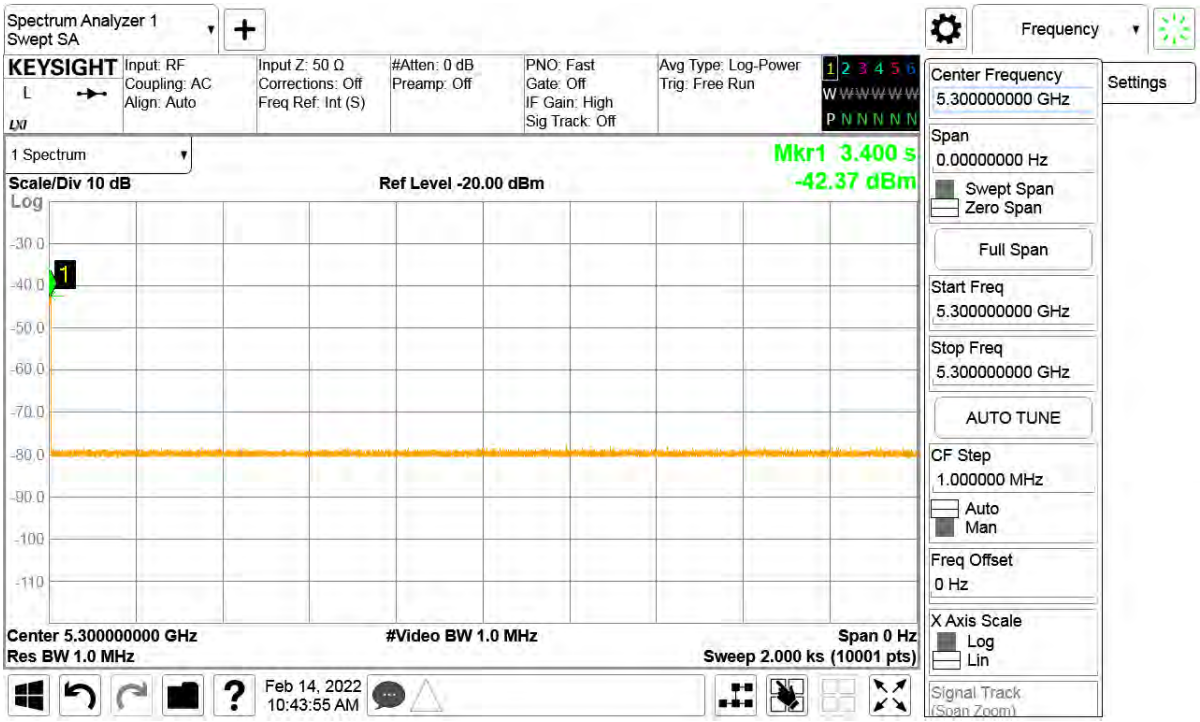
Channel Move Time and Channel Closing Transmission Time - 802.11ac (40 MHz), 5510 MHz



Test Item	Test Result (Sec)	Limit (Sec)
Channel Closing Transmission	0.042	200 milliseconds + approx. 60 milliseconds over remaining 10 seconds period
Channel Move Time	0.897	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.

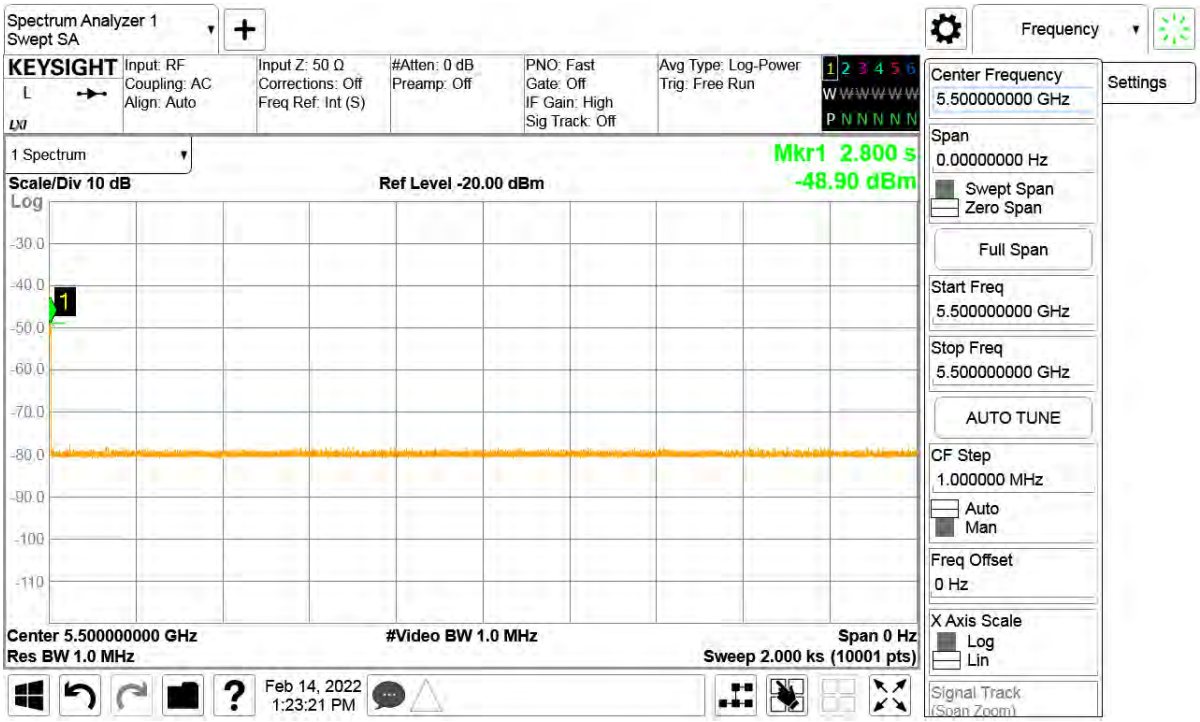
Non-Occupancy Period - 802.11ac (20 MHz), 5300 MHz



Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

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

Non-Occupancy Period - 802.11ac (20 MHz), 5500 MHz



Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

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

Non-Occupancy Period - 802.11ac (40 MHz), 5310 MHz

Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

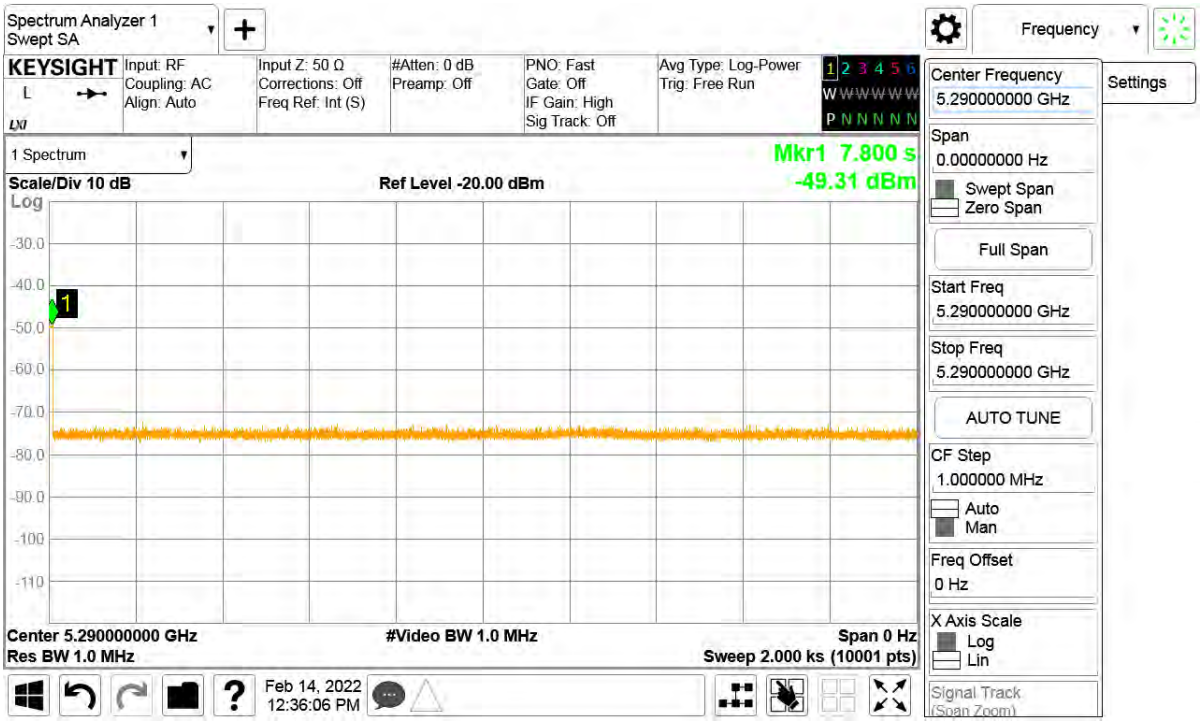
*No EUT transmissions were observed on the test channel during 30 minutes observation time.

Non-Occupancy Period - 802.11ac (40 MHz), 5510 MHz

Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

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

Non-Occupancy Period - 802.11ac (80 MHz), 5290 MHz



Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

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

Non-Occupancy Period - 802.11ac (80 MHz), 5530 MHz

Test Item	Test Result (Minutes)	Limit (Minutes)
Non-Occupancy Period	>30	>30

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

3. Statistical Performance Check

3.1. 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 5300 MHz 、5510 MHz and 5630 MHz.

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.

3.2. 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:

$$\frac{TotalWaveformDetections}{TotalWaveformTrials} \times 100$$ =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:

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

3.3. Test Result of Statistical Performance Check

802.11ac (20 MHz), 5300 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	5.3
1	Type 5	11	1.090909	12	5.3
2	Type 5	11	1.090909	12	5.3
3	Type 5	15	0.8	12	5.3
4	Type 5	18	0.666667	12	5.3
5	Type 5	18	0.666667	12	5.3
6	Type 5	17	0.705882	12	5.3
7	Type 5	15	0.8	12	5.3
8	Type 5	16	0.75	12	5.3
9	Type 5	19	0.631579	12	5.3
10	Type 5	9	1.333333	12	5.292
11	Type 5	8	1.5	12	5.292
12	Type 5	16	0.75	12	5.296
13	Type 5	14	0.857143	12	5.295
14	Type 5	17	0.705882	12	5.296
15	Type 5	19	0.631579	12	5.298
16	Type 5	8	1.5	12	5.292
17	Type 5	13	0.923077	12	5.294
18	Type 5	9	1.333333	12	5.293
19	Type 5	9	1.333333	12	5.293
20	Type 5	20	0.6	12	5.302
21	Type 5	16	0.75	12	5.304
22	Type 5	20	0.6	12	5.302
23	Type 5	19	0.631579	12	5.302
24	Type 5	17	0.705882	12	5.304
25	Type 5	12	1	12	5.306
26	Type 5	20	0.6	12	5.302
27	Type 5	11	1.090909	12	5.307
28	Type 5	9	1.333333	12	5.308
29	Type 5	9	1.333333	12	5.307

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	4
1	Type 6	1	333.3	9	0.3333	300	5
2	Type 6	1	333.3	9	0.3333	300	5
3	Type 6	1	333.3	9	0.3333	300	3
4	Type 6	1	333.3	9	0.3333	300	1
5	Type 6	1	333.3	9	0.3333	300	4
6	Type 6	1	333.3	9	0.3333	300	3
7	Type 6	1	333.3	9	0.3333	300	6
8	Type 6	1	333.3	9	0.3333	300	7
9	Type 6	1	333.3	9	0.3333	300	3
10	Type 6	1	333.3	9	0.3333	300	6
11	Type 6	1	333.3	9	0.3333	300	3
12	Type 6	1	333.3	9	0.3333	300	4
13	Type 6	1	333.3	9	0.3333	300	2
14	Type 6	1	333.3	9	0.3333	300	3
15	Type 6	1	333.3	9	0.3333	300	5
16	Type 6	1	333.3	9	0.3333	300	5
17	Type 6	1	333.3	9	0.3333	300	5
18	Type 6	1	333.3	9	0.3333	300	4
19	Type 6	1	333.3	9	0.3333	300	5
20	Type 6	1	333.3	9	0.3333	300	3
21	Type 6	1	333.3	9	0.3333	300	6
22	Type 6	1	333.3	9	0.3333	300	2
23	Type 6	1	333.3	9	0.3333	300	4
24	Type 6	1	333.3	9	0.3333	300	5
25	Type 6	1	333.3	9	0.3333	300	2
26	Type 6	1	333.3	9	0.3333	300	5
27	Type 6	1	333.3	9	0.3333	300	7
28	Type 6	1	333.3	9	0.3333	300	5
29	Type 6	1	333.3	9	0.3333	300	2

802.11ac (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

802.11ac (40 MHz), 5310 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	5.31
1	Type 5	11	1.090909	12	5.31
2	Type 5	11	1.090909	12	5.31
3	Type 5	15	0.8	12	5.31
4	Type 5	18	0.666667	12	5.31
5	Type 5	18	0.666667	12	5.31
6	Type 5	17	0.705882	12	5.31
7	Type 5	15	0.8	12	5.31
8	Type 5	16	0.75	12	5.31
9	Type 5	19	0.631579	12	5.31
10	Type 5	9	1.333333	12	5.293
11	Type 5	8	1.5	12	5.293
12	Type 5	16	0.75	12	5.297
13	Type 5	14	0.857143	12	5.296
14	Type 5	17	0.705882	12	5.297
15	Type 5	19	0.631579	12	5.299
16	Type 5	8	1.5	12	5.293
17	Type 5	13	0.923077	12	5.295
18	Type 5	9	1.333333	12	5.294
19	Type 5	9	1.333333	12	5.294
20	Type 5	20	0.6	12	5.321
21	Type 5	16	0.75	12	5.323
22	Type 5	20	0.6	12	5.321
23	Type 5	19	0.631579	12	5.321
24	Type 5	17	0.705882	12	5.323
25	Type 5	12	1	12	5.325
26	Type 5	20	0.6	12	5.321
27	Type 5	11	1.090909	12	5.326
28	Type 5	9	1.333333	12	5.327
29	Type 5	9	1.333333	12	5.326

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	7
1	Type 6	1	333.3	9	0.3333	300	9
2	Type 6	1	333.3	9	0.3333	300	12
3	Type 6	1	333.3	9	0.3333	300	8
4	Type 6	1	333.3	9	0.3333	300	4
5	Type 6	1	333.3	9	0.3333	300	7
6	Type 6	1	333.3	9	0.3333	300	7
7	Type 6	1	333.3	9	0.3333	300	13
8	Type 6	1	333.3	9	0.3333	300	9
9	Type 6	1	333.3	9	0.3333	300	7
10	Type 6	1	333.3	9	0.3333	300	11
11	Type 6	1	333.3	9	0.3333	300	5
12	Type 6	1	333.3	9	0.3333	300	6
13	Type 6	1	333.3	9	0.3333	300	6
14	Type 6	1	333.3	9	0.3333	300	6
15	Type 6	1	333.3	9	0.3333	300	10
16	Type 6	1	333.3	9	0.3333	300	10
17	Type 6	1	333.3	9	0.3333	300	9
18	Type 6	1	333.3	9	0.3333	300	6
19	Type 6	1	333.3	9	0.3333	300	10
20	Type 6	1	333.3	9	0.3333	300	6
21	Type 6	1	333.3	9	0.3333	300	8
22	Type 6	1	333.3	9	0.3333	300	4
23	Type 6	1	333.3	9	0.3333	300	7
24	Type 6	1	333.3	9	0.3333	300	10
25	Type 6	1	333.3	9	0.3333	300	4
26	Type 6	1	333.3	9	0.3333	300	13
27	Type 6	1	333.3	9	0.3333	300	10
28	Type 6	1	333.3	9	0.3333	300	6
29	Type 6	1	333.3	9	0.3333	300	5

802.11ac (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	5.51
1	Type 5	11	1.090909	12	5.51
2	Type 5	11	1.090909	12	5.51
3	Type 5	15	0.8	12	5.51
4	Type 5	18	0.666667	12	5.51
5	Type 5	18	0.666667	12	5.51
6	Type 5	17	0.705882	12	5.51
7	Type 5	15	0.8	12	5.51
8	Type 5	16	0.75	12	5.51
9	Type 5	19	0.631579	12	5.51
10	Type 5	9	1.333333	12	5.493
11	Type 5	8	1.5	12	5.493
12	Type 5	16	0.75	12	5.497
13	Type 5	14	0.857143	12	5.496
14	Type 5	17	0.705882	12	5.497
15	Type 5	19	0.631579	12	5.499
16	Type 5	8	1.5	12	5.493
17	Type 5	13	0.923077	12	5.495
18	Type 5	9	1.333333	12	5.494
19	Type 5	9	1.333333	12	5.494
20	Type 5	20	0.6	12	5.521
21	Type 5	16	0.75	12	5.523
22	Type 5	20	0.6	12	5.521
23	Type 5	19	0.631579	12	5.521
24	Type 5	17	0.705882	12	5.523
25	Type 5	12	1	12	5.525
26	Type 5	20	0.6	12	5.521
27	Type 5	11	1.090909	12	5.526
28	Type 5	9	1.333333	12	5.527
29	Type 5	9	1.333333	12	5.526

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

802.11ac (80 MHz), 5290 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	5.29
1	Type 5	11	1.090909	12	5.29
2	Type 5	11	1.090909	12	5.29
3	Type 5	15	0.8	12	5.29
4	Type 5	18	0.666667	12	5.29
5	Type 5	18	0.666667	12	5.29
6	Type 5	17	0.705882	12	5.29
7	Type 5	15	0.8	12	5.29
8	Type 5	16	0.75	12	5.29
9	Type 5	19	0.631579	12	5.29
10	Type 5	9	1.333333	12	5.254
11	Type 5	8	1.5	12	5.254
12	Type 5	16	0.75	12	5.258
13	Type 5	14	0.857143	12	5.256
14	Type 5	17	0.705882	12	5.258
15	Type 5	19	0.631579	12	5.259
16	Type 5	8	1.5	12	5.254
17	Type 5	13	0.923077	12	5.256
18	Type 5	9	1.333333	12	5.254
19	Type 5	9	1.333333	12	5.254
20	Type 5	20	0.6	12	5.321
21	Type 5	16	0.75	12	5.322
22	Type 5	20	0.6	12	5.32
23	Type 5	19	0.631579	12	5.321
24	Type 5	17	0.705882	12	5.322
25	Type 5	12	1	12	5.324
26	Type 5	20	0.6	12	5.321
27	Type 5	11	1.090909	12	5.325
28	Type 5	9	1.333333	12	5.326
29	Type 5	9	1.333333	12	5.326

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	15
1	Type 6	1	333.3	9	0.3333	300	20
2	Type 6	1	333.3	9	0.3333	300	23
3	Type 6	1	333.3	9	0.3333	300	15
4	Type 6	1	333.3	9	0.3333	300	14
5	Type 6	1	333.3	9	0.3333	300	14
6	Type 6	1	333.3	9	0.3333	300	16
7	Type 6	1	333.3	9	0.3333	300	16
8	Type 6	1	333.3	9	0.3333	300	14
9	Type 6	1	333.3	9	0.3333	300	20
10	Type 6	1	333.3	9	0.3333	300	13
11	Type 6	1	333.3	9	0.3333	300	10
12	Type 6	1	333.3	9	0.3333	300	13
13	Type 6	1	333.3	9	0.3333	300	13
14	Type 6	1	333.3	9	0.3333	300	14
15	Type 6	1	333.3	9	0.3333	300	15
16	Type 6	1	333.3	9	0.3333	300	22
17	Type 6	1	333.3	9	0.3333	300	15
18	Type 6	1	333.3	9	0.3333	300	15
19	Type 6	1	333.3	9	0.3333	300	15
20	Type 6	1	333.3	9	0.3333	300	18
21	Type 6	1	333.3	9	0.3333	300	16
22	Type 6	1	333.3	9	0.3333	300	10
23	Type 6	1	333.3	9	0.3333	300	10
24	Type 6	1	333.3	9	0.3333	300	19
25	Type 6	1	333.3	9	0.3333	300	13
26	Type 6	1	333.3	9	0.3333	300	24
27	Type 6	1	333.3	9	0.3333	300	17
28	Type 6	1	333.3	9	0.3333	300	18
29	Type 6	1	333.3	9	0.3333	300	12

802.11ac (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	5.53
1	Type 5	11	1.090909	12	5.53
2	Type 5	11	1.090909	12	5.53
3	Type 5	15	0.8	12	5.53
4	Type 5	18	0.666667	12	5.53
5	Type 5	18	0.666667	12	5.53
6	Type 5	17	0.705882	12	5.53
7	Type 5	15	0.8	12	5.53
8	Type 5	16	0.75	12	5.53
9	Type 5	19	0.631579	12	5.53
10	Type 5	9	1.333333	12	5.494
11	Type 5	8	1.5	12	5.494
12	Type 5	16	0.75	12	5.498
13	Type 5	14	0.857143	12	5.496
14	Type 5	17	0.705882	12	5.498
15	Type 5	19	0.631579	12	5.499
16	Type 5	8	1.5	12	5.494
17	Type 5	13	0.923077	12	5.496
18	Type 5	9	1.333333	12	5.494
19	Type 5	9	1.333333	12	5.494
20	Type 5	20	0.6	12	5.561
21	Type 5	16	0.75	12	5.562
22	Type 5	20	0.6	12	5.56
23	Type 5	19	0.631579	12	5.561
24	Type 5	17	0.705882	12	5.562
25	Type 5	12	1	12	5.564
26	Type 5	20	0.6	12	5.561
27	Type 5	11	1.090909	12	5.565
28	Type 5	9	1.333333	12	5.566
29	Type 5	9	1.333333	12	5.566

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