

DFS MEASUREMENT REPORT

FCC ID : 2BH7FRE705XV2

Applicant : TP-Link Systems Inc.

Application Type : Certification

Product : AX3000 Wi-Fi 6 Range Extender
AX2700 Wi-Fi 6 Range Extender
AX1750 Wi-Fi 6 Range Extender
AX1800 Wi-Fi 6 Range Extender

Model No. : RE705X

Series Model No. : RE2700X, RE1750X, RE605X

Brand Name : tp-link

FCC Classification : Unlicensed National Information Infrastructure (NII)

FCC Rule Part(s) : Part 15 Subpart E - 15.407 Section (h)(2)

Type of Device : Master Device

Received Date : November 21, 2024

Test Date : January 2, 2025~January 23, 2025

Tested By : 
(Peter Syu)

Reviewed By : 
(Paddy Chen)

Approved By : 
(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 905462 D02v02. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2411TW0115-U4	1.0	Original Report	2025-02-10	

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General Information

Applicant	TP-Link Systems Inc.
Applicant Address	10 Mauchly, Irvine, CA 92618
Manufacturer	TP-Link Systems Inc.
Manufacturer Address	10 Mauchly, Irvine, CA 92618
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 15.407
Test Device Serial No.	#1-1 ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

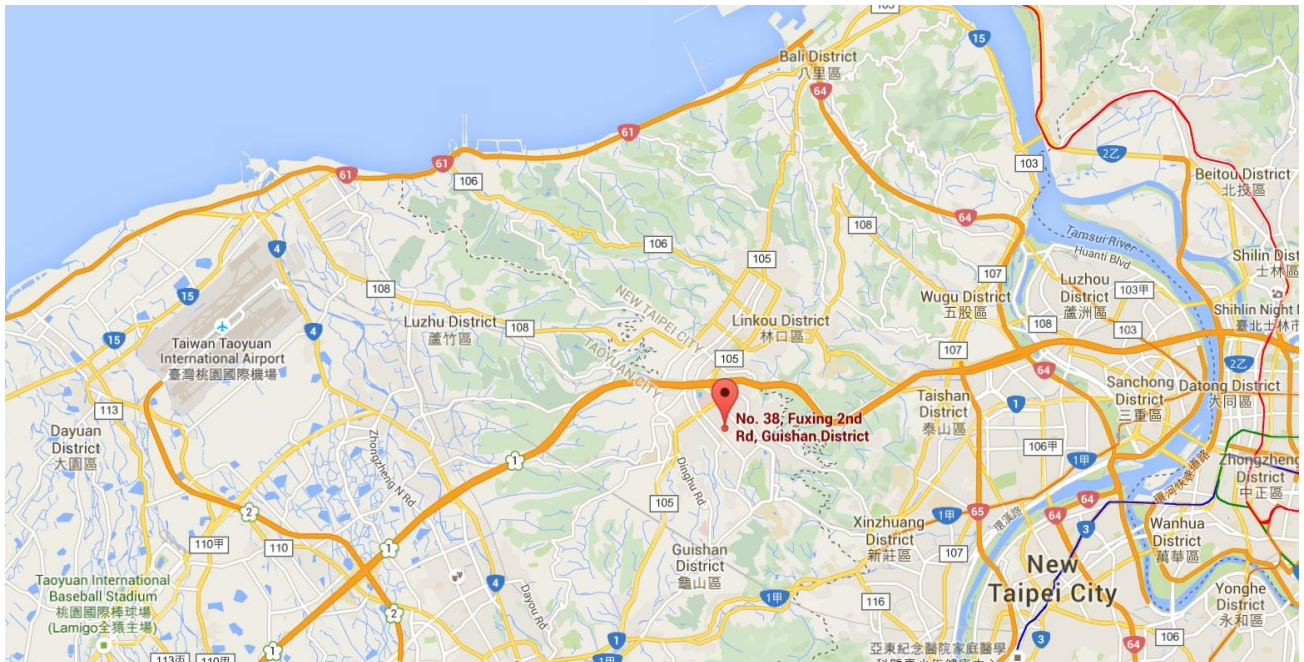
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	AX3000 Wi-Fi 6 Range Extender AX2700 Wi-Fi 6 Range Extender AX1750 Wi-Fi 6 Range Extender AX1800 Wi-Fi 6 Range Extender
Model Number	RE705X
Series Model No.	RE2700X, RE1750X, RE605X
Brand Name	tp-link
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Power Voltage	AC 100-240V~ 50/60Hz
EUT Identification No.	#1-3 (DFS)

Note:

Model Difference: It's exactly the same between the models except the different product names.

2.2. Product Specification Subjective to this Report

Frequency Range	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5260~5320 MHz, 5500~5720MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5270~5310 MHz,5510~5710MHz For 802.11ac-VHT80/ax-HE80: 5290MHz,5530MHz, 5610MHz, 5690MHz For 802.11ac-VHT160/ax-HE160: 5250MHz, 5570MHz
Type of Modulation	802.11a/n/ac: OFDM, 802.11ax: OFDMA
TPC mechanism	Support (Details refer to operational description)
Power-on cycle	Requires 101.0 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 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.

2.3. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	Tx Paths	Number of spatial streams	Max Antenna Gain (dBi)	Beamforming Directional Gain(dBi)	CDD Directional Gain (dBi)	
						For Power	For PSD
Wi-Fi Antenna							
Dipole	2412 ~ 2462	2	1	2.00	5.01	2.00	5.01
	5150 ~ 5850	2	1	2.50	5.51	2.50	5.51

Remark:

- The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.
 - For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB;
 - For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB for $N_{ANT} \leq 4$;
- The EUT also supports Beam Forming mode, and the Beam Forming support 802.11ac/ax, not include 802.11a/b/g/n. BF Directional gain = $G_{ANT} + 10 \log (N_{ANT})$.
- All messages of antenna were declared by manufacturer.

Test Mode	Tx Paths	CDD Mode	Beamforming Mode
802.11b/g/n (DTS)	2	√	X
802.11ax (DTS)	2	√	√
802.11a/n (NII)	2	√	X
802.11ac/ax (NII)	2	√	√

2.4. Operating Frequency and Channel List for this Report

802.11a/n-HT20/ac-VHT20/ax-HE20

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
144	5720 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz	102	5510 MHz
110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	142	5710 MHz	--	--

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	122	5610 MHz
138	5690 MHz	--	--	--	--

802.11ac-VHT160/ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250MHz	114	5570 MHz	--	--

2.5. Test Channels for this Report

Test Mode	Test Channel	Test Frequency
802.11ax-HE20	100	5500 MHz
802.11ax-HE40	102	5510 MHz
802.11ax-HE80	106	5530 MHz
802.11ax-HE160	50	5250 MHz
802.11ax-HE160	114	5570 MHz

2.6. Test Mode

Test Mode	1. Make the EUT communicate with notebook at DFS channel_ Master 2. Make the EUT communicate with notebook at DFS channel_ Slave 3. Make the EUT communicate with notebook at DFS channel_ Extender
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2.7. Applied Standards

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

- FCC Part15 Subpart E (Section 15.407 Section (h)(2))
- KDB 905462 D02v02
- KDB 905462 D04v01

3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

3.1. Applicability

The following table from FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 lists the applicable requirements for the DFS testing.

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

Table 3-1: Applicability of DFS Requirements Prior to Use of a Channel

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Table 3-2: Applicability of DFS Requirements during normal operation

3.2. DFS Devices Requirements

Per FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 the following are the requirements for Master Devices:

- (a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands. DFS is not required in the 5150 ~ 5250 MHz or 5725 ~ 5825 MHz bands.
- (b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.
- (c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.
- (d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).
- (e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.
- (f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.
- (g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

Channel Move Time and Channel Closing Transmission Time requirements are listed in the following table.

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.	

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

The DFS detection thresholds are defined for Master devices and Client Devices with In-service monitoring. These detection thresholds are listed in the following table.

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

Table 3-4: Detection Thresholds for Master Devices and Client Devices with Radar Detection

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

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.

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.6	858
19	1139	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

Table 3-6: Pulse Repetition Intervals Values for Test A

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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 – 5724MHz. 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.

3.5. Conducted Test Setup

The FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 describes a radiated test setup and a conducted test setup. The conducted test setup was used for this testing. Figure 3-1 shows the typical test setup.

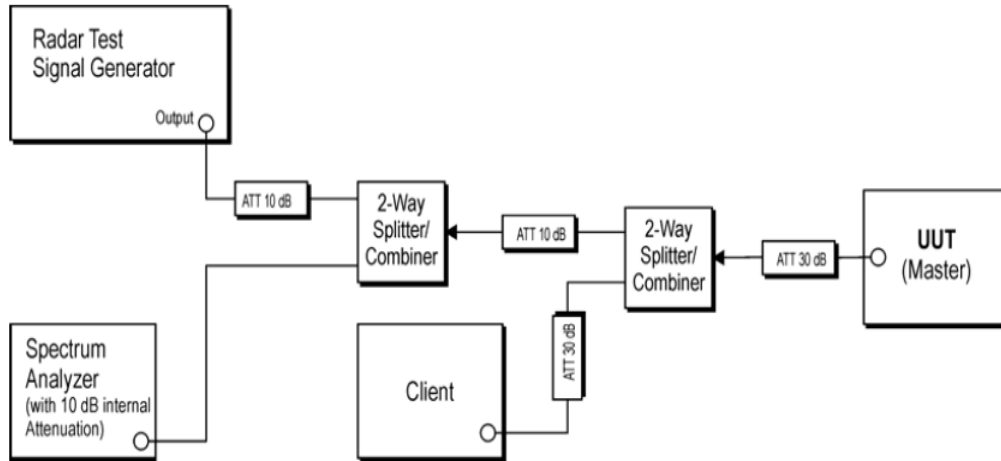


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

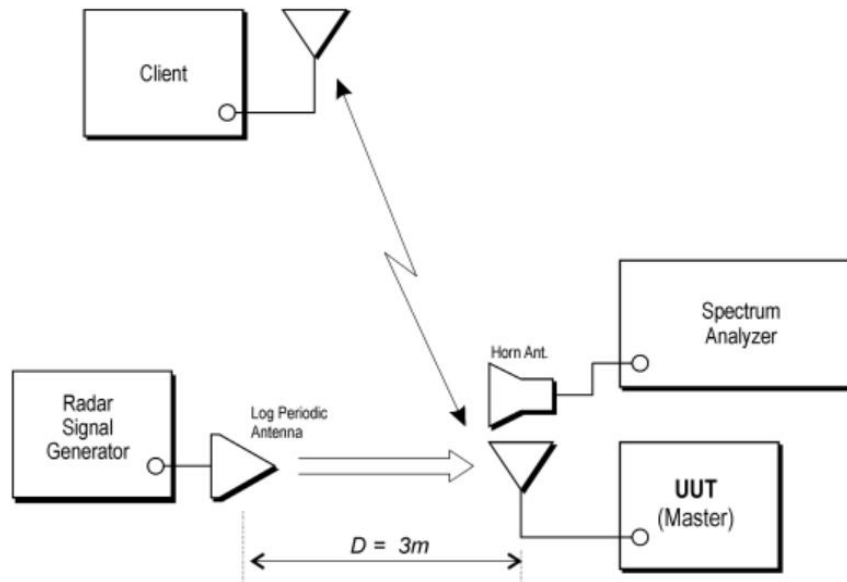


Figure 3-2: Radiated Test Setup where UUT is a Master and Radar Test Waveforms are injected into the UUT

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12
Vector Signal Generator	Keysight	N5182B	MRTTWA00010	1 year	2025/5/21
Combiner	WOKEN	0120A04208001S	MRTTWE00008	1 year	2025/6/14

Client Information

Instrument	Manufacturer	Type No.	Certification Number
Wi-Fi Module	Intel	BE200D2W	FCC ID: PD9BE200D2

Software	Version	Manufacturer	Function
Pulse Building(N7607B)	V3.0.0	Keysight	Radar Signal Generation Software
DFS Tool	V6.7	Keysight	DFS Test Software

5. TEST RESULT

5.1. Summary

Parameter	Limit	Test Result	Reference
UNII Detection Bandwidth Measurement	Refer Table 3-3	Pass	Section 5.3
Initial Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.4
Radar Burst at the Beginning of the Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.5
Radar Burst at the End of the Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.6
In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time	Refer Table 3-3	Pass	Section 5.7
Non-Occupancy Period	Refer Table 3-3	Pass	Section 5.7
Statistical Performance Check	Refer Table 3-3	Pass	Section 5.8

Note:

- 1) Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

The conducted test setup was used for this calibration testing. Figure 3-2 shows the typical test setup.

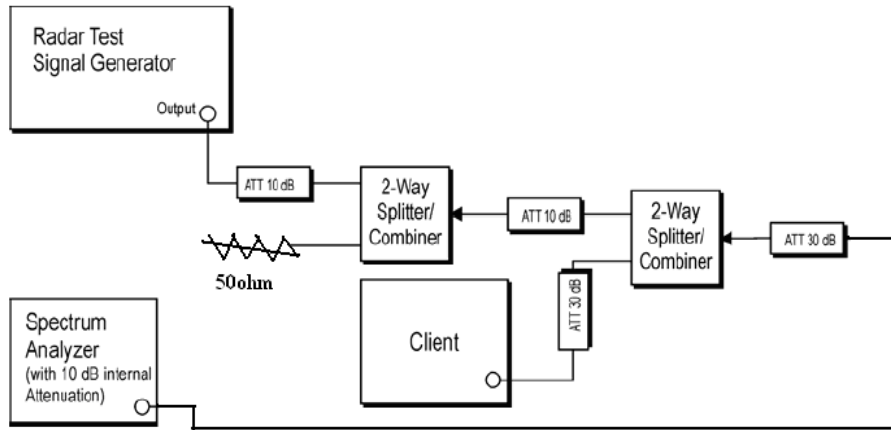


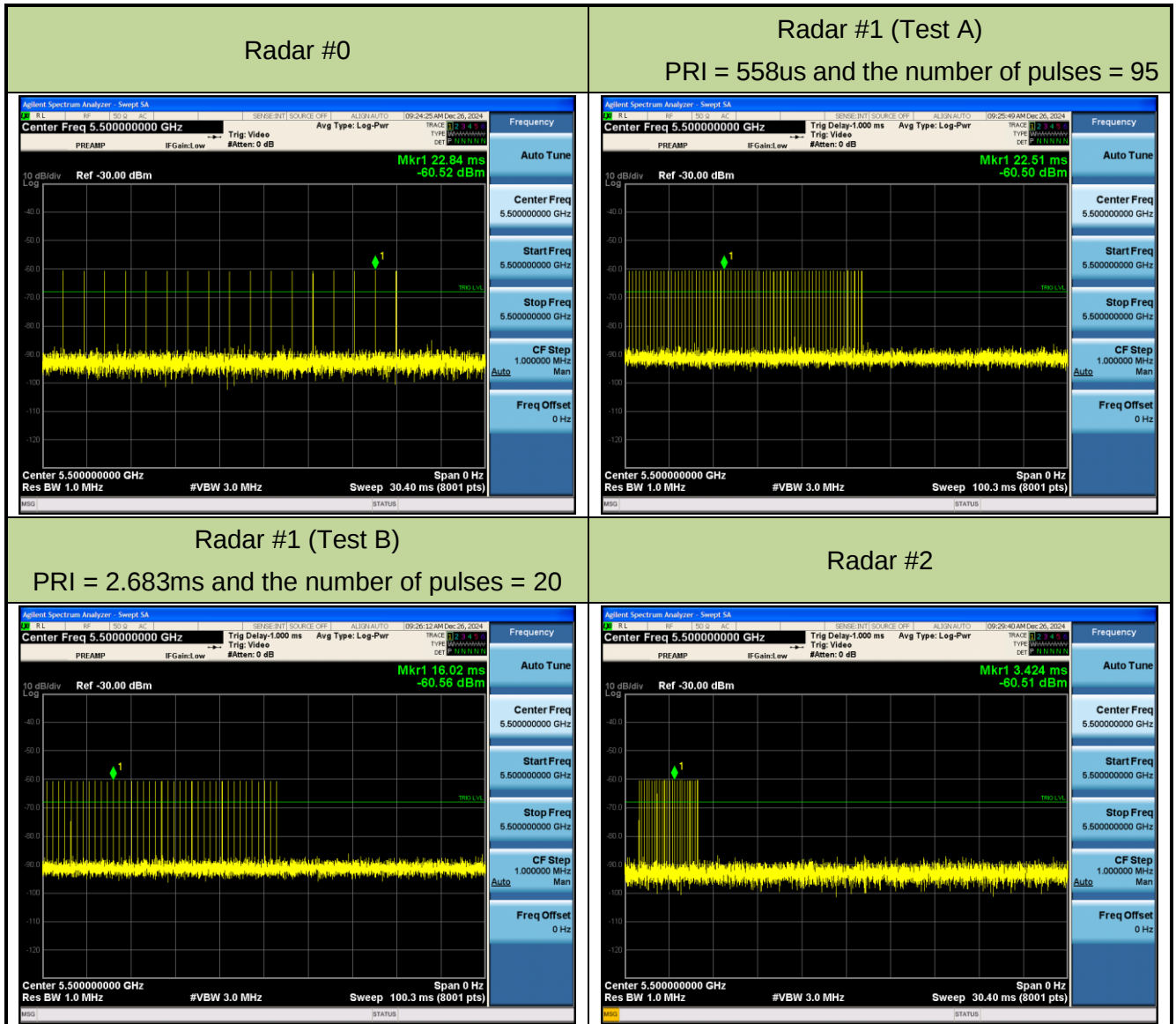
Figure 3-2: Conducted Test Setup

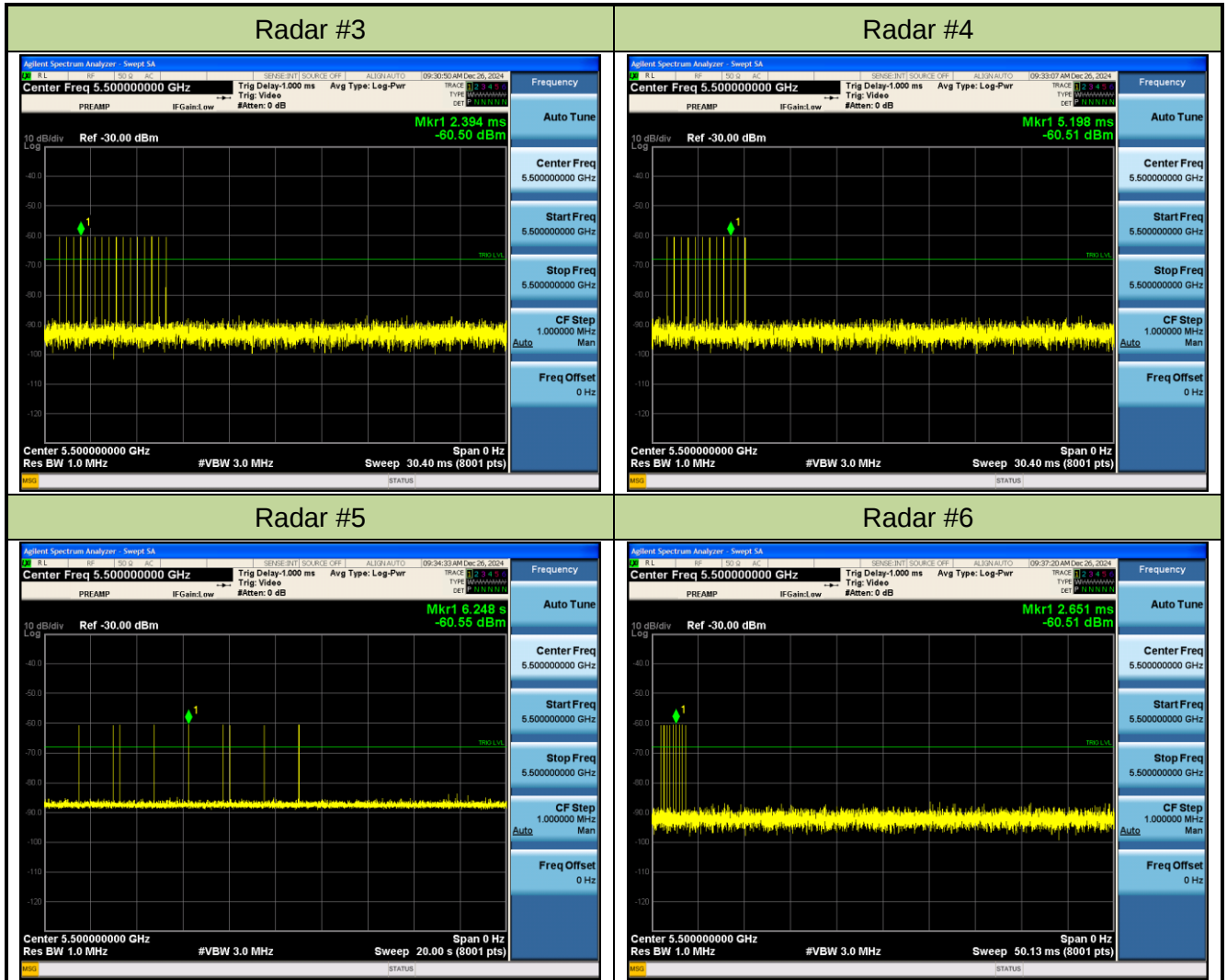
5.2.2. Calibration Procedure

The Interference Radar Detection Threshold Level is $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$ that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for each radar type. During this process there were replace 50ohm terminal form 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 used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to at least 3MHz. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63\text{dBm}$. Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

5.2.3. Calibration Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2024/12/26
Test Item	Radar Waveform Calibration-Master		

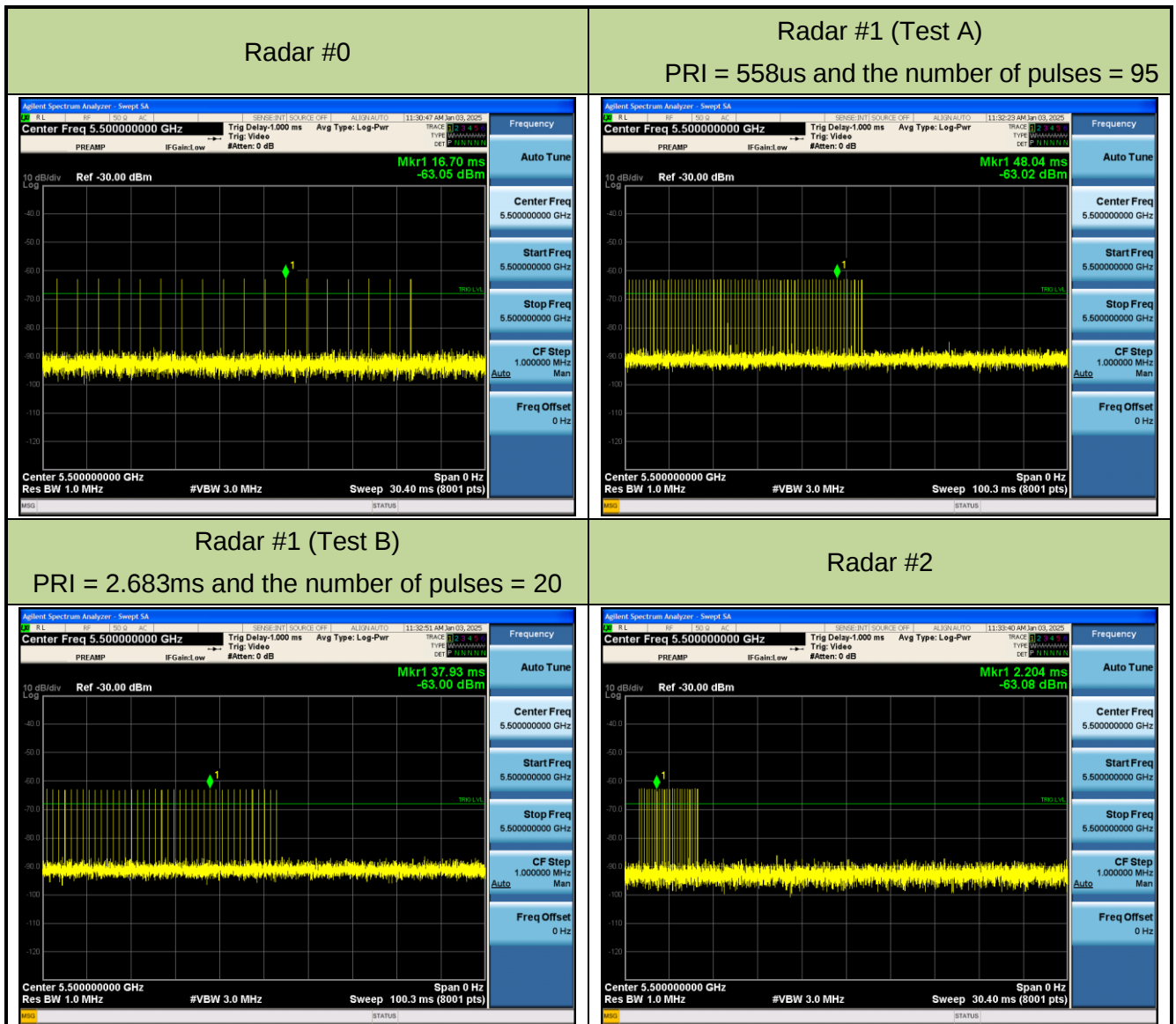




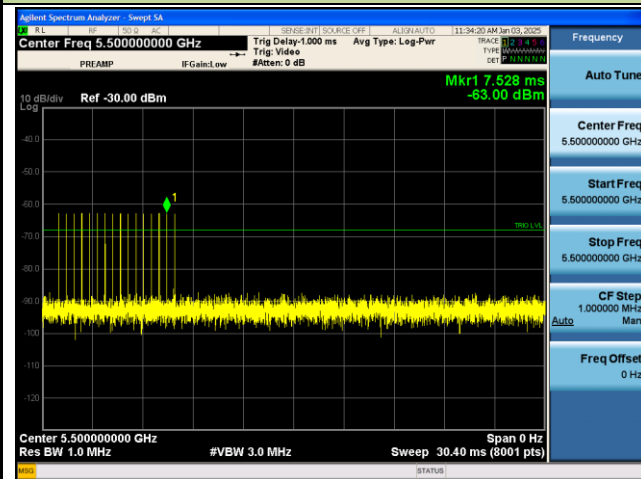
Note:

In this case, the radar test signal -63dBm has added antenna gain of 2.5dBi, so the radar test signal is $-63\text{dBm} + 2.5\text{dBi} = -60.50\text{dBm}$

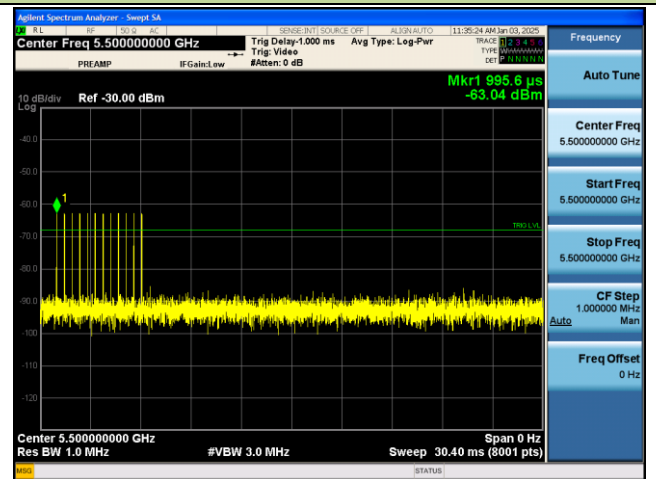
Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/3
Test Item	Radar Waveform Calibration-Slave with Radar Detection		



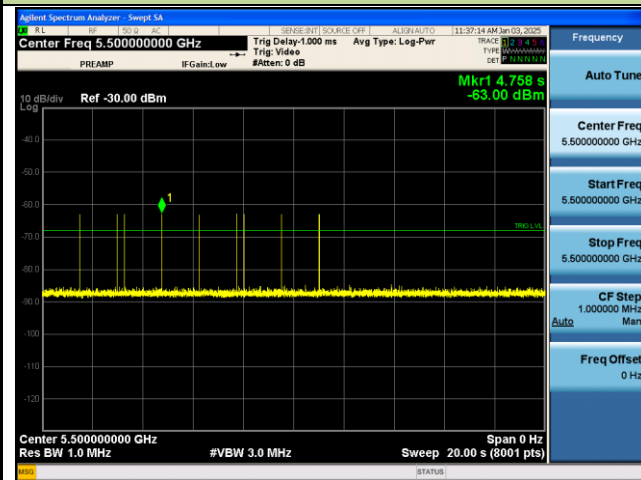
Radar #3



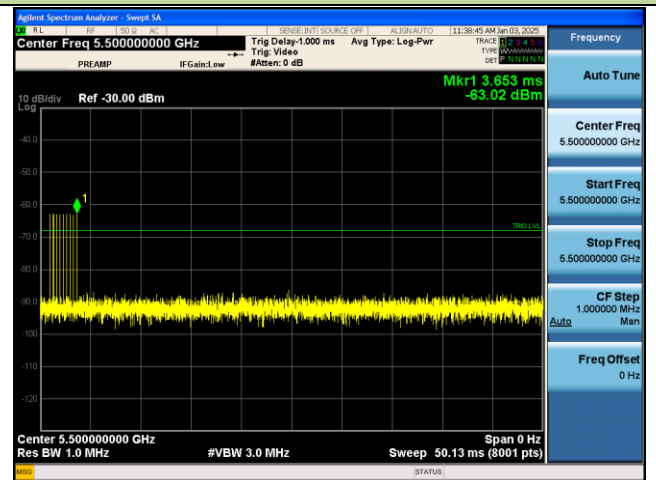
Radar #4



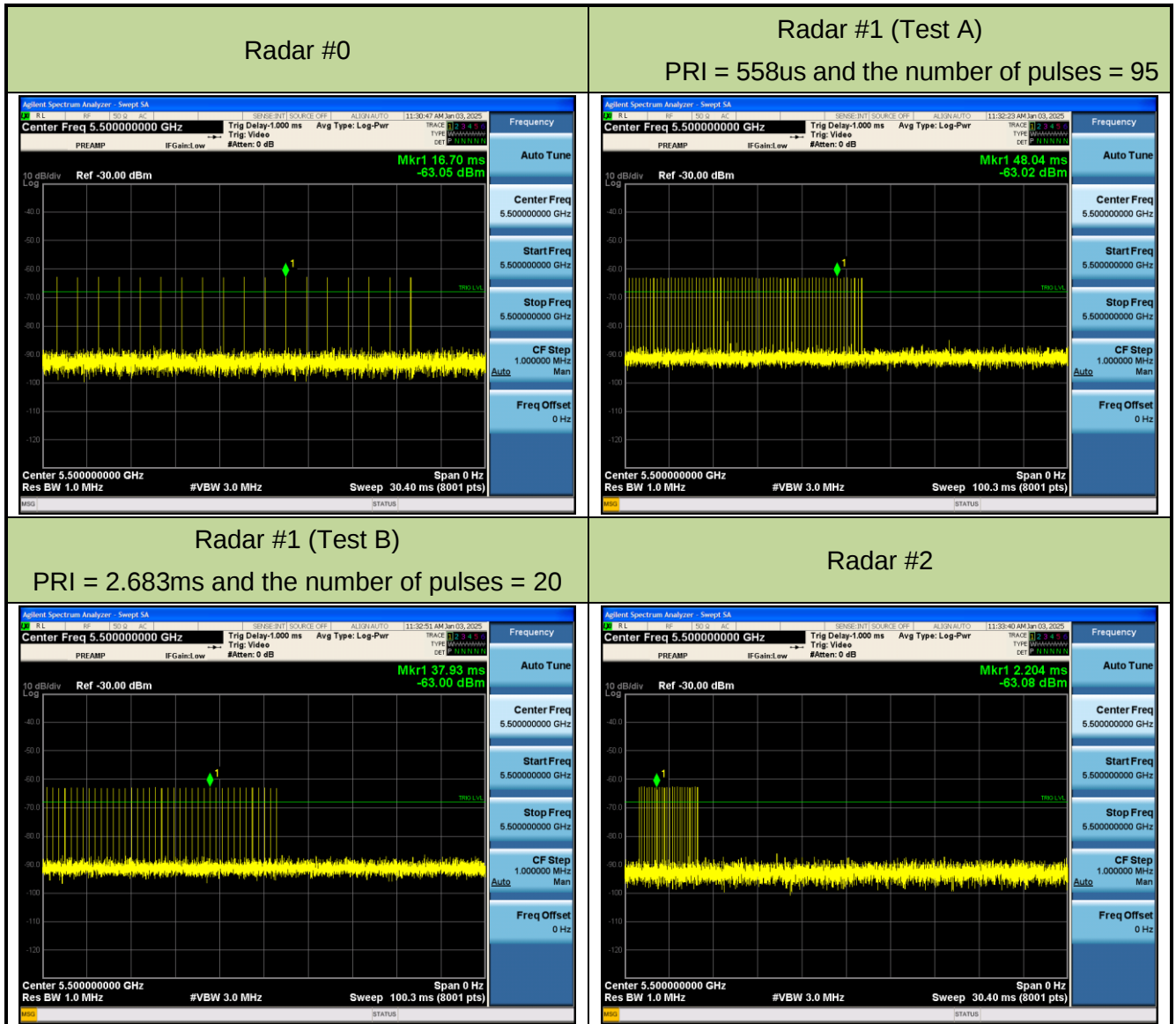
Radar #5



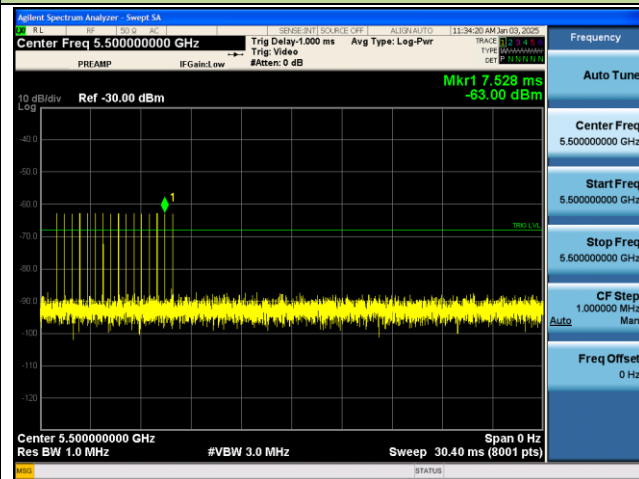
Radar #6



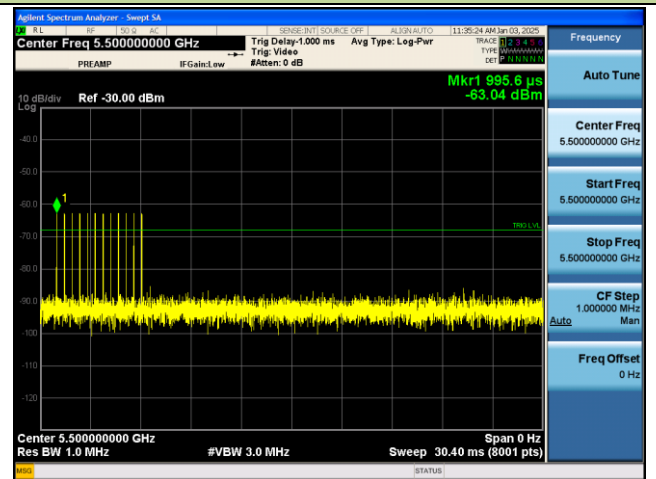
Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/3
Test Item	Radar Waveform Calibration-Extender		



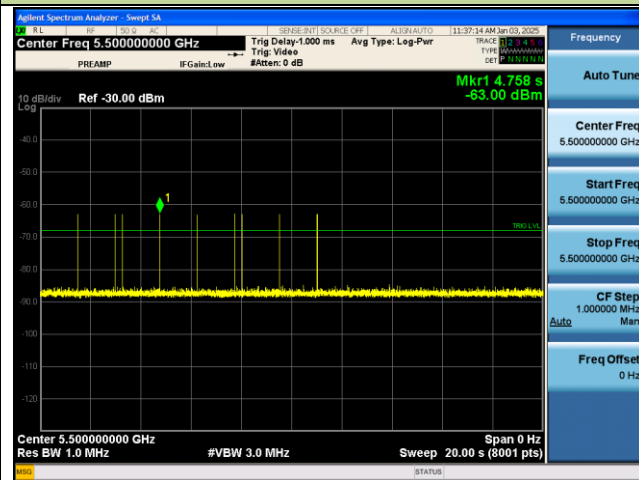
Radar #3



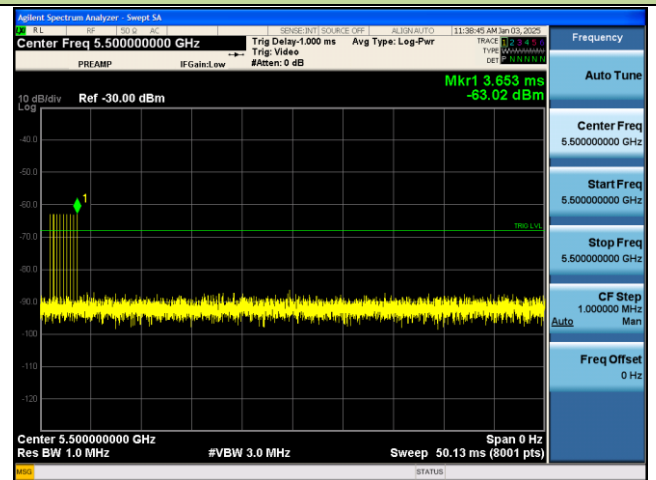
Radar #4



Radar #5

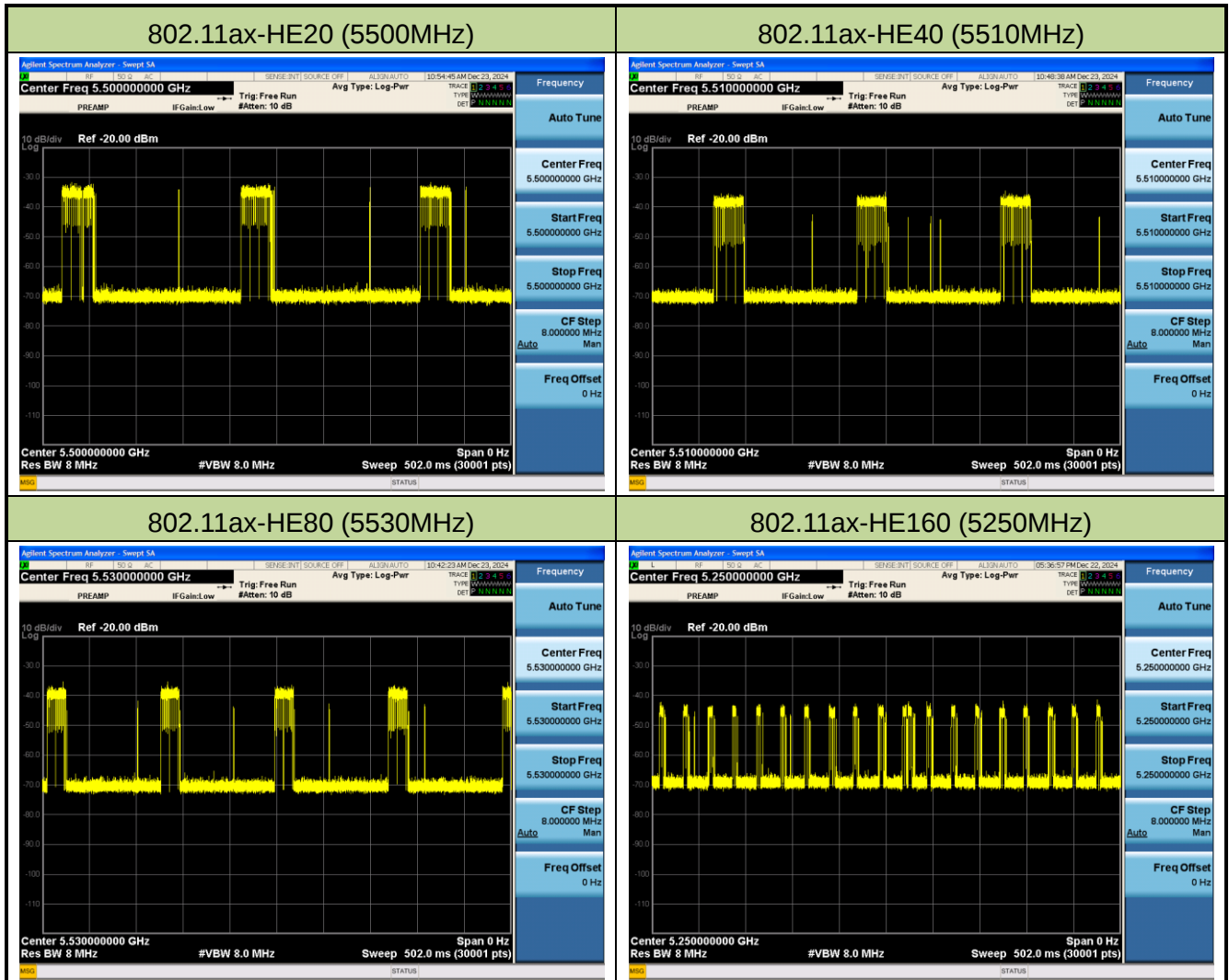


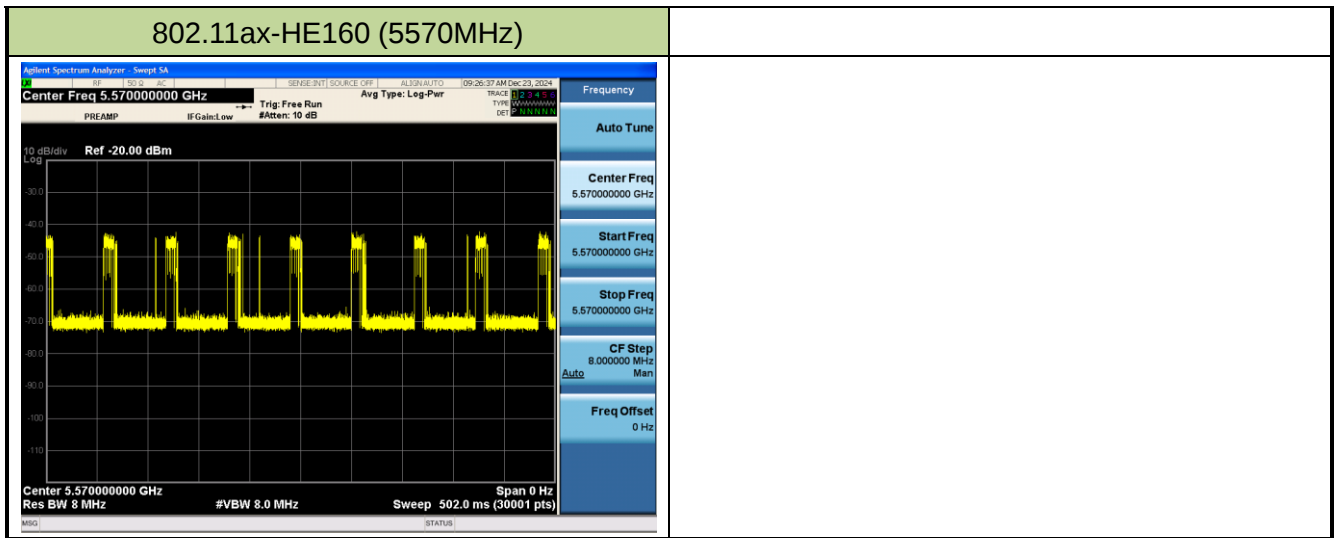
Radar #6



5.2.4. Channel Loading Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2024/12/22~2024/12/23
Test Item	Channel Loading-Master		

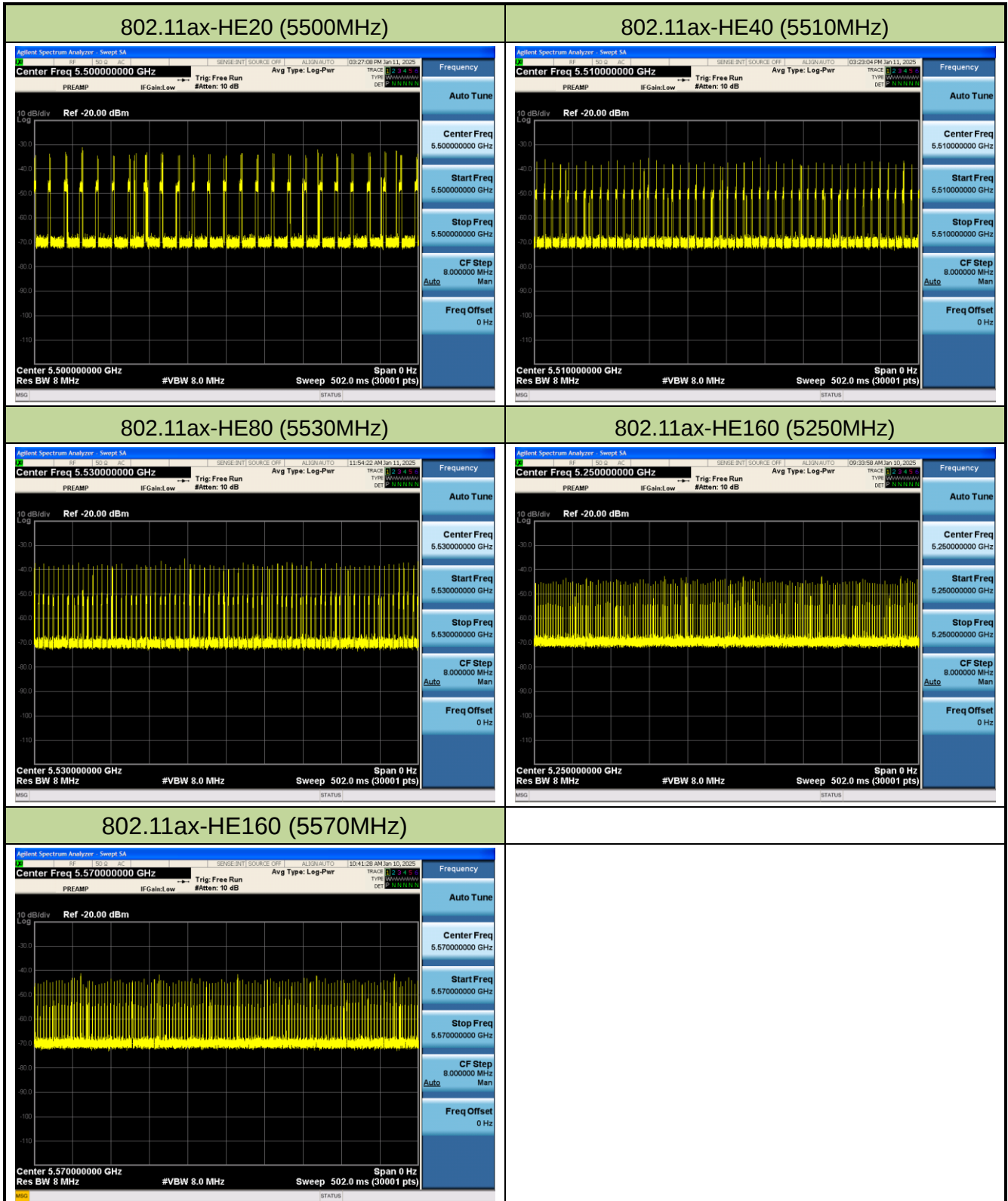




Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11ax-HE20	5500 MHz	19.6%	≥ 17%	Pass
802.11ax-HE40	5510 MHz	19.38%	≥ 17%	Pass
802.11ax-HE80	5530 MHz	18.3%	≥ 17%	Pass
802.11ax-HE160	5250 MHz	17.6%	≥ 17%	Pass
802.11ax-HE160	5570 MHz	18.2%	≥ 17%	Pass

Note: System testing was performed with the designated iperf test file. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On / (Time On + Off Time).

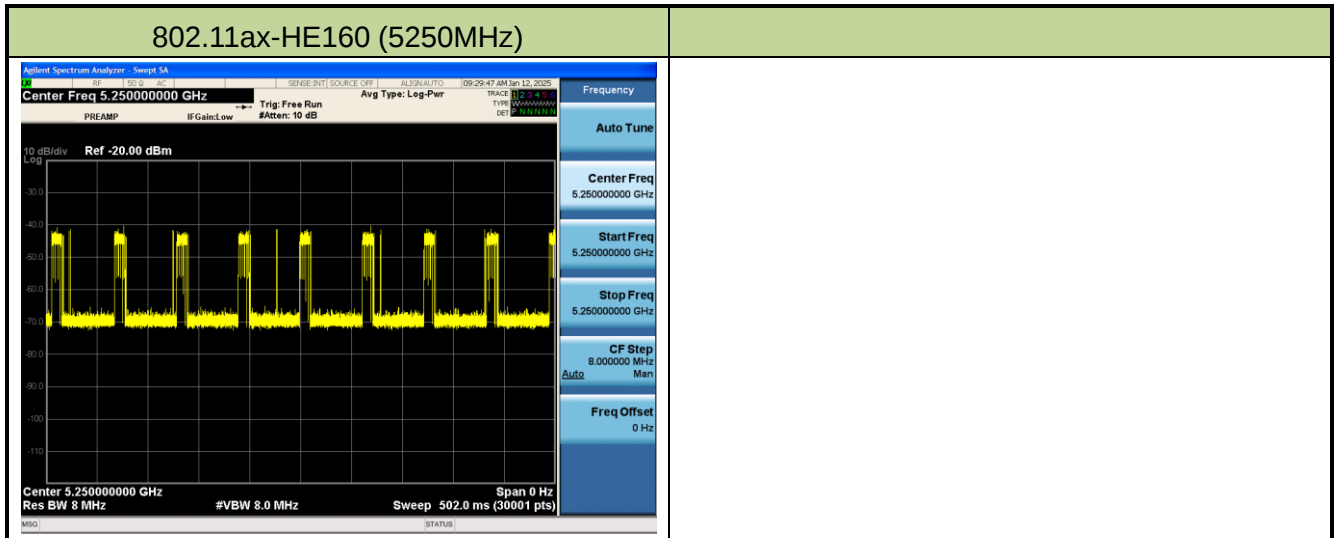
Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/10~2025/1/11
Test Item	Channel Loading-Slave with Radar Detection		



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11ax-HE20	5500 MHz	19.5%	$\geq 17\%$	Pass
802.11ax-HE40	5510 MHz	18.09%	$\geq 17\%$	Pass
802.11ax-HE80	5530 MHz	17.83%	$\geq 17\%$	Pass
802.11ax-HE160	5250 MHz	17.26%	$\geq 17\%$	Pass
802.11ax-HE160	5570 MHz	17.33%	$\geq 17\%$	Pass

Note: System testing was performed with the designated iperf test file. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On / (Time On + Off Time).

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/12
Test Item	Channel Loading-Extender		



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11ax-HE160	5250 MHz	18.13%	≥ 17%	Pass
Note: System testing was performed with the designated iperf test file. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On / (Time On + Off Time).				

5.3. UNII Detection Bandwidth Measurement

5.3.1. Test Limit

Minimum 100% of the UNII 99% transmission power bandwidth. During the U-NII Detection Bandwidth detection test, each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

5.3.2. Test Procedure

1. Adjust the equipment to produce a single Burst of any one of the Short Pulse Radar Types 0-4 in Table 3-5 at the center frequency of the EUT Operating Channel at the specified DFS Detection Threshold level.
2. The generating equipment is configured as shown in the Conducted Test Setup above section 3.5.
3. The EUT is set up as a stand-alone device (no associated Client or Master, as appropriate) and no traffic. Frame based systems will be set to a talk/listen ratio reflecting the worst case (maximum) that is user configurable during this test.
4. Generate a single radar Burst, and note the response of the EUT. Repeat for a minimum of 10 trials. The EUT must detect the Radar Waveform using the specified U-NII Detection Bandwidth criterion shown in Table 3-5. In cases where the channel bandwidth may exceed past the DFS band edge on specific channels (i.e., 802.11ac or wideband frame based systems) select a channel that has the entire emission bandwidth within the DFS band. If this is not possible, test the detection BW to the DFS band edge.
5. Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 3-3. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as FH) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance.
6. Starting at the center frequency of the EUT operating Channel, decrease the radar frequency in 1 MHz steps, repeating the above item 4 test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.
7. The U-NII Detection Bandwidth is calculated as follows: $\text{U-NII Detection Bandwidth} = \text{FH} - \text{FL}$
8. The U-NII Detection Bandwidth must be at least 100% of the EUT transmitter 99% power, otherwise, the EUT does not comply with DFS requirements.

5.3.3. Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Detection Bandwidth (802.11ax-HE20 mode - 5500MHz) -Master		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.25 FL	1	1	1	1	1	1	1	1	1	1	100%
5491	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509	1	1	1	1	1	1	1	1	1	1	100%
5509.75 FH	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 18.9MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509.75MHz – 5490.25MHz = 19.5MHz

Note 3: NII Detection Bandwidth Min. Limit (MHz): 18.9MHz x 100% = 18.9MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Detection Bandwidth (802.11ax-HE40 mode - 5510MHz) -Master		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.5 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	1	1	1	1	1	1	100%
5529.5 FH	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 37.525MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529.5MHz – 5490.5MHz = 39MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 37.525MHz x 100% = 37.525MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Detection Bandwidth (802.11ax-HE80 mode - 5530MHz) -Master		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.5 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5566	1	1	1	1	1	1	1	1	1	1	100%
5567	1	1	1	1	1	1	1	1	1	1	100%
5568	1	1	1	1	1	1	1	1	1	1	100%
5569.5 FH	1	1	1	1	1	1	1	1	1	1	100%
5570	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 76.753MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5569.5MHz – 5490.5MHz = 79MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 76.753MHz x 100% = 76.753MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Detection Bandwidth (802.11ax-HE160 mode - 5250MHz) -Master		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250 FL	1	1	1	1	1	1	1	1	1	1	100%
5251	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5250MHz. The 99% channel bandwidth is 154.8MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5329MHz - 5250MHz = 79MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): $154.8 \text{ MHz} \times 100\% / 2 = 77.4\text{MHz}$.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Detection Bandwidth (802.11ax-HE160 mode - 5570MHz)-Master		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5491 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5570	1	1	1	1	1	1	1	1	1	1	100%
5575	1	1	1	1	1	1	1	1	1	1	100%
5580	1	1	1	1	1	1	1	1	1	1	100%
5585	1	1	1	1	1	1	1	1	1	1	100%
5590	1	1	1	1	1	1	1	1	1	1	100%
5595	1	1	1	1	1	1	1	1	1	1	100%
5600	1	1	1	1	1	1	1	1	1	1	100%
5605	1	1	1	1	1	1	1	1	1	1	100%
5610	1	1	1	1	1	1	1	1	1	1	100%
5615	1	1	1	1	1	1	1	1	1	1	100%
5620	1	1	1	1	1	1	1	1	1	1	100%

5625	1	1	1	1	1	1	1	1	1	1	100%
5630	1	1	1	1	1	1	1	1	1	1	100%
5635	1	1	1	1	1	1	1	1	1	1	100%
5640	1	1	1	1	1	1	1	1	1	1	100%
5645	1	1	1	1	1	1	1	1	1	1	100%
5646	1	1	1	1	1	1	1	1	1	1	100%
5647	1	1	1	1	1	1	1	1	1	1	100%
5648	1	1	1	1	1	1	1	1	1	1	100%
5649 FH	1	1	1	1	1	1	1	1	1	1	100%
5650	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 155.13MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5649MHz - 5491MHz = 158MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 155.13MHz x 100% = 155.13MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/22
Test Item	Detection Bandwidth (802.11ax-HE20 mode - 5500MHz) -Slave		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.25 FL	1	1	1	1	1	1	1	1	1	1	100%
5491	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509	1	1	1	1	1	1	1	1	1	1	100%
5509.75 FH	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 18.9MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509.75MHz – 5490.25MHz = 19.5MHz

Note 3: NII Detection Bandwidth Min. Limit (MHz): 18.9MHz x 100% = 18.9MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/22
Test Item	Detection Bandwidth (802.11ax-HE40 mode - 5510MHz) -Slave		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.5 FL	1	1	1	1	1	1	1	0	1	1	90%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	0	1	1	1	1	1	90%
5529.5 FH	1	1	1	1	1	1	1	1	0	1	90%
5530	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 37.525MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529.5MHz – 5490.5MHz = 39MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 37.525MHz x 100% = 37.525MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/22
Test Item	Detection Bandwidth (802.11ax-HE80 mode - 5530MHz) -Slave		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.5 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5566	1	1	1	1	1	1	1	1	1	1	100%
5567	1	1	1	1	1	1	1	1	1	1	100%
5568	1	1	1	1	1	1	1	1	1	1	100%
5569.5 FH	1	1	1	1	1	1	1	1	1	1	100%
5570	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 76.753MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5569.5MHz – 5490.5MHz = 79MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 76.753MHz x 100% = 76.753MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/22
Test Item	Detection Bandwidth (802.11ax-HE160 mode - 5250MHz) -Slave		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250 FL	1	1	1	1	1	1	1	1	1	1	100%
5251	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5250MHz. The 99% channel bandwidth is 154.8MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5329MHz - 5250MHz = 79MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): $154.8 \text{ MHz} \times 100\% / 2 = 77.4\text{MHz}$.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/22
Test Item	Detection Bandwidth (802.11ax-HE160 mode - 5570MHz)-Slave		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5491 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5570	1	1	1	1	1	1	1	1	1	1	100%
5575	1	1	1	1	1	1	1	1	1	1	100%
5580	1	1	1	1	1	1	1	1	1	1	100%
5585	1	1	1	1	1	1	1	1	1	1	100%
5590	1	1	1	1	1	1	1	1	1	1	100%
5595	1	1	1	1	1	1	1	1	1	1	100%
5600	1	1	1	1	1	1	1	1	1	1	100%
5605	1	1	1	1	1	1	1	1	1	1	100%
5610	1	1	1	1	1	1	1	1	1	1	100%
5615	1	1	1	1	1	1	1	1	1	1	100%
5620	1	1	1	1	1	1	1	1	1	1	100%

5625	1	1	1	1	1	1	1	1	1	1	100%
5630	1	1	1	1	1	1	1	1	1	1	100%
5635	1	1	1	1	1	1	1	1	1	1	100%
5640	1	1	1	1	1	1	1	1	1	1	100%
5645	1	1	1	1	1	1	1	1	1	1	100%
5646	1	1	1	1	1	1	1	1	1	1	100%
5647	1	1	1	1	1	1	1	1	1	1	100%
5648	1	1	1	1	1	1	1	1	1	1	100%
5649 FH	1	1	1	1	1	1	1	1	1	1	100%
5650	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 155.13MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5649MHz - 5491MHz = 158MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 155.13MHz x 100% = 155.13MHz.

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/23
Test Item	Detection Bandwidth (802.11ax-HE40 mode - 5510MHz)-Extender		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	1	1	1	1	1	1	1	1	1	1	100%
5490.5 FL	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	1	1	1	1	1	1	100%
5529.5 FH	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 37.525MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529.5MHz – 5490.5MHz = 39MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 37.525MHz x 100% = 37.525MHz.

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

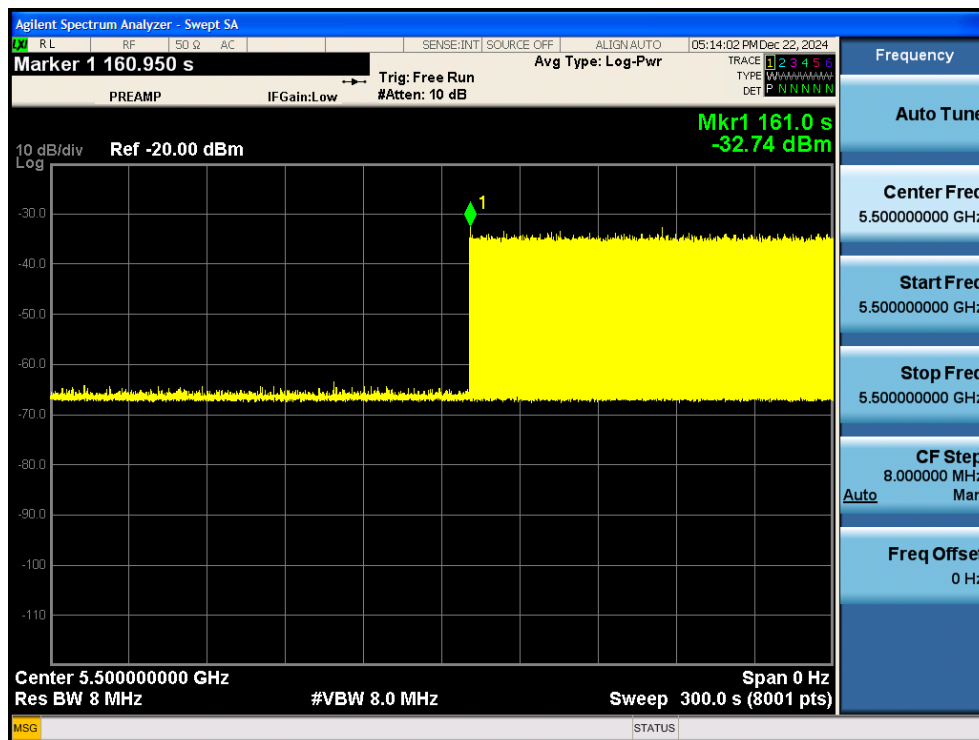
5.4.2. Test Procedure

1. The U-NII devices will be powered on and be instructed to operate on the appropriate U-NII Channel that must incorporate DFS functions. At the same time the EUT is powered on, the spectrum analyzer will be set to zero span mode with a 3 MHz RBW and 3 MHz VBW on the Channel occupied by the radar (Chr) with a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.
2. The EUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.
3. Confirm that the EUT initiates transmission on the channel. Measurement system showing its nominal noise floor is marker1.

5.4.3. Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/3
Test Item	Initial Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		

Initial Channel Availability Check Time



Note: The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (101.0 sec). Initial beacons/data transmissions are indicated by marker 1 (161.0 sec).

5.5. Radar Burst at the Beginning of the Channel Availability Check Time Measurement

5.5.1. Test Limit

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

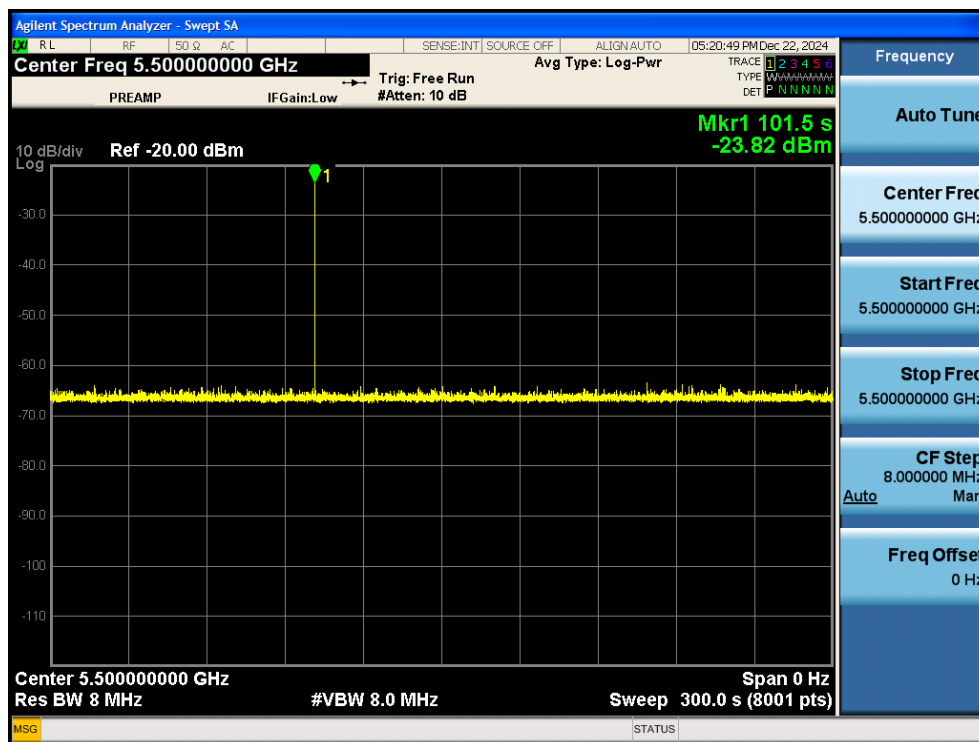
5.5.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is in completion power-up cycle (from T0 to T1). 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 one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

5.5.3. Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/3
Test Item	Beginning of the Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		

Beginning of the Channel Availability Check Time



5.6. Radar Burst at the End of the Channel Availability Check Time Measurement

5.6.1. Test Limit

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

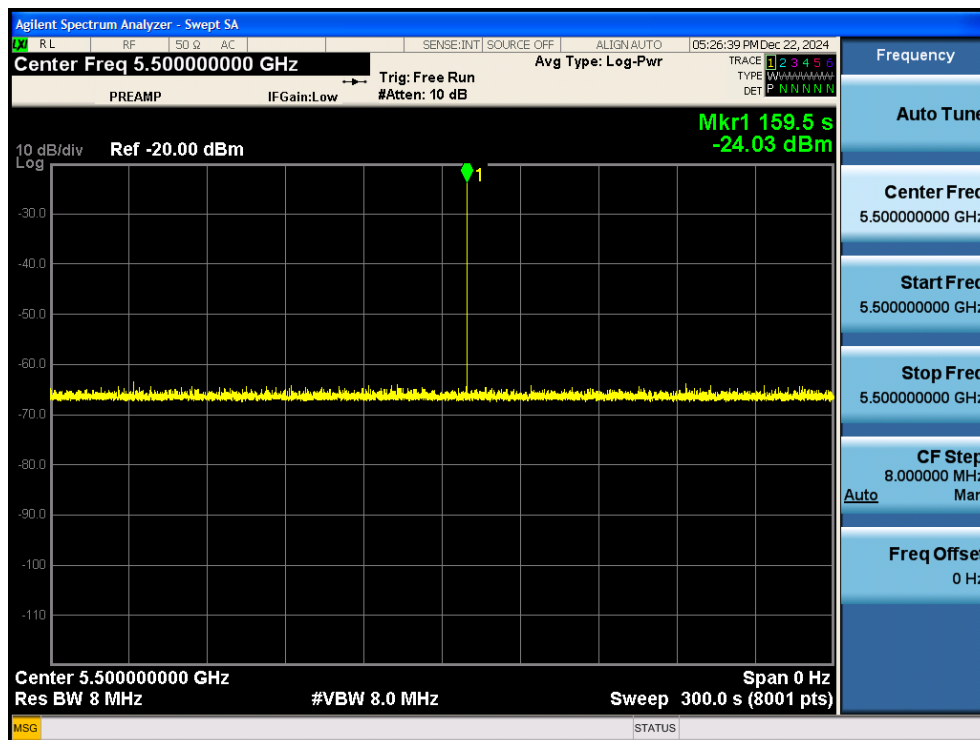
5.6.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. 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 one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at $T1 + 54$ seconds.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

5.6.3. Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/3
Test Item	End of the Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz)		

End of the Channel Availability Check Time



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

5.7.1. Test Limit

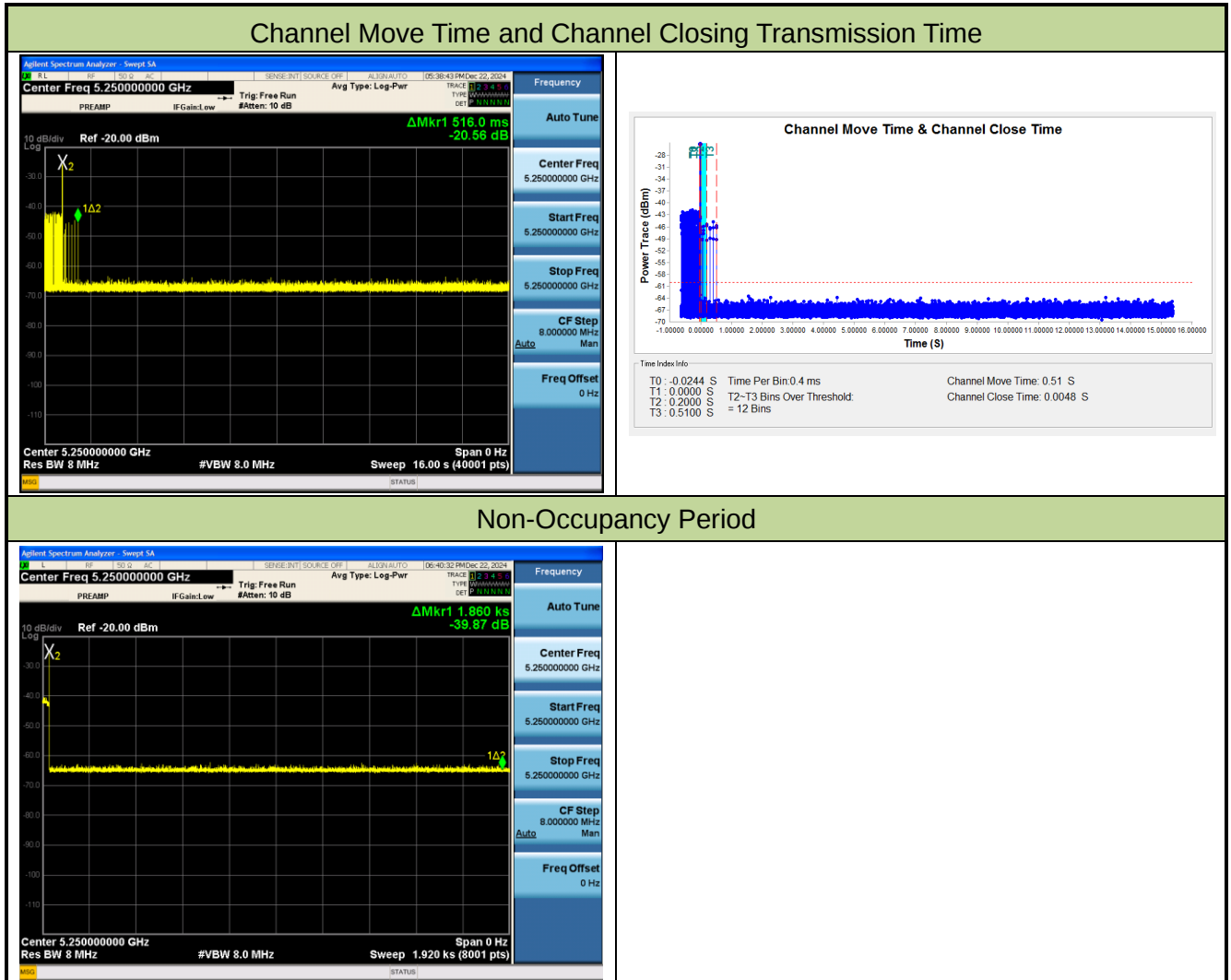
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. The total duration of Channel Closing Transmission Time is 260ms, consisting of data signals and the aggregate of control signals, by a U-NII device during the Channel Move Time. The Non-Occupancy Period time is 30 minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel.

5.7.2. Test Procedure Used

1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (1.5ms) = S (12 \text{ sec}) / B (8000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C = N \times Dwell$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and Dwell is the dwell time per bin.
5. Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

5.7.3. Test Result

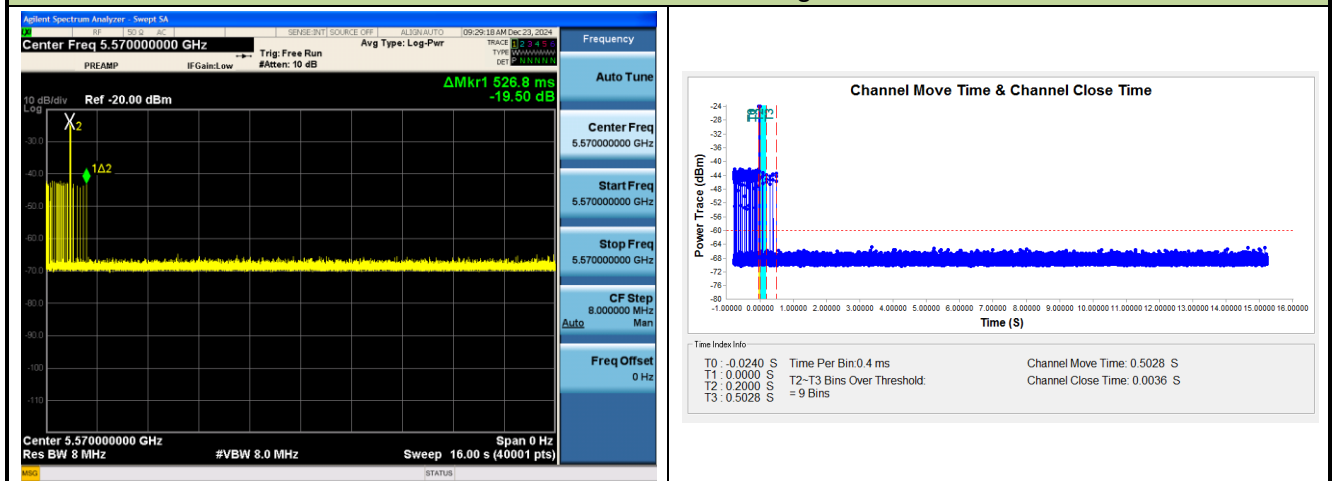
Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/2~2025/1/3
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE160 mode - 5250MHz)-Master		



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.51s	<10s
Channel Closing Transmission Time (ms) (Note)	4.8ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.		

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/2~2025/1/3
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE160 mode - 5570MHz)-Master		

Channel Move Time and Channel Closing Transmission Time

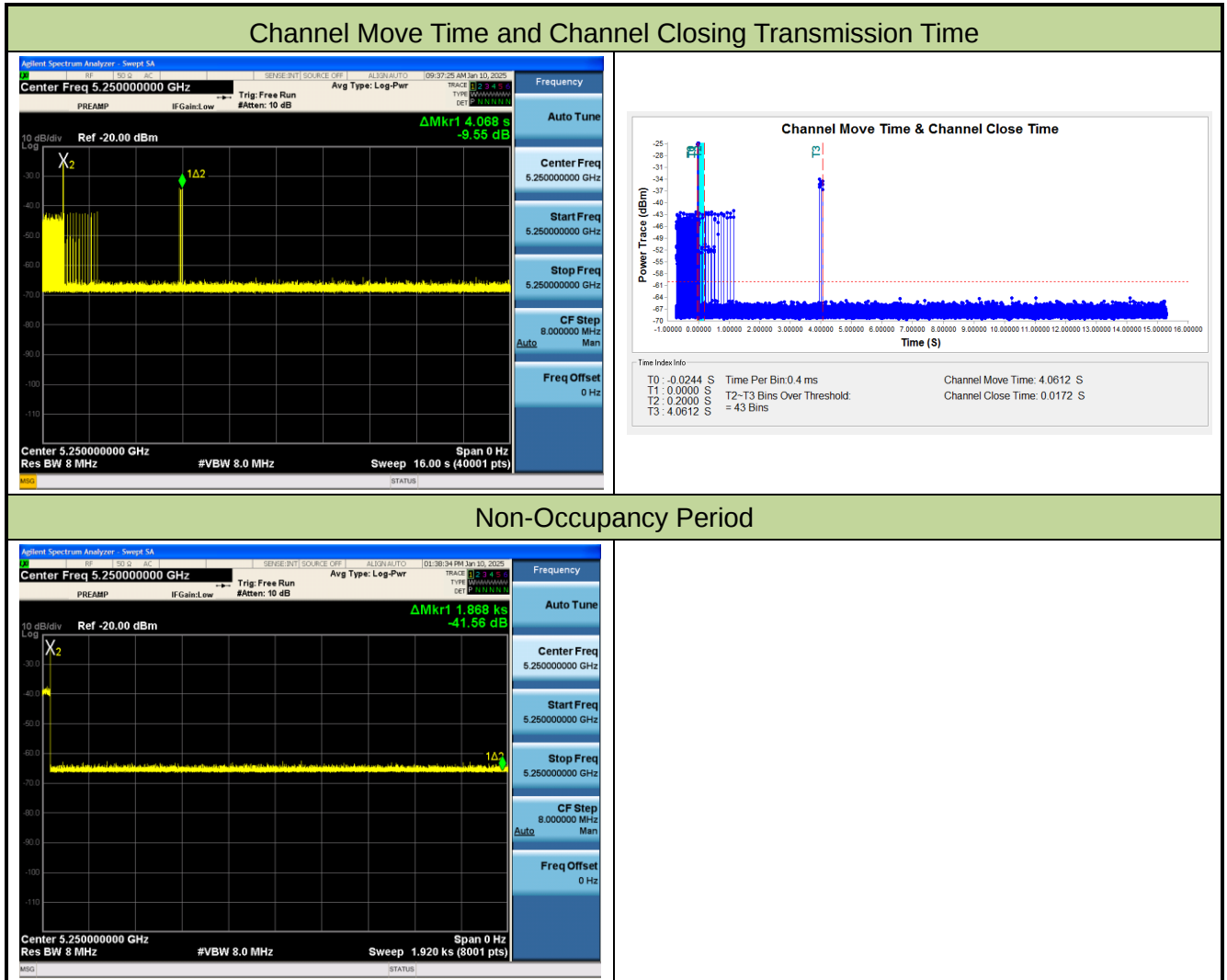


Non-Occupancy Period



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.5028s	<10s
Channel Closing Transmission Time (ms) (Note)	3.6ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.		

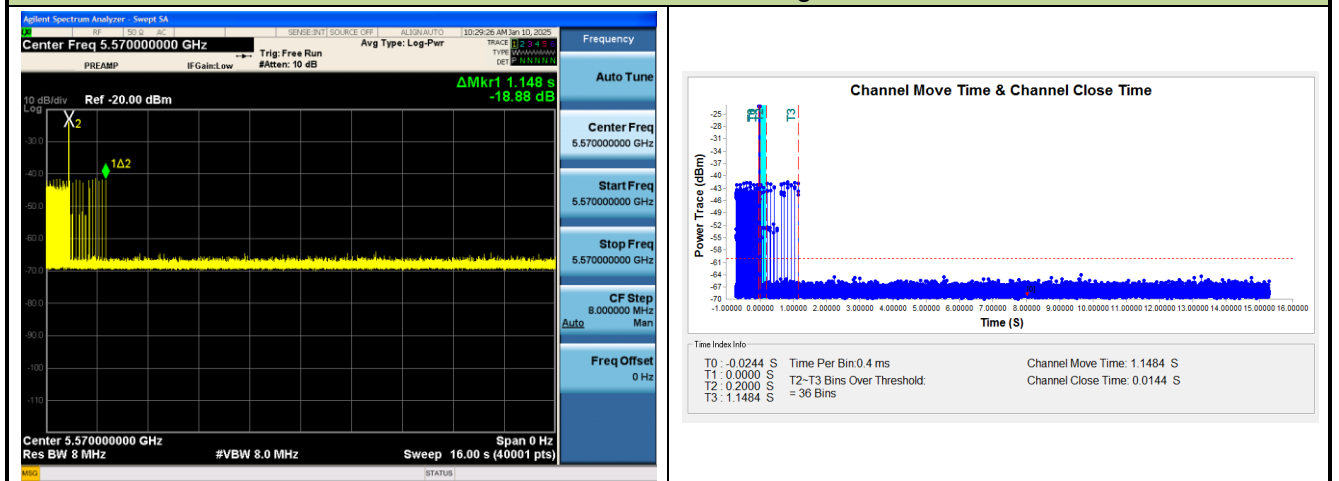
Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/21
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE160 mode - 5250MHz)-Slave with Radar Detection		



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	4.0612s	<10s
Channel Closing Transmission Time (ms) (Note)	17.2ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.		

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	27°C
Test Engineer	Peter	Relative Humidity	65%
Test Site	SR5	Test Date	2025/1/21
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE160 mode - 5570MHz)		

Channel Move Time and Channel Closing Transmission Time



Non-Occupancy Period



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	1.1484s	<10s
Channel Closing Transmission Time (ms) (Note)	14.4ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.		

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

The minimum percentage of successful detection requirements found in below table when a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device (In- Service Monitoring).

Radar Type	Minimum Number of Trails	Detection Probability
0	30	Pd > 60%
1	30(15 of test A and 15 of test B)	Pd > 60%
2	30	Pd > 60%
3	30	Pd > 60%
4	30	Pd > 60%
Aggregate (Radar Types 1-4)	120	Pd > 80%
5	30	Pd > 80%
6	30	Pd > 70%

The percentage of successful detection is calculated by:

$(\text{Total Waveform Detections} / \text{Total Waveform Trails}) * 100 = \text{Probability of Detection Radar Waveform}$
In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows: $(Pd1 + Pd2 + Pd3 + Pd4) / 4$.

5.8.2. Test Procedure

1. Stream the MPEG test file from the Master Device to the Client Device on the test Channel for the entire period of the test.
2. At time T0 the Radar Waveform generator sends the individual waveform for each of the Radar Types 1-6, at levels equal to the DFS Detection Threshold + 1dB, on the Operating Channel.
3. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 0 to ensure detection occurs.
4. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.
5. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.
6. The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in below table.

5.8.3. Test Result

Product	AX3000 Wi-Fi 6 Range Extender	Temperature	24°C
Test Engineer	Jay	Relative Humidity	55%
Test Site	SR5	Test Date	2025/01/07
Test Item	Radar Statistical Performance Check (802.11ax-HE20 – 5500MHz)-Master		

Radar Type 1-4 - Radar Statistical Performance

Trial	Frequency	1=Detection, 0=No Detection			
	(MHz)	Radar Type 1	Radar Type 2	Radar Type 3	Radar Type 4
0	5490	1	1	1	1
1	5490	1	1	0	1
2	5491	1	1	1	1
3	5491	0	1	0	1
4	5492	1	0	1	1
5	5492	1	1	1	1
6	5493	1	1	1	0
7	5493	1	1	1	1
8	5494	1	1	0	1
9	5494	1	1	0	1
10	5495	1	1	0	1
11	5496	1	1	0	1
12	5497	1	1	1	1
13	5498	1	1	1	1
14	5499	1	0	1	1
15	5500	1	0	1	1
16	5501	1	0	1	1
17	5502	1	1	1	1
18	5503	1	1	1	0
19	5504	1	1	1	1
20	5505	1	1	0	0
21	5506	1	1	1	0
22	5507	1	1	1	0
23	5507	1	0	1	0
24	5508	0	1	1	1
25	5508	1	0	0	1
26	5509	1	1	1	1

Trial	Frequency	1=Detection, 0=No Detection			
	(MHz)	Radar Type 1	Radar Type 2	Radar Type 3	Radar Type 4
27	5509	1	1	1	1
28	5510	1	1	0	1
29	5510	1	0	1	1
Probability:		93.33%	76.66%	70.00%	80.00%
Type1-4		80% (>80%)			

Radar Type 1 - Radar Waveform

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 1	1.0	798.0	67	53466.0
Download	1	Type 1	1.0	818.0	65	53170.0
Download	2	Type 1	1.0	578.0	92	53176.0
Download	3	Type 1	1.0	718.0	74	53132.0
Download	4	Type 1	1.0	938.0	57	53466.0
Download	5	Type 1	1.0	638.0	83	52954.0
Download	6	Type 1	1.0	538.0	99	53262.0
Download	7	Type 1	1.0	658.0	81	53298.0
Download	8	Type 1	1.0	518.0	102	52836.0
Download	9	Type 1	1.0	878.0	61	53558.0
Download	10	Type 1	1.0	918.0	58	53244.0
Download	11	Type 1	1.0	3066.0	18	55188.0
Download	12	Type 1	1.0	678.0	78	52884.0
Download	13	Type 1	1.0	598.0	89	53222.0
Download	14	Type 1	1.0	618.0	86	53148.0
Download	15	Type 1	1.0	900.0	59	53100.0
Download	16	Type 1	1.0	977.0	55	53735.0
Download	17	Type 1	1.0	1598.0	34	54332.0
Download	18	Type 1	1.0	1369.0	39	53391.0
Download	19	Type 1	1.0	847.0	63	53361.0
Download	20	Type 1	1.0	2496.0	22	54912.0
Download	21	Type 1	1.0	1889.0	28	52892.0
Download	22	Type 1	1.0	2877.0	19	54663.0
Download	23	Type 1	1.0	1559.0	34	53006.0
Download	24	Type 1	1.0	1965.0	27	53055.0
Download	25	Type 1	1.0	2895.0	19	55005.0
Download	26	Type 1	1.0	1722.0	31	53382.0
Download	27	Type 1	1.0	1271.0	42	53382.0
Download	28	Type 1	1.0	1237.0	43	53191.0
Download	29	Type 1	1.0	1934.0	28	54152.0

Radar Type 2 - Radar Waveform

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 2	1.7	174.0	24	4176.0
Download	1	Type 2	3.8	176.0	27	4752.0
Download	2	Type 2	4.0	161.0	28	4508.0
Download	3	Type 2	4.3	226.0	28	6328.0
Download	4	Type 2	1.9	193.0	24	4632.0
Download	5	Type 2	1.1	230.0	23	5290.0
Download	6	Type 2	4.5	198.0	29	5742.0
Download	7	Type 2	2.9	227.0	26	5902.0
Download	8	Type 2	2.8	171.0	26	4446.0
Download	9	Type 2	3.6	221.0	27	5967.0
Download	10	Type 2	1.1	180.0	23	4140.0
Download	11	Type 2	1.3	189.0	23	4347.0
Download	12	Type 2	2.5	204.0	25	5100.0
Download	13	Type 2	4.5	203.0	29	5887.0
Download	14	Type 2	5.0	170.0	29	4930.0
Download	15	Type 2	3.1	201.0	26	5226.0
Download	16	Type 2	2.1	218.0	24	5232.0
Download	17	Type 2	2.6	208.0	25	5200.0
Download	18	Type 2	1.8	223.0	24	5352.0
Download	19	Type 2	1.2	220.0	23	5060.0
Download	20	Type 2	2.9	224.0	26	5824.0
Download	21	Type 2	4.0	160.0	28	4480.0
Download	22	Type 2	2.5	209.0	25	5225.0
Download	23	Type 2	1.0	205.0	23	4715.0
Download	24	Type 2	3.7	151.0	27	4077.0
Download	25	Type 2	2.5	186.0	25	4650.0
Download	26	Type 2	1.5	190.0	23	4370.0
Download	27	Type 2	1.3	185.0	23	4255.0
Download	28	Type 2	1.2	175.0	23	4025.0
Download	29	Type 2	1.7	216.0	24	5184.0

Radar Type 3 - Radar Waveform

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 3	6.7	467.0	16	7472.0
Download	1	Type 3	8.8	304.0	18	5472.0
Download	2	Type 3	9.0	316.0	18	5688.0
Download	3	Type 3	9.3	439.0	18	7902.0
Download	4	Type 3	6.9	420.0	16	6720.0
Download	5	Type 3	6.1	249.0	16	3984.0
Download	6	Type 3	9.5	463.0	18	8334.0
Download	7	Type 3	7.9	258.0	17	4386.0
Download	8	Type 3	7.8	212.0	17	3604.0
Download	9	Type 3	8.6	236.0	17	4012.0
Download	10	Type 3	6.1	474.0	16	7584.0
Download	11	Type 3	6.3	461.0	16	7376.0
Download	12	Type 3	7.5	437.0	17	7429.0
Download	13	Type 3	9.5	287.0	18	5166.0
Download	14	Type 3	10.0	395.0	18	7110.0
Download	15	Type 3	8.1	322.0	17	5474.0
Download	16	Type 3	7.1	468.0	16	7488.0
Download	17	Type 3	7.6	255.0	17	4335.0
Download	18	Type 3	6.8	423.0	16	6768.0
Download	19	Type 3	6.2	456.0	16	7296.0
Download	20	Type 3	7.9	351.0	17	5967.0
Download	21	Type 3	9.0	411.0	18	7398.0
Download	22	Type 3	7.5	279.0	17	4743.0
Download	23	Type 3	6.0	431.0	16	6896.0
Download	24	Type 3	8.7	324.0	17	5508.0
Download	25	Type 3	7.5	419.0	17	7123.0
Download	26	Type 3	6.5	447.0	16	7152.0
Download	27	Type 3	6.3	481.0	16	7696.0
Download	28	Type 3	6.2	438.0	16	7008.0
Download	29	Type 3	6.7	270.0	16	4320.0

Radar Type 4 - Radar Waveform

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 4	12.5	467.0	12	5604.0
Download	1	Type 4	17.2	304.0	15	4560.0
Download	2	Type 4	17.8	316.0	15	4740.0
Download	3	Type 4	18.5	439.0	16	7024.0
Download	4	Type 4	13.1	420.0	13	5460.0
Download	5	Type 4	11.3	249.0	12	2988.0
Download	6	Type 4	18.8	463.0	16	7408.0
Download	7	Type 4	15.3	258.0	14	3612.0
Download	8	Type 4	15.1	212.0	14	2968.0
Download	9	Type 4	16.9	236.0	15	3540.0
Download	10	Type 4	11.2	474.0	12	5688.0
Download	11	Type 4	11.7	461.0	12	5532.0
Download	12	Type 4	14.4	437.0	13	5681.0
Download	13	Type 4	18.9	287.0	16	4592.0
Download	14	Type 4	19.9	395.0	16	6320.0
Download	15	Type 4	15.7	322.0	14	4508.0
Download	16	Type 4	13.4	468.0	13	6084.0
Download	17	Type 4	14.5	255.0	13	3315.0
Download	18	Type 4	12.9	423.0	13	5499.0
Download	19	Type 4	11.5	456.0	12	5472.0
Download	20	Type 4	15.3	351.0	14	4914.0
Download	21	Type 4	17.8	411.0	15	6165.0
Download	22	Type 4	14.3	279.0	13	3627.0
Download	23	Type 4	11.1	431.0	12	5172.0
Download	24	Type 4	17.0	324.0	15	4860.0
Download	25	Type 4	14.5	419.0	13	5447.0
Download	26	Type 4	12.1	447.0	12	5364.0
Download	27	Type 4	11.7	481.0	12	5772.0
Download	28	Type 4	11.6	438.0	12	5256.0
Download	29	Type 4	12.7	270.0	12	3240.0

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
0	5493.05	1	15	5500	1
1	5496.25	1	16	5500	1
2	5496.65	1	17	5500	1
3	5497.45	1	18	5500	1
4	5493.45	1	19	5500	1
5	5492.25	1	20	5504.95	1
6	5497.45	1	21	5502.95	1
7	5495.05	1	22	5505.75	1
8	5495.05	1	23	5507.75	1
9	5496.25	1	24	5503.75	1
10	5500	1	25	5505.35	1
11	5500	1	26	5506.95	1
12	5500	1	27	5507.35	1
13	5500	1	28	5507.35	1
14	5500	1	29	5506.55	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_0							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	500001.0	58.7	7	1	1765.0	-	-
1	788858.0	84.3	7	3	1452.0	1398.0	1571.0
2	107934...	87.4	7	3	1358.0	1377.0	1111.0
3	173235.0	91.4	7	3	1554.0	1036.0	1662.0
4	464181.0	61.8	7	1	1828.0	-	-
5	754905.0	51.8	7	1	1621.0	-	-
6	104321...	93.4	7	3	1063.0	1317.0	1923.0
7	137661.0	73.8	7	2	1804.0	1156.0	-
8	427962.0	72.6	7	2	1935.0	1079.0	-
9	718561.0	82.5	7	2	1049.0	1478.0	-

Type 5 Radar Waveform_1

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	630504.0	51.3	15	1	1713.0	-	-
1	63719.0	54.0	15	1	1485.0	-	-
2	244829.0	69.1	15	2	1043.0	1750.0	-
3	424983.0	93.8	15	3	1665.0	1844.0	1155.0
4	605585.0	99.1	15	3	1505.0	1825.0	1538.0
5	41253.0	76.0	15	2	1866.0	1508.0	-
6	222776.0	63.5	15	1	1889.0	-	-
7	403831.0	69.8	15	2	1024.0	1578.0	-
8	586300.0	60.9	15	1	1067.0	-	-
9	19004.0	52.9	15	1	1162.0	-	-
10	200185.0	73.7	15	2	1211.0	1581.0	-
11	380411.0	87.8	15	3	1516.0	1753.0	1473.0
12	562652.0	68.6	15	2	1029.0	1730.0	-
13	744707.0	50.9	15	1	1930.0	-	-
14	177818.0	83.0	15	2	1675.0	1303.0	-
15	359125.0	69.5	15	2	1296.0	1410.0	-

Type 5 Radar Waveform_2

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	509264.0	56.4	16	1	1603.0	-	-
1	680130.0	53.9	16	1	1545.0	-	-
2	146533.0	53.5	16	1	1943.0	-	-
3	317593.0	59.4	16	1	1206.0	-	-
4	487066.0	78.5	16	2	1305.0	1969.0	-
5	655737.0	86.1	16	3	1355.0	1823.0	1948.0
6	125182.0	67.0	16	2	1788.0	1958.0	-
7	296065.0	74.5	16	2	1213.0	1124.0	-
8	466535.0	81.3	16	2	1215.0	1366.0	-
9	636980.0	81.5	16	2	1429.0	1293.0	-
10	104267.0	79.9	16	2	1345.0	1990.0	-
11	275181.0	50.5	16	1	1996.0	-	-
12	444173.0	88.4	16	3	1871.0	1121.0	1723.0
13	616638.0	65.7	16	1	1964.0	-	-
14	83142.0	93.0	16	3	1962.0	1265.0	1267.0
15	254505.0	63.6	16	1	1020.0	-	-
16	424165.0	78.1	16	2	1737.0	1422.0	-

Type 5 Radar Waveform_3							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	561917.0	76.8	18	2	1105.0	1462.0	-
1	58856.0	72.6	18	2	1668.0	1188.0	-
2	219757.0	70.4	18	2	1321.0	1820.0	-
3	381519.0	57.0	18	1	1683.0	-	-
4	539847.0	88.6	18	3	1721.0	1611.0	1967.0
5	39100.0	55.0	18	1	1594.0	-	-
6	199396.0	93.3	18	3	1624.0	1678.0	1625.0
7	360062.0	86.7	18	3	1720.0	1540.0	1349.0
8	520177.0	86.7	18	3	1816.0	1617.0	1754.0
9	19237.0	57.7	18	1	1382.0	-	-
10	180157.0	78.1	18	2	1561.0	1416.0	-
11	341761.0	59.9	18	1	1734.0	-	-
12	502148.0	71.0	18	2	1677.0	1220.0	-
13	664532.0	65.7	18	1	1497.0	-	-
14	160058.0	86.4	18	3	1957.0	1088.0	1054.0
15	322202.0	58.3	18	1	1104.0	-	-
16	481097.0	92.3	18	3	1589.0	1800.0	1189.0
17	641560.0	95.4	18	3	1147.0	1801.0	1748.0

Type 5 Radar Waveform_4

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	230026.0	89.4	8	3	1574.0	1736.0	1023.0
1	494090.0	70.2	8	2	1655.0	1500.0	-
2	759097.0	63.2	8	1	1445.0	-	-
3	102365...	53.9	8	1	1098.0	-	-
4	198005.0	65.2	8	1	1918.0	-	-
5	461089.0	87.1	8	3	1453.0	1658.0	1236.0
6	724508.0	94.6	8	3	1896.0	1154.0	1456.0
7	990596.0	62.4	8	1	1646.0	-	-
8	165301.0	67.6	8	2	1600.0	1439.0	-
9	428206.0	96.2	8	3	1629.0	1909.0	1879.0
10	693781.0	62.9	8	1	1793.0	-	-

Type 5 Radar Waveform_5

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	131669...	81.4	5	2	1413.0	1565.0	-
1	182514.0	95.3	5	3	1774.0	1131.0	1995.0
2	546487.0	60.0	5	1	1160.0	-	-
3	909540.0	60.1	5	1	1922.0	-	-
4	127359...	59.6	5	1	1069.0	-	-
5	137882.0	91.8	5	3	1259.0	1810.0	1477.0
6	501010.0	78.4	5	2	1763.0	1487.0	-
7	865247.0	62.6	5	1	1122.0	-	-

Type 5 Radar Waveform_6							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	516946.0	62.4	18	1	1000.0	-	-
1	39179.0	67.9	18	2	1925.0	1039.0	-
2	191187.0	99.0	18	3	1890.0	1228.0	1326.0
3	345057.0	60.3	18	1	1210.0	-	-
4	496341.0	72.7	18	2	1688.0	1548.0	-
5	20344.0	91.9	18	3	1988.0	1503.0	1201.0
6	172985.0	78.3	18	2	1309.0	1198.0	-
7	324992.0	88.9	18	3	1080.0	1399.0	1115.0
8	479203.0	64.5	18	1	1087.0	-	-
9	1625.0	60.3	18	1	1133.0	-	-
10	154419.0	65.8	18	1	1579.0	-	-
11	305517.0	93.5	18	3	1619.0	1682.0	1758.0
12	457252.0	92.2	18	3	1533.0	1842.0	1979.0
13	609099.0	96.2	18	3	1672.0	1744.0	1971.0
14	135269.0	70.3	18	2	1414.0	1692.0	-
15	288335.0	53.5	18	1	1706.0	-	-
16	439137.0	93.4	18	3	1870.0	1242.0	1395.0
17	594115.0	64.9	18	1	1438.0	-	-
18	116504.0	72.9	18	2	1239.0	1817.0	-

Type 5 Radar Waveform_7

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	366038.0	57.3	12	1	1698.0	-	-
1	572552.0	83.3	12	2	1700.0	1427.0	-
2	780751.0	62.5	12	1	1952.0	-	-
3	132806.0	76.1	12	2	1612.0	1397.0	-
4	339391.0	87.5	12	3	1139.0	1901.0	1400.0
5	545977.0	97.1	12	3	1352.0	1798.0	1636.0
6	754249.0	73.8	12	2	1496.0	1536.0	-
7	107497.0	55.2	12	1	1357.0	-	-
8	314885.0	62.5	12	1	1811.0	-	-
9	521546.0	68.1	12	2	1251.0	1843.0	-
10	727998.0	99.9	12	3	1819.0	1057.0	1017.0
11	81932.0	61.3	12	1	1342.0	-	-
12	288728.0	73.9	12	2	1725.0	1872.0	-
13	496814.0	58.0	12	1	1747.0	-	-

Type 5 Radar Waveform_8

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	755599.0	95.8	12	3	1465.0	1975.0	1904.0
1	60603.0	79.9	12	2	1764.0	1174.0	-
2	283803.0	77.4	12	2	1235.0	1584.0	-
3	506280.0	90.4	12	3	1114.0	1974.0	1027.0
4	731529.0	59.9	12	1	1126.0	-	-
5	33037.0	90.5	12	3	1275.0	1985.0	1845.0
6	256800.0	62.0	12	1	1062.0	-	-
7	478398.0	87.0	12	3	1463.0	1587.0	1887.0
8	701468.0	98.3	12	3	1586.0	1187.0	1651.0
9	5625.0	80.1	12	2	1277.0	1881.0	-
10	229189.0	52.1	12	1	1330.0	-	-
11	452740.0	51.7	12	1	1333.0	-	-
12	675900.0	52.7	12	1	1867.0	-	-

Type 5 Radar Waveform_9

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	728602.0	70.7	15	2	1934.0	1731.0	-
1	163064.0	85.3	15	3	1179.0	1751.0	1711.0
2	344919.0	75.0	15	2	1034.0	1261.0	-
3	526501.0	56.4	15	1	1954.0	-	-
4	707567.0	66.7	15	2	1243.0	1090.0	-
5	140840.0	94.8	15	3	1224.0	1970.0	1214.0
6	322286.0	68.8	15	2	1701.0	1280.0	-
7	503381.0	71.0	15	2	1563.0	1537.0	-
8	684698.0	79.4	15	2	1525.0	1389.0	-
9	118479.0	100.0	15	3	1717.0	1498.0	1740.0
10	299495.0	91.9	15	3	1295.0	1037.0	1829.0
11	481809.0	61.5	15	1	1949.0	-	-
12	663548.0	63.2	15	1	1596.0	-	-
13	96313.0	99.0	15	3	1254.0	1919.0	1073.0
14	277029.0	86.6	15	3	1606.0	1849.0	1202.0
15	459655.0	65.8	15	1	1635.0	-	-

Type 5 Radar Waveform_10

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	128199...	70.7	5	2	1897.0	1749.0	-
1	148716.0	64.6	5	1	1965.0	-	-
2	511400.0	99.0	5	3	1012.0	1045.0	1772.0
3	873819.0	91.9	5	3	1583.0	1466.0	1549.0
4	123645...	85.5	5	3	1420.0	1780.0	1459.0
5	103733.0	96.5	5	3	1530.0	1924.0	1835.0
6	467414.0	66.2	5	1	1550.0	-	-
7	828841.0	92.9	5	3	1929.0	1335.0	1883.0

Type 5 Radar Waveform_11

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	106135...	63.1	6	1	1642.0	-	-
1	52533.0	83.5	6	3	1005.0	1981.0	1250.0
2	375121.0	74.5	6	2	1914.0	1474.0	-
3	698701.0	60.9	6	1	1430.0	-	-
4	102035...	70.4	6	2	1680.0	1542.0	-
5	12834.0	85.1	6	3	1048.0	1127.0	1393.0
6	335516.0	82.4	6	2	1605.0	1282.0	-
7	658234.0	74.0	6	2	1108.0	1691.0	-
8	979549.0	85.7	6	3	1486.0	1976.0	1212.0

Type 5 Radar Waveform_12

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	975763.0	94.4	11	3	1385.0	1336.0	1376.0
1	221907.0	53.0	11	1	1805.0	-	-
2	463536.0	70.0	11	2	1248.0	1558.0	-
3	704621.0	87.6	11	3	1403.0	1170.0	1315.0
4	948913.0	61.7	11	1	1042.0	-	-
5	191927.0	83.2	11	2	1100.0	1535.0	-
6	434514.0	66.6	11	1	1038.0	-	-
7	676534.0	55.1	11	1	1423.0	-	-
8	915669.0	87.0	11	3	1789.0	1306.0	1643.0
9	162331.0	66.4	11	1	1409.0	-	-
10	404114.0	80.0	11	2	1319.0	1094.0	-
11	644572.0	85.6	11	3	1891.0	1291.0	1529.0

Type 5 Radar Waveform_13							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	559643.0	78.9	18	2	1613.0	1263.0	-
1	83132.0	96.7	18	3	1627.0	1432.0	1986.0
2	235098.0	91.5	18	3	1472.0	1759.0	1784.0
3	388261.0	75.4	18	2	1274.0	1795.0	-
4	540400.0	71.1	18	2	1968.0	1444.0	-
5	64622.0	77.5	18	2	1588.0	1441.0	-
6	217521.0	65.4	18	1	1710.0	-	-
7	370455.0	53.1	18	1	1419.0	-	-
8	523206.0	59.9	18	1	1518.0	-	-
9	45893.0	67.3	18	2	1195.0	1168.0	-
10	198422.0	74.2	18	2	1386.0	1216.0	-
11	350921.0	69.0	18	2	1557.0	1132.0	-
12	503059.0	82.1	18	2	1987.0	1186.0	-
13	27020.0	93.3	18	3	1365.0	1032.0	1728.0
14	179613.0	83.3	18	2	1103.0	1568.0	-
15	331979.0	70.3	18	2	1699.0	1281.0	-
16	485741.0	57.9	18	1	1285.0	-	-
17	8305.0	50.6	18	1	1850.0	-	-
18	160375.0	94.3	18	3	1479.0	1218.0	1733.0

Type 5 Radar Waveform_14							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	297680.0	67.5	20	2	1434.0	1117.0	-
1	441995.0	67.8	20	2	1567.0	1773.0	-
2	586834.0	75.9	20	2	1846.0	1362.0	-
3	134817.0	68.9	20	2	1237.0	1818.0	-
4	278690.0	96.0	20	3	1339.0	1796.0	1852.0
5	425629.0	66.6	20	1	1289.0	-	-
6	568519.0	78.3	20	2	1862.0	1856.0	-
7	117306.0	58.9	20	1	1412.0	-	-
8	261916.0	81.5	20	2	1113.0	1591.0	-
9	406632.0	82.4	20	2	1059.0	1861.0	-
10	550186.0	86.8	20	3	1797.0	1163.0	1320.0
11	98921.0	98.5	20	3	1268.0	1300.0	1868.0
12	244128.0	80.1	20	2	1086.0	1482.0	-
13	387268.0	86.3	20	3	1860.0	1407.0	1998.0
14	535106.0	57.2	20	1	1241.0	-	-
15	81010.0	84.3	20	3	1808.0	1873.0	1628.0
16	225534.0	86.8	20	3	1258.0	1302.0	1978.0
17	370865.0	83.0	20	2	1690.0	1378.0	-
18	514322.0	85.6	20	3	1327.0	1956.0	1311.0
19	63364.0	99.4	20	3	1112.0	1815.0	1262.0
Type 5 Radar Waveform_15							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	298559.0	57.5	13	1	1379.0	-	-
1	505048.0	67.0	13	2	1551.0	1620.0	-
2	712288.0	70.9	13	2	1939.0	1083.0	-
3	65334.0	75.7	13	2	1332.0	1476.0	-
4	272524.0	77.1	13	2	1840.0	1010.0	-
5	479639.0	78.8	13	2	1371.0	1618.0	-
6	688000.0	51.0	13	1	1494.0	-	-
7	39859.0	55.4	13	1	1794.0	-	-
8	247001.0	68.5	13	2	1590.0	1266.0	-
9	453464.0	100.0	13	3	1484.0	1314.0	1428.0
10	660486.0	96.4	13	3	1363.0	1361.0	1292.0
11	14259.0	97.2	13	3	1694.0	1480.0	1446.0
12	221241.0	86.4	13	3	1447.0	1227.0	1102.0
13	428688.0	72.1	13	2	1184.0	1638.0	-

Type 5 Radar Waveform_16

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	810996.0	62.4	9	1	1329.0	-	-
1	107330...	67.8	9	2	1364.0	1937.0	-
2	249825.0	53.0	9	1	1790.0	-	-
3	513186.0	77.8	9	2	1546.0	1906.0	-
4	776261.0	95.6	9	3	1145.0	1743.0	1499.0
5	104282...	58.8	9	1	1199.0	-	-
6	216805.0	92.8	9	3	1424.0	1408.0	1381.0
7	480761.0	68.5	9	2	1340.0	1972.0	-
8	743697.0	84.0	9	3	1607.0	1663.0	1270.0
9	100839...	70.8	9	2	1468.0	1760.0	-
10	184481.0	73.1	9	2	1869.0	1515.0	-

Type 5 Radar Waveform_17

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	379027.0	68.8	11	2	1504.0	1973.0	-
1	601267.0	94.2	11	3	1920.0	1299.0	1467.0
2	826098.0	82.7	11	2	1003.0	1351.0	-
3	128582.0	74.8	11	2	1597.0	1457.0	-
4	352167.0	58.9	11	1	1874.0	-	-
5	573713.0	96.5	11	3	1838.0	1708.0	1328.0
6	796850.0	87.3	11	3	1405.0	1271.0	1687.0
7	101143.0	72.4	11	2	1200.0	1433.0	-
8	324788.0	51.3	11	1	1475.0	-	-
9	546355.0	86.8	11	3	1159.0	1652.0	1942.0
10	772173.0	50.4	11	1	1056.0	-	-
11	73442.0	97.0	11	3	1884.0	1876.0	1415.0
12	297241.0	50.1	11	1	1519.0	-	-

Type 5 Radar Waveform_18							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	675668.0	91.9	8	3	1301.0	1337.0	1645.0
1	966684.0	67.2	8	2	1983.0	1040.0	-
2	60080.0	65.5	8	1	1671.0	-	-
3	350468.0	72.8	8	2	1489.0	1016.0	-
4	640208.0	90.5	8	3	1552.0	1180.0	1064.0
5	930430.0	81.6	8	2	1807.0	1853.0	-
6	24223.0	86.0	8	3	1312.0	1905.0	1278.0
7	314287.0	89.6	8	3	1152.0	1068.0	1832.0
8	605824.0	62.1	8	1	1119.0	-	-
9	896505.0	58.0	8	1	1234.0	-	-

Type 5 Radar Waveform_19							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	148262...	73.8	5	2	1071.0	1915.0	-
1	348501.0	89.5	5	3	1294.0	1450.0	1025.0
2	712087.0	81.2	5	2	1144.0	1146.0	-
3	107622...	59.0	5	1	1041.0	-	-
4	143687...	87.5	5	3	1096.0	1941.0	1018.0
5	303833.0	76.7	5	2	1667.0	1947.0	-
6	667663.0	56.5	5	1	1573.0	-	-
7	102959...	89.0	5	3	1033.0	1391.0	1304.0
Type 5 Radar Waveform_20							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	795066.0	83.1	12	2	1762.0	1058.0	-
1	148131.0	50.0	12	1	1739.0	-	-
2	355877.0	52.6	12	1	1055.0	-	-
3	563078.0	58.2	12	1	1704.0	-	-
4	768221.0	84.6	12	3	1226.0	1177.0	1886.0
5	122378.0	68.3	12	2	1269.0	1851.0	-
6	329595.0	80.6	12	2	1814.0	1074.0	-
7	537959.0	59.5	12	1	1009.0	-	-
8	745244.0	53.4	12	1	1417.0	-	-
9	97056.0	59.1	12	1	1431.0	-	-
10	304250.0	74.8	12	2	1002.0	1394.0	-
11	510244.0	85.0	12	3	1670.0	1755.0	1158.0
12	717553.0	85.3	12	3	1307.0	1560.0	1078.0
13	71512.0	61.9	12	1	1197.0	-	-

Type 5 Radar Waveform_21

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	229509.0	70.8	17	2	1022.0	1015.0	-
1	400529.0	52.9	17	1	1483.0	-	-
2	569230.0	86.0	17	3	1524.0	1308.0	1287.0
3	37714.0	78.4	17	2	1821.0	1406.0	-
4	207532.0	93.3	17	3	1991.0	1966.0	1290.0
5	378491.0	70.0	17	2	1858.0	1471.0	-
6	548974.0	78.1	17	2	1507.0	1705.0	-
7	16774.0	52.4	17	1	1060.0	-	-
8	186482.0	84.8	17	3	1859.0	1839.0	1993.0
9	357118.0	83.5	17	3	1150.0	1492.0	1443.0
10	529488.0	56.7	17	1	1208.0	-	-
11	697766.0	86.2	17	3	1674.0	1125.0	1053.0
12	166571.0	58.8	17	1	1436.0	-	-
13	335823.0	85.4	17	3	1686.0	1509.0	1577.0
14	507436.0	77.7	17	2	1297.0	1298.0	-
15	676055.0	87.4	17	3	1649.0	1894.0	1075.0
16	145003.0	99.8	17	3	1185.0	1167.0	1616.0

Type 5 Radar Waveform_22

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	447229.0	95.7	10	3	1353.0	1813.0	1028.0
1	688316.0	94.9	10	3	1735.0	1994.0	1084.0
2	929912.0	97.9	10	3	1354.0	1792.0	1418.0
3	176291.0	67.4	10	2	1348.0	1008.0	-
4	417300.0	96.9	10	3	1916.0	1425.0	1283.0
5	659121.0	97.6	10	3	1384.0	1050.0	1569.0
6	901006.0	83.6	10	3	1231.0	1219.0	1194.0
7	146470.0	82.6	10	2	1128.0	1346.0	-
8	387774.0	97.2	10	3	1142.0	1769.0	1173.0
9	629493.0	92.3	10	3	1181.0	1164.0	1458.0
10	871823.0	80.9	10	2	1222.0	1756.0	-
11	116586.0	78.1	10	2	1190.0	1999.0	-

Type 5 Radar Waveform_23

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	538038.0	76.9	5	2	1564.0	1767.0	-
1	902167.0	64.7	5	1	1437.0	-	-
2	126430...	77.1	5	2	1046.0	1944.0	-
3	130381.0	72.7	5	2	1440.0	1374.0	-
4	494082.0	61.9	5	1	1035.0	-	-
5	856449.0	68.6	5	2	1205.0	1892.0	-
6	122012...	78.3	5	2	1047.0	1273.0	-
7	85626.0	73.1	5	2	1426.0	1863.0	-

Type 5 Radar Waveform_24							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	224291.0	59.1	15	1	1718.0	-	-
1	404797.0	83.5	15	3	1070.0	1129.0	1318.0
2	585565.0	86.5	15	3	1176.0	1253.0	1442.0
3	20469.0	60.8	15	1	1209.0	-	-
4	201494.0	80.7	15	2	2000.0	1360.0	-
5	383735.0	65.2	15	1	1101.0	-	-
6	564279.0	69.1	15	2	1511.0	1030.0	-
7	746938.0	51.5	15	1	1161.0	-	-
8	178837.0	98.5	15	3	1061.0	1951.0	1812.0
9	361254.0	59.5	15	1	1325.0	-	-
10	540817.0	95.3	15	3	1284.0	1650.0	1169.0
11	723236.0	81.8	15	2	1460.0	1077.0	-
12	157347.0	66.0	15	1	1149.0	-	-
13	338866.0	59.3	15	1	1373.0	-	-
14	519043.0	79.2	15	2	1836.0	1534.0	-
15	698893.0	90.2	15	3	1455.0	1738.0	1490.0

Type 5 Radar Waveform_25							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	165660.0	87.5	11	3	1343.0	1331.0	1313.0
1	388227.0	94.6	11	3	1448.0	1543.0	1803.0
2	611977.0	73.9	11	2	1722.0	1514.0	-
3	836637.0	55.4	11	1	1506.0	-	-
4	138508.0	52.3	11	1	1960.0	-	-
5	361157.0	95.8	11	3	1240.0	1380.0	1252.0
6	583572.0	96.1	11	3	1372.0	1411.0	1908.0
7	807375.0	77.8	11	2	1885.0	1593.0	-
8	110712.0	97.2	11	3	1021.0	1614.0	1633.0
9	334129.0	74.3	11	2	1582.0	1097.0	-
10	558353.0	57.9	11	1	1031.0	-	-
11	779576.0	68.8	11	2	1927.0	1936.0	-
12	83349.0	79.6	11	2	1857.0	1470.0	-
Type 5 Radar Waveform_26							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	443672.0	63.4	7	1	1595.0	-	-
1	764888.0	97.0	7	3	1451.0	1660.0	1562.0
2	108877...	66.7	7	2	1116.0	1544.0	-
3	80701.0	99.5	7	3	1553.0	1526.0	1768.0
4	404035.0	64.3	7	1	1107.0	-	-
5	724735.0	90.7	7	3	1992.0	1626.0	1899.0
6	104983...	62.1	7	1	1630.0	-	-
7	41111.0	58.3	7	1	1676.0	-	-
8	363203.0	87.0	7	3	1726.0	1696.0	1464.0

Type 5 Radar Waveform_27							
Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	685484.0	86.8	6	3	1673.0	1383.0	1653.0
1	100844...	81.7	6	2	1841.0	1911.0	-
2	1327.0	78.4	6	2	1900.0	1229.0	-
3	324073.0	82.1	6	2	1527.0	1072.0	-
4	645590.0	84.1	6	3	1893.0	1742.0	1491.0
5	968147.0	87.7	6	3	1247.0	1341.0	1955.0
6	129015...	97.0	6	3	1559.0	1685.0	1572.0
7	283759.0	99.1	6	3	1641.0	1727.0	1848.0
8	607681.0	62.0	6	1	1245.0	-	-

Type 5 Radar Waveform_28

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	104641...	67.5	6	2	1193.0	1182.0	-
1	140782...	85.6	6	3	1221.0	1741.0	1338.0
2	274722.0	86.9	6	3	1580.0	1775.0	1809.0
3	637750.0	85.3	6	3	1082.0	1854.0	1095.0
4	100067...	67.3	6	2	1898.0	1977.0	-
5	136308...	94.8	6	3	1791.0	1350.0	1230.0
6	230397.0	72.9	6	2	1681.0	1323.0	-
7	593534.0	70.7	6	2	1709.0	1123.0	-

Type 5 Radar Waveform_29

Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
0	766096.0	63.3	8	1	1044.0	-	-
1	105361...	87.4	8	3	1945.0	1602.0	1203.0
2	148646.0	58.7	8	1	1556.0	-	-
3	439290.0	63.6	8	1	1598.0	-	-
4	730238.0	56.3	8	1	1110.0	-	-
5	102035...	57.2	8	1	1878.0	-	-
6	112833.0	50.3	8	1	1659.0	-	-
7	403062.0	71.9	8	2	1143.0	1724.0	-
8	692419.0	85.1	8	3	1404.0	1715.0	1449.0
9	985054.0	62.5	8	1	1276.0	-	-

Radar Type 6 - Radar Statistical Performance

Trail #	1=Detection 0=No Detection	Trail #	1=Detection 0=No Detection
0	1	15	1
1	0	16	1
2	1	17	1
3	1	18	1
4	1	19	1
5	1	20	1
6	1	21	1
7	1	22	1
8	1	23	1
9	1	24	1
10	1	25	1
11	1	26	1
12	1	27	1
13	1	28	1
14	1	29	1
Detection Percentage (%)			96.66%

Type 6 Radar Waveform_0					
Frequency List (MHz)	0	1	2	3	4
0	5684	5647	5388	5528	5616
5	5491	5605	5502	5588	5683
10	5313	5430	5420	5521	5622
15	5292	5485	5489	5387	5265
20	5419	5271	5508	5386	5410
25	5494	5600	5471	5711	5584
30	5719	5342	5361	5308	5639
35	5397	5580	5664	5667	5349
40	5290	5541	5665	5322	5585
45	5501	5330	5264	5350	5718
50	5447	5378	5340	5445	5285
55	5389	5252	5368	5469	5713
60	5384	5516	5254	5689	5318
65	5416	5459	5607	5475	5514
70	5630	5542	5263	5379	5455
75	5411	5550	5617	5554	5708
80	5688	5619	5604	5258	5695
85	5559	5301	5690	5596	5537
90	5701	5448	5611	5658	5338
95	5525	5327	5413	5555	5546