

DFS Test Report

Applicant : Delta Electronics, Inc.
Product Name : 802.11be enterprise access point
Trade Name : DELTA
Model Number : AP-743
Applicable Standard : FCC 47 CFR PART 15 SUBPART E
ANSI C63.10:2020
Received Date : Feb. 09, 2026
Test Period : Apr. 24, 2026 ~ Apr. 30, 2026
Issued Date : May 26, 2026

Issued by

Eurofins E&E Wireless Taiwan Co., Ltd.
No. 140-1, Changan Street, Bade District,
Taoyuan City, Taiwan (R.O.C.)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Bade test site :

Test Firm Registration Number: 226252

Test Firm Designation Number: TW0010

Wugu test site :

Test Firm Registration Number: 191812

Test Firm Designation Number: TW0034

Note:

- 1.The test results are valid only for samples provided by customers and under the test conditions described in this report.
- 2.This report shall not be reproduced except in full, without the written approval of Eurofins E&E Wireless Taiwan Co., Ltd.
- 3.The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Revision History

Rev.	Issued Date	Description	Revised By
00	May 26, 2026	Initial Issue	Abby Huang

Verification of Compliance

Applicant : Delta Electronics, Inc.

Product Name : 802.11be enterprise access point

Trade Name : DELTA

Model Number : AP-743

FCC ID : PD5-AP743

Applicable Standard : FCC 47 CFR PART 15 SUBPART E
ANSI C63.10:2020

Test Result : Complied

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Eurofins E&E Wireless Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Eurofins E&E Wireless Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : _____
Kai Yu Yang / RF Supervisor

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Appendix A. Test Setup Photographs

1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.407(h)(2)	Channel Availability Check Time	PASS	---
15.407(h)(2)	Channel Move Time	PASS	---
15.407(h)(2)	Channel Closing Transmission Time	PASS	---
15.407(h)(2)	Non-Occupancy Period	PASS	---
15.407(h)(2)	U-NII Detection Bandwidth	PASS	---
15.407(h)(2)	Statistical Performance check	PASS	---

Decision Rule

- ☒ Uncertainty is not included.
- ☐ Uncertainty is included.

Standard	Description
CFR47, Part 15, Subpart E	Unlicensed National Information Infrastructure Devices
Canada RSS-247 Issue 4	RSS-247 — Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
ANSI C63. 10: 2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB789033: D02 v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
KDB 662911 D01 v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)

1.2. Testing Location

Lab Name: Eurofins E&E Wireless Taiwan Co., Ltd.

Site Address: ☒ No. 140-1, Changan Street, Bade District, Taoyuan City, Taiwan (R.O.C.)

Site Address: ☐ No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan (R.O.C.)

1.3. Measurement Uncertainty

Test Item	Uncertainty	
	BD	WG
Conducted	1.8 dB	1.8 dB

1.4. Test Site Environment

Items	Required (IEC 60068-1)	Interval(*)
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75

(*)The measurement ambient temperature is within this range.

2 EUT Description

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity

Applicant	Delta Electronics, Inc. 31-1 Shien Pan Rd., Kuei San Industrial Zone, Taoyuan City, 333, Taiwan		
Product Name	802.11be enterprise access point		
Trade Name	DELTA		
Model Number	AP-743		
FCC ID	PD5-AP743		
Operate Frequency	Frequency Band		Frequency Range (MHz)
	802.11a	U-NII Band 2-A	5260 – 5320
		U-NII Band 2-C	5500 – 5720
	802.11n HT20/ 802.11ac VHT20/ 802.11ax HE20/ 802.11be EHT20	U-NII Band 2-A	5260 – 5320
		U-NII Band 2-C	5500 – 5720
	802.11n HT40/ 802.11ac VHT40/ 802.11ax HE40/ 802.11be EHT40	U-NII Band 2-A	5270 – 5310
		U-NII Band 2-C	5510 – 5710
	802.11be EHT80/ 802.11ax HE80/ 802.11be EHT80	U-NII Band 2-A	5290
		U-NII Band 2-C	5530 – 5690
	802.11be EHT160/ 802.11ax HE160/ 802.11be EHT160	U-NII Band 2-A	5250
		U-NII Band 2-C	5570
Modulation Type	OFDM/OFDMA		

Antenna information	Antenna	Model	Type	Max. Gain (dBi)	
	DB4 (ANT-0)	C393-510417-A	PIFA Antenna	U-NII Band 2-A	6.18
				U-NII Band 2-C	7.21
Antenna information	DB3 (ANT-1)	C393-510417-A	PIFA Antenna	U-NII Band 2-A	5.65
				U-NII Band 2-C	6.32
Antenna information	DB2 (ANT-2)	C393-510417-A	PIFA Antenna	U-NII Band 2-A	5.73
				U-NII Band 2-C	6.90
Antenna information	DB1 (ANT-3)	C393-510417-A	PIFA Antenna	U-NII Band 2-A	8.34
				U-NII Band 2-C	8.64
Antenna information	5/6G4 (ANT-0)	C393-510417-A	PCB Dipole Antenna	U-NII Band 2-C	6.24
	5/6G3 (ANT-1)	C393-510417-A	PCB Dipole Antenna	U-NII Band 2-C	6.21
	5/6G2 (ANT-2)	C393-510417-A	PCB Dipole Antenna	U-NII Band 2-C	6.89
	5/6G1 (ANT-3)	C393-510417-A	PCB Dipole Antenna	U-NII Band 2-C	6.26
Antenna Delivery	4TX				
Operate Temp. Range	0 ~ 50 °C				
EUT Power Rating	Adapter 12 Vdc, 4 A PoE++ 802.3bt 51 W				

Testing Sample No.	
Test Item	Sample Number
DFS	C262104_A006

Items	Description	
Communication Mode	☒ IP Based (Load Based)	☐ Frame Based
TPC Function	☒ With TPC	☐ Without TPC
Weather Band (5600 ~ 5650 MHz)	☒ With 5600 ~ 5650 MHz	☐ Without 5600 ~ 5650 MHz
Beamforming Function	☒ With Beamforming	☐ Without Beamforming
Equipment Type	☐ Outdoor access point	
	☒ Indoor access point	
	☐ Fixed point-to-point access points	
	☒ Client devices	
Operating mode	☒ Master	
	☐ Client with radar detection	
	☐ Client without radar detection	
	☐ Ad-Hoc	
	☐ Bridge	
	☐ MESH	

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

3 Test Methodology

The tests documented in this report were performed in accordance with ANSI C63.10-2020, FCC CFR 47 Part 2, FCC CFR 47 Part 15.

The tests documented in this report were performed in accordance with FCC KDB request:

- FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02
- FCC KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02

3.1. Mode of Operation

Decision of Test Eurofins has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
802.11be EHT20
802.11be EHT40
802.11be EHT80
802.11be EHT160

AP-743 with dual mode

	DB Antenna	5/6G Antenna
Mode 1	2400 MHz ~ 2483.5 MHz 5150 MHz ~ 5825 MHz	5925 MHz ~ 7125 MHz
Mode 2	2400 MHz ~ 2483.5 MHz 5150 MHz ~ 5350 MHz	5470 MHz ~ 5850 MHz

802.11be EHT20:

Unless otherwise noted, all tests were performed with the radar burst at the channel center frequency of 5300 / 5560 MHz.

802.11be EHT40:

Unless otherwise noted, all tests were performed with the radar burst at the channel center frequency of 5310 / 5550 MHz.

802.11be EHT80:

Unless otherwise noted, all tests were performed with the radar burst at the channel center frequency of 5290 / 5530 MHz.

802.11be EHT160:

Unless otherwise noted, all tests were performed with the radar burst at the channel center frequency of 5250 / 5570 MHz.

3.2. EUT Test Step

1.	Setup the EUT shown on 3.2.
2.	Turn on the power of all equipment.
3.	Turn on Wi-Fi function link to Access Point.
4.	The EUT is operated in the normal mode to the purposes of measurement.

3.3. Test Instruments

For Conducted

Test Period: Apr. 24, 2026 ~ Apr. 30, 2026

Testing Engineer: Peter Shui

Test Site		RF01-BD				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	Sep. 01, 2025	1 year
☒	Signal Generator	Keysight	N5182B	MY53052569	Apr. 18, 2026	1 year
☒	Signal Generator	Keysight	N5182BX07	MY59360221	Apr. 18, 2026	1 year

☒ means with testing used ;

☐ means without testing used

Note: N.C.R. = No Calibration Request.

4 Dynamic Frequency Selection

4.1. Limits

§15.407 (h) and FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 Compliance measurement procedures for unlicensed-national information infrastructure devcies operating in the 5250-5350 MHZ and 5470-5725 MHZ bands incorporating dynamic frequency selection.

Table 1: Applicability of DFS Requirements Prior to Use of a Channel			
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 2: Applicability of DFS requirements during normal operation		
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 (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in all 20 MHz channel blocks and a null frequencies between the bonded 20 MHz channel blocks		

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	U-NII Band 2-Aalue (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. Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to FCC KDB Publication 662911 D01.	

Table 4: DFS Response Requirement U-NII Band 2-Aalues

Parameter	U-NII Band 2-Aalue
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 5: 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 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	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.					

Table 5a: Pulse Repetition Intervals U-NII Band 2-Aalues for Test A

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 6 – Long Pulse Radar Test Signal

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

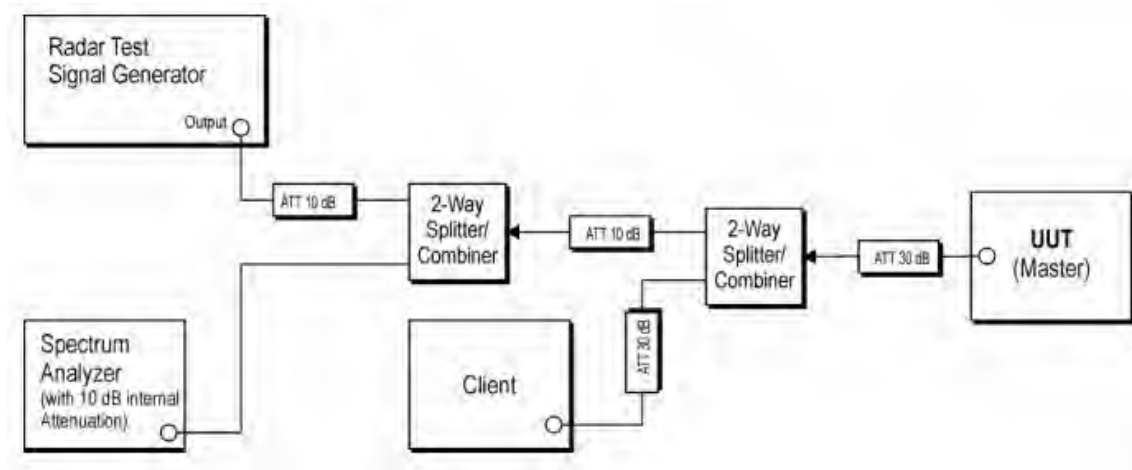
Table 7 – Frequency Hopping Radar Test Signal

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

4.2. Test and Measurement System

4.2.1. Setup for Master with injection at the Master

Example Radiated Setup where UUT is a Master and Radar Test Waveforms are injected into the Master



Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	ID
1.	Portable Handset	SAMSUNG	SM-S9280	FCC: A3LSMS928U

4.2.2. System Calibration

The short pulse types 0,1,2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time. The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the May 2014 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 The frequency of the signal generator is incremented in 1 MHz steps from FL to FH for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

4.2.3. System Calibration

The Interference Radar Detection Threshold Level is (-63 dBm), The above equipment setup was used to calibrate the radiated Radar Waveform. A vector signal generator was utilized to establish the test signal level for each radar type. During this process there were replace 50 ohm 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 (U-NII Band 2-ABW) were set to at least 3 MHz.

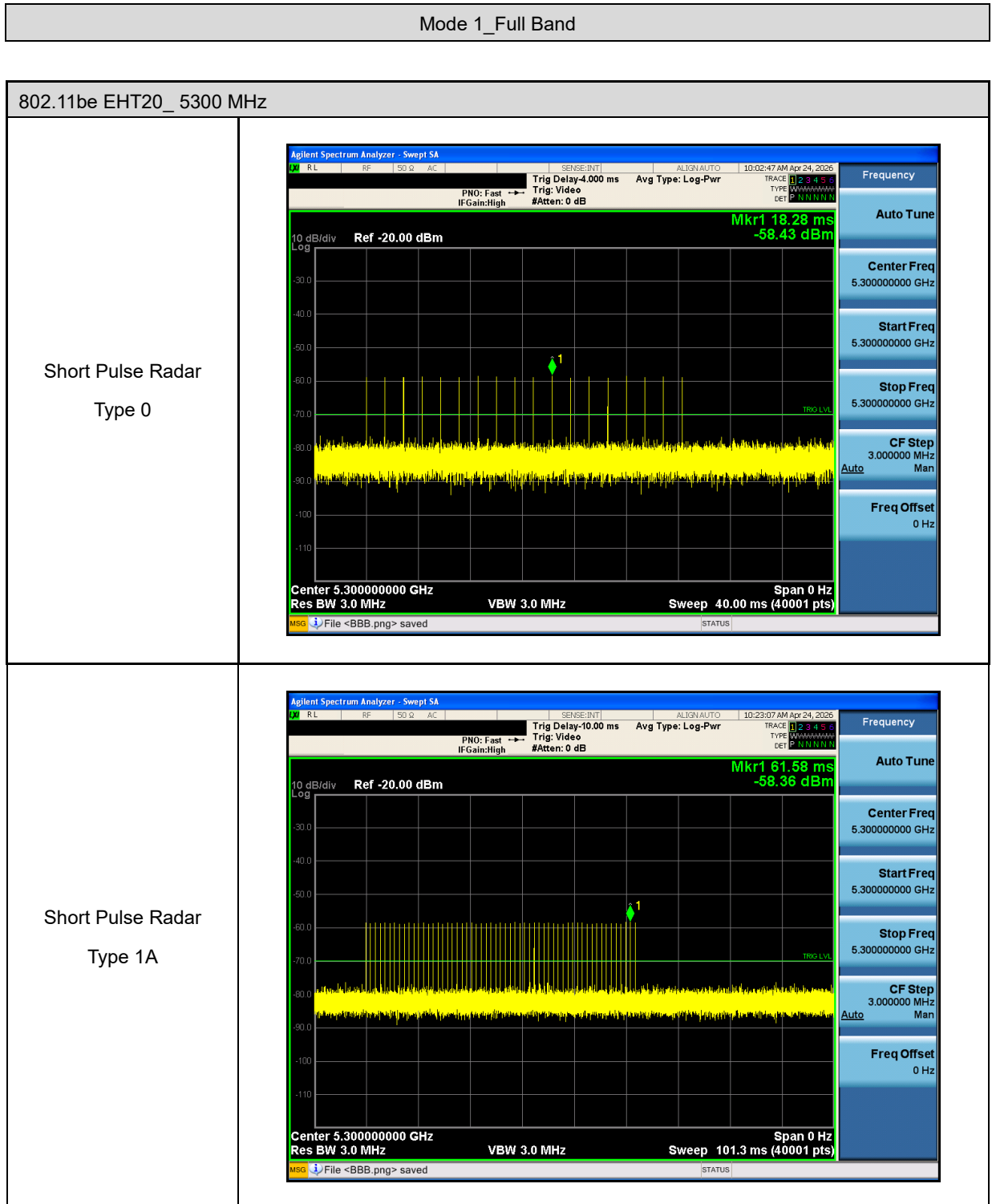
The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was (-63 dBm). Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

4.2.4. Adjustment of Displayed Traffic Level

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. Software to ping the client is permitted to simulate data transfer but must have random ping intervals. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

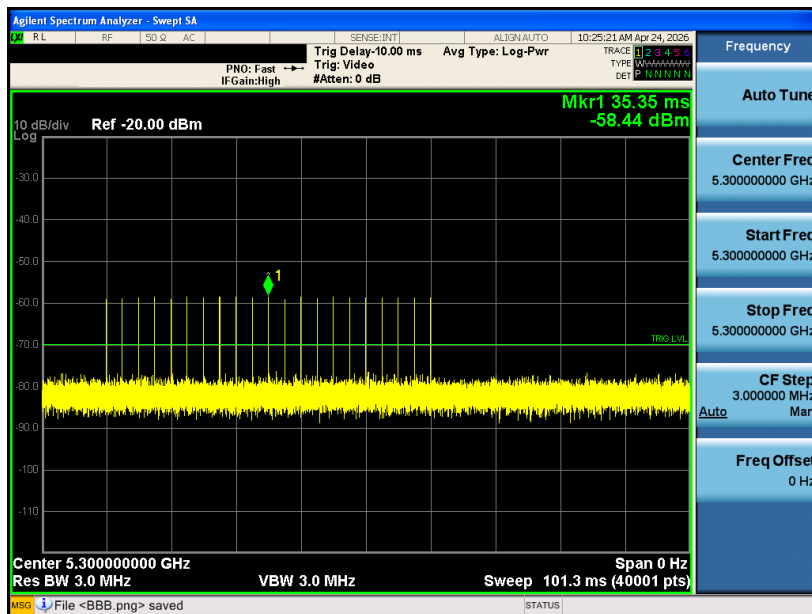
5 Test Results

5.1. Radar Waveforms and Traffic

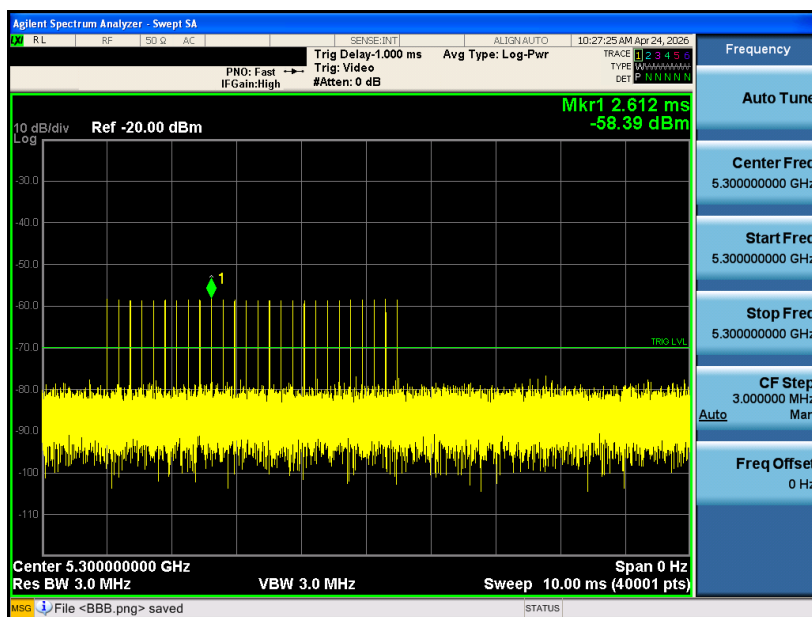


802.11be EHT20_ 5300 MHz

Short Pulse Radar
Type 1B

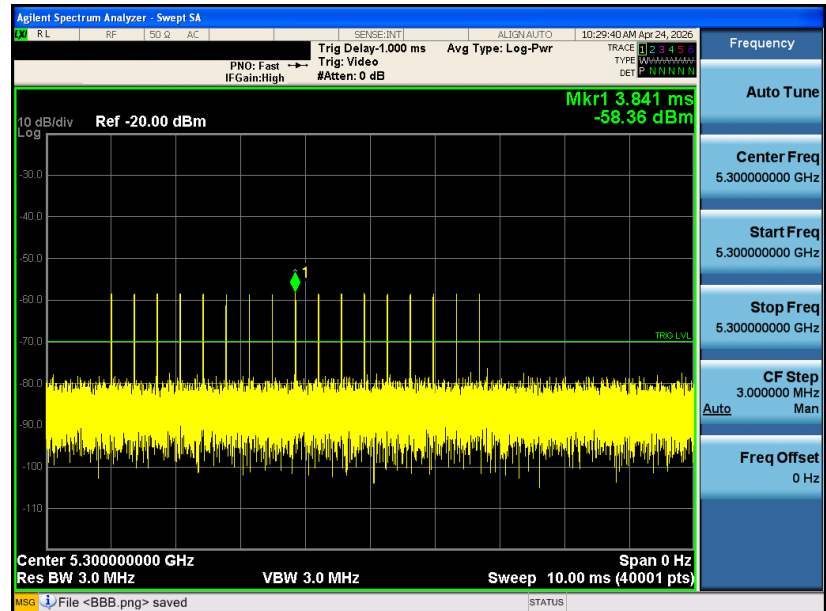


Short Pulse Radar
Type 2

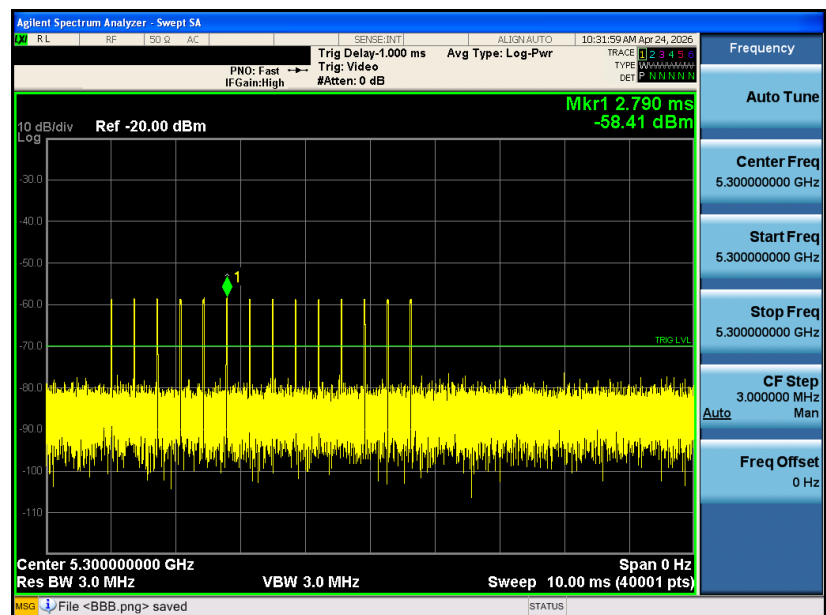


802.11be EHT20_ 5300 MHz

Short Pulse Radar
Type 3

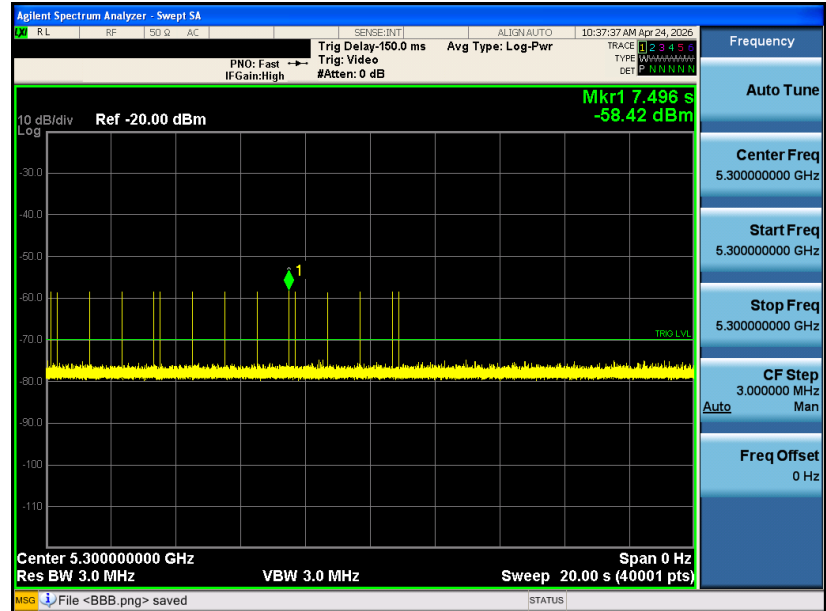


Short Pulse Radar
Type 4

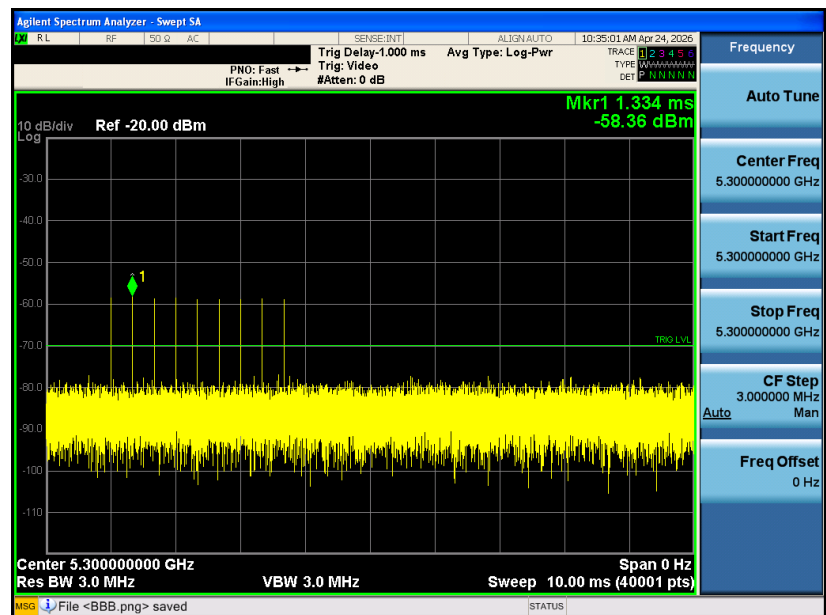


802.11be EHT20_ 5300 MHz

Long Pulse Radar
Type 5

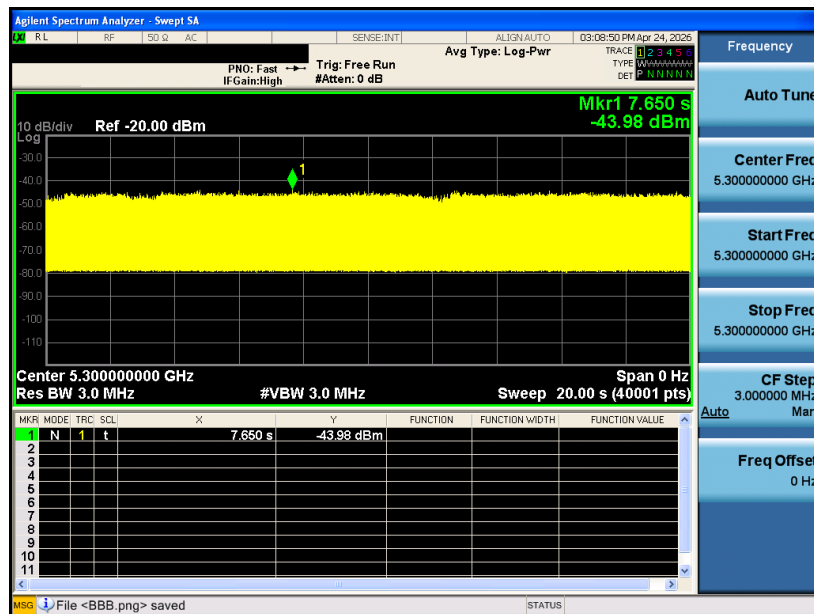


Frequency Hopping
Radar
Type 6



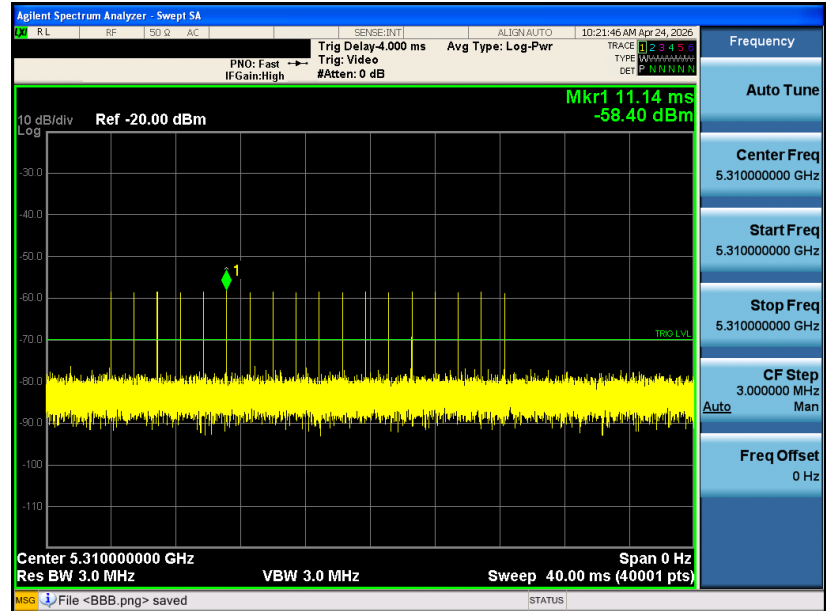
802.11be EHT20_ 5300 MHz

Traffic

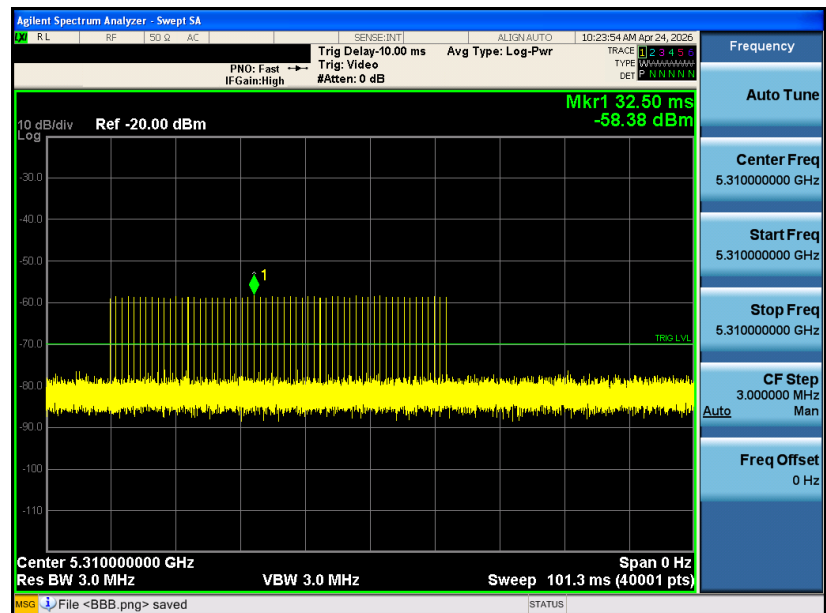


802.11be EHT40_ 5310 MHz

Short Pulse Radar
Type 0

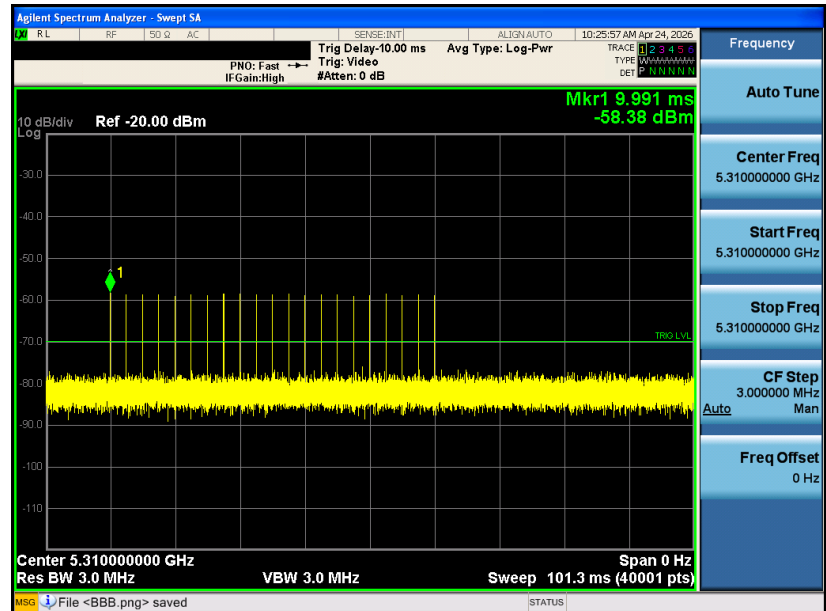


Short Pulse Radar
Type 1A

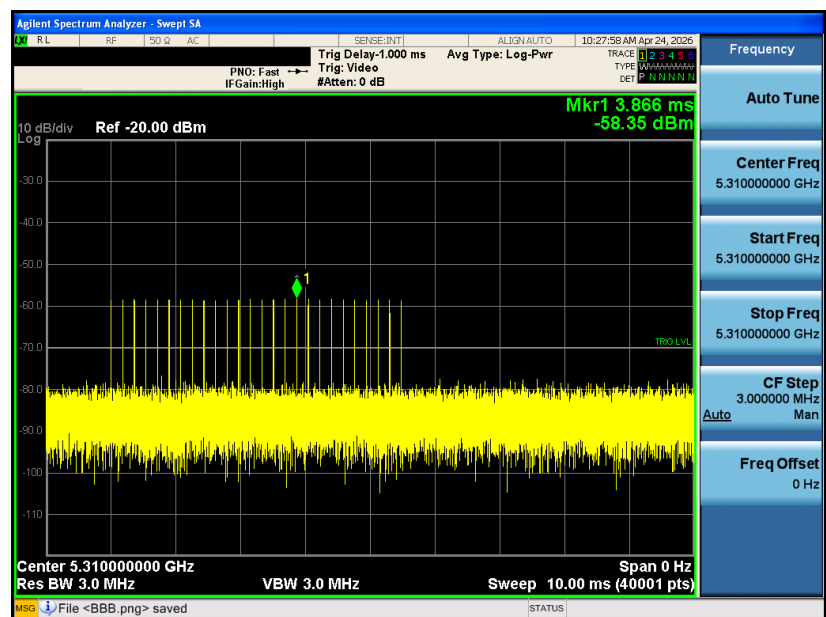


802.11be EHT40_ 5310 MHz

Short Pulse Radar
Type 1B

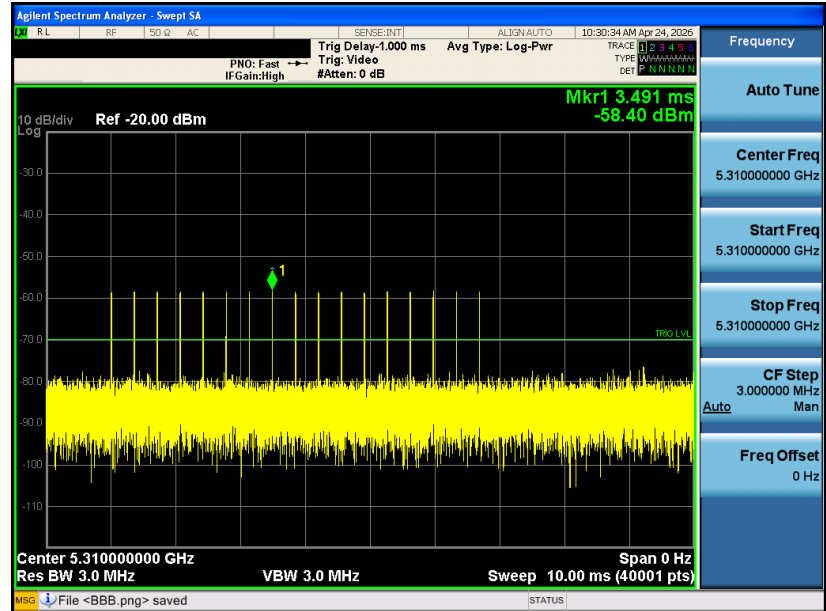


Short Pulse Radar
Type 2

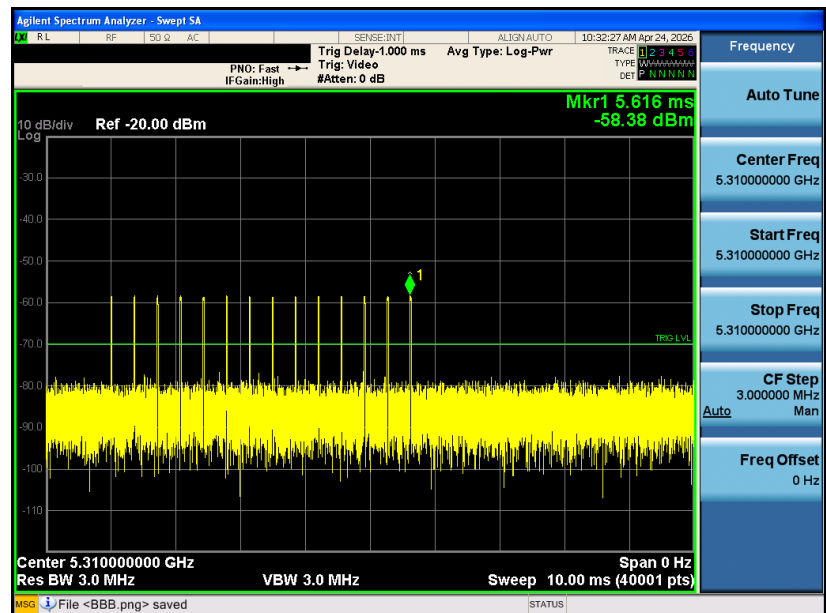


802.11be EHT40_ 5310 MHz

Short Pulse Radar
Type 3

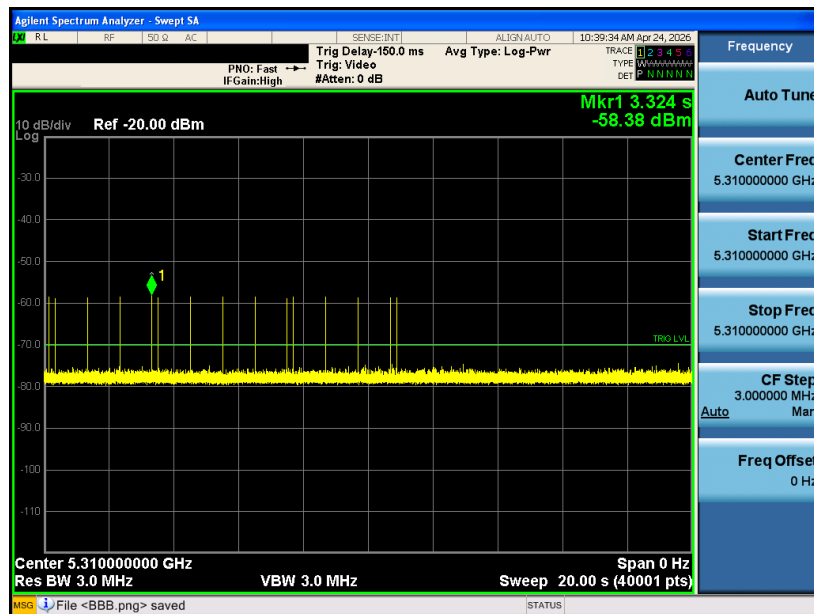


Short Pulse Radar
Type 4

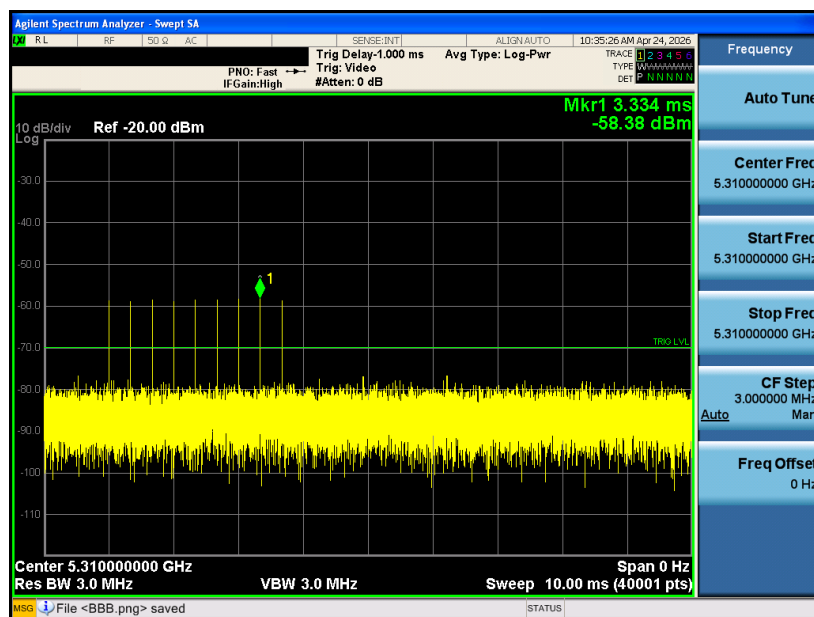


802.11be EHT40_ 5310 MHz

Long Pulse Radar
Type 5

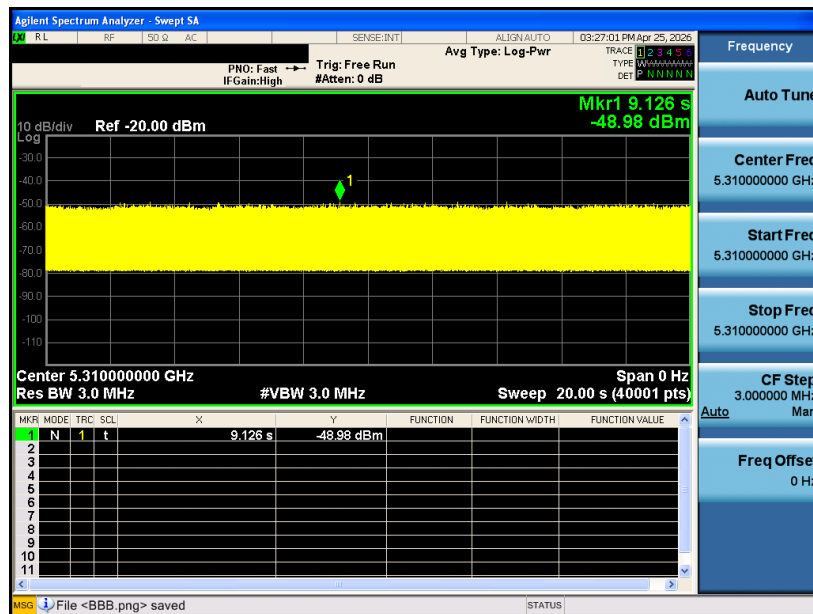


Frequency Hopping
Radar
Type 6



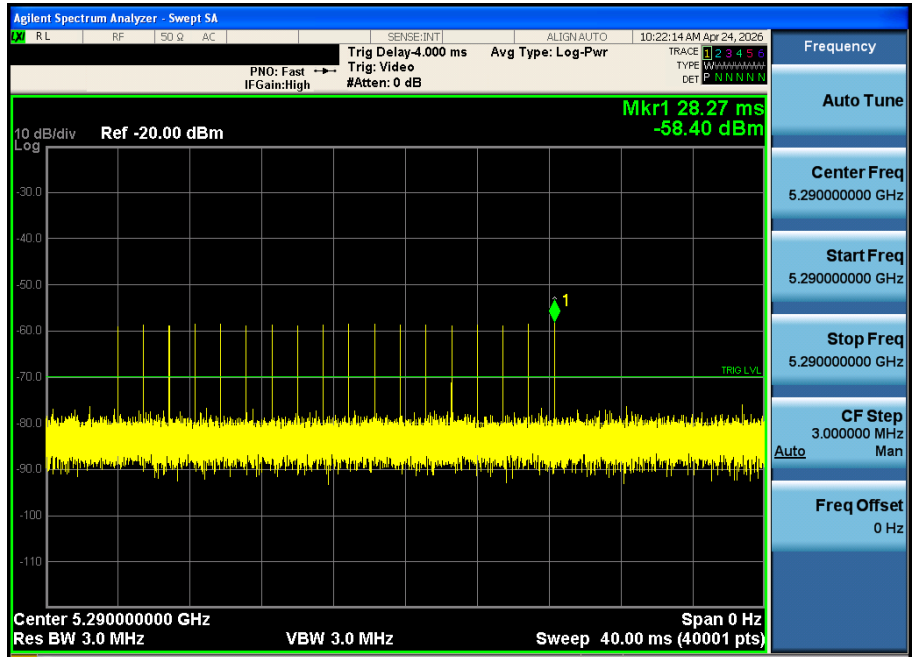
802.11be EHT40_ 5310 MHz

Traffic

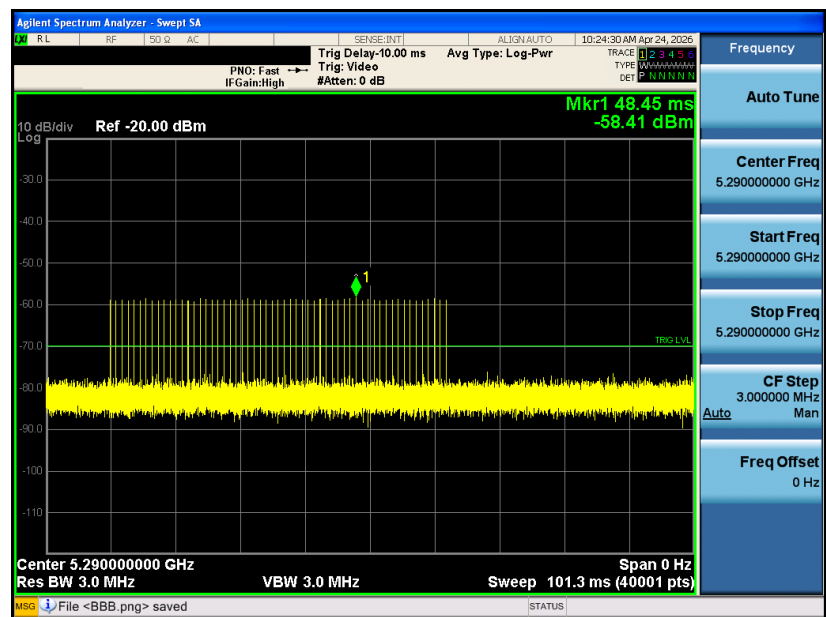


802.11be EHT80_ 5290 MHz

Short Pulse Radar
Type 0

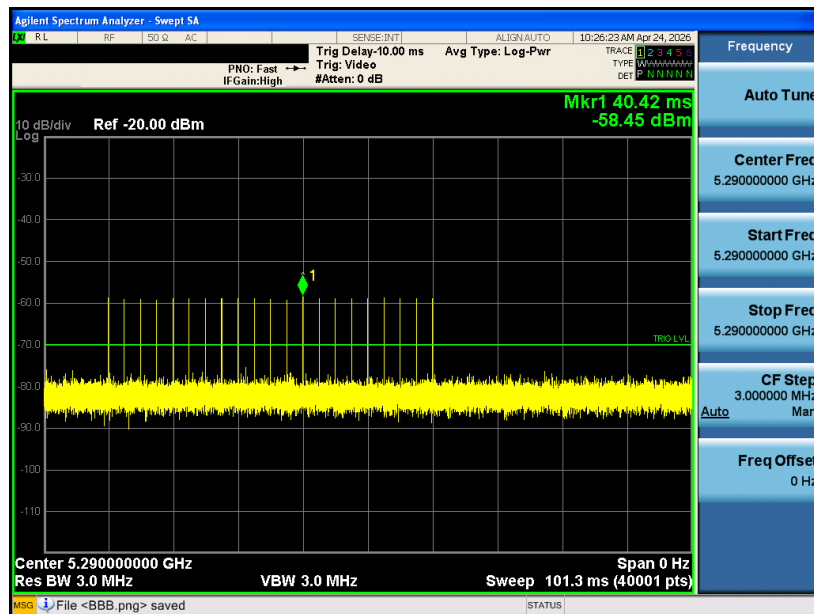


Short Pulse Radar
Type 1A

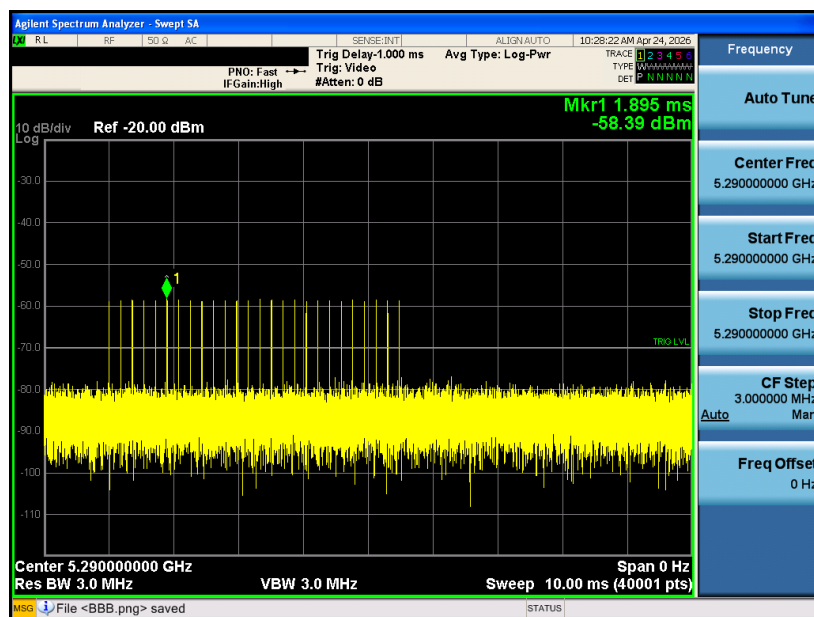


802.11be EHT80_ 5290 MHz

Short Pulse Radar
Type 1B

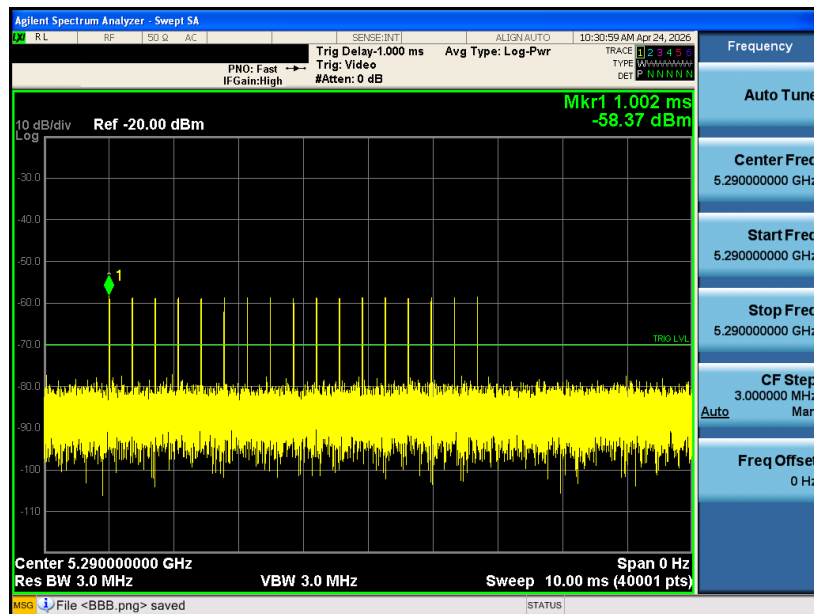


Short Pulse Radar
Type 2

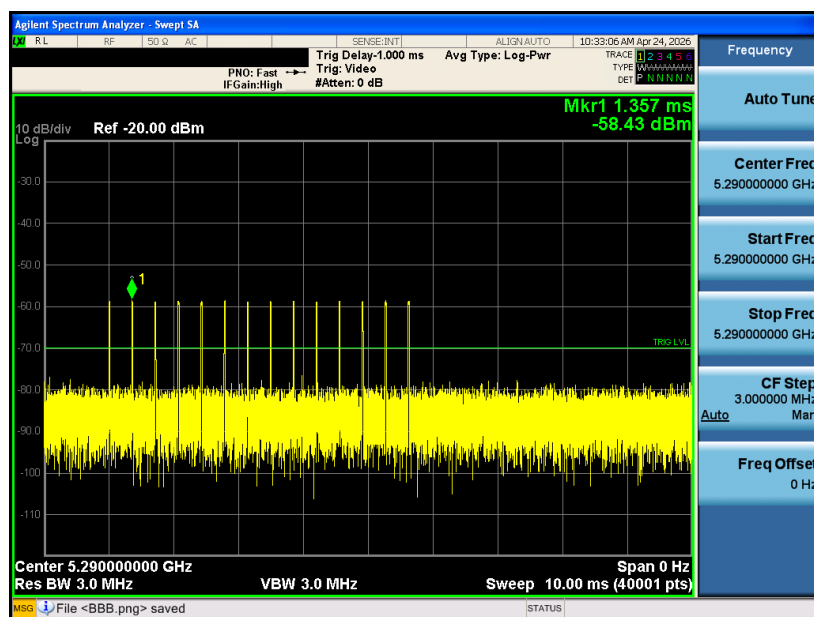


802.11be EHT80_ 5290 MHz

Short Pulse Radar
Type 3

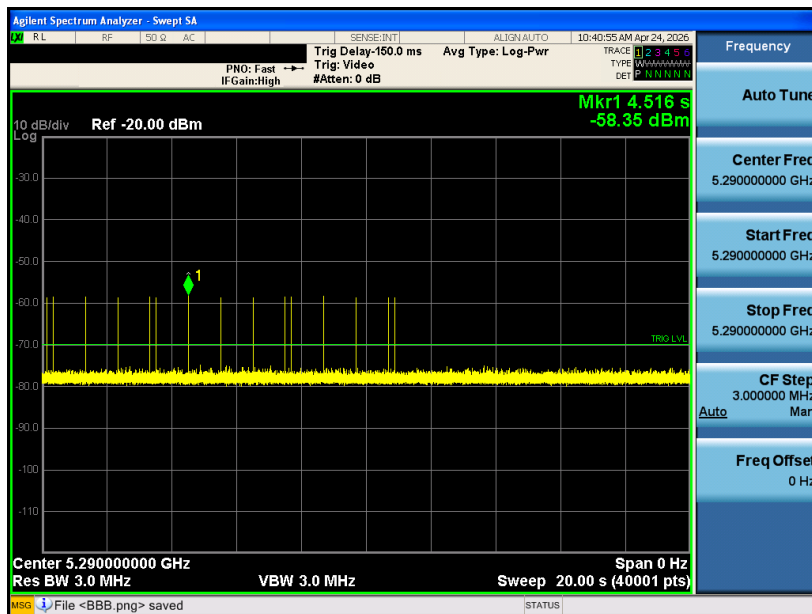


Short Pulse Radar
Type 4

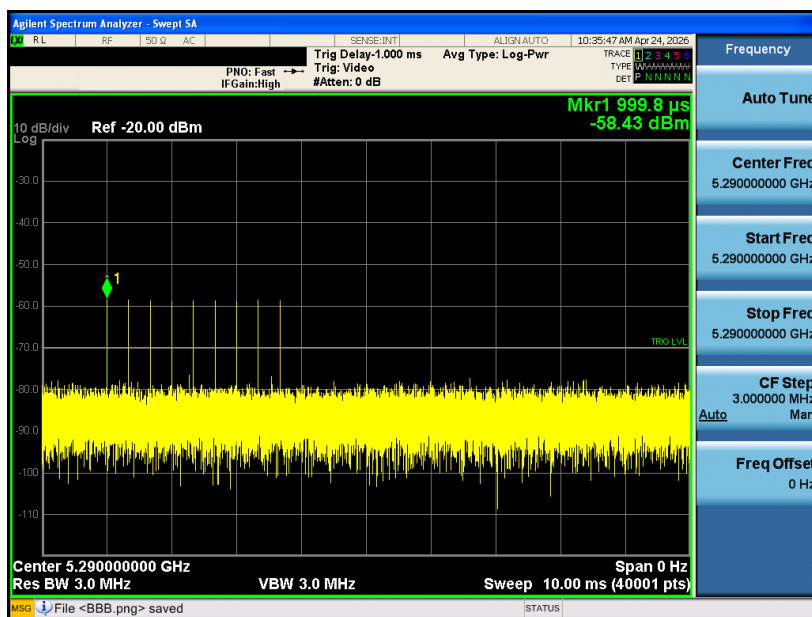


802.11be EHT80_ 5290 MHz

Long Pulse Radar
Type 5

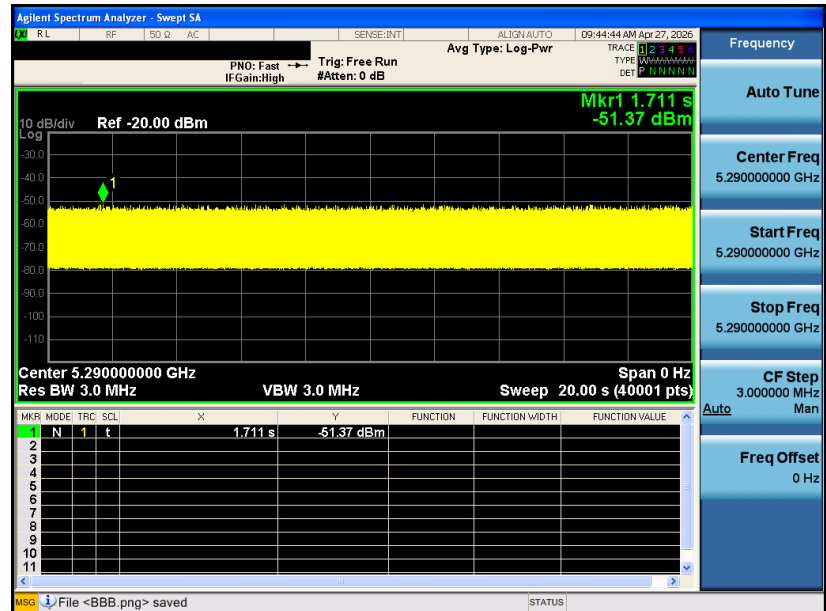


Frequency Hopping
Radar
Type 6



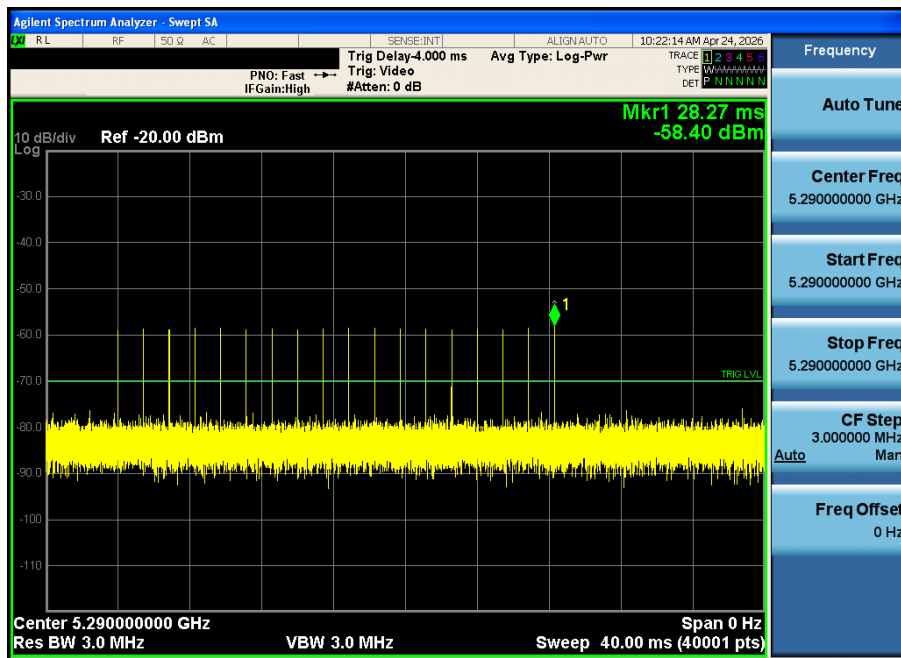
802.11be EHT80_ 5290 MHz

Traffic

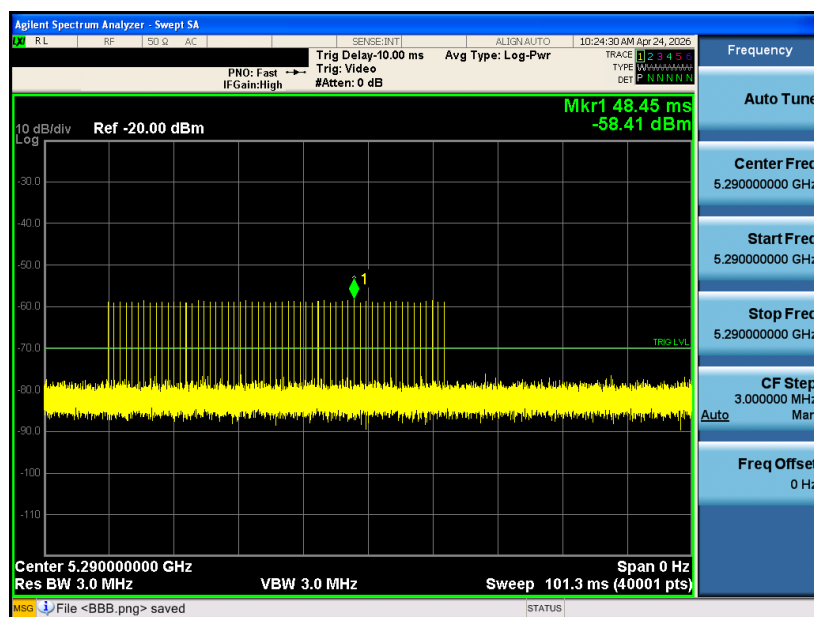


802.11be EHT160_ 5250 MHz

Short Pulse Radar
Type 0

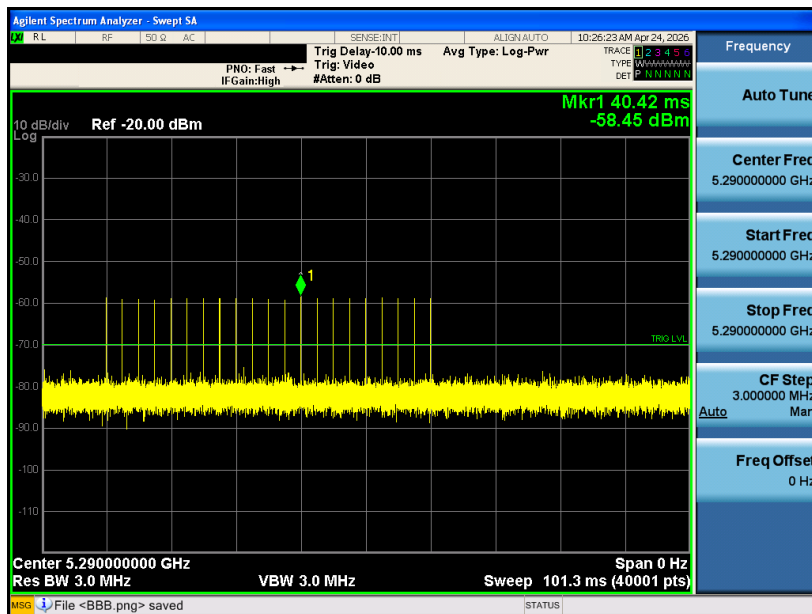


Short Pulse Radar
Type 1A

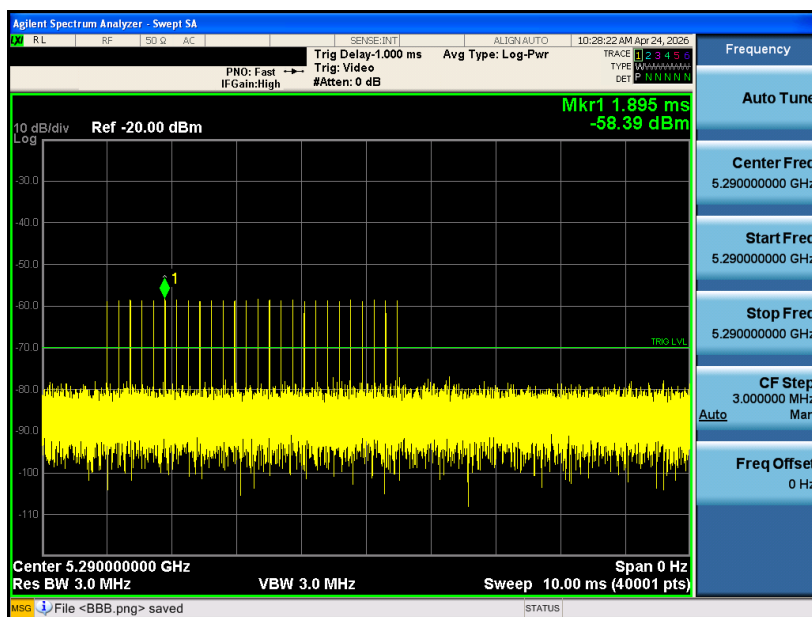


802.11be EHT160_ 5250 MHz

Short Pulse Radar
Type 1B

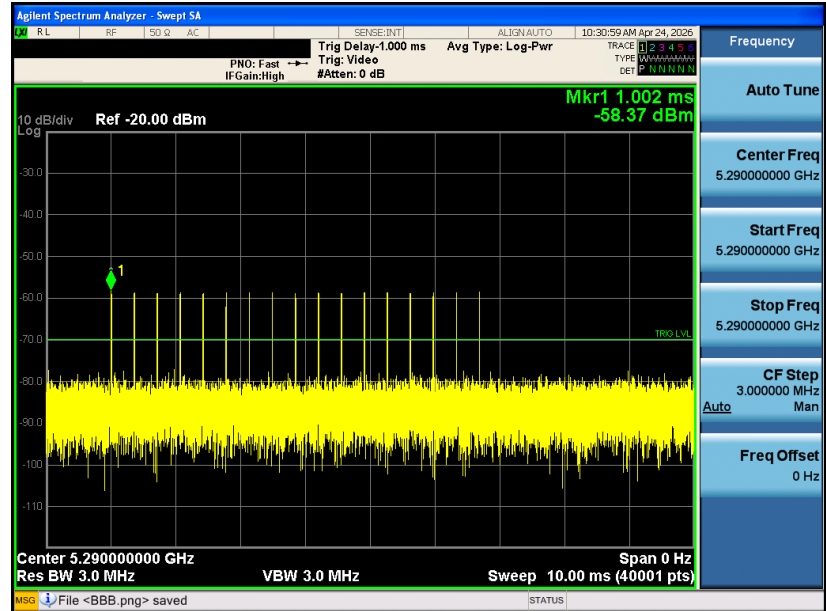


Short Pulse Radar
Type 2

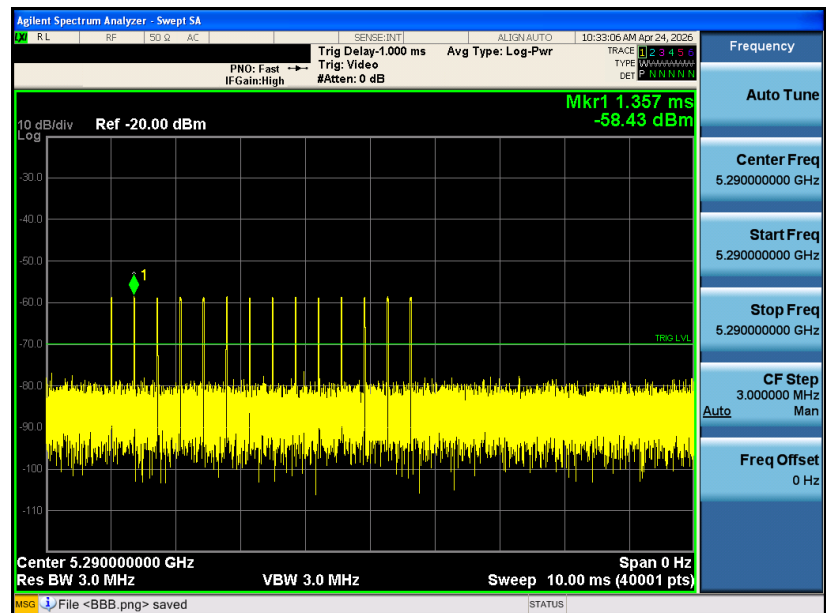


802.11be EHT160_ 5250 MHz

Short Pulse Radar
Type 3

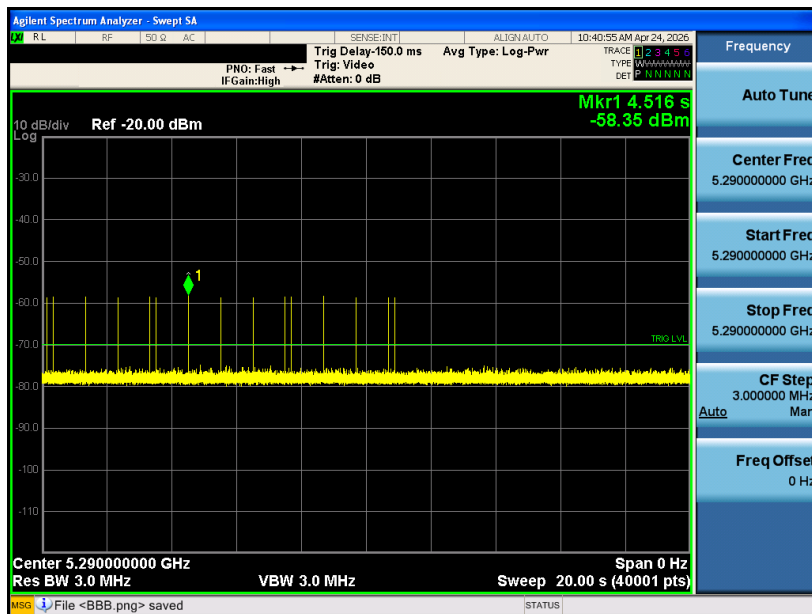


Short Pulse Radar
Type 4

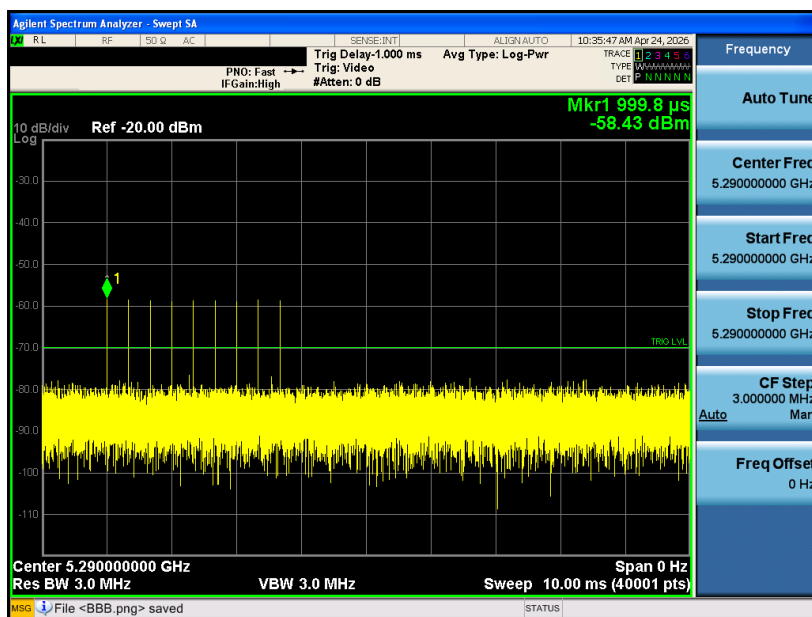


802.11be EHT160_ 5250 MHz

Long Pulse Radar
Type 5

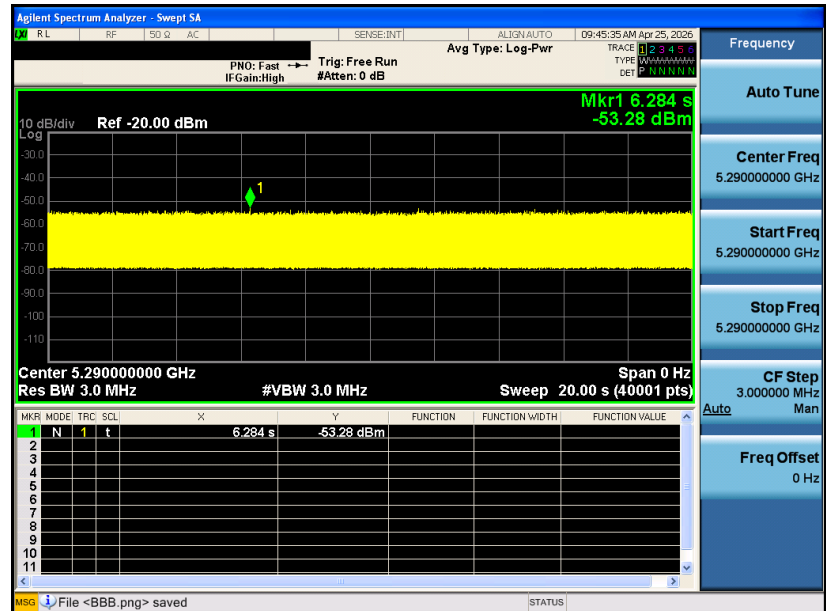


Frequency Hopping
Radar
Type 6



802.11be EHT160_ 5250 MHz

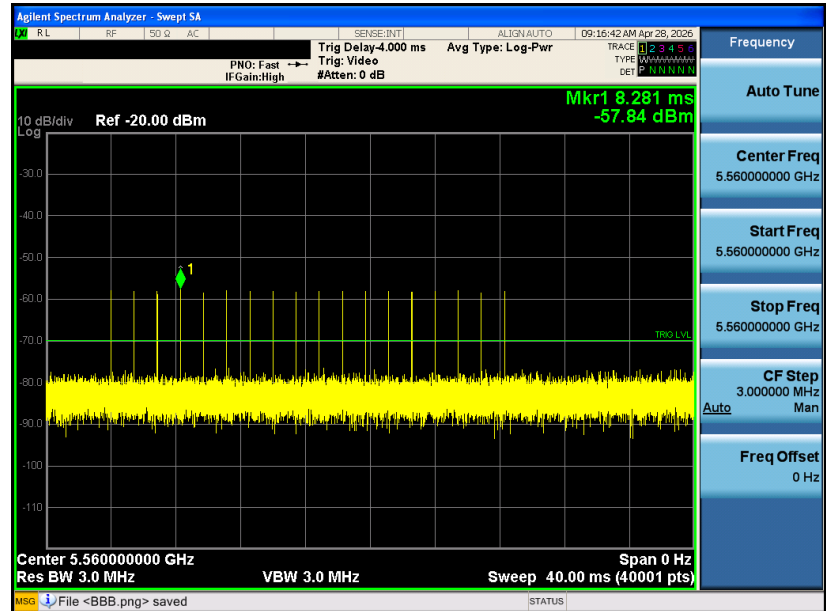
Traffic



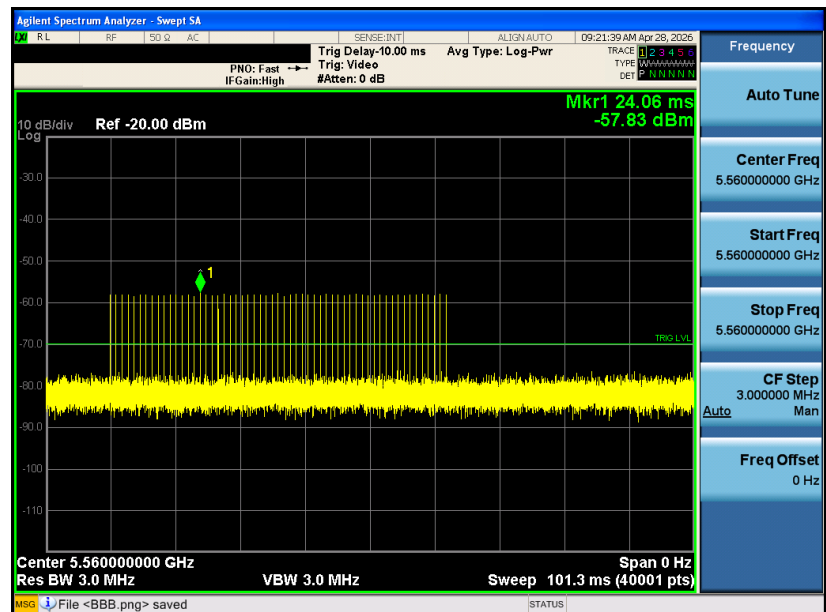
Mode 2_High Band

802.11be EHT20_ 5560 MHz

Short Pulse Radar
Type 0

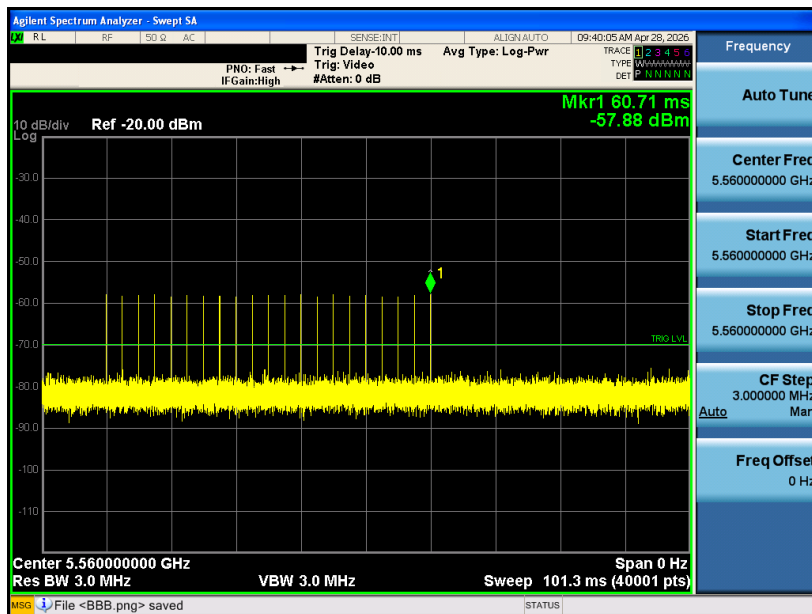


Short Pulse Radar
Type 1A

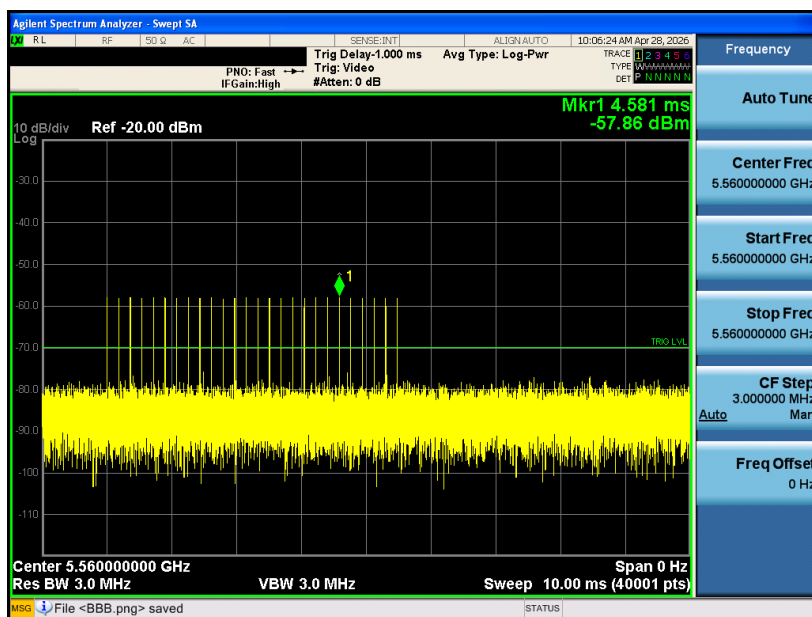


802.11be EHT20_ 5560 MHz

Short Pulse Radar
Type 1B

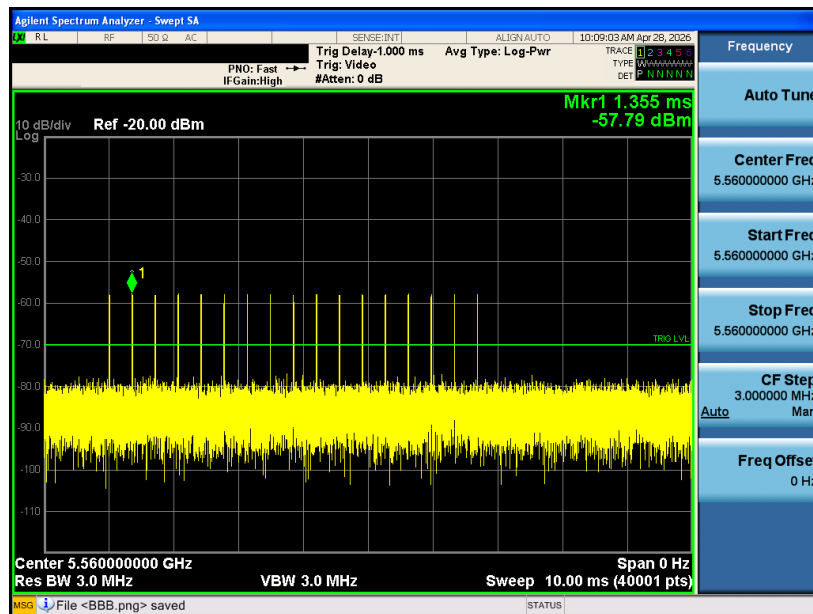


Short Pulse Radar
Type 2

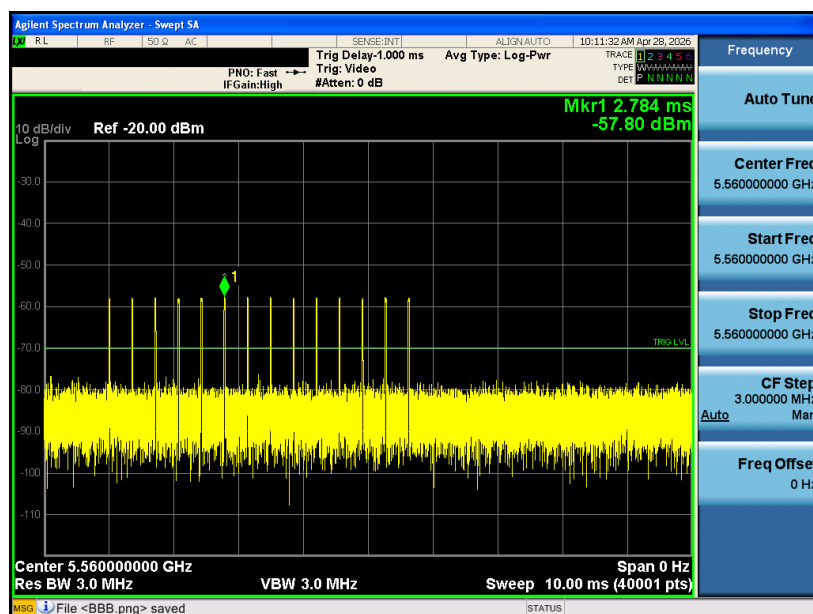


802.11be EHT20_ 5560 MHz

Short Pulse Radar
Type 3

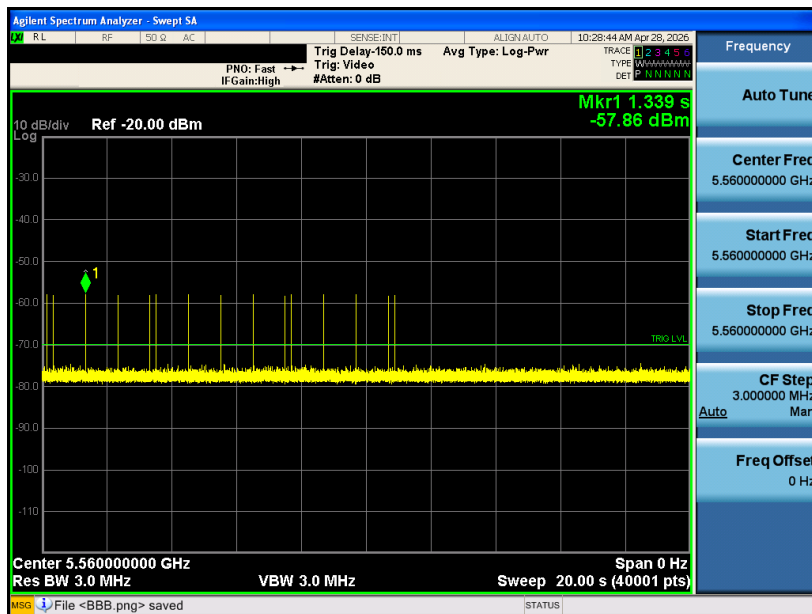


Short Pulse Radar
Type 4

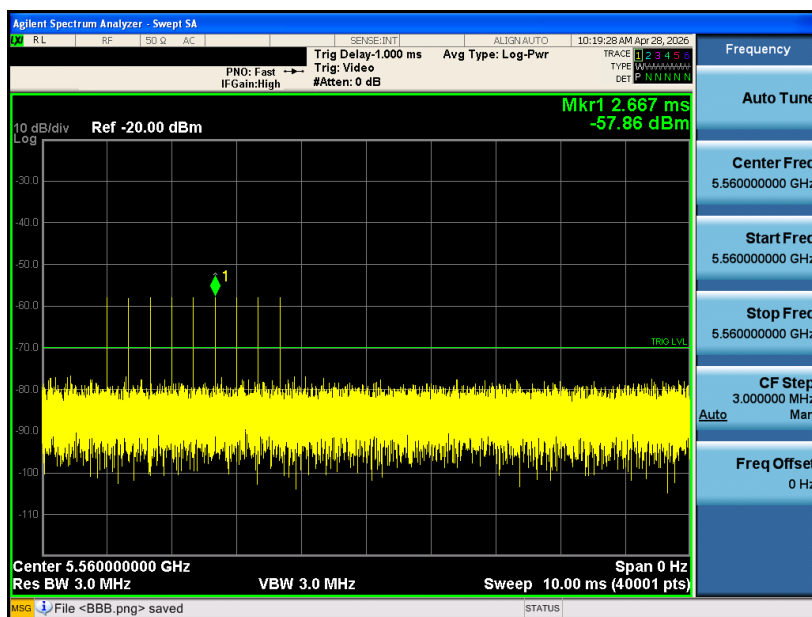


802.11be EHT20_ 5560 MHz

Long Pulse Radar
Type 5

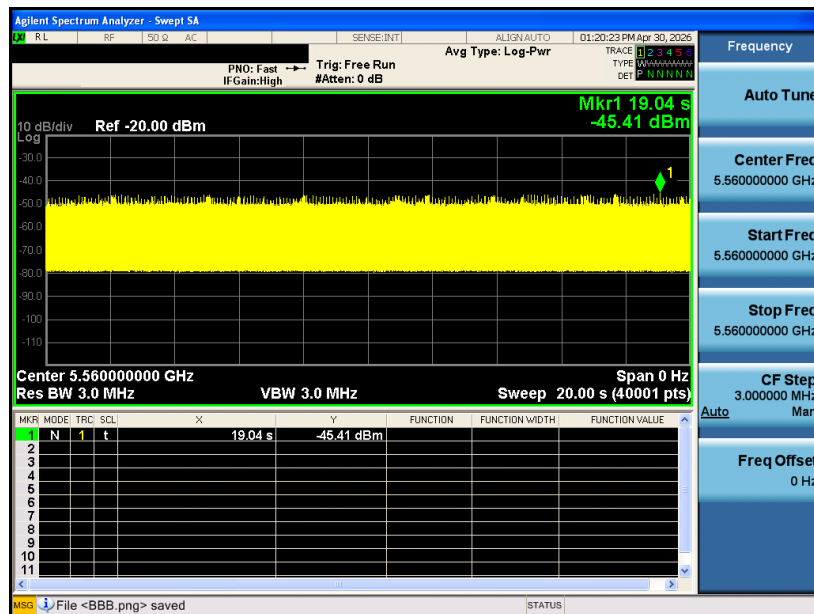


Frequency Hopping
Radar
Type 6



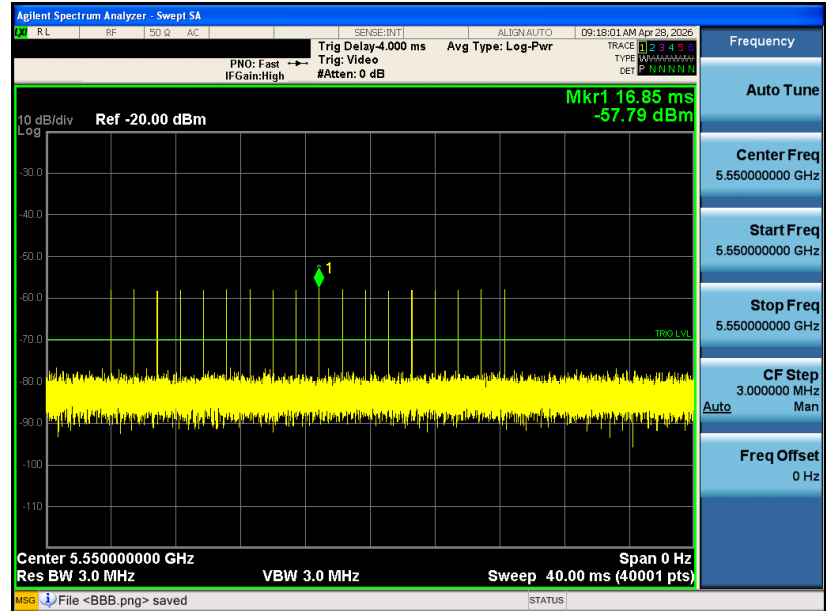
802.11be EHT20_ 5560 MHz

Traffic

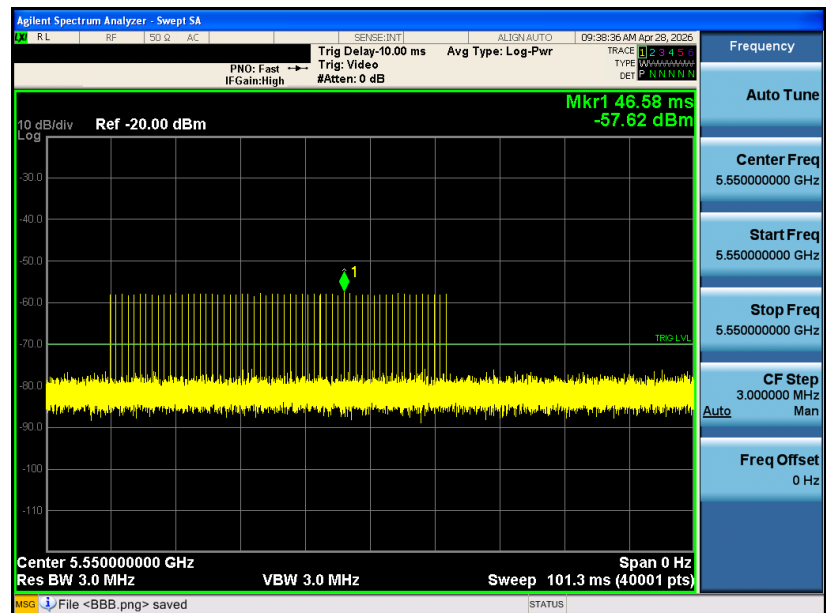


802.11be EHT40_ 5550 MHz

Short Pulse Radar
Type 0

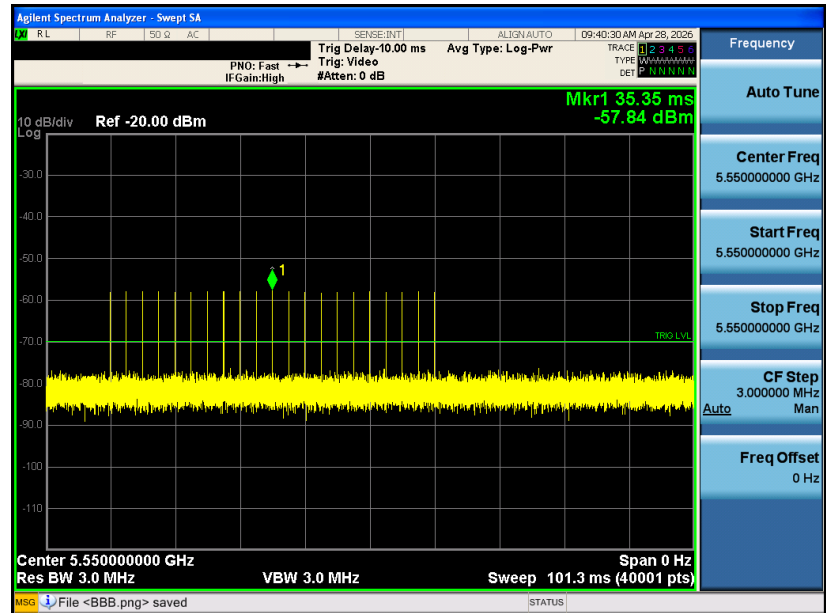


Short Pulse Radar
Type 1A

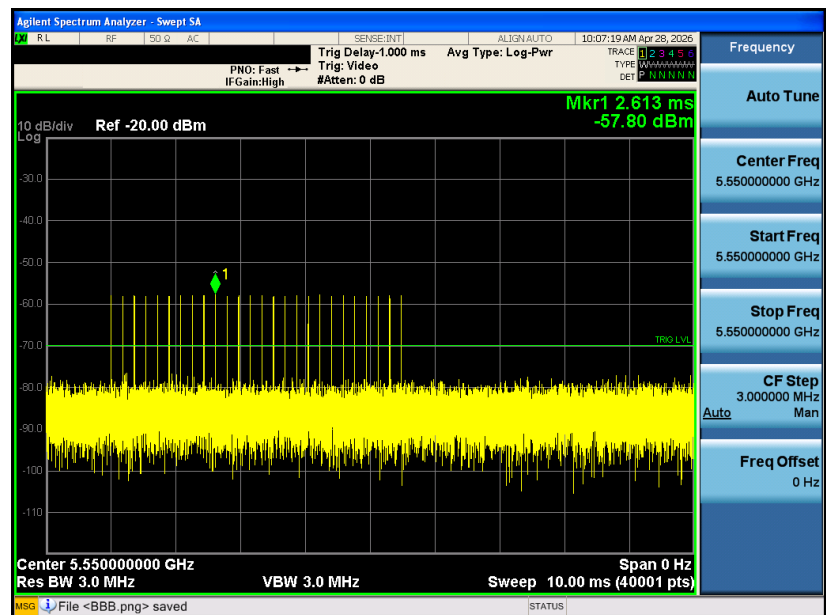


802.11be EHT40_ 5550 MHz

Short Pulse Radar
Type 1B

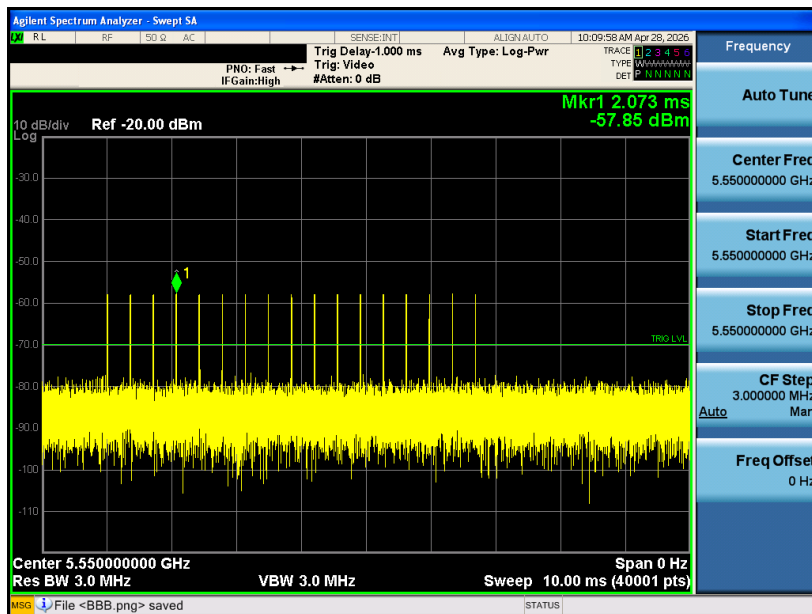


Short Pulse Radar
Type 2

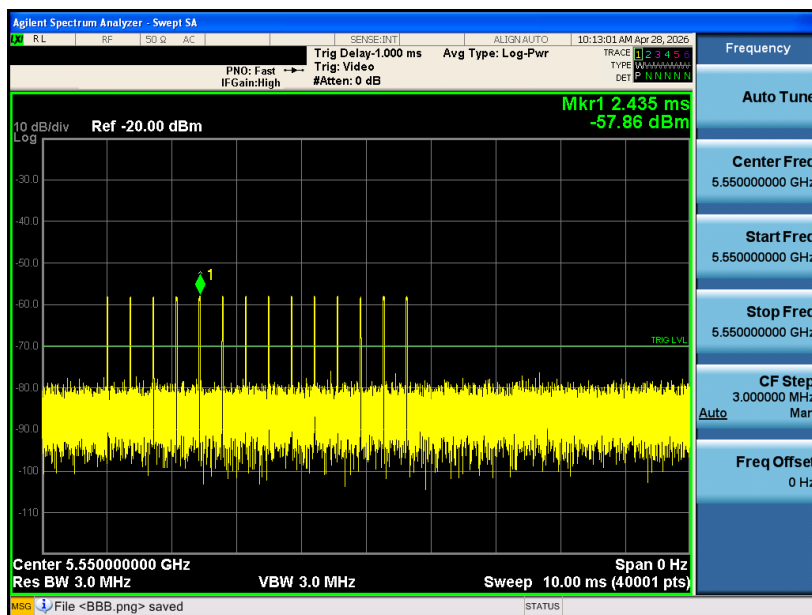


802.11be EHT40_ 5550 MHz

Short Pulse Radar
Type 3

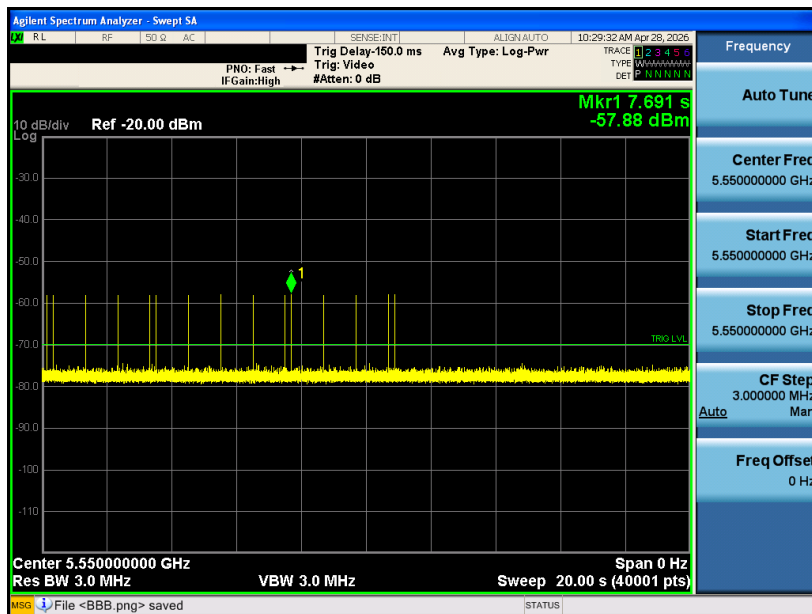


Short Pulse Radar
Type 4

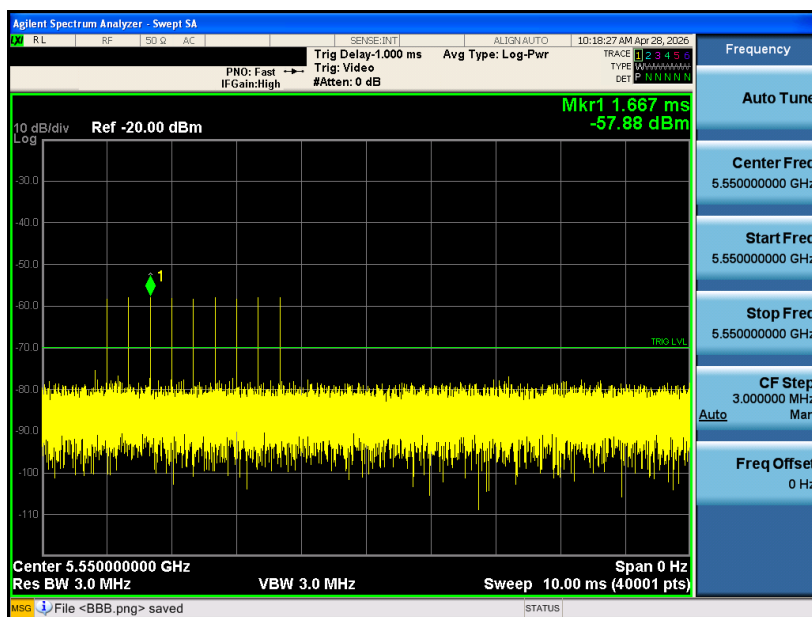


802.11be EHT40_ 5550 MHz

Long Pulse Radar
Type 5

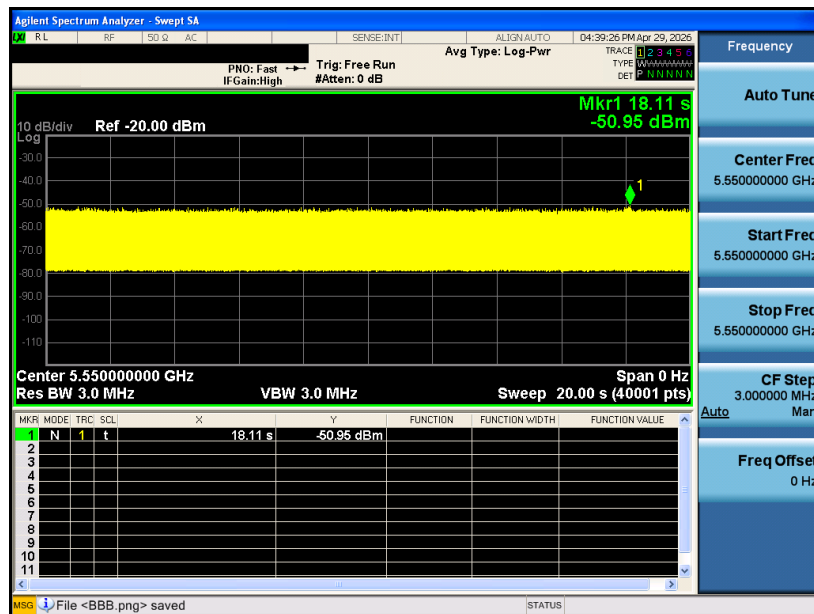


Frequency Hopping
Radar
Type 6



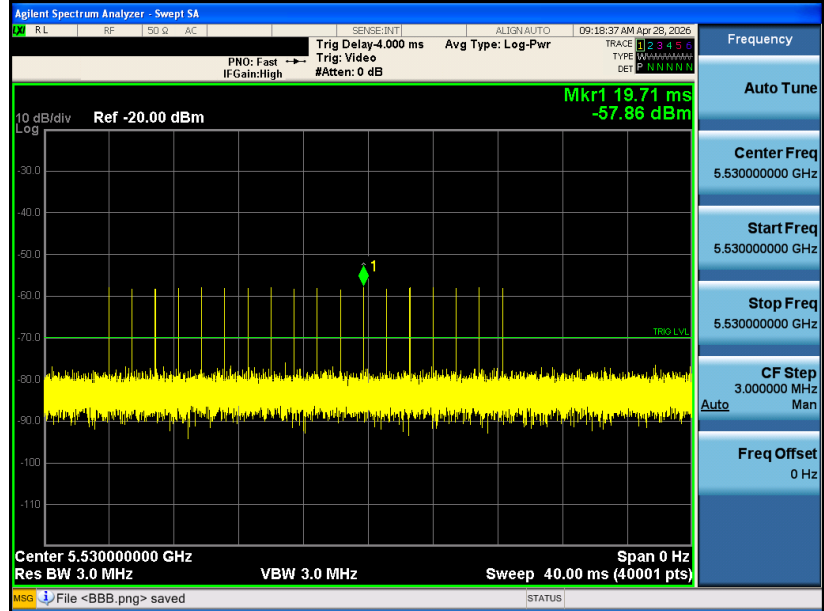
802.11be EHT40_ 5550 MHz

Traffic

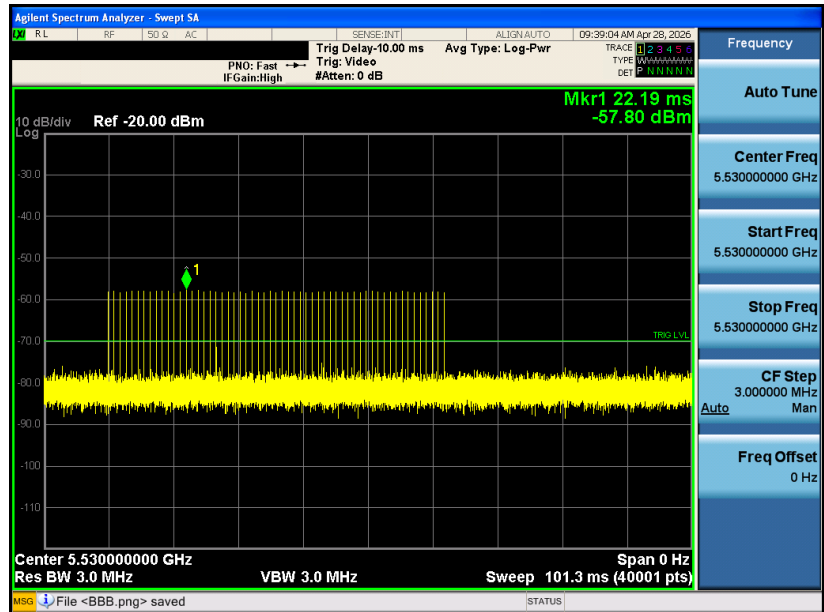


802.11be EHT80_ 5530 MHz

Short Pulse Radar
Type 0

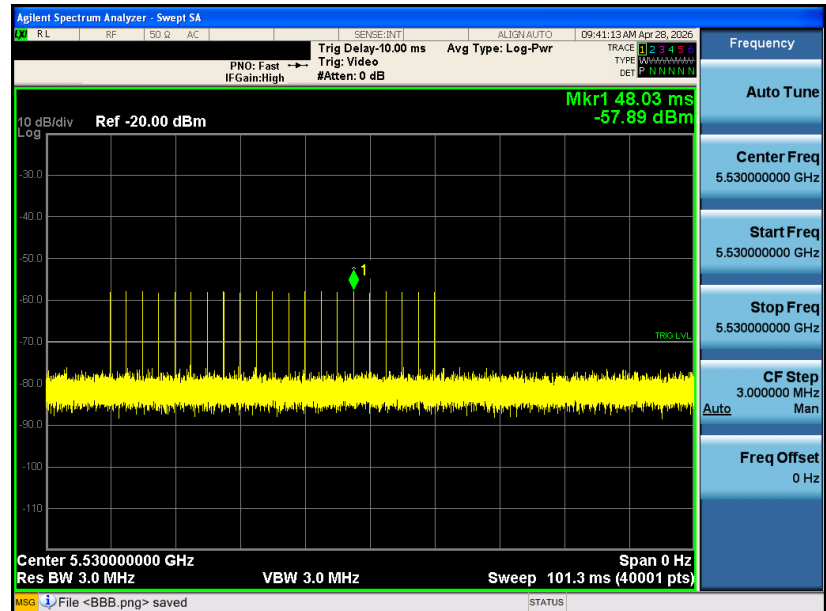


Short Pulse Radar
Type 1A

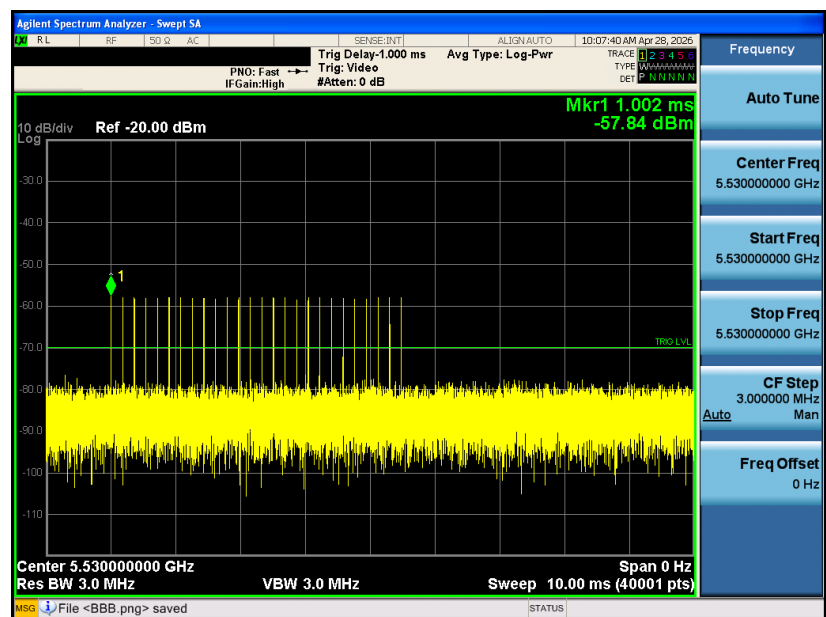


802.11be EHT80_ 5530 MHz

Short Pulse Radar
Type 1B

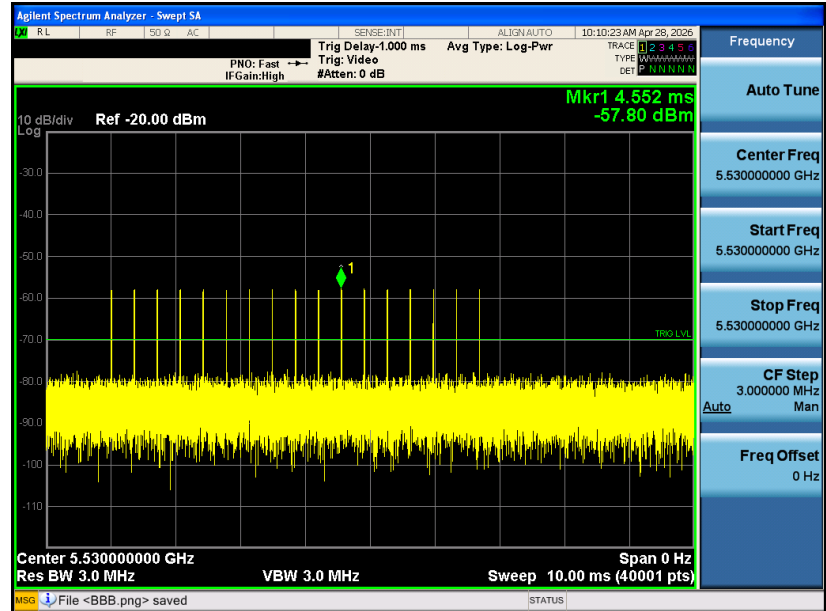


Short Pulse Radar
Type 2

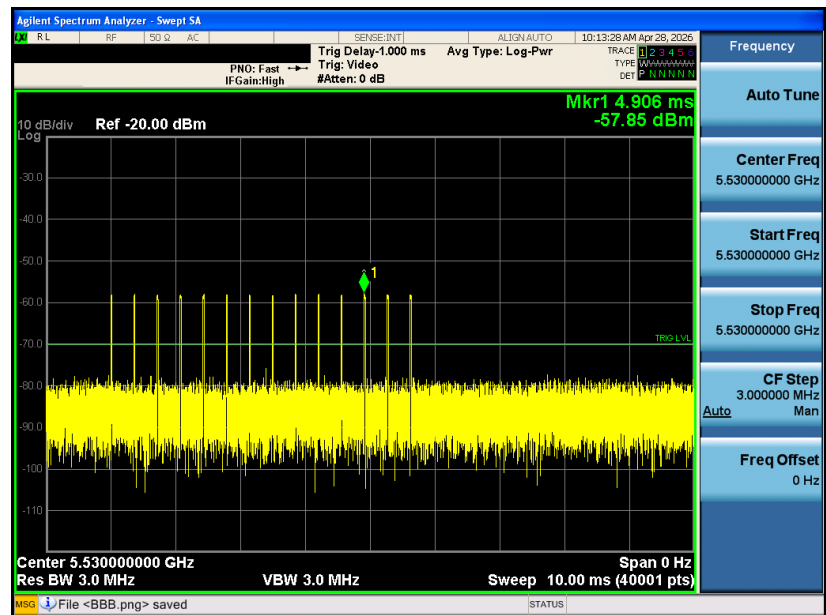


802.11be EHT80_ 5530 MHz

Short Pulse Radar
Type 3

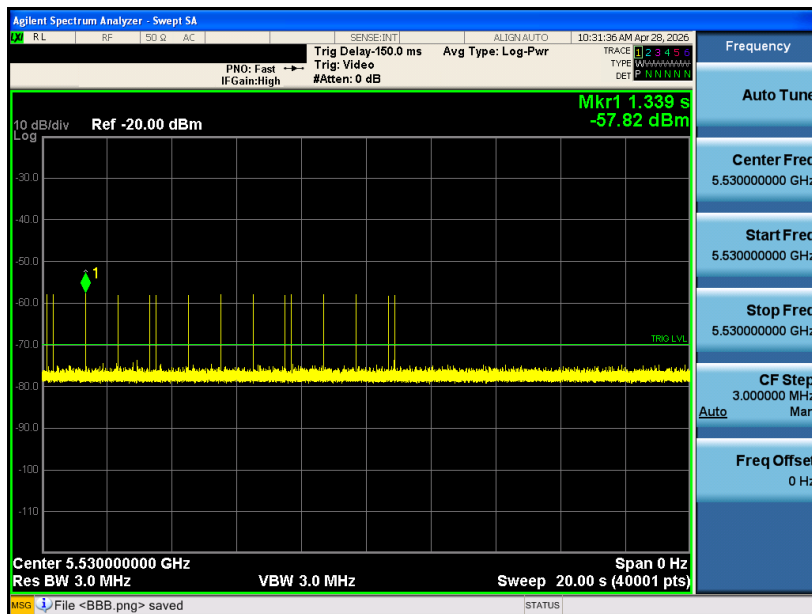


Short Pulse Radar
Type 4

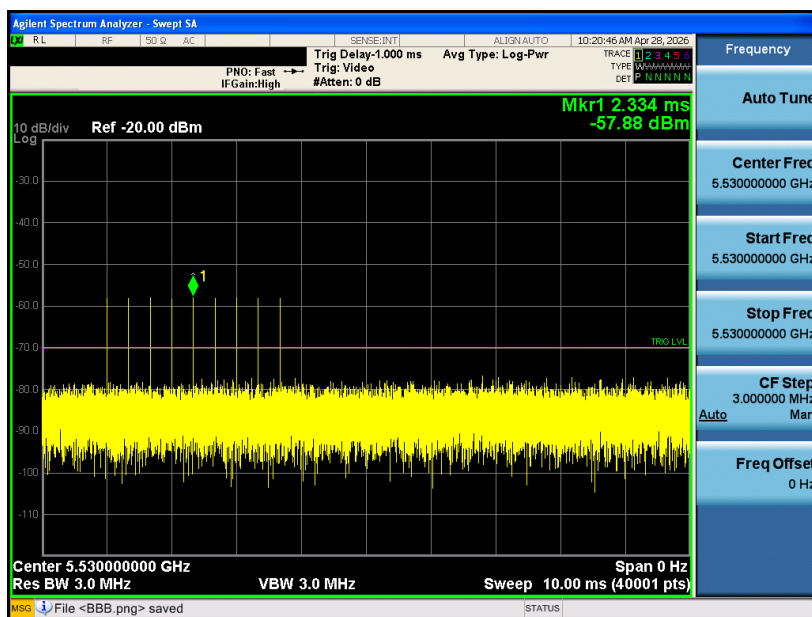


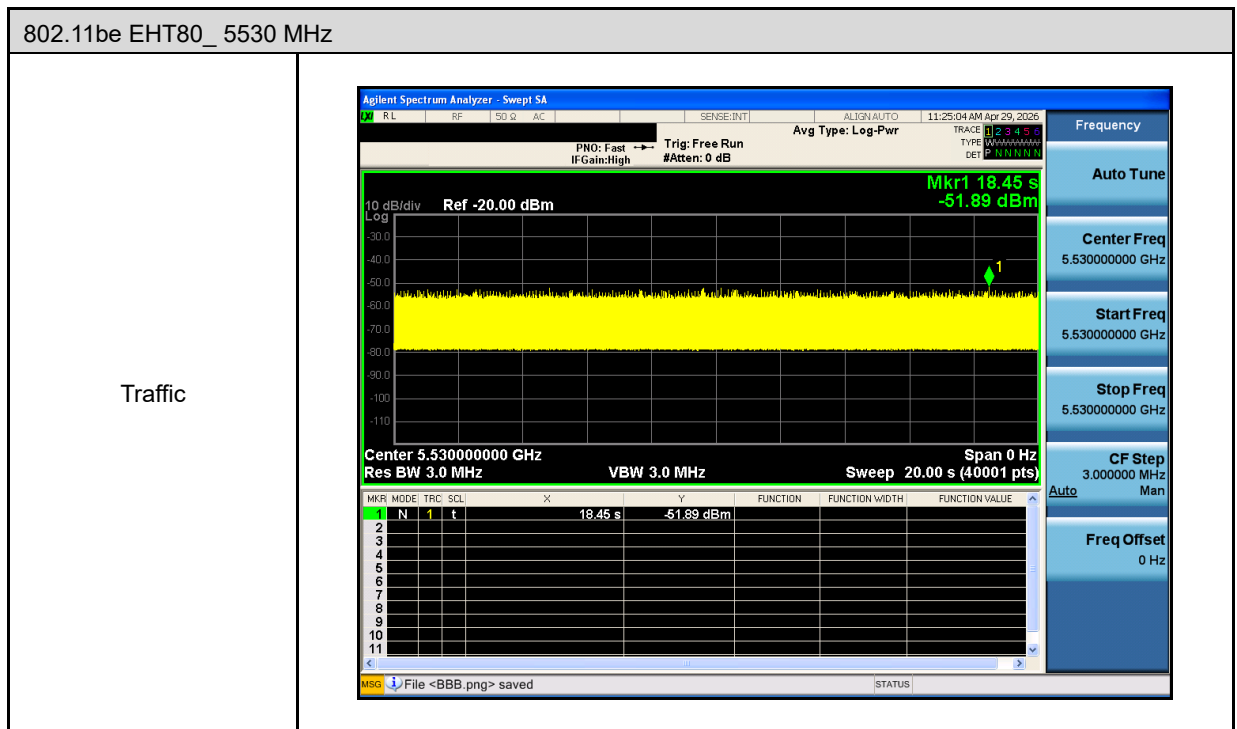
802.11be EHT80_ 5530 MHz

Long Pulse Radar
Type 5



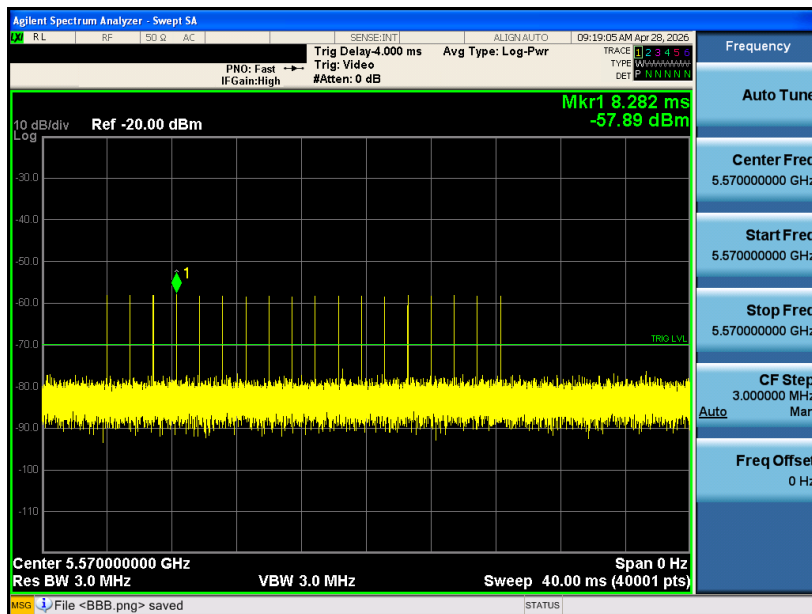
Frequency Hopping
Radar
Type 6



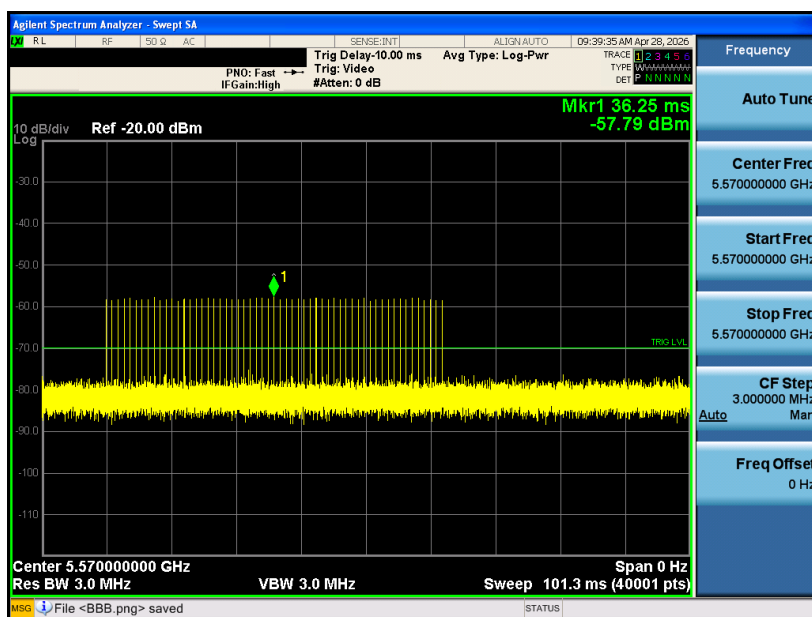


802.11be EHT160_ 5570 MHz

Short Pulse Radar
Type 0

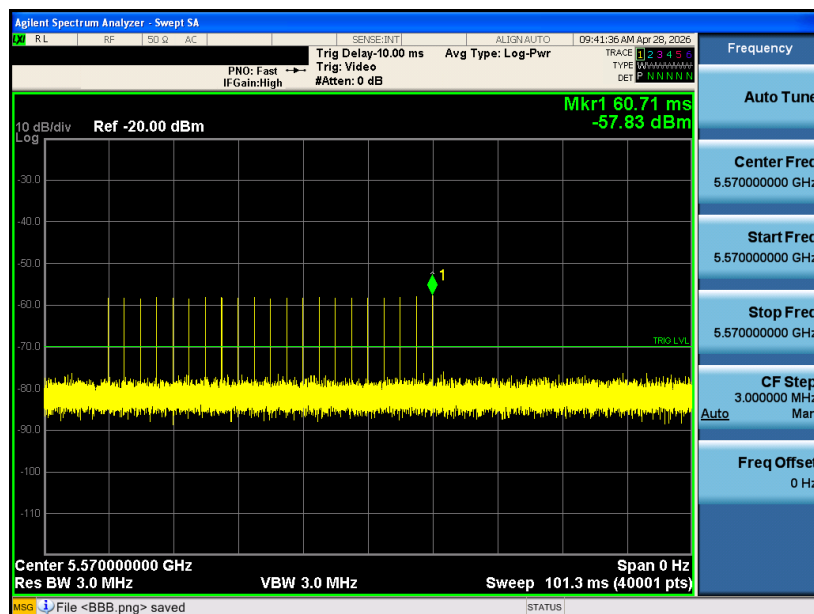


Short Pulse Radar
Type 1A

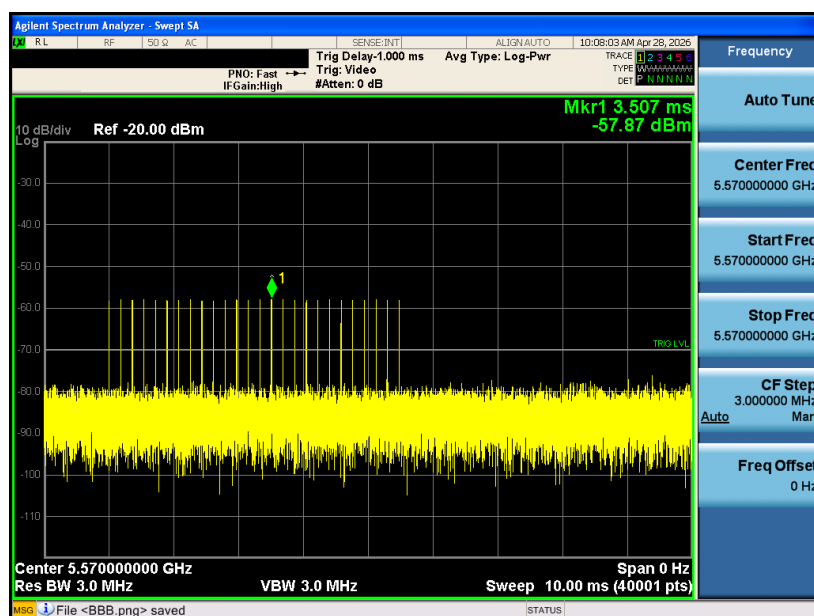


802.11be EHT160_ 5570 MHz

Short Pulse Radar
Type 1B

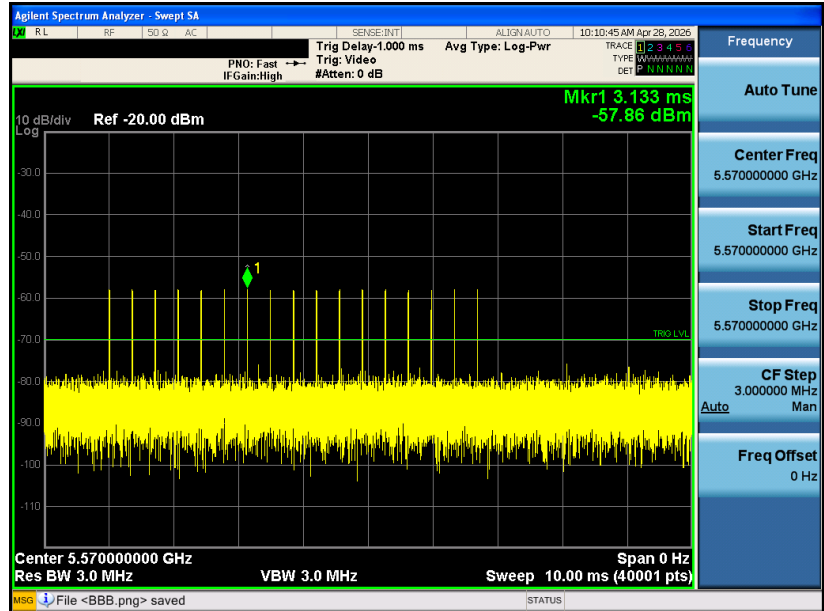


Short Pulse Radar
Type 2

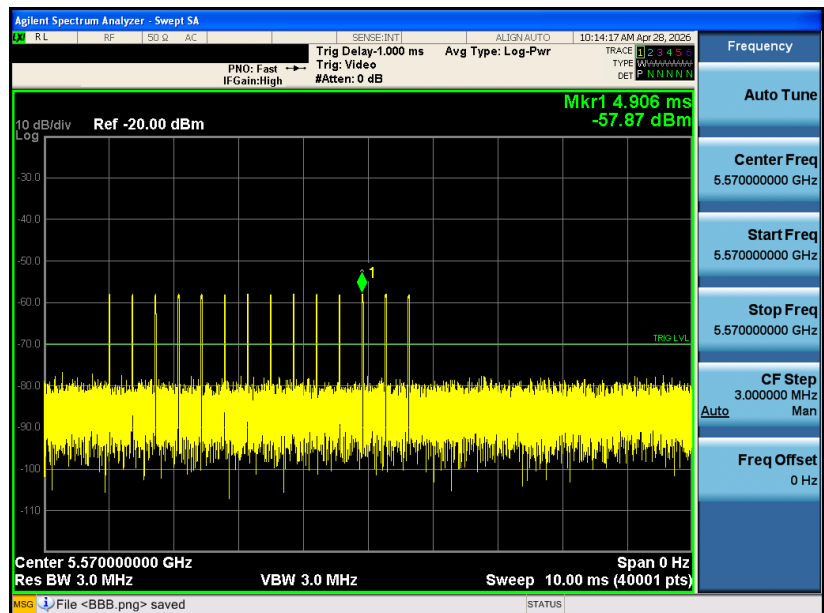


802.11be EHT160_ 5570 MHz

Short Pulse Radar
Type 3

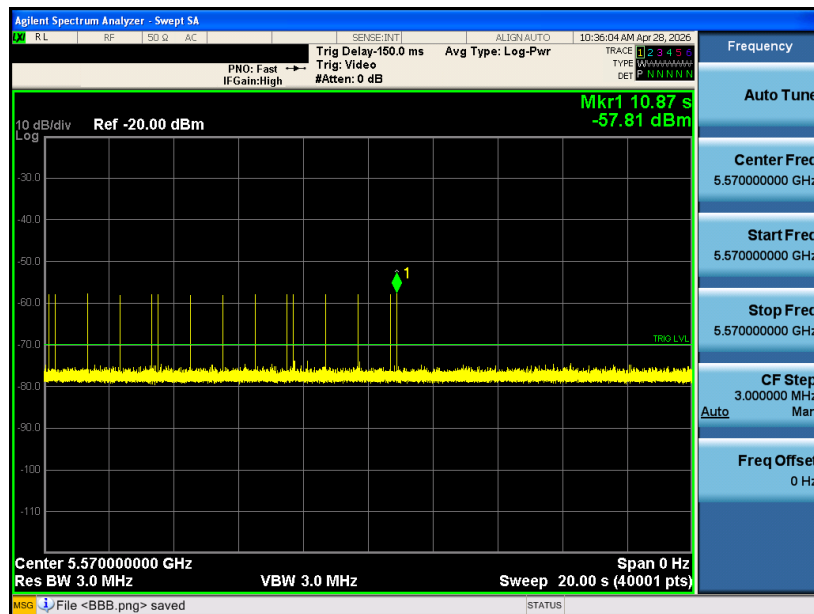


Short Pulse Radar
Type 4

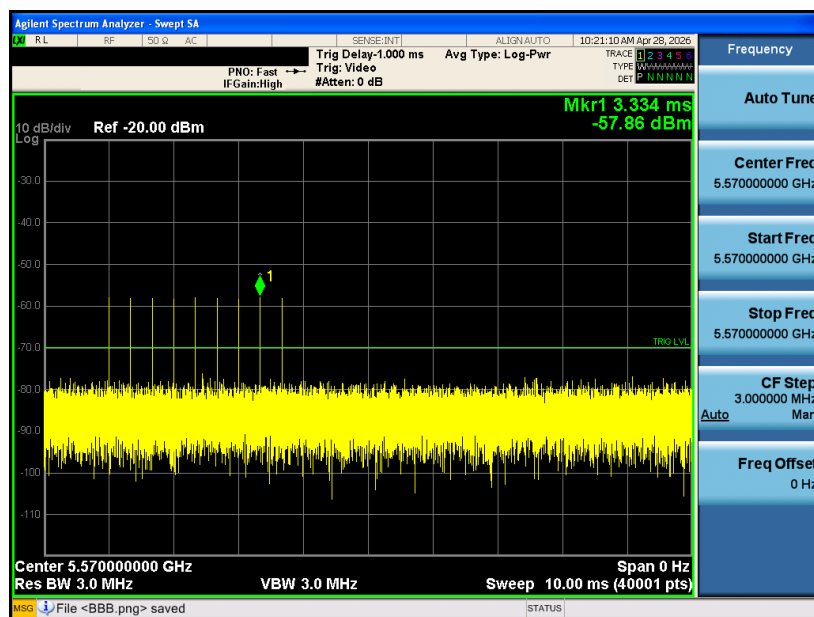


802.11be EHT160_ 5570 MHz

Long Pulse Radar
Type 5

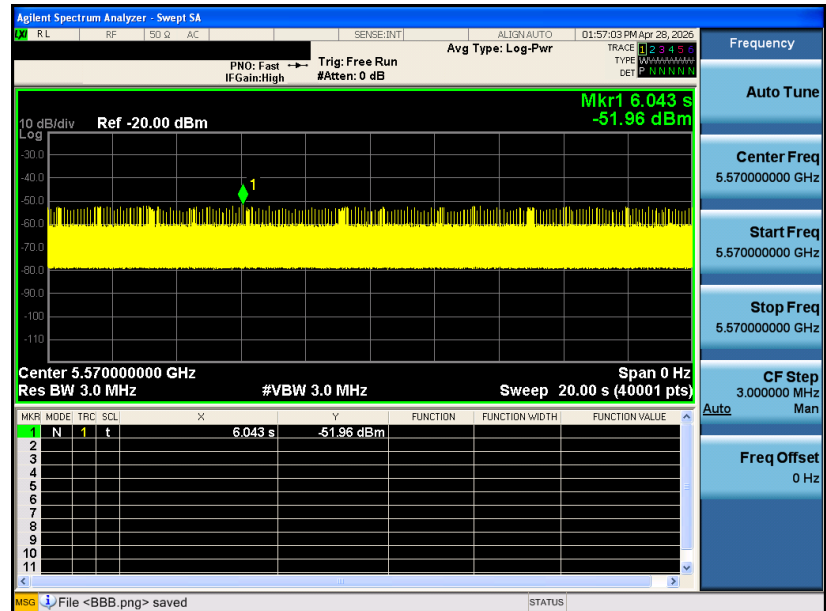


Frequency Hopping
Radar
Type 6

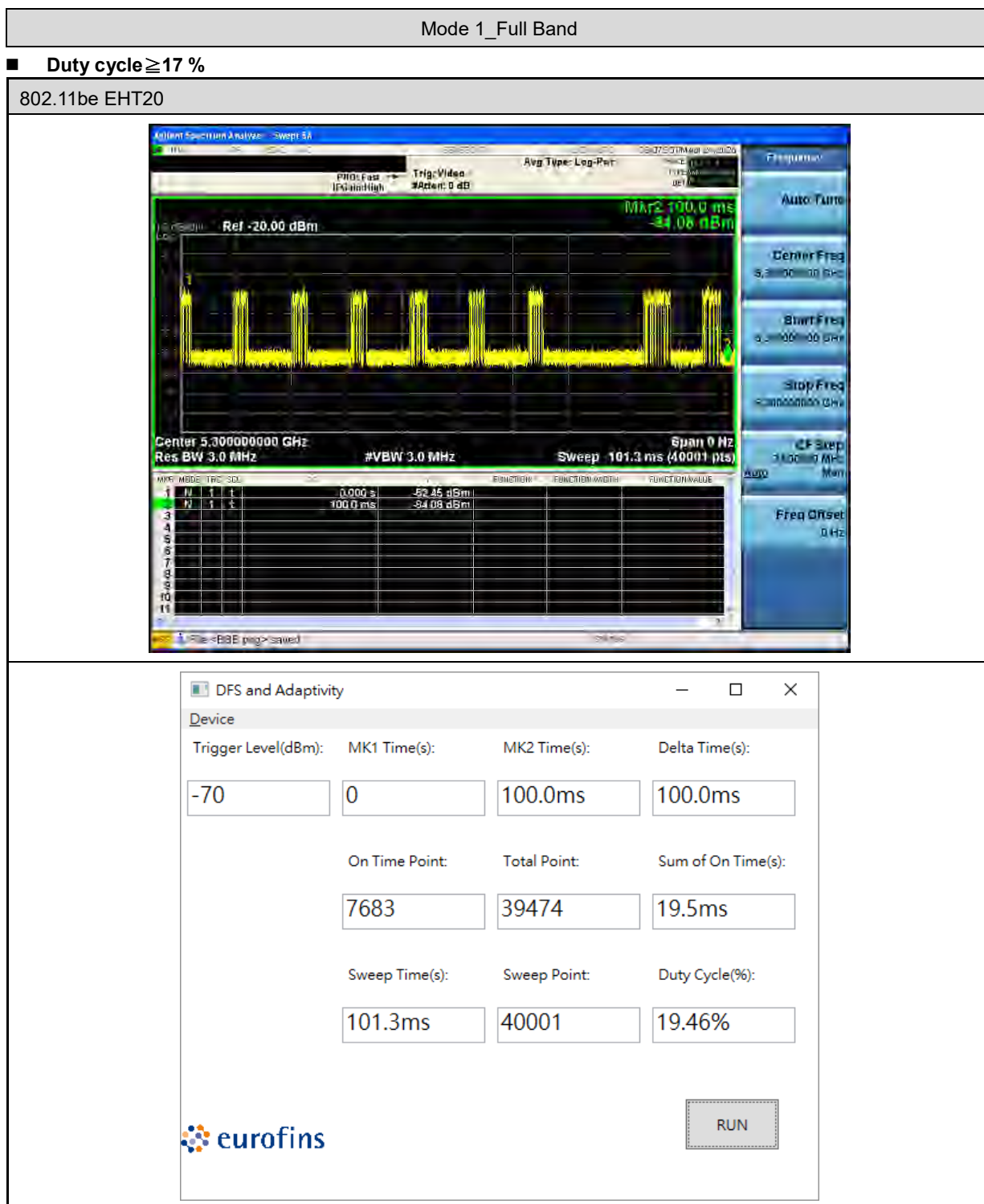


802.11be EHT160_ 5570 MHz

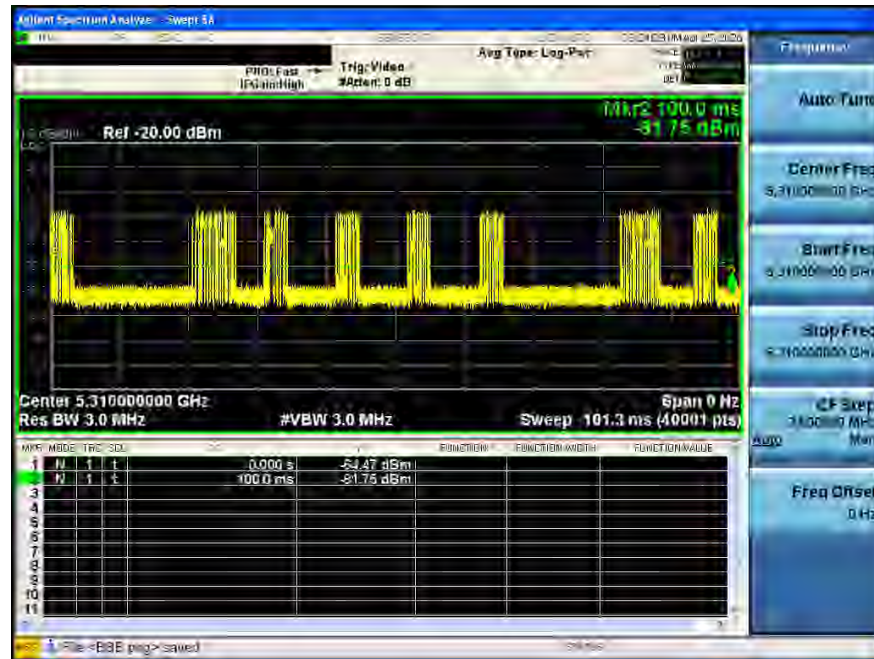
Traffic



5.2. Channel Loading



802.11be EHT40



DFS and Adaptivity

Device

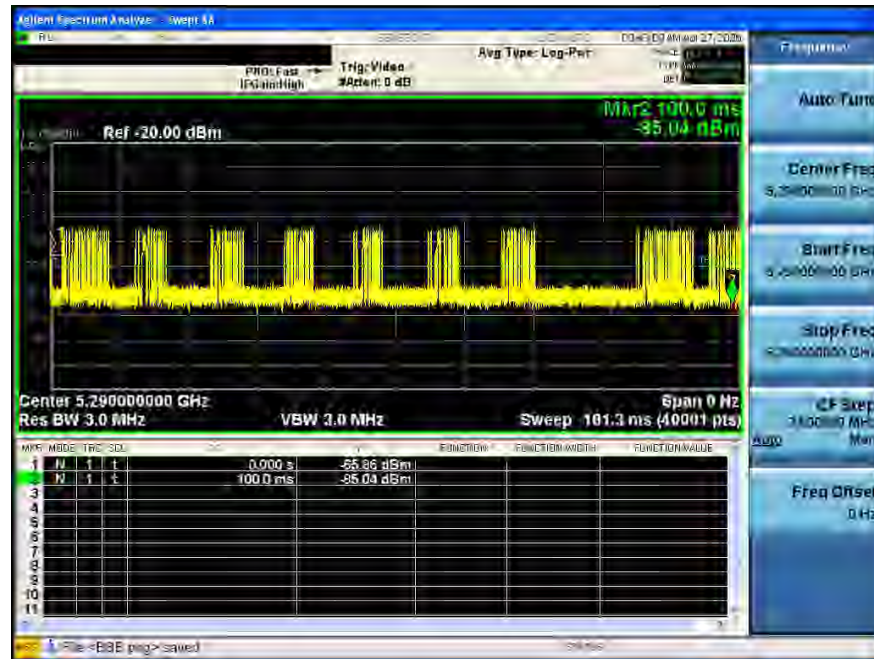
Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms

On Time Point:	Total Point:	Sum of On Time(s):
6972	39474	17.7ms

Sweep Time(s):	Sweep Point:	Duty Cycle(%):
101.3ms	40001	17.66%

Run

802.11be EHT80



DFS and Adaptivity

Device

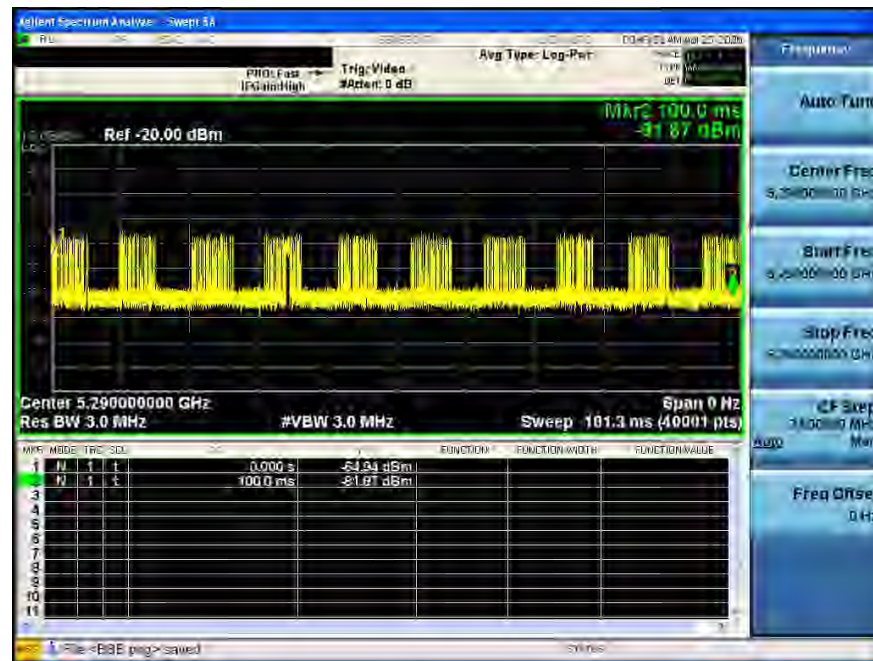
Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms

On Time Point:	Total Point:	Sum of On Time(s):
7411	39474	18.8ms

Sweep Time(s):	Sweep Point:	Duty Cycle(%)
101.3ms	40001	18.77%

Run

802.11be EHT160



DFS and Adaptivity

Device

Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms
On Time Point:		Total Point:	Sum of On Time(s):
7349		39474	18.6ms
Sweep Time(s):		Sweep Point:	Duty Cycle(%):
101.3ms		40001	18.62%

RUN

Mode 2_High Band

802.11be EHT20



DFS and Adaptivity

Device

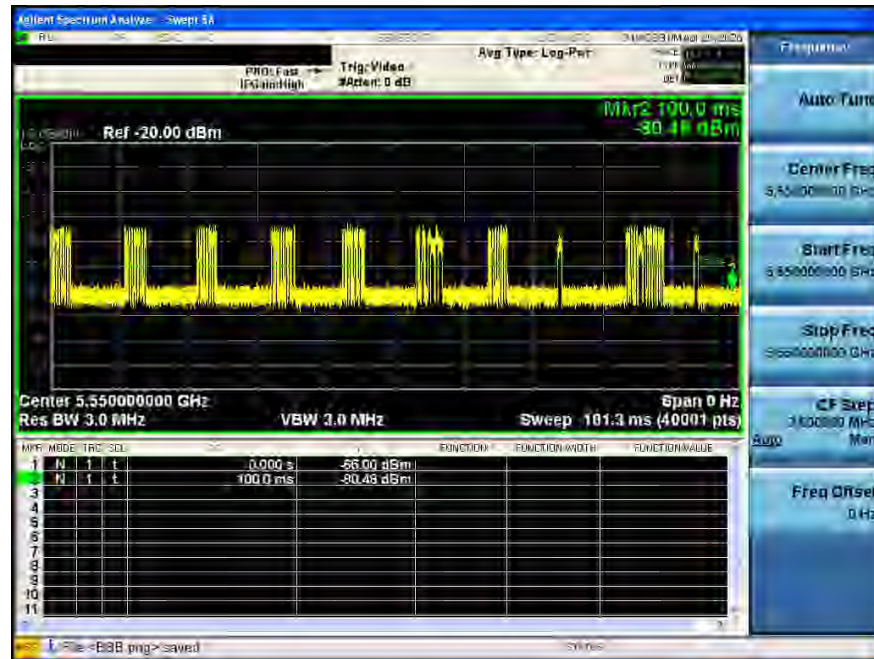
Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms

On Time Point:	Total Point:	Sum of On Time(s):
7407	39474	18.8ms

Sweep Time(s):	Sweep Point:	Duty Cycle(%):
101.3ms	40001	18.76%

RUN

802.11be EHT40



DFS and Adaptivity

— □ ×

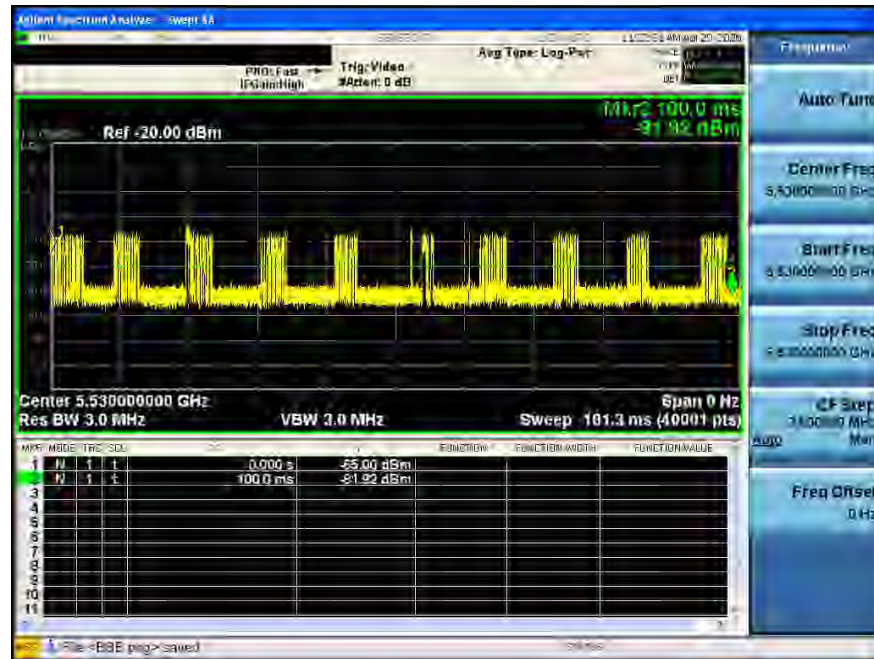
Device

Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms
On Time Point:	Total Point:	Sum of On Time(s):	
7106	39474	18.0ms	
Sweep Time(s):	Sweep Point:	Duty Cycle(%):	
101.3ms	40001	18.00%	

eurofins

RUN

802.11be EHT80



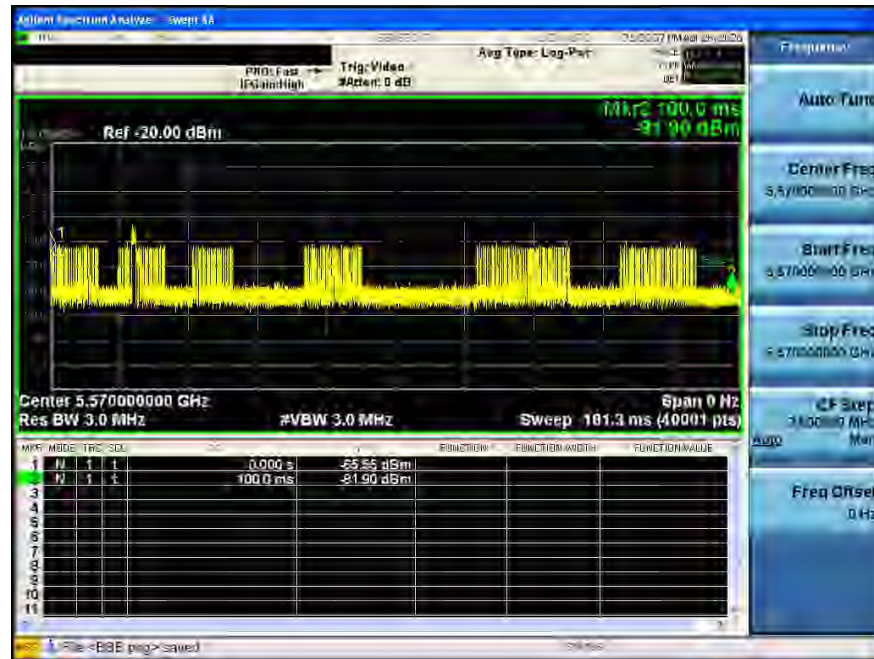
DFS and Adaptivity

Device

Trigger Level(dBm):	MK1 Time(s):	MK2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms
On Time Point:	Total Point:	Sum of On Time(s):	
7068	39474	17.9ms	
Sweep Time(s):	Sweep Point:	Duty Cycle(%):	
101.3ms	40001	17.91%	

RUN

802.11be EHT160



DFS and Adaptivity

Device

Trigger Level(dBm):	Mk1 Time(s):	Mk2 Time(s):	Delta Time(s):
-70	0	100.0ms	100.0ms

On Time Point:	Total Point:	Sum of On Time(s):
7933	39474	20.1ms

Sweep Time(s):	Sweep Point:	Duty Cycle(%)
101.3ms	40001	20.10%

File: <B8E.png> saved

RUN

5.3. Channel Availability Check Time

5.3.1. Procedure to Determine Initial Power-Up Cycle Time

A link was established on channel then the EUT was rebooted. The time from the cessation of traffic to the re-initialization of traffic was measured as the time required for the EUT to complete the total power-up cycle. The time to complete the initial power-up period is 60 seconds less than this total power-up time.

5.3.2. Procedure for Timing Of Radar Burst

With a link established on channel, the EUT was rebooted. A radar signal was triggered within 0 to 6 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

The Non-Occupancy list was cleared. With a link established on channel, the EUT was rebooted. A radar signal was triggered within 54 to 60 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

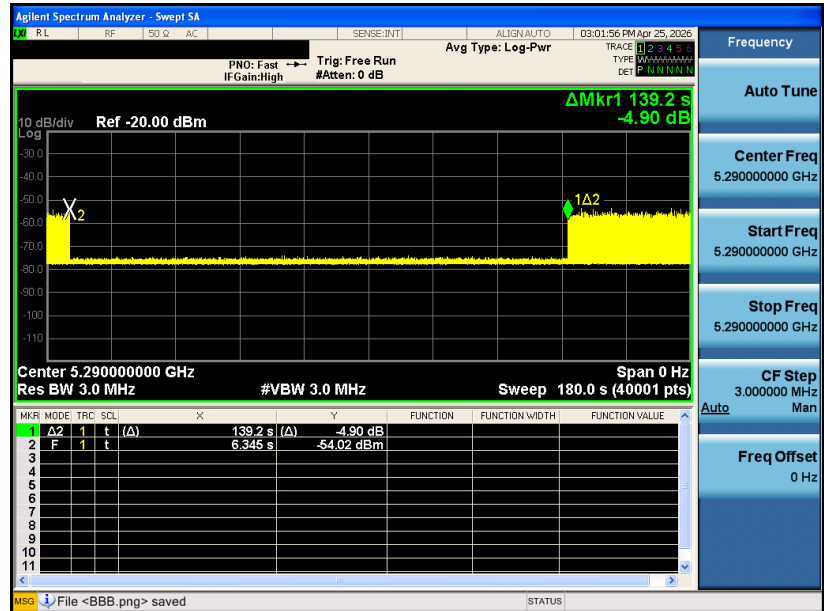
5.3.3. Qualitative Results

Timing of Radar Burst	Display on Control Computer	Spectrum Analyzer Display
No Radar Triggered	EUT marks Channel as active	Transmissions begin on channel after completion of the initial power-up cycle and the CAC
Within 0 to 6 second window	EUT indicates radar detected	No transmissions on channel
Within 54 to 60 second window	EUT indicates radar detected	No transmissions on channel

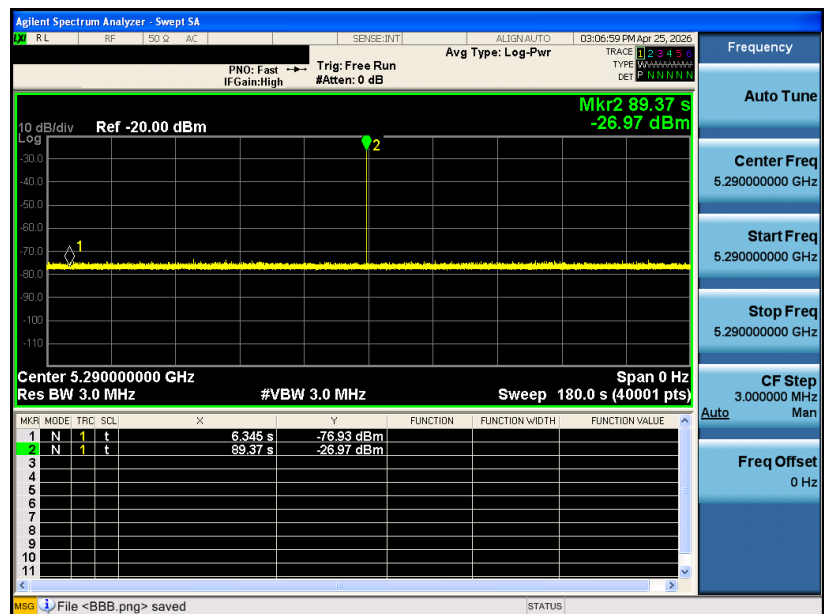
Mode 1_Full Band

802.11be EHT160_ 5250 MHz

Initial Channel
Availability Check

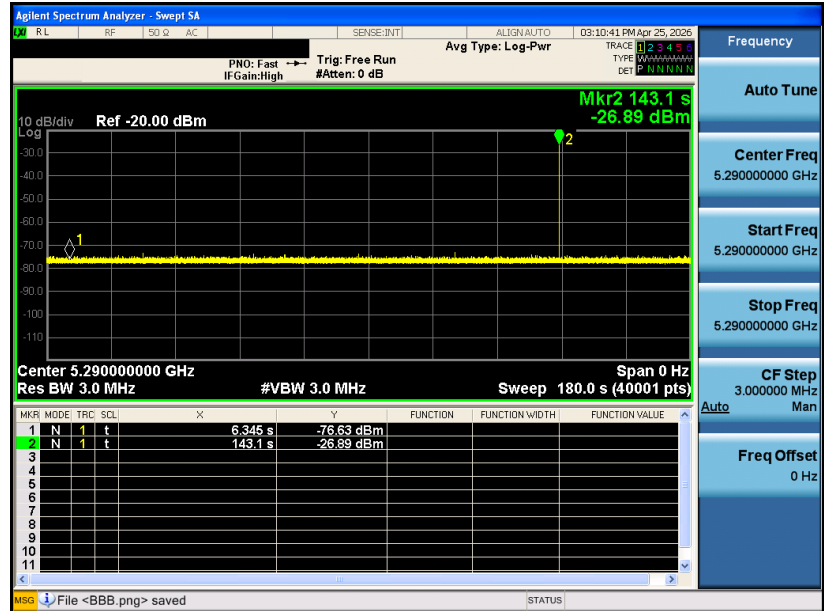


Initial Channel
Availability Check
Begin



802.11be EHT160_ 5250 MHz

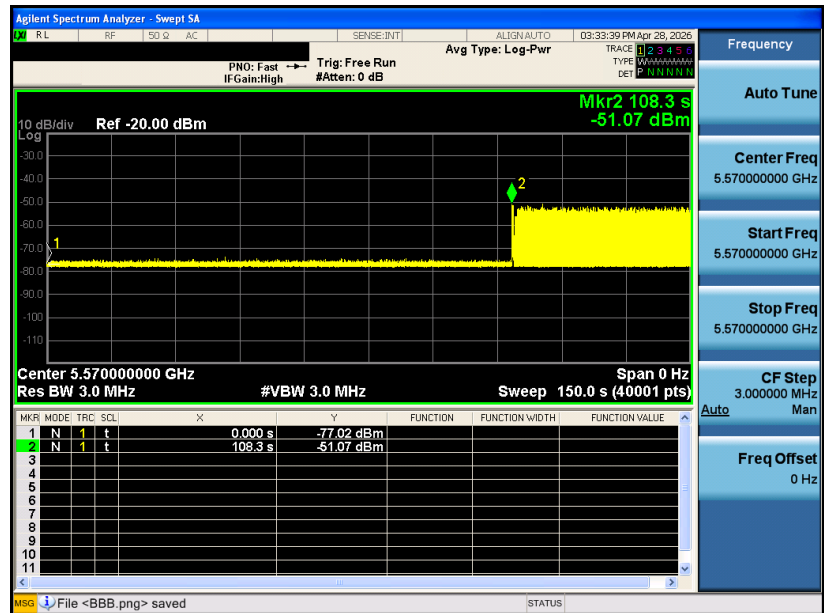
Initial Channel
Availability Check
End



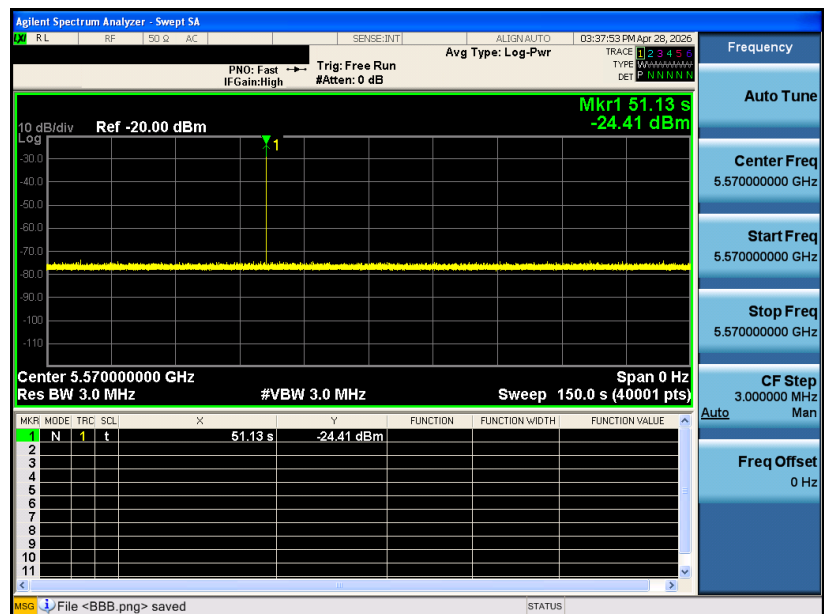
Mode 2_High Band

802.11be EHT160_ 5570 MHz

Initial Channel
Availability Check

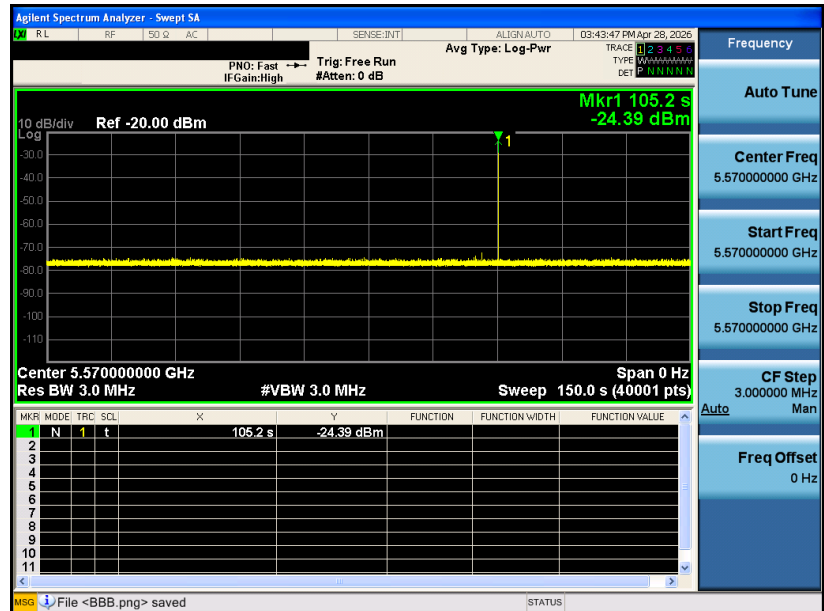


Initial Channel
Availability Check
Begin



802.11be EHT160_ 5570 MHz

Initial Channel
Availability Check
End



5.4. Channel Move Time and Channel Closing Transmission Time

5.4.1. Reporting Notes

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse.
This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = (Number of analyzer bins showing transmission) * (dwell time per bin)

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.

Results

Mode 1_Full Band			
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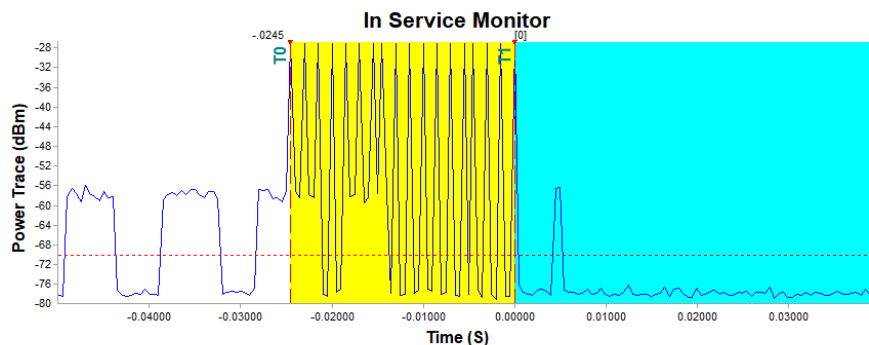
Frequency (MHz)	Radar Type	Channel Move Time	Limit (sec)
		Measured Value (sec)	
5250	Type 0	0.4980	10

Frequency (MHz)	Radar Type	Aggregate Channel Closing Transmission Time	Limit (msec)
		Measured Value (msec)	
5250	Type 0	7.9998	60

Master :

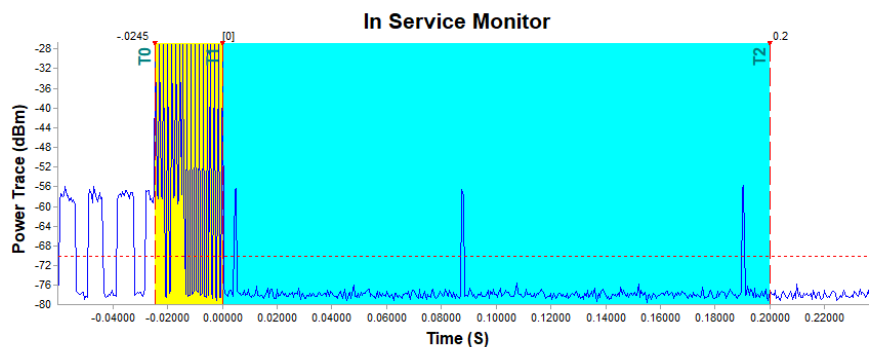
802.11be EHT160_ 5250 MHz

Channel Move and
Closing Time
(T0~T1)

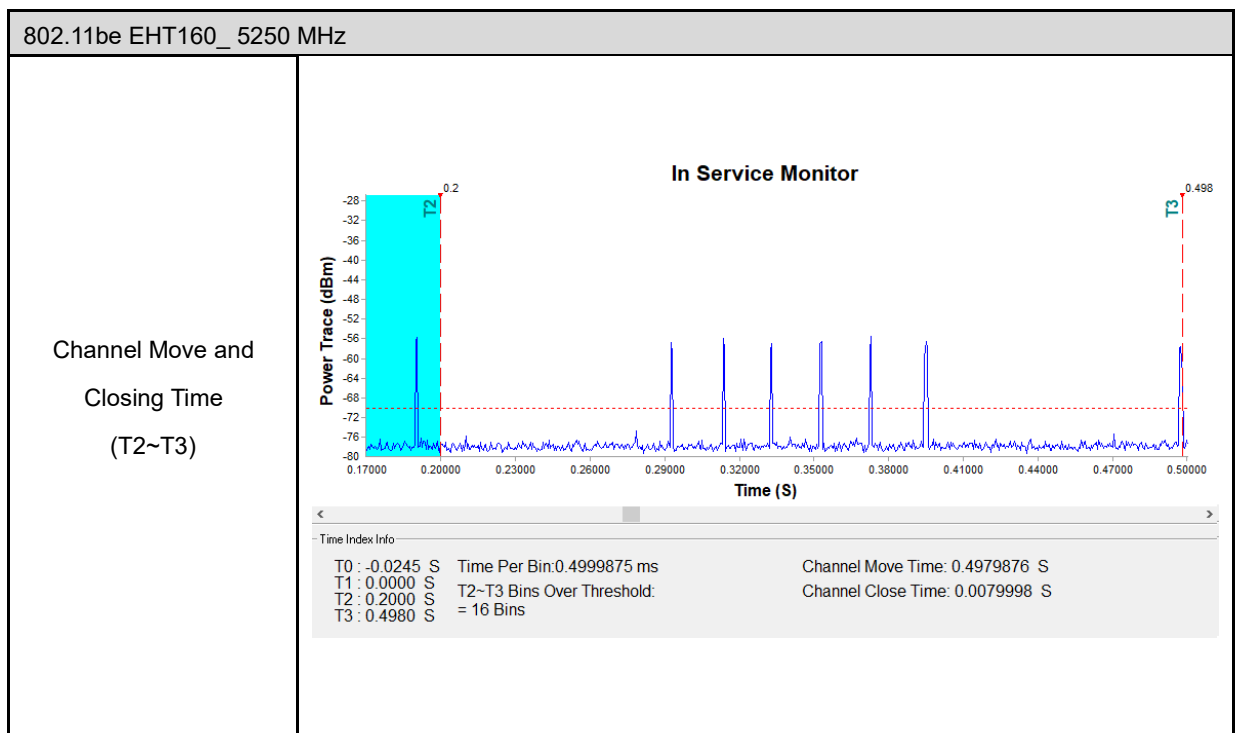


Time Index Info		
T0 : -0.0245 S	Time Per Bin: 0.4999875 ms	Channel Move Time: 0.4979876 S
T1 : 0.0000 S	T2~T3 Bins Over Threshold:	Channel Close Time: 0.0079998 S
T2 : 0.2000 S	= 16 Bins	
T3 : 0.4980 S		

Channel Move and
Closing Time
(T0~T2)



Time Index Info		
T0 : -0.0245 S	Time Per Bin: 0.4999875 ms	Channel Move Time: 0.4979876 S
T1 : 0.0000 S	T2~T3 Bins Over Threshold:	Channel Close Time: 0.0079998 S
T2 : 0.2000 S	= 16 Bins	
T3 : 0.4980 S		



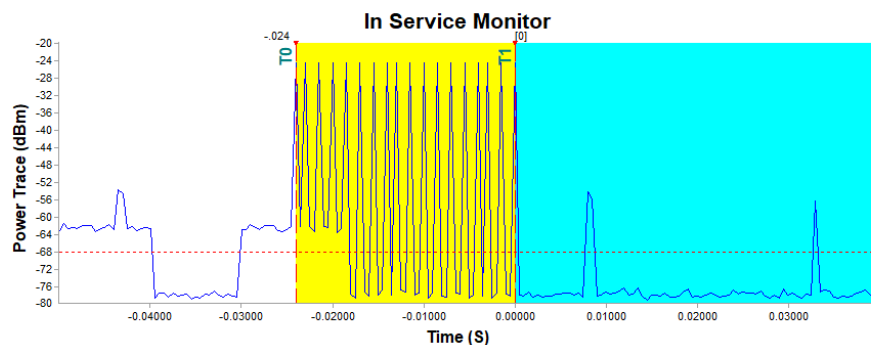
Mode 2_High Band

Frequency (MHz)	Radar Type	Channel Move Time	Limit (sec)
		Measured Value (sec)	
5570	Type 0	0.5095	10

Frequency (MHz)	Radar Type	Aggregate Channel Closing Transmission Time	Limit (msec)
		Measured Value (msec)	
5570	Type 0	42.4989	60

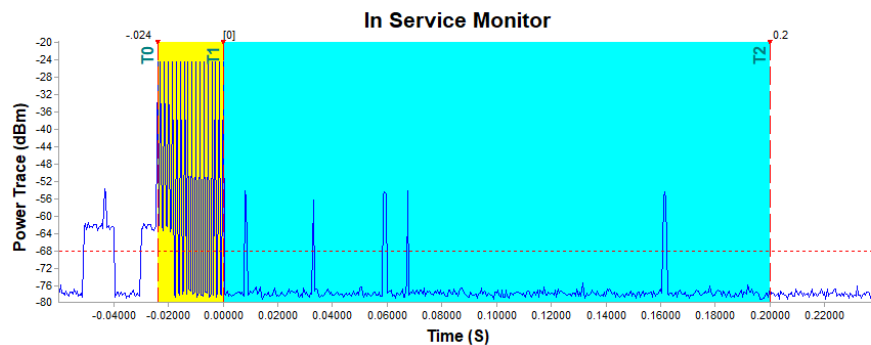
802.11be EHT160_ 5570 MHz

Channel Move and
Closing Time
(T0~T1)

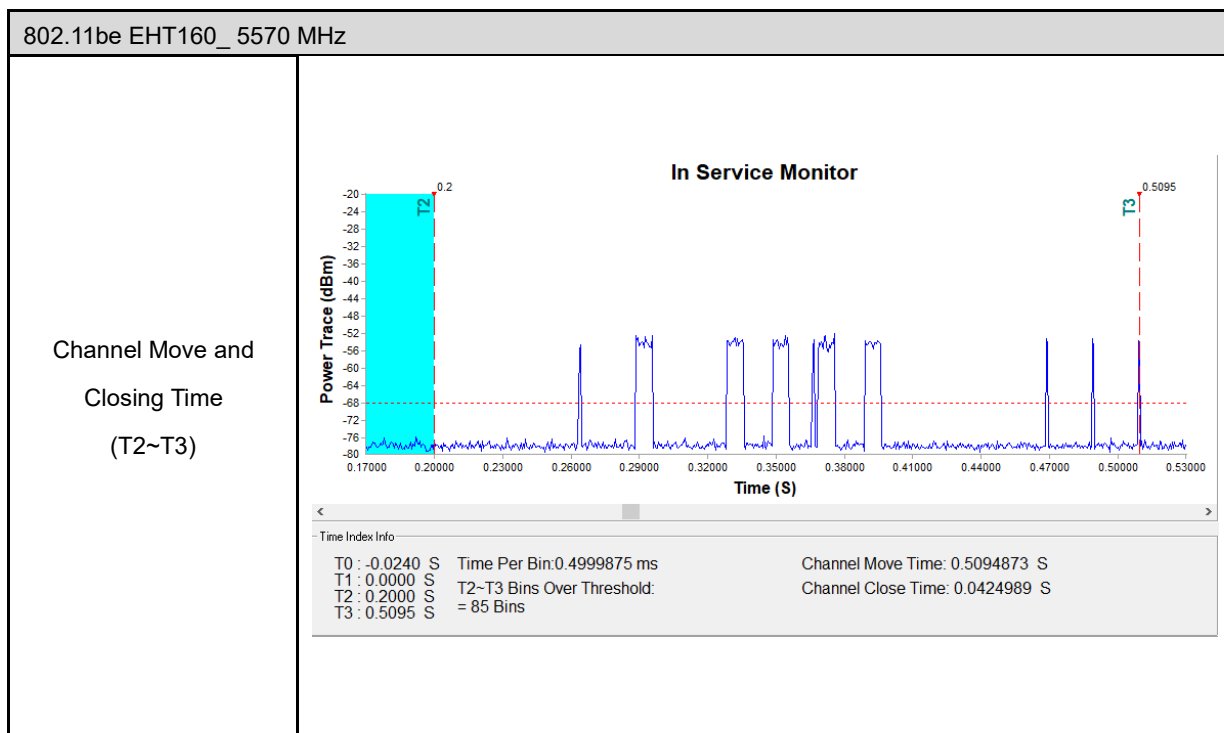


Time Index Info		
T0 : -0.0240 S	Time Per Bin: 0.4999875 ms	Channel Move Time: 0.5094873 S
T1 : 0.0000 S	T2~T3 Bins Over Threshold:	Channel Close Time: 0.0424989 S
T2 : 0.2000 S	= 85 Bins	
T3 : 0.5095 S		

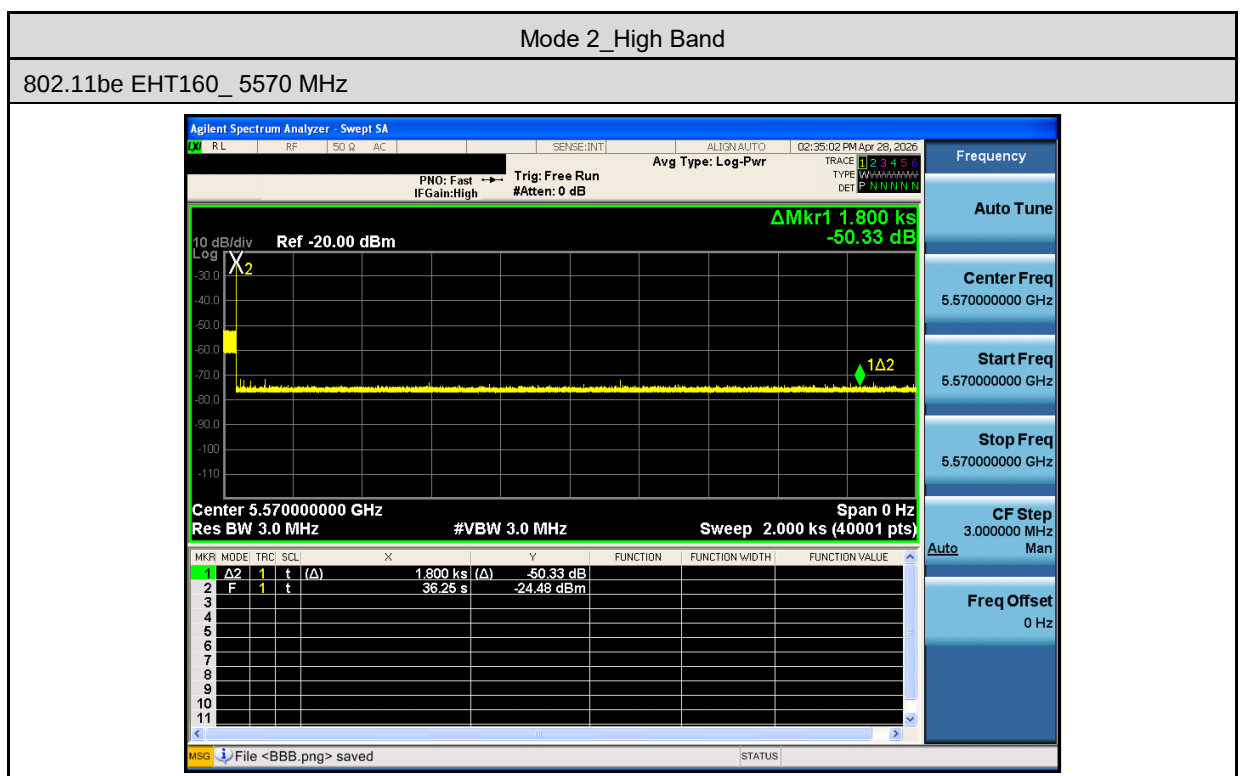
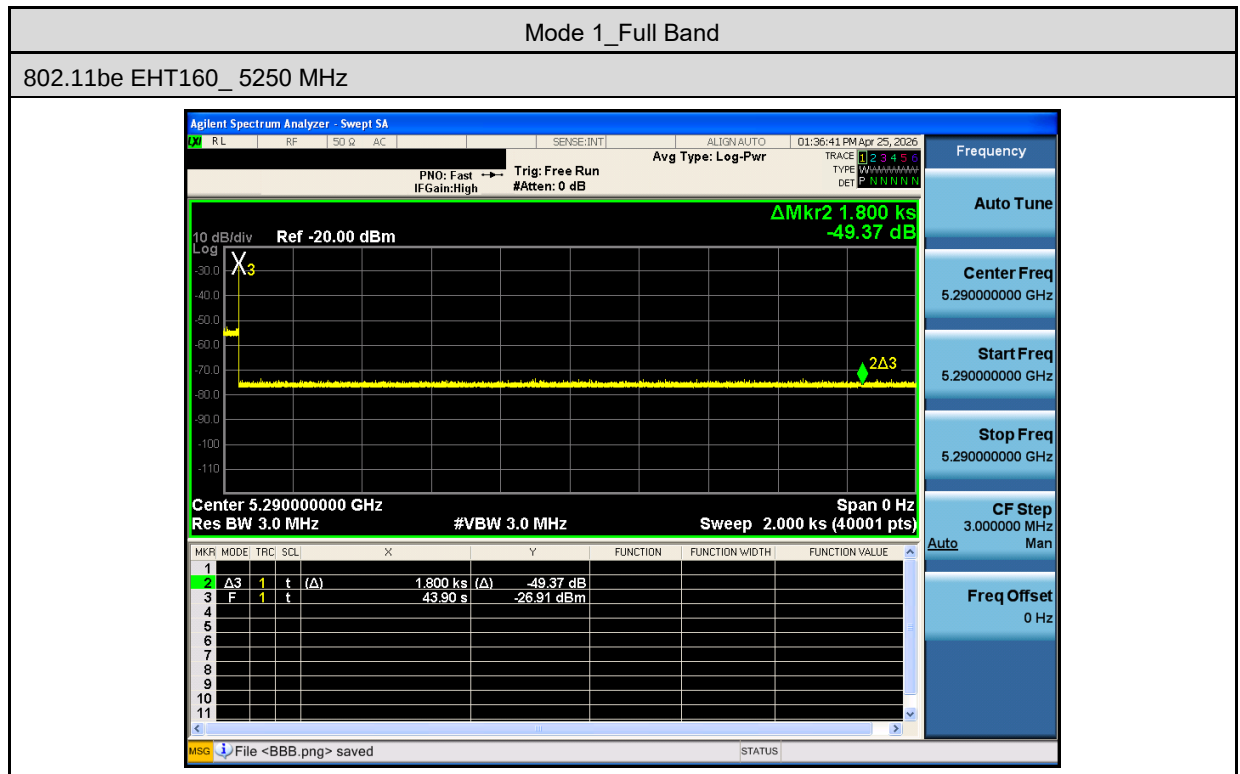
Channel Move and
Closing Time
(T0~T2)



Time Index Info		
T0 : -0.0240 S	Time Per Bin: 0.4999875 ms	Channel Move Time: 0.5094873 S
T1 : 0.0000 S	T2~T3 Bins Over Threshold:	Channel Close Time: 0.0424989 S
T2 : 0.2000 S	= 85 Bins	
T3 : 0.5095 S		



5.5. Non-Occupancy Period



Note: Non-Occupancy Period time is 30 minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel.

5.6. U-NII Detection Bandwidth

■ Test Results

Mode 1_Full Band						
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Test Mode	802.11be EHT20					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5300	5290	5310	20	19.106	104.68	≥ 100

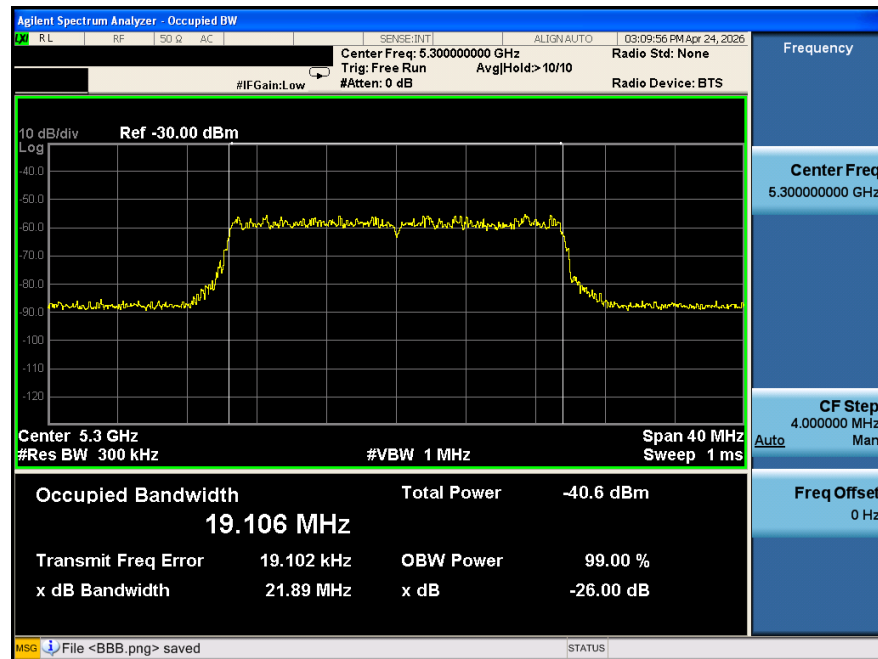
Test Mode	802.11be EHT40					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5310	5290	5330	40	37.992	105.29	≥ 100

Test Mode	802.11be EHT80					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5290	5250	5330	80	77.495	103.23	≥ 100

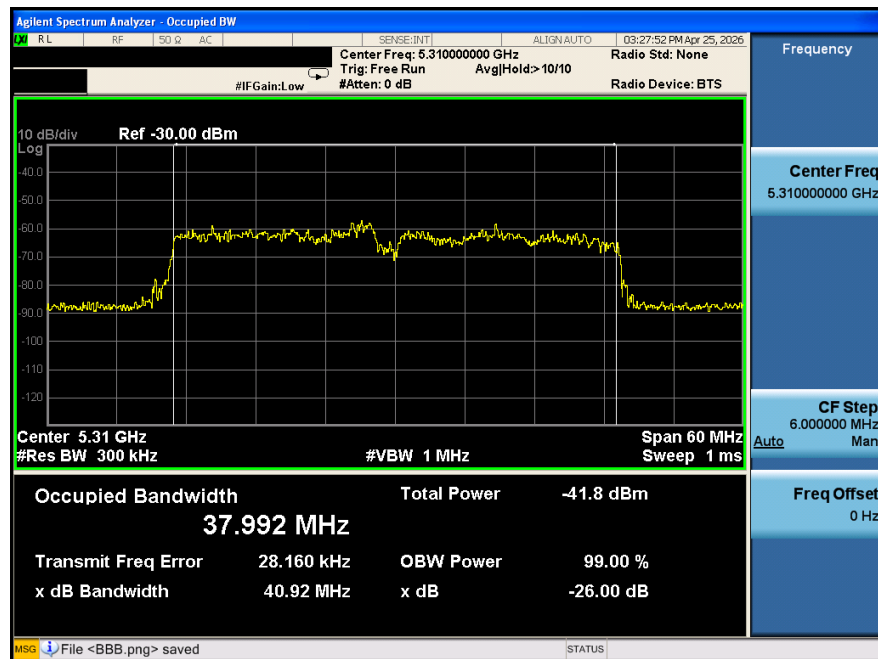
Test Mode	802.11be EHT160					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5250	5250	5329	79	77.486	101.95	≥ 100

Test Graphs

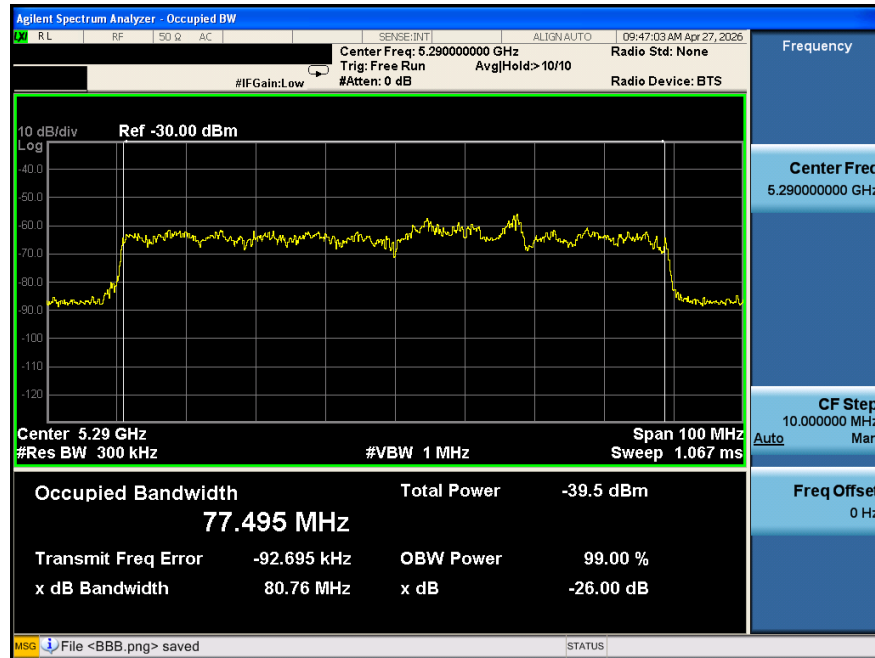
802.11be EHT20_ 5300 MHz



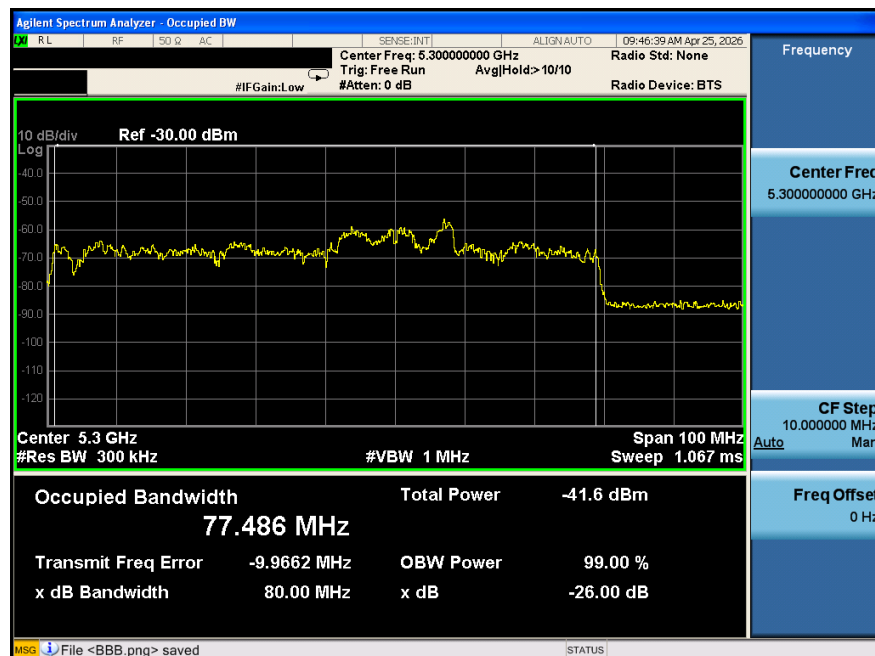
802.11be EHT40_ 5310 MHz



802.11be EHT80_ 5290 MHz



802.11be EHT160_ 5250 MHz



Mode 2_High Band

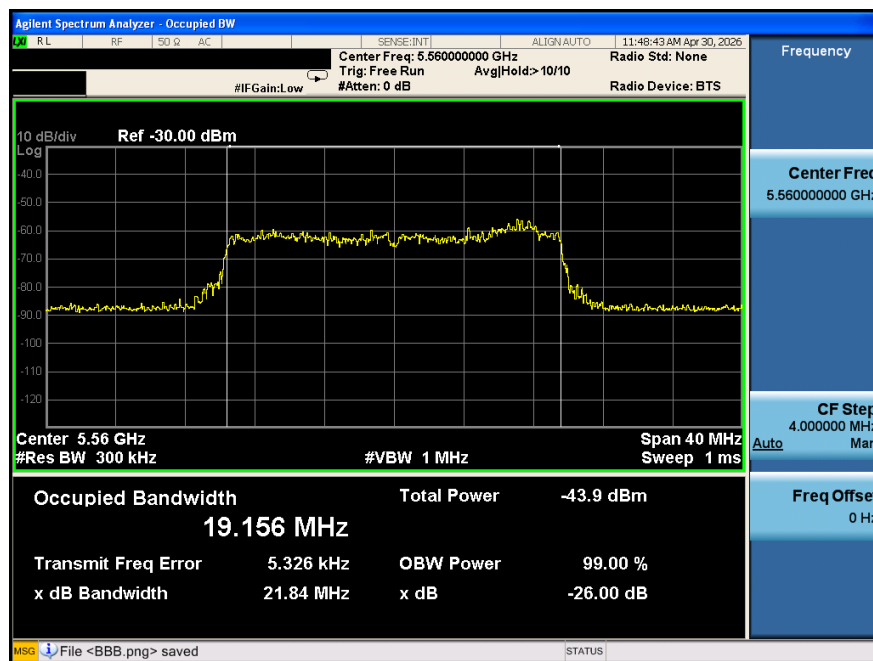
Test Mode	802.11be EHT20					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5560	5550	5570	20	19.156	104.41	≥ 100

Test Mode	802.11be EHT40					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5550	5530	5570	40	38.061	105.09	≥ 100

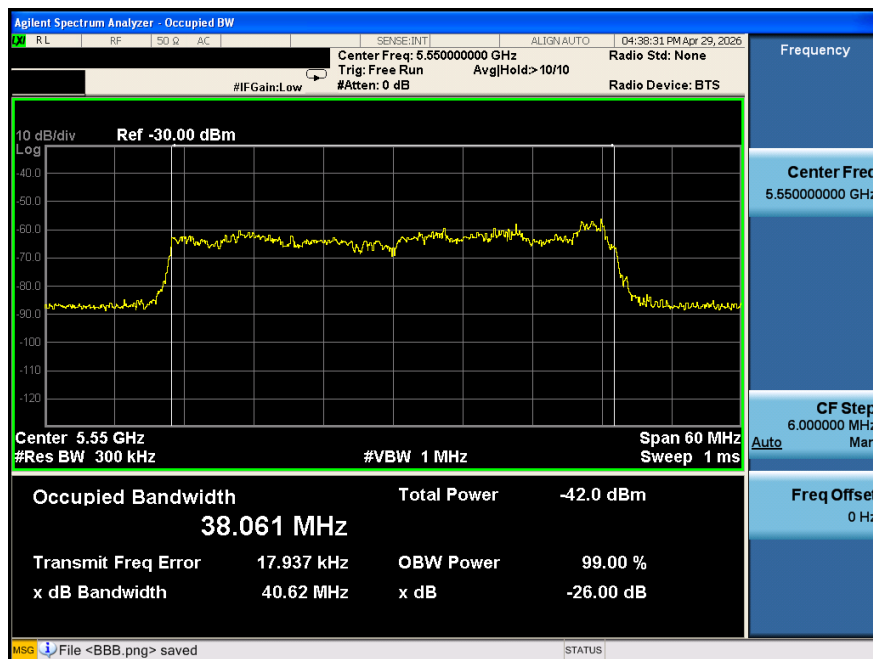
Test Mode	802.11be EHT80					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5530	5490	5570	80	77.108	103.75	≥ 100

Test Mode	802.11be EHT160					
Frequency (MHz)	FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99 % Power Bandwidth (MHz)	Ratio of Detection BW to 99 % Power BW (%)	Minimum Limit (%)
5570	5490	5650	160	157.21	101.77	≥ 100

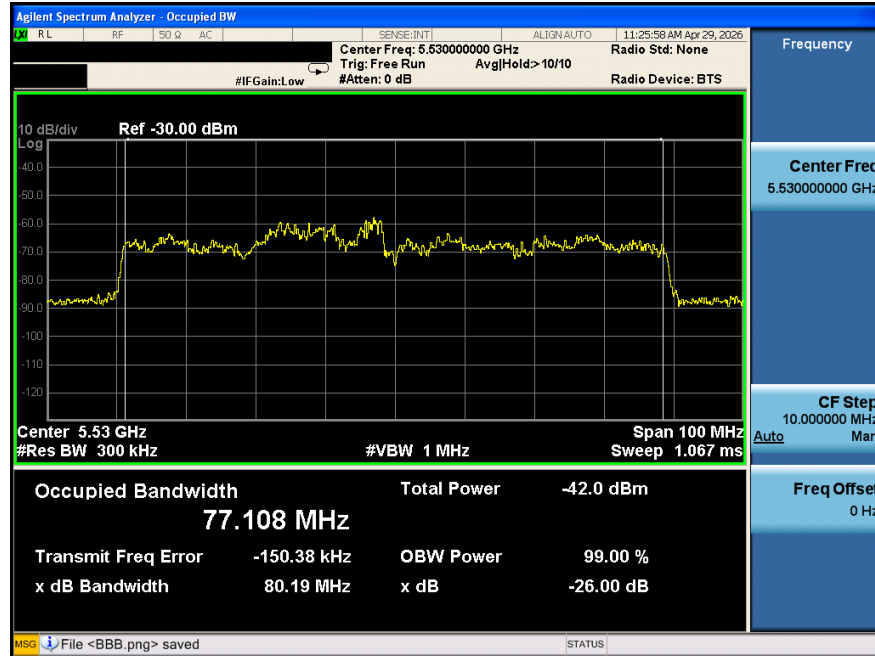
802.11be EHT20_ 5560 MHz



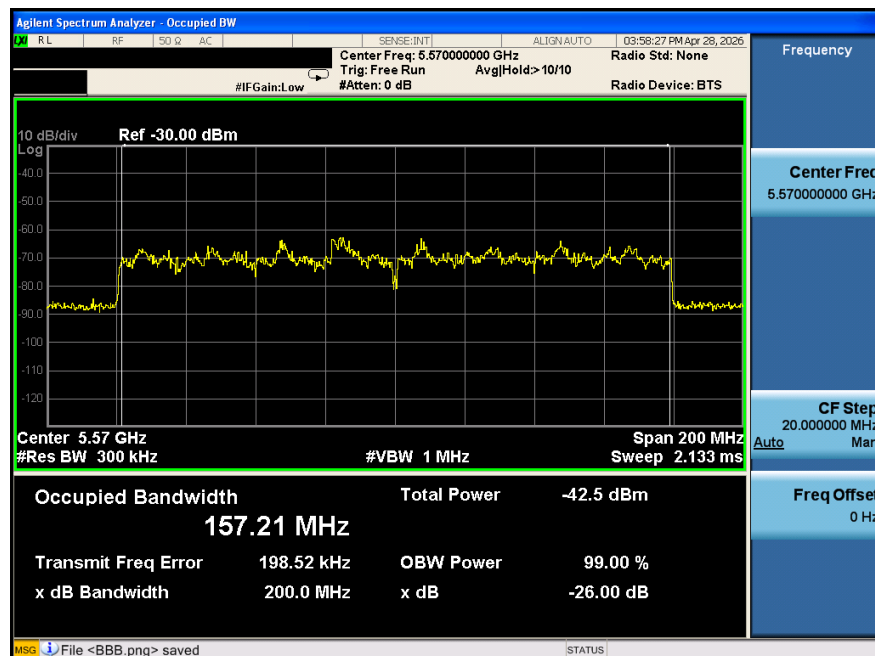
802.11be EHT40_ 5550 MHz



802.11be EHT80_ 5530 MHz



802.11be EHT160_ 5570 MHz



5.7. Statistical Performance check

Mode 1_Full Band							
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Test Results

Test Mode		802.11be EHT20					
Frequency (MHz)	Radar Signal	PRI (Msec)	Pulse width W (μs)	Pass Times	Fail Times	Probability	Limit
5300	Type1	Table 5a	1	29	1	96.67 %	≥ 60 %
	Type2	Random	Random	27	3	90.00 %	≥ 60 %
	Type3	Random	Random	29	1	96.67 %	≥ 60 %
	Type4	Random	Random	26	4	86.67 %	≥ 60 %
	Type1~4					92.50 %	≥ 80 %
	Type5	Random	Random	30	0	100.00 %	≥ 80 %
	Type6	Hopping	1	30	0	100.00 %	≥ 70 %

Test Mode		802.11be EHT40					
Frequency (MHz)	Radar Signal	PRI (Msec)	Pulse width W (μs)	Pass Times	Fail Times	Probability	Limit
5310	Type1	Table 5a	1	30	0	100.00 %	≥ 60 %
	Type2	Random	Random	29	1	96.67 %	≥ 60 %
	Type3	Random	Random	25	5	83.33 %	≥ 60 %
	Type4	Random	Random	27	3	90.00 %	≥ 60 %
	Type1~4					92.50 %	≥ 80 %
	Type5	Random	Random	30	0	100.00 %	≥ 80 %
	Type6	Hopping	1	30	0	100.00 %	≥ 70 %

Test Mode		802.11be EHT80					
Frequency (MHz)	Radar Signal	PRI (Msec)	Pulse width W (μs)	Pass Times	Fail Times	Probability	Limit
5290	Type1	Table 5a	1	30	0	100.00 %	≥ 60 %
	Type2	Random	Random	29	1	96.67 %	≥ 60 %
	Type3	Random	Random	26	4	86.67 %	≥ 60 %
	Type4	Random	Random	21	9	70.00 %	≥ 60 %
	Type1~4					88.33 %	≥ 80 %
	Type5	Random	Random	29	1	96.67 %	≥ 80 %
	Type6	Hopping	1	30	0	100.00 %	≥ 70 %

Test Mode		802.11be EHT160					
Frequency (MHz)	Radar Signal	PRI (Msec)	Pulse width W (μs)	Pass Times	Fail Times	Probability	Limit
5250	Type1	Table 5a	1	29	1	96.67 %	≥ 60 %
	Type2	Random	Random	29	1	96.67 %	≥ 60 %
	Type3	Random	Random	26	4	86.67 %	≥ 60 %
	Type4	Random	Random	21	9	70.00 %	≥ 60 %
	Type1~4					87.50 %	≥ 80 %
	Type5	Random	Random	30	0	100.00 %	≥ 80 %
	Type6	Hopping	1	30	0	100.00 %	≥ 70 %

Test Mode		802.11be EHT20				
Frequency		5300 MHz				
Radar Signal		Type 1				
Trial #	Test Frequency (MHz)	Pulse Width (us)	PRI (us)	Number of Pluse	PRF (Hz)	1=Detection ; 0=No Detection
1	5300	1	718	74	1393	1
2	5300	1	918	58	1089	1
3	5300	1	838	63	1193	1
4	5300	1	658	81	1520	1
5	5300	1	838	63	1193	1
6	5300	1	858	62	1166	1
7	5300	1	618	86	1618	1
8	5300	1	758	70	1319	1
9	5300	1	638	83	1567	1
10	5300	1	878	61	1139	1
11	5300	1	738	72	1355	1
12	5300	1	798	67	1253	1
13	5300	1	538	99	1859	1
14	5300	1	718	74	1393	1
15	5300	1	698	76	1433	1
16	5300	1	1010	53	990	1
17	5300	1	702	76	1425	1
18	5300	1	2328	23	430	1
19	5300	1	591	90	1692	1
20	5300	1	2991	18	334	1
21	5300	1	2016	27	496	1
22	5300	1	1209	44	827	1
23	5300	1	2843	19	352	1
24	5300	1	1701	32	588	1
25	5300	1	718	74	1393	0
26	5300	1	2842	19	352	1
27	5300	1	1341	40	746	1
28	5300	1	1745	31	573	1
29	5300	1	1000	53	1000	1
30	5300	1	2353	23	425	1
Detection Percentage (%)						96.67

Test Mode		802.11be EHT20				
Frequency		5300 MHz				
Radar Signal		Type 2				
Trial #	Test Frequency (MHz)	Pulse Width (us)	PRI (us)	Number of Pluse	PRF (Hz)	1=Detection ; 0=No Detection
1	5300	2.10	212.60	28	4704	1
2	5300	4.00	206.40	26	4845	1
3	5300	1.30	219.30	26	4560	1
4	5300	4.90	203.00	27	4926	1
5	5300	3.40	224.40	23	4456	1
6	5300	3.00	162.20	29	6165	1
7	5300	3.60	179.10	25	5583	1
8	5300	3.50	189.90	24	5266	0
9	5300	5.00	158.00	26	6329	0
10	5300	3.30	150.50	23	6645	1
11	5300	4.90	192.20	24	5203	1
12	5300	2.60	192.20	28	5203	1
13	5300	3.00	188.50	28	5305	1
14	5300	3.20	187.80	28	5325	1
15	5300	4.60	208.30	26	4801	1
16	5300	3.80	195.70	23	5110	1
17	5300	3.70	200.50	26	4988	1
18	5300	4.50	215.00	25	4651	1
19	5300	4.60	208.10	24	4805	1
20	5300	4.70	190.30	24	5255	0
21	5300	2.90	191.00	24	5236	1
22	5300	3.00	172.50	27	5797	1
23	5300	1.60	188.30	26	5311	1
24	5300	3.90	214.20	24	4669	1
25	5300	1.20	190.90	27	5238	1
26	5300	2.80	192.60	27	5192	1
27	5300	2.80	170.00	27	5882	1
28	5300	3.30	229.40	28	4359	1
29	5300	1.60	207.90	24	4810	1
30	5300	3.30	187.60	29	5330	1
Detection Percentage (%)						90.00

Test Mode		802.11be EHT20				
Frequency		5300 MHz				
Radar Signal		Type 3				
Trial #	Test Frequency (MHz)	Pulse Width (us)	PRI (us)	Number of Pluse	PRF (Hz)	1=Detection ; 0=No Detection
1	5300	6.00	356.40	17	2805.84	1
2	5300	8.50	458.40	18	2181.50	1
3	5300	9.30	246.60	18	4055.15	1
4	5300	6.60	378.40	18	2642.71	1
5	5300	8.50	446.20	18	2241.15	1
6	5300	8.20	466.20	16	2145.00	1
7	5300	10.00	227.80	18	4389.82	1
8	5300	9.60	462.30	16	2163.10	1
9	5300	8.50	330.90	16	3022.06	1
10	5300	7.40	447.20	18	2236.14	1
11	5300	8.10	328.70	17	3042.29	1
12	5300	8.40	314.90	16	3175.61	1
13	5300	6.60	251.50	17	3976.14	1
14	5300	7.90	408.20	17	2449.78	1
15	5300	8.50	332.10	18	3011.14	1
16	5300	6.50	439.60	17	2274.80	1
17	5300	9.10	345.70	16	2892.68	1
18	5300	8.20	453.60	18	2204.59	1
19	5300	9.50	347.30	16	2879.36	1
20	5300	7.90	429.70	17	2327.21	1
21	5300	9.60	359.80	17	2779.32	1
22	5300	8.70	226.20	18	4420.87	1
23	5300	7.30	292.90	18	3414.13	1
24	5300	9.30	442.20	18	2261.42	1
25	5300	7.50	431.70	16	2316.42	1
26	5300	6.10	420.50	17	2378.12	1
27	5300	8.40	435.60	18	2295.68	0
28	5300	6.60	259.20	17	3858.02	1
29	5300	9.50	293.10	16	3411.80	1
30	5300	6.90	260.90	17	3832.89	1
Detection Percentage (%)						96.67

Test Mode		802.11be EHT20				
Frequency		5300 MHz				
Radar Signal		Type 4				
Trial #	Test Frequency (MHz)	Pulse Width (us)	PRI (us)	Number of Pluse	PRF (Hz)	1=Detection ; 0=No Detection
1	5300	12.10	434.00	16	2304	1
2	5300	14.60	255.60	15	3912	1
3	5300	11.10	203.30	16	4919	1
4	5300	15.80	315.80	13	3167	1
5	5300	16.70	495.30	15	2019	1
6	5300	11.90	391.70	12	2553	1
7	5300	14.10	338.40	12	2955	1
8	5300	15.50	274.40	12	3644	1
9	5300	15.90	239.10	16	4182	1
10	5300	14.90	488.90	16	2045	1
11	5300	12.00	356.80	13	2803	1
12	5300	12.00	210.90	16	4742	1
13	5300	17.90	387.50	14	2581	1
14	5300	19.90	371.40	12	2693	0
15	5300	11.90	217.40	15	4600	1
16	5300	15.80	449.90	15	2223	1
17	5300	15.60	214.20	13	4669	1
18	5300	15.10	204.90	13	4880	1
19	5300	11.80	449.00	12	2227	1
20	5300	15.10	390.10	16	2563	1
21	5300	15.80	223.50	13	4474	1
22	5300	14.10	451.60	12	2214	0
23	5300	18.90	465.10	15	2150	1
24	5300	17.60	329.60	14	3034	1
25	5300	16.90	395.60	13	2528	1
26	5300	12.40	396.30	13	2523	0
27	5300	16.70	468.80	12	2133	0
28	5300	19.40	352.00	14	2841	1
29	5300	16.80	301.50	15	3317	1
30	5300	11.30	379.00	12	2639	1
Detection Percentage (%)						86.67