RF TEST REPORT

Report No.: SHATBL2509003W02

Applicant	:	Franklin Technology Inc.
Product Name	:	BE3600 Router
Brand Name	:	Quvo
Model Name	:	FX21-BE36
Series Model	:	N/A
FCC ID	:	XHG-FX21
Test Standard	:	FCC Part 15 Subpart E §15.407
Date of Sample Arrival	:	Aug. 15,2025
Date of Test	:	Aug. 25,2025~Nov.20, 2025
Issue Date	:	Nov.20, 2025

Report Prepared by : Chris Xu

(Chris Xu)

Report Approved by : Guozheng Li

(Guozheng Li)

Authorized Signatory : Terry Yang

(Terry Yang)

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DECLARATION OF REPORT

1. The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the requirements of 47 CFR 15.407. And it is applicable only to the tested sample identified in the report.

2. This report shall not be reproduced except in full, without the written approval of ATBL, this document only be altered or revised by ATBL, personal only, and shall be noted in the revision of the document.

3. The general information of EUT in this report is provided by the customer or manufacture, ATBL is only responsible for the test data but not for the information provided by the customer or manufacture.

4. The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

5. In this report, '☐' indicates that EUT does not support content after '☐', and '☑' indicates that it supports content after '☑'

REVISION HISTORY

Rev.	Issue Date	Revisions	Revised by
A0	Nov.20, 2025	Initial Release	Guozheng Li

SUMMARY OF TEST RESULT

Report Section	Standard Section	Test Item	Result	Remark
3.1	47 CFR 15.407(a)	Emission Bandwidth(26dBm Bandwidth)	PASS	-
3.2	--	Occupied Bandwidth	PASS	Reference only.
3.3	47 CFR 15.407(e)	Emission Bandwidth(6dBm Bandwidth)	PASS	-
3.4	47 CFR 15.407(a)	Maximum Conducted Output Power	PASS	-
3.5	47 CFR 15.407(a)	Power Spectral Density	PASS	-
3.6	47 CFR 15.407(g)	Frequency Stability	PASS	-
3.7	47 CFR 15.407(b) &15.209(a)	Undesirable emission	PASS	-
3.8	47 CFR 15.407(b)/15.209(a)/15.205(a)	Radiated Emissions	PASS	-
3.9	47 CFR 15.407(h)	Dynamic Frequency Selection	PASS	-
3.10	47 CFR 15.203	Antenna Requirement	PASS	-
3.11	47 CFR 15.207(a)	AC Power Conducted Emission	PASS	-
3.12	47 CFR 15.207(h)	Transmit Power Control	PASS	-

1. General Description

1.1. Applicant

Name : Franklin Technology Inc.

Address : 906 JEI Platz, 186, Gasan digital1-ro, Geumcheon-gu, Seoul 08502 Korea

1.2. Manufacturer

Name : Franklin Technology Inc.

Address : 906 JEI Platz, 186, Gasan digital1-ro, Geumcheon-gu, Seoul 08502 Korea

1.3. General Information of EUT

General Information	
Equipment Name	BE3600 Router
Brand Name	Quvo
Model Name	FX21-BE36
Series Model	N/A
Model Difference	N/A
Test sample(s) ID	202508110005003
Adapter 1:	Model:YHSW-120150UA Input:100-240V~ 50/60Hz,0.75A MAX Output:DC 12V,1.5A,18W
Adapter 2:	Model:DJ18W-1201500U Input:100-240V~ 50/60Hz,0.6A MAX Output:DC 12V,1.5A,18W
Hardware Version	A1
Software Version	FX21.AT.0001
Connecting I/O Port(s)	Refer to the remark below.

Remark:

The above information of EUT was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4. Equipment Specification

Equipment Specification			
Frequency Range	5180 ~ 5250MHz;5260 ~ 5320MHz;5500 ~ 5700MHz;5745 ~ 5825MHz;		
Maximum Output Power To Antenna	☑802.11a:	22.848dBm	
	☑802.11n(HT)20:	22.888dBm	
	☑802.11n(HT)40:	25.470dBm	
	☑802.11ac(VHT)20:	22.838dBm	
	☑802.11ac(VHT)40:	25.160dBm	
	☑802.11ac(VHT)80:	25.240dBm	
	☑802.11ac(VHT)160:	24.760dBm	
	☑802.11ax(HE)20:	23.037dBm	
	☑802.11ax(HE)40:	25.570dBm	
	☑802.11ax(HE)80:	24.930dBm	
	☑802.11ax(HE)160:	24.880dBm	
	☑802.11be(EHT)20:	21.595dBm	
	☑802.11be(EHT)40:	22.062dBm	
	☑802.11be(EHT)80:	21.841dBm	
	☑802.11be(EHT)160:	21.190dBm	
Type of Modulation	☑802.11a/n: OFDM (BPSK/QPSK/16QAM/64QAM)		
	☑802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM) ☑802.11ax/be: OFDMA (BPSK/QPSK/16QAM/64QAM/256QAM)		
Antenna Information	☑SISO	Antenna Type:	Built-in
		Antenna 1 Gain:	5180MHz~5240MHz:5.29dBi; 5260MHz~5320MHz:5.09dBi; 5500MHz~5700MHz:5.77dBi; 5745MHz~5825MHz:5.37dBi;
		Antenna 2 Gain:	5180MHz~5240MHz:5.07dBi; 5260MHz~5320MHz:5.11dBi; 5500MHz~5700MHz:4.94dBi; 5745MHz~5825MHz:4.74dBi;
	☑Beam Forming	Beam Forming Gain:	3.0dBi
TX Power Control (TPC)	☑Supported		
	☐No Supported		
Type of Device	☑Master		
	☐Client Without Radar Detection		
	☐Client With Radar Detection		

Note:

1.The 802.11n/ac/ax mode can Support Beam Forming.
2.The 802.11a mode Support CDD.
3.802.11ax/be only Support SU (Full RU) Mode.
4.Device for an indoor access point.
5.not support MESH or Bridge functions.

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

1.6. Laboratory Information

Company Name	:	Shanghai ATBL Technology Co., Ltd.
Address	:	5-6/F., Unit 1, No 8,Free Trade one LifeScience No.160,Basheng Road,Pudong New District,Shanghai City,China
Telephone	:	+86(0)21-51298625
FCC-Registration Number:	:	485917
Designation Number:	:	CN1306
A2LA-Lab Cert. No.:	:	6184.01
ISED Designation Number:	:	27371

1.7. Applicable Standards

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

47 CFR Part 15 Subpart E §15.407

FCC KDB789033 D02 General UNII Test Procedures New Rules v02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

ANSI C63.10-2020

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2. Test Configuration of EUT

2.1. Carrier Frequency Channel

Frequency Band	Bandwidth	Channel	Frequency MHz	Channel	Frequency MHz
U-NII-1	20 MHz	36	5180	40	5200
		44	5220	48	5240
	40 MHz	38	5190	46	5230
	80 MHz	42	5210	--	--
U-NII-1and U-NII-2A	160MHz	50	5250	--	--
U-NII-2A	20 MHz	52	5260	56	5280
		60	5300	64	5320
	40 MHz	54	5270	62	5310
	80 MHz	58	5290	--	--
U-NII-2C	20 MHz	100	5500	104	5520
		108	5540	112	5560
		116	5580	120	5600
		124	5620	128	5640
		132	5660	136	5680
		140	5700	--	--
	40 MHz	102	5510	110	5550
		118	5590	126	5630
		134	5670	--	--
	80 MHz	106	5530	122	5610
	160MHz	114	5570	--	--
U-NII-3	20 MHz	149	5745	153	5765
		157	5785	161	5805
		165	5825	--	--
	40 MHz	151	5755	159	5795
	80 MHz	155	5775	--	--

2.2. Test Modes

Final test modes are considering the modulation and worse data rates as below table.

Summary Table of Test Channel			
Test Item	Mode	Frequency Band	Channel
For Conducted and Radiated Test	☑802.11a: ☑802.11n(HT)20: ☑802.11ac(VHT)20: ☑802.11ax(HE)20: ☑802.11be(EHT)20:	U-NII-1	36 40 48
		U-NII-2A	52 56 64
		U-NII-2C	100 120 140
		U-NII-3	149 157 165
	☑802.11n(HT)40: ☑802.11ac(VHT)40: ☑802.11ax(HE)40: ☑802.11be(EHT)40:	U-NII-1	38 46
		U-NII-2A	54 62
		U-NII-2C	102 118 134
		U-NII-3	151 159
	☑802.11ac(VHT)80: ☑802.11ax(HE)80: ☑802.11be(EHT)80:	U-NII-1	42
		U-NII-2A	58
		U-NII-2C	106 122
		U-NII-3	155
	☑802.11ac(VHT)160: ☑802.11ax(HE)160: ☑802.11be(EHT)160:	U-NII-1 and U-NII-2A	50
		U-NII-2C	114
For AC Power-line Conducted Emission	802.11ax40: MIMO(802.11ax40_5230MHz) worst mode		

Remark:

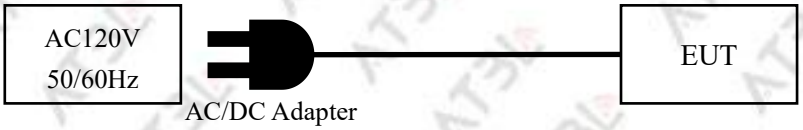
1.All the test modes of Radiated Spurious Emission (RSE) were tested at the worst data rate; only the worse data shown in report.

2. The worst test data below 1GHz is MIMO 802.11ax40_5230MHz.

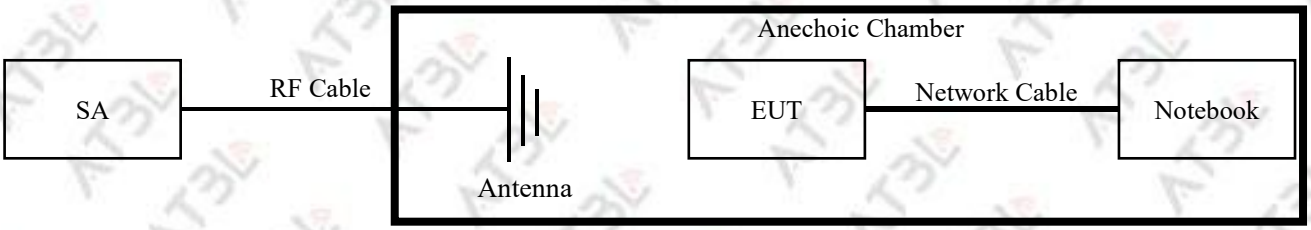
3. The worst test data above 1GHz is the 802.11n40/ax20/ax40/ax80/ax160/be20/be40/be80/be160M MIMO low-channel and high-channel.

2.3. Block Diagram of Test System

2.3.1. For AC Power-Line Conducted Emission

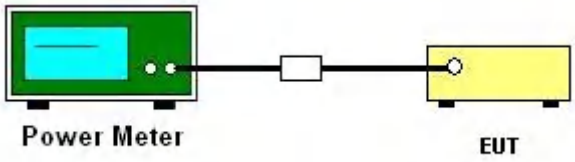


2.3.2. For Radiated Spurious Emission



2.3.3. For Conducted Test

Power:



Other:

2.4. Description of Support Units

NO.	Unit	Brand	Model	Description
1	PC	Redmi G	2021 Ryzen	N/A
2	LanTest	--	--	Flow running software

2.5. Test Software and Power Level

During the test, the channel and power control software provided by the customer is used to control the operation channel and output power level.

2.6. EUT Operating Conditions

For AC power-line conducted emission, the EUT was connected under the large package sizes transmission.

For radiated spurious emission and conducted test, the engineering test program was provided and make the EUT to continuous transmit.

2.7. Equipment List

2.7.1. For AC Power-Line Conducted Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	Calibrated due until	Cal. Interval
EMI Test Receiver	R&S	ESPI	100679	2025.03.17	2026.03.16	1 year
LISN	R&S	ENV216	101300	2025.03.17	2026.03.16	1 year
LISN	R&S	ENV216	100333	2025.03.17	2026.03.16	1 year
CE Cable	Chuangcexing	2M	EMI0014	N/A	N/A	N/A
Temperature & Humidity	Deli	Deli	EMI0015	2025.08.01	2026.07.31	1 year
Testing Software	FALA	EZ-EMC(Ver.EMC-CON 3A1.1)	EMI0044	N/A	N/A	N/A

2.7.2. For Radiated Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	Calibrated due until	Cal. Interval
Signal analyzer	Agilent	N9020A	MY50200811	2025.03.17	2026.03.16	1 year
Amplifier	JPT	JPA0118-55-303A	1910001800055000	2025.03.24	2026.03.23	1 year
Amplifier	JPT	JPA-10M1G32	21010100035001	2025.03.17	2026.03.16	1 year
Antenna/Turn table Controller	Brilliant	N/A	N/A	N/A	N/A	N/A
Loop Antenna(9kHz-30 MHz)	Daze	ZN30900C	20077	2025.05.13	2026.05.12	1 year
Bilog Antenna	SCHWARZBECK	VULB 9168	01174	2025.05.20	2026.05.19	1 year
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	2025.05.20	2026.05.19	1 year
Horn Antenna	COM-POWER	AH-1840	10100008	2025.07.27	2026.07.26	1 year
Thermometer	DeLi	N/A	N/A	2025.08.01	2026.07.31	1 year
Test Software	FALA	EMC-RI(Ver.4A2)	N/A	N/A	N/A	N/A
Wideband radio communication tester	R&S	CMW500	101331	2025.07.28	2026.07.27	1 year
Spectrum analyzer	R&S	FSV40-N	101761	2025.07.28	2026.07.27	1 year

2.7.3. For Conducted Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	Calibrated due until	Cal. Interval
Power sensor-Card reader	Cesheng	smu 1003	16I00054SN016	2025.03.19	2026.03.18	1 year
Adjustable Attenuator	Agilent	8494B	MY42144015	2025.07.28	2026.07.27	1 year
Adjustable Attenuator	Agilent	8496B	MY42143776	2025.07.28	2026.07.27	1 year
Environmental Test Chamber	KSON	THS-B6C-150	9159K	2025.03.17	2026.03.16	1 year
Signal analyzer	Keysight	N9020A	MY50510136	2025.07.18	2026.07.17	1 year
Vector signal generator	Agilent	N5182A	MY48180764	2025.07.18	2026.07.17	1 year
Analog signal generator	Keysight	N5182B	MY57300196	2025.07.18	2026.07.17	1 year
Wideband radio communication tester	R&S	CMW500	101331	2025.07.28	2026.07.27	1 year
Switch Box	Cesheng	smu 1003	WCS20221215	2025.03.19	2026.03.18	1 year
Thermometer	DeLi	N/A	N/A	2025.08.01	2026.07.31	1 year
Test Software	Cesheng	WCS-WCN	N/A	N/A	N/A	N/A

2.8. Measurement Uncertainty

The reported uncertainty of measurement y±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.958dB
2	Conducted spurious emissions	±2.988dB
3	All emissions, radiated 9KHz-30MHz	±0.96dB
4	All emissions, radiated 30MHz-1GHz	±2.50dB
5	All emissions, radiated 1GHz-18GHz	±3.51dB
6	All emissions, radiated 18GHz-40GHz	±3.56dB
7	Occupied bandwidth	±23.20Hz
8	Power spectral density	±0.886dB
9	AC Power Line Conducted Emission 0.15MHz ~ 30MHz	±1.20dB

2.9 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature	Normal Temperature:	22°C
Voltage	Normal Voltage:	DC 12.0V
Other	Relative Humidity:	57%
	Air Pressure:	102kPa

3. Test Result

3.1. Emission Bandwidth

3.1.1. Limit

N/A

3.1.2. Test Procedure

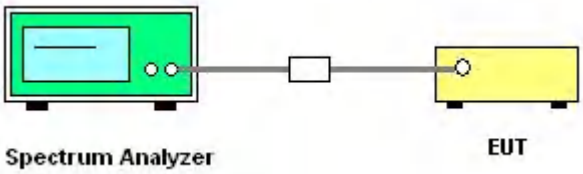
Emission Bandwidth:

1. Set RBW = shall be in the range of 1% to 5% of the emission bandwidth.
2. Set the video bandwidth (VBW) > RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is in the range of 1% to 5%.

99% Occupied Bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1% to 5% of the OBW
4. Set VBW ≥ 3 RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall
6. be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
7. Use the 99% power bandwidth function of the instrument (if available). If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

3.1.3. Test Setup



3.1.4. Test Result of Emission Bandwidth And 99% Occupied Bandwidth

Please refer to the Appendix D.

3.2. Minimum Emission Bandwidth

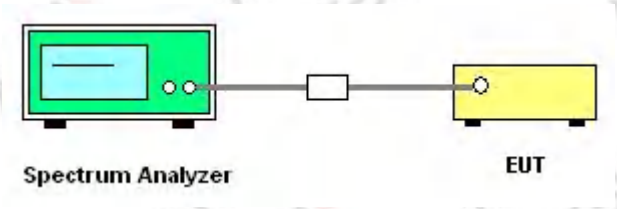
3.2.1. Limit

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725-5.85 GHz

3.2.2. Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth 3 x RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.2.3. Test Setup



3.2.4. Test Result of Minimum Emission Bandwidth

Please refer to the Appendix D.

3.3. Maximum Conducted Average Output Power

3.3.1. Limit

For the band 5.15-5.25 GHz

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

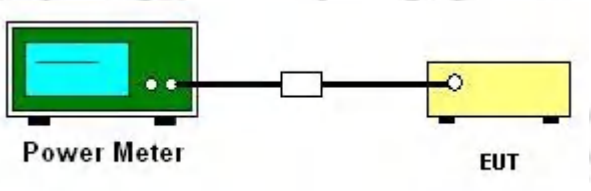
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

3.3.2. Test Procedure

KDB 789033D02v02r01- Section E)3)b) Method PM-G.

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.3.3. Test Setup



3.3.4. Test Result of Maximum Conducted Average Output Power

Please refer to the Appendix D.

3.4. Power Spectral Density

3.4.1. Limit

For the band 5.15-5.25 GHz.(Note1 Note2)

For an outdoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17dBm in any 1 MHz band.note1

(ii) For an indoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17dBm in any 1 MHz band.note1

(iii) For fixed point-to-point access points operating in the band 5.15 - 5.25 GHz, transmitters that employ a directional antenna gain greater than 23dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23dBi.

(iv) For mobile and portable client devices in the 5.15 - 5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 MHz band. note1

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands.(Note1 Note2)

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

Note1: If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(i)For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

3.4.2. Test Procedure

(i) Measure the duty cycle, x, of the transmitter output signal as described in II.B.

(ii) Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(iii) Set RBW = 1 MHz.

(iv) Set VBW ≥ 3 MHz.

(v) Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)

(vi) Sweep time = auto.

(vii) Detector = averaging, if available. Otherwise, use sample detector mode.

(viii) Do not use sweep triggering. Allow the sweep to “free run.”

(ix) Trace mode = averaging.

For U-NII-3 band:

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.

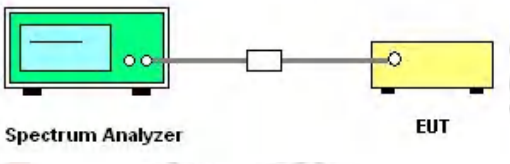
2) Set RBW = 500 kHz, Set VBW ⩾ 3 RBW, Detector = averaging

3) Sweep time = auto, trigger set to "free run".

4) Trace mode = averaging.

5) Record the max value

3.4.3. Test Setup



3.4.4. Test Result of Power Spectral Density

Please refer to the Appendix D.

3.5. Frequency Stability

3.5.1. Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

3.5.2. Test Procedure

Frequency Stability under Temperature Variations:

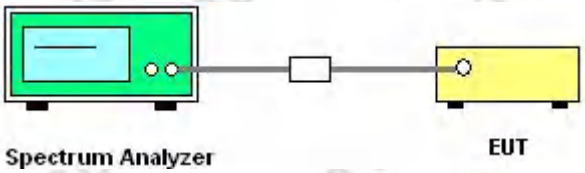
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

3.5.3. Test Setup



3.5.4. Test Result of Frequency Stability

Test Result for Worst Antenna 1:

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5825MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	12V	5825.0345	-5.923	5825.0325	-5.579	5825.0332	-5.700	5825.0314	-5.391
40	12V	5825.0341	-5.854	5825.0329	-5.648	5825.0341	-5.854	5825.0331	-5.682
30	12V	5825.0332	-5.700	5825.0332	-5.700	5825.0336	-5.768	5825.0287	-4.927
20	12V	5825.0339	-5.820	5825.0338	-5.803	5825.0325	-5.579	5825.0364	-6.249
10	12V	5825.0324	-5.562	5825.0314	-5.391	5825.0354	-6.077	5825.0214	-3.674
0	12V	5825.0336	-5.768	5825.0366	-6.283	5825.0332	-5.700	5825.0369	-6.335
-10	12V	5825.0338	-5.803	5825.0341	-5.854	5825.0332	-5.700	5825.0347	-5.957
-20	12V	5825.0346	-5.940	5825.0326	-5.597	5825.0362	-6.215	5825.0331	-5.682
-30	12V	5825.0341	-5.854	5825.0325	-5.579	5825.0345	-5.923	5825.0378	-6.489

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5825MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	13.2V	5825.0332	-5.700	5825.0314	-5.391	5825.0354	-6.077	5825.0214	-3.674
	12V	5825.0339	-5.820	5825.0366	-6.283	5825.0332	-5.700	5825.0369	-6.335
	10.8V	5825.0324	-5.562	5825.0341	-5.854	5825.0332	-5.700	5825.0347	-5.957

Criterion: Pass

3.6. Radiated Spurious Emission and Restricted Band

3.6.1. Limit

47 CFR 15.407(b):The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

1. For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

2. For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

3. For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

4. For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

47 CFR 15.209(a): The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

3.6.2. Test Procedure

1. The testing follows ANSI C63.10-2020 clause 11.11 & 11.12.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.

3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Pre-amp Factor = Level.

6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.

7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

8. Use the following spectrum analyzer settings:

① Span shall wide enough to fully capture the emission being measured;

② When frequency < 1 GHz:

• Set RBW=100 kHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;

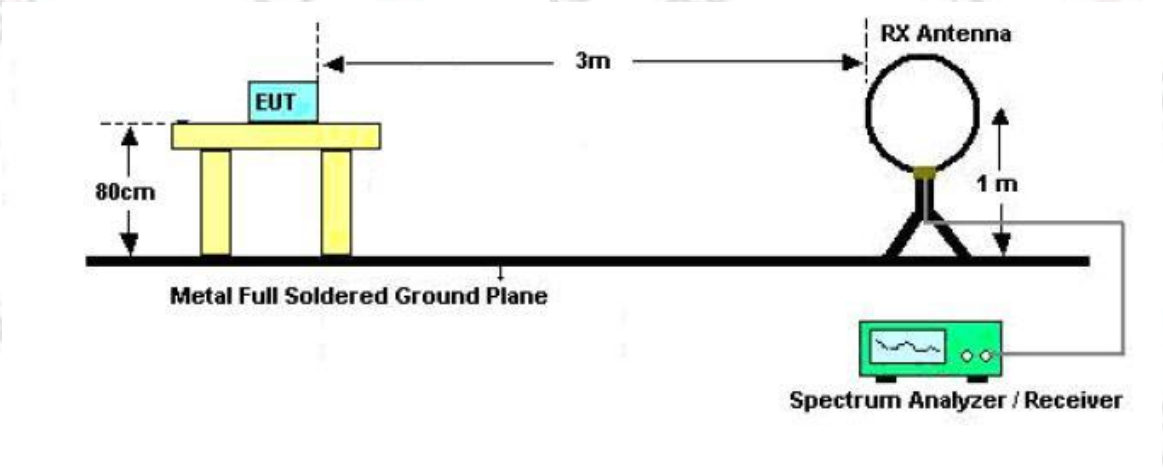
③ When frequency ≥ 1 GHz:

• Set RBW = 1 MHz; VBW = 3 MHz for peak measurement;

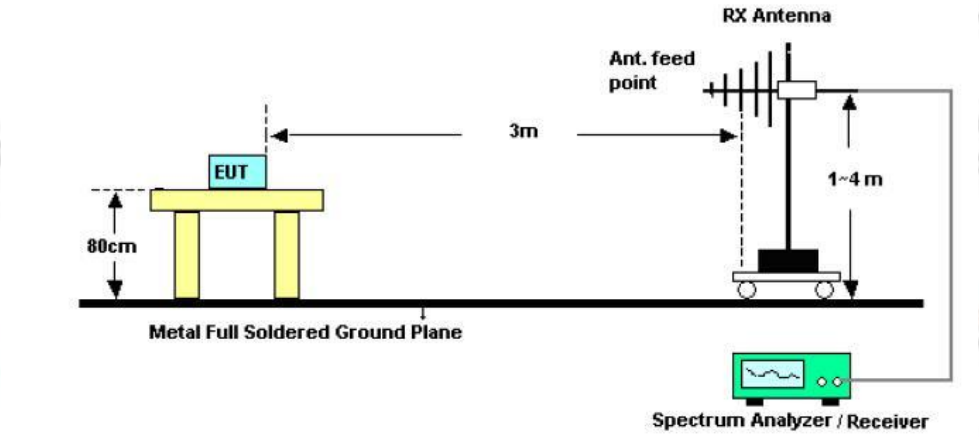
• Set RBW = 1 MHz; VBW = 10 Hz, when duty cycle is no less than 98 percent or VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.6.3. Test Setup

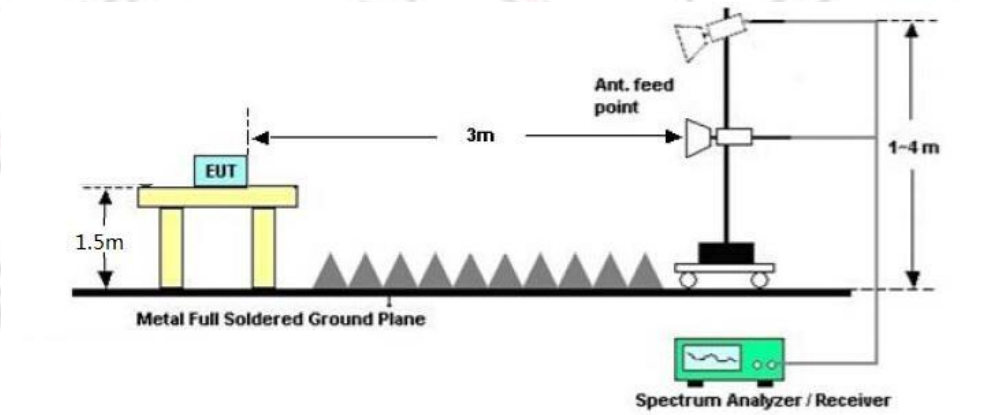
3.6.3.1. For radiated emissions below 30MHz



3.6.3.2. For radiated emissions from 30MHz to 1GHz



3.6.3.3. For radiated emissions above 1GHz



3.6.4. Test Result of Radiated Spurious Emission

3.6.4.1. For 9 kHz ~ 30 MHz

Please refer to the Appendix E.

3.6.4.2. For 30 MHz ~ 1 GHz

Please refer to the Appendix E.

3.6.4.3. For 1 GHz ~ 18GHz

Please refer to the Appendix E.

3.6.4.4. For above 18GHz

Please refer to the Appendix E.

3.6.5. Test Result of Restricted Band

Please refer to the Appendix E.

3.7.Dynamic Frequency Selection

3.8.1.Type of Device

Type of Device	☑Master
	☐Client Without Radar Detection
	☐Client With Radar Detection

3.8.2.DFS Requirements

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

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

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

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 each of the bonded 20 MHz channels and the channel center frequency.		

3.8.3.DFS Response Requirement Values

Table 3-3: DFS Response Requirements

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.)

3.8.4.DFS Detection Thresholds

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

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 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 0dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission wave forms 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.	

3.8.5.Radar Test Wave forms

This section provides the parameters for required test wave forms, 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 wave forms.

Table 3-5: Parameters for Short Pulse Radar Waveforms

Short Pulse Radar Test Wave forms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note1	See Note1
1		Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\mathrm{PRI}_{\mu\mathrm{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μ sec, 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.					

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

Pulse Repetition Intervals Values 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

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

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

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

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

3.8.6.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.

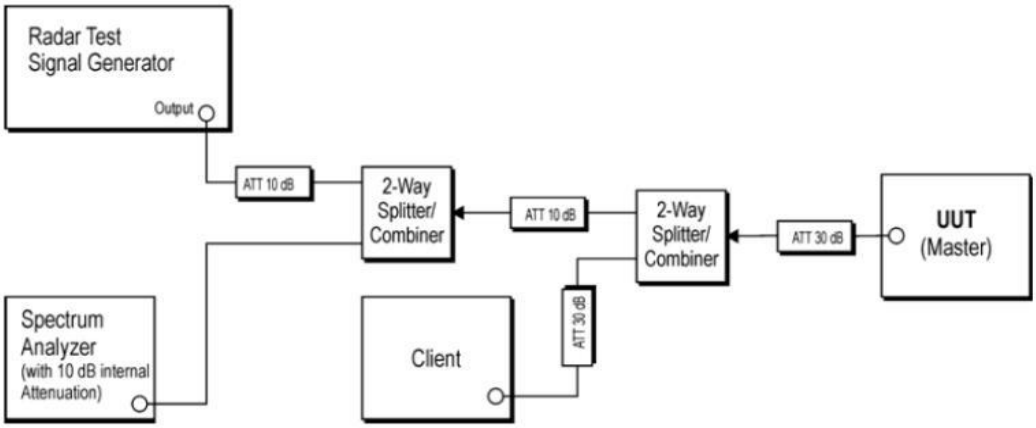


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

3.8.7.Test Result of Dynamic Frequency Selection

3.8.7.1.Radar Waveform Calibration:

Calibration Setup:

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

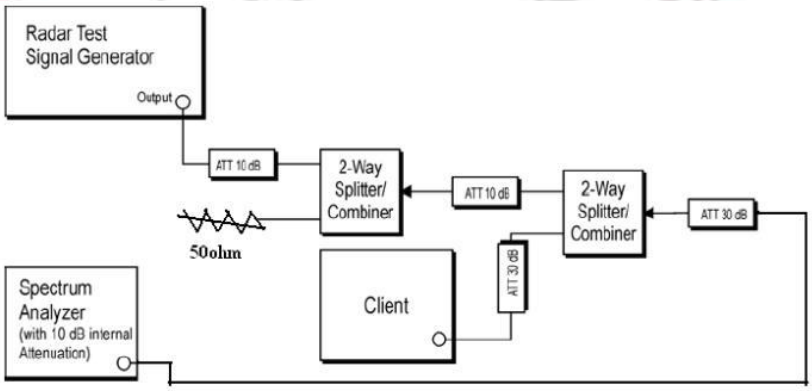


Figure 3-2: Conducted Test Setup

Calibration Procedure:

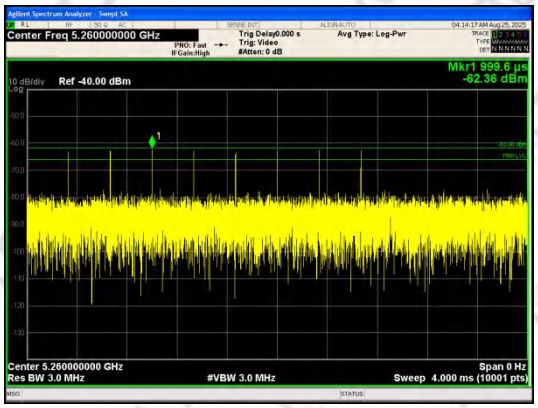
The Interference Radar Detection Threshold Level is (-64dBm) + (3.67) [dBi] - 0.8dB (cable loss)= -61.13 dBm for Antenna port 2, that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator 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(-64dBm) + (3.67) [dBi] - 0.8dB (cable loss)= -61.13 dBm ,Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

Test Result :

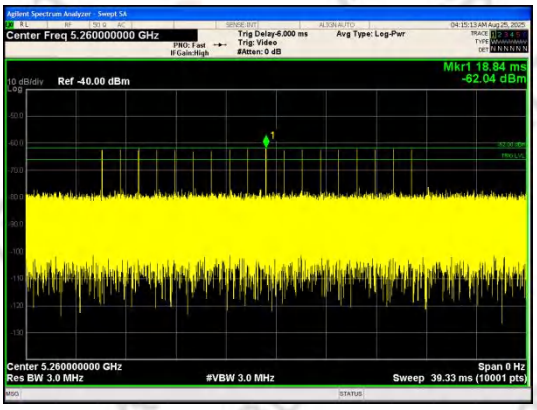
Channel/Frequency	Bandwidth	Radar Type	Level (dBm)	Limit (dBm)	Result
52/5260MHz	20	FCC radar test signal Type 6	-62.36	-61.13	PASS
		FCC radar test signal Type 0	-62.04	-61.13	PASS
		FCC radar test signal Type 1	-62.17	-61.13	PASS
		FCC radar test signal Type 2	-62.38	-61.13	PASS
		FCC radar test signal Type 3	-62.06	-61.13	PASS
		FCC radar test signal Type 4	-62.2	-61.13	PASS
		FCC radar test signal Type 5	-62.37	-61.13	PASS
100/5500MHz		FCC radar test signal Type 6	-62.39	-61.13	PASS
		FCC radar test signal Type 0	-62.26	-61.13	PASS
		FCC radar test signal Type 1	-62.58	-61.13	PASS
		FCC radar test signal Type 2	-62.37	-61.13	PASS
		FCC radar test signal Type 3	-62.09	-61.13	PASS
		FCC radar test signal Type 4	-62.31	-61.13	PASS
		FCC radar test signal Type 5	-62.75	-61.13	PASS
54/5270MHz	40	FCC radar test signal Type 6	-62.93	-61.13	PASS
		FCC radar test signal Type 0	-62.35	-61.13	PASS
		FCC radar test signal Type 1	-62.03	-61.13	PASS
		FCC radar test signal Type 2	-62.34	-61.13	PASS
		FCC radar test signal Type 3	-62.07	-61.13	PASS
		FCC radar test signal Type 4	-62.34	-61.13	PASS
		FCC radar test signal Type 5	-64.43	-61.13	PASS
102/5510MHz		FCC radar test signal Type 6	-62.25	-61.13	PASS
		FCC radar test signal Type 0	-62.54	-61.13	PASS
		FCC radar test signal Type 1	-62.44	-61.13	PASS
		FCC radar test signal Type 2	-62.39	-61.13	PASS
		FCC radar test signal Type 3	-62.22	-61.13	PASS
		FCC radar test signal Type 4	-62.1	-61.13	PASS
		FCC radar test signal Type 5	-62.01	-61.13	PASS
58/5290MHz	80	FCC radar test signal Type 6	-62.54	-61.13	PASS
		FCC radar test signal Type 0	-62.33	-61.13	PASS
		FCC radar test signal Type 1	-62.33	-61.13	PASS
		FCC radar test signal Type 2	-62.03	-61.13	PASS
		FCC radar test signal Type 3	-62.1	-61.13	PASS
		FCC radar test signal Type 4	-62.06	-61.13	PASS
		FCC radar test signal Type 5	-62.13	-61.13	PASS
106/5530MHz		FCC radar test signal Type 6	-62.44	-61.13	PASS
		FCC radar test signal Type 0	-62.07	-61.13	PASS
		FCC radar test signal Type 1	-62.68	-61.13	PASS
		FCC radar test signal Type 2	-62.13	-61.13	PASS
		FCC radar test signal Type 3	-62.13	-61.13	PASS

		FCC radar test signal Type 4	-62.37	-61.13	PASS
		FCC radar test signal Type 5	-62.11	-61.13	PASS
50/5250MHz	160	FCC radar test signal Type 6	-62.1	-62	PASS
		FCC radar test signal Type 0	-62.12	-62	PASS
		FCC radar test signal Type 1	-62.43	-62	PASS
		FCC radar test signal Type 2	-62.29	-62	PASS
		FCC radar test signal Type 3	-62.39	-62	PASS
		FCC radar test signal Type 4	-62.35	-62	PASS
		FCC radar test signal Type 5	-62.13	-62	PASS
114/5570MHz		FCC radar test signal Type 6	-63.1	-62	PASS
		FCC radar test signal Type 0	-62.2	-62	PASS
		FCC radar test signal Type 1	-62.1	-62	PASS
		FCC radar test signal Type 2	-62.54	-62	PASS
		FCC radar test signal Type 3	-62.02	-62	PASS
		FCC radar test signal Type 4	-62.12	-62	PASS
		FCC radar test signal Type 5	-62.13	-62	PASS

Radar Test Signal



FCC radar test signal Type 6
IEEE 802.11ax_20_Channel 52_Ant.1



FCC radar test signal Type 0
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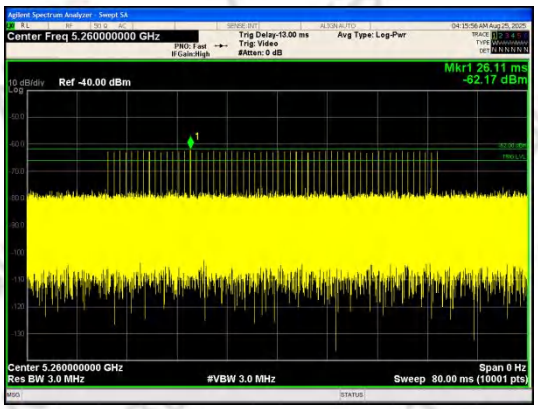

FCC radar test signal Type 1
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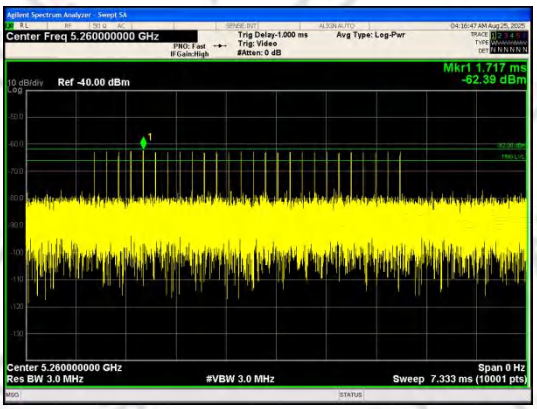

FCC radar test signal Type 2
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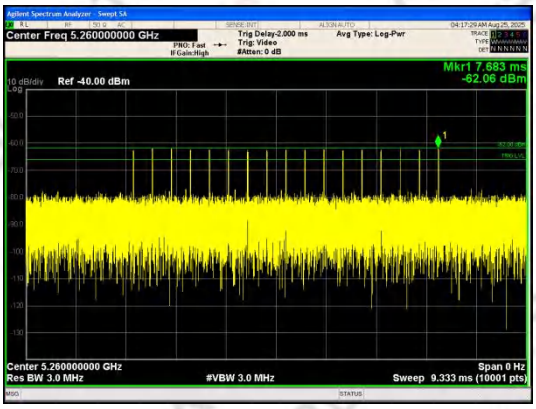

FCC radar test signal Type 3
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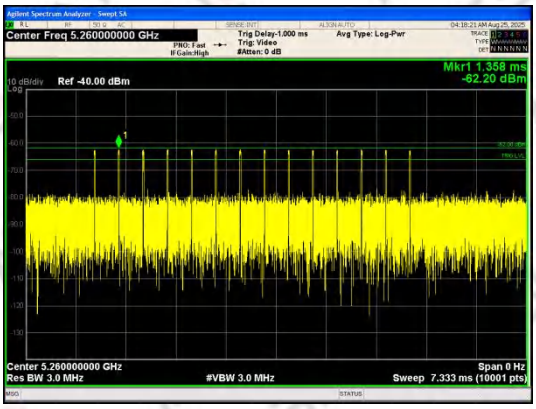

FCC radar test signal Type 4
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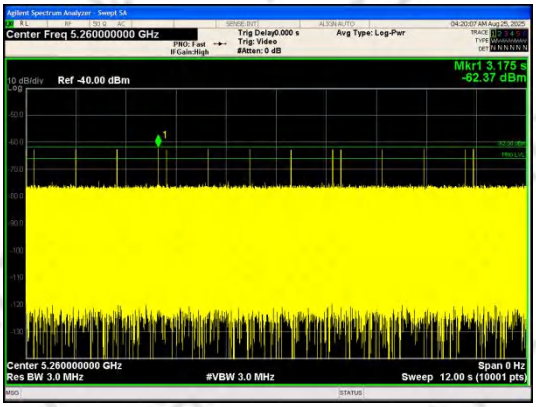

FCC radar test signal Type 5
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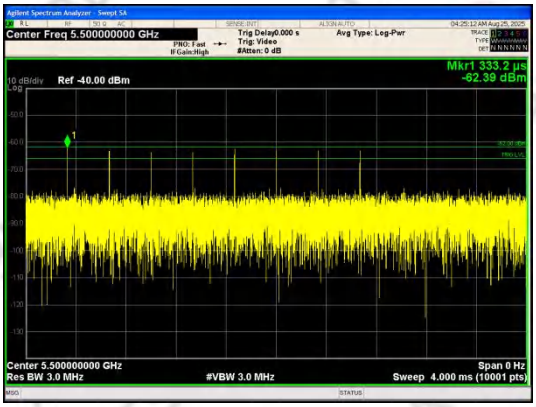

FCC radar test signal Type 6
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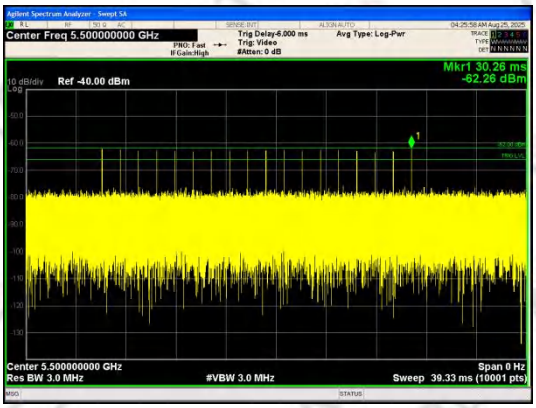
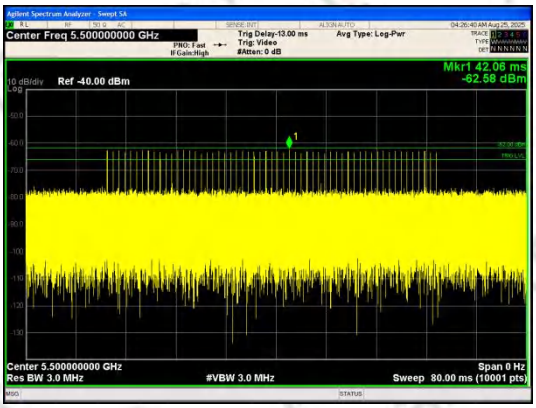
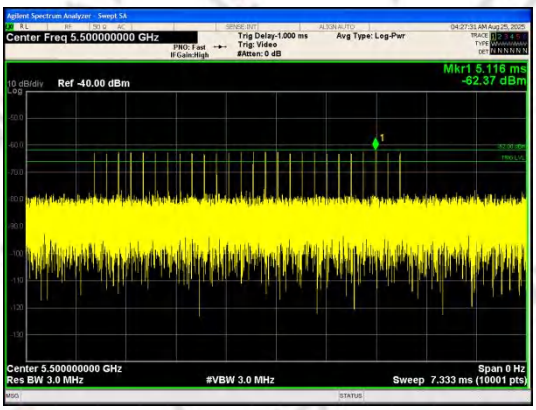
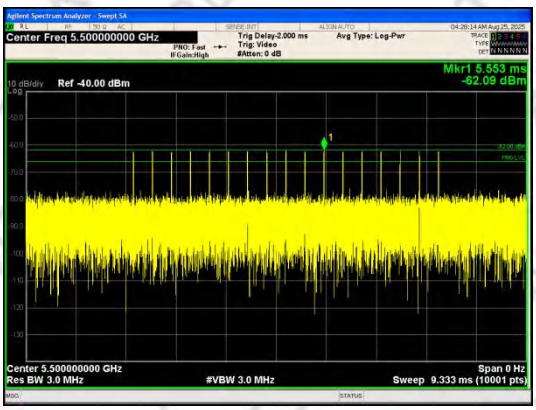


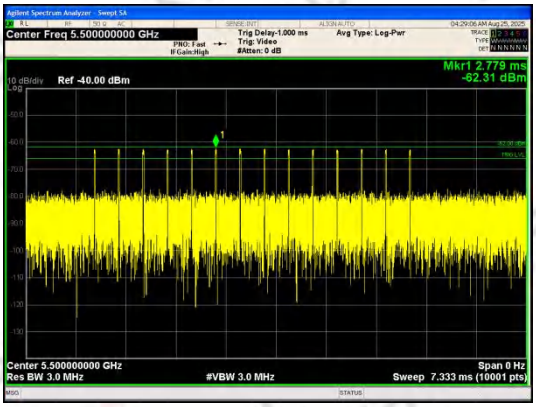
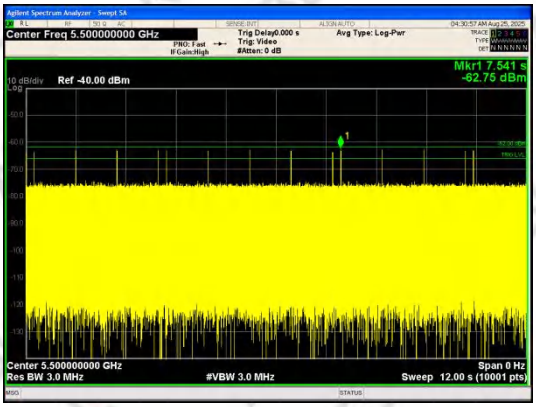
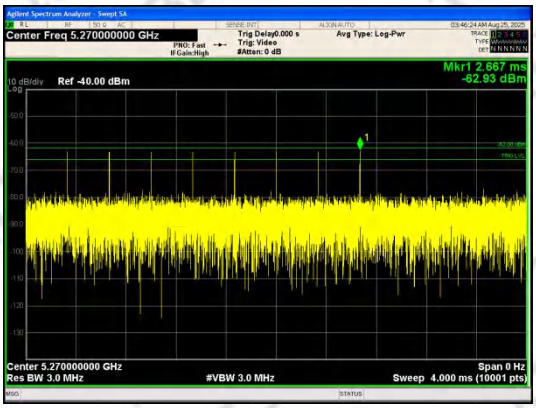
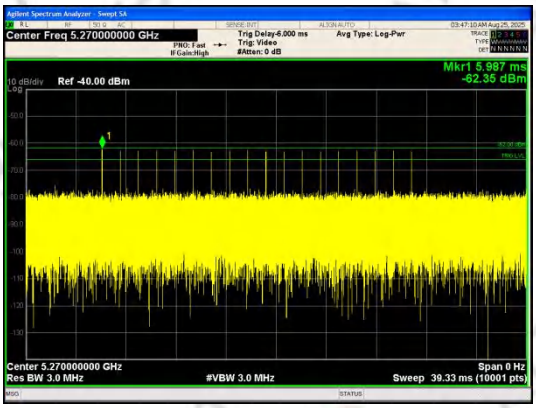
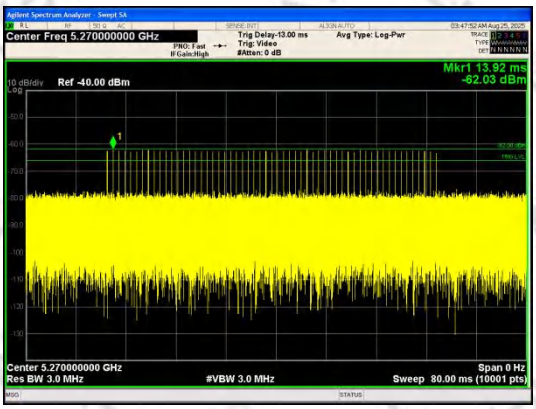
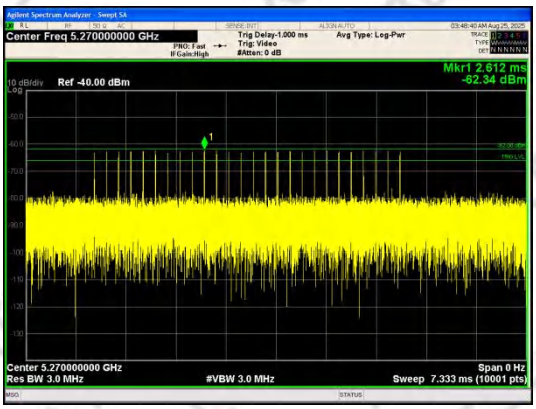
FCC radar test signal Type 0
IEEE 802.11ax_20_Channel 100_Ant.1

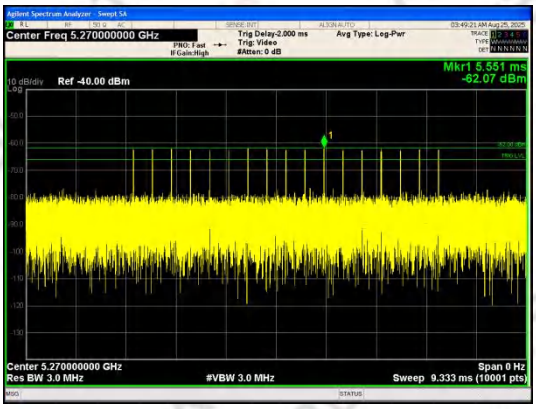


FCC radar test signal Type 1
IEEE 802.11ax_20_Channel 100_Ant.1

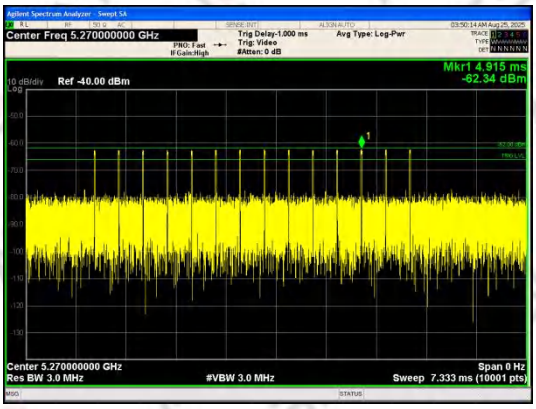




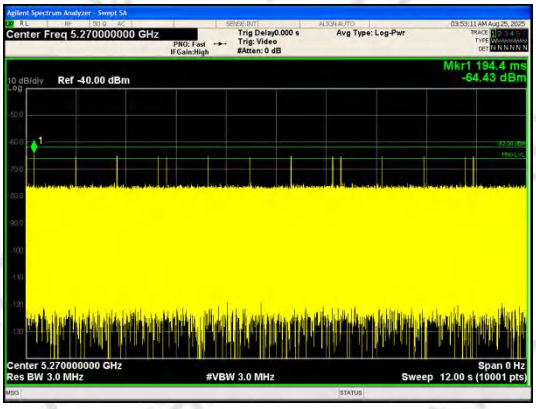
FCC radar test signal Type 2 IEEE 802.11ax_20_Channel 100_Ant.1	FCC radar test signal Type 3 IEEE 802.11ax_20_Channel 100_Ant.1
	
FCC radar test signal Type 4 IEEE 802.11ax_20_Channel 100_Ant.1	FCC radar test signal Type 5 IEEE 802.11ax_20_Channel 100_Ant.1
	
FCC radar test signal Type 6 IEEE 802.11ax_40_Channel 54_Ant.1	FCC radar test signal Type 0 IEEE 802.11ax_40_Channel 54_Ant.1
	
FCC radar test signal Type 1 IEEE 802.11ax_40_Channel 54_Ant.1	FCC radar test signal Type 2 IEEE 802.11ax_40_Channel 54_Ant.1



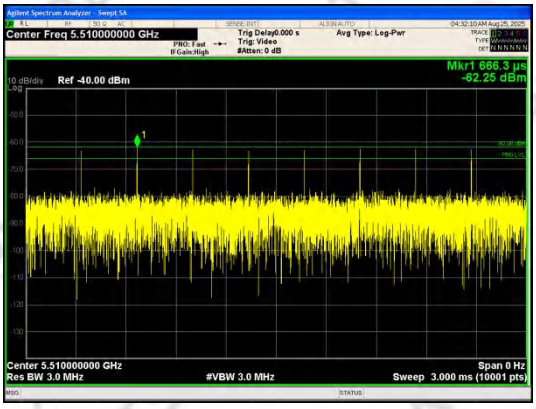
FCC radar test signal Type 3
IEEE 802.11ax_40_Channel 54_Ant.1



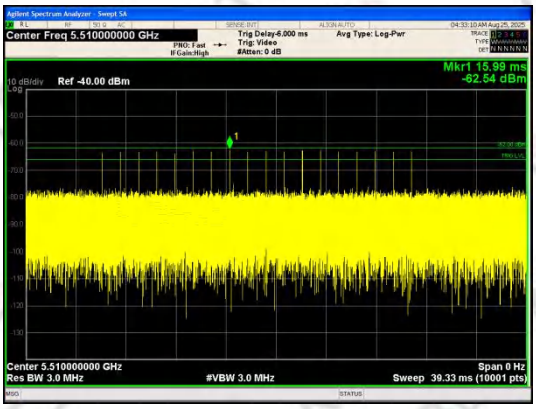
FCC radar test signal Type 4
IEEE 802.11ax_40_Channel 54_Ant.1



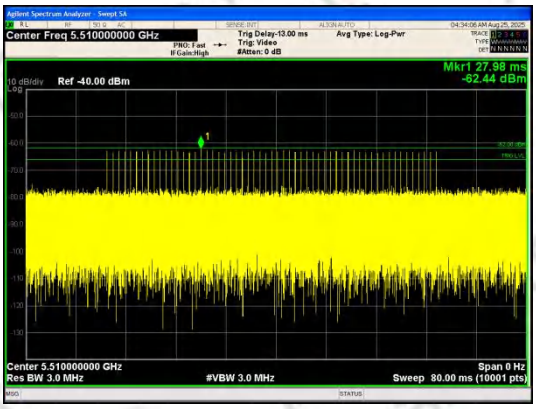
FCC radar test signal Type 5
IEEE 802.11ax_40_Channel 54_Ant.1



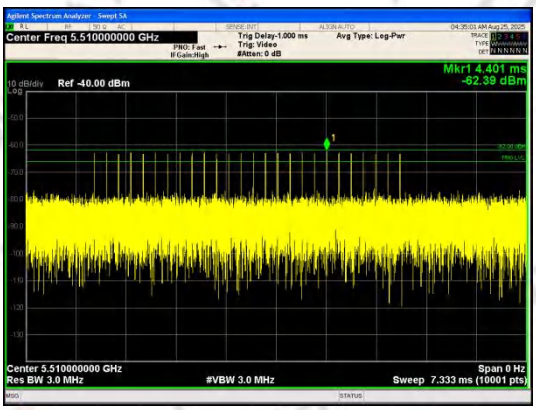
FCC radar test signal Type 6
IEEE 802.11ax_40_Channel 102_Ant.1

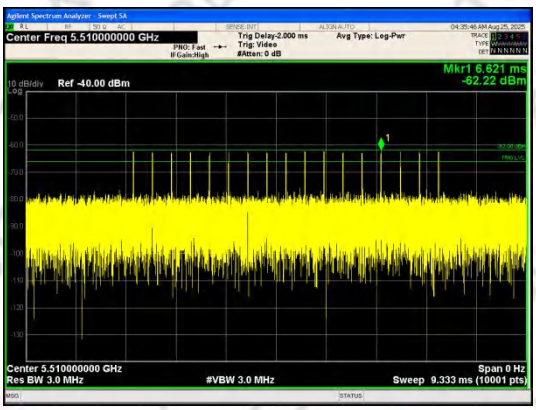


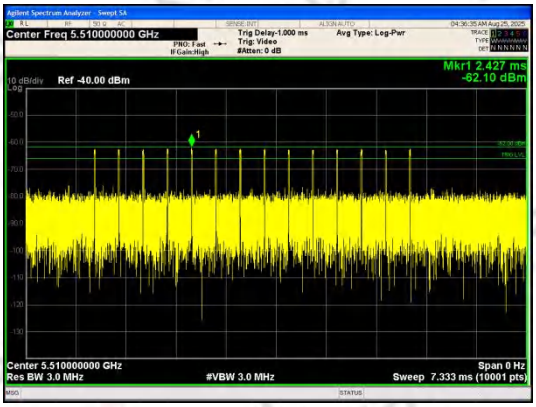
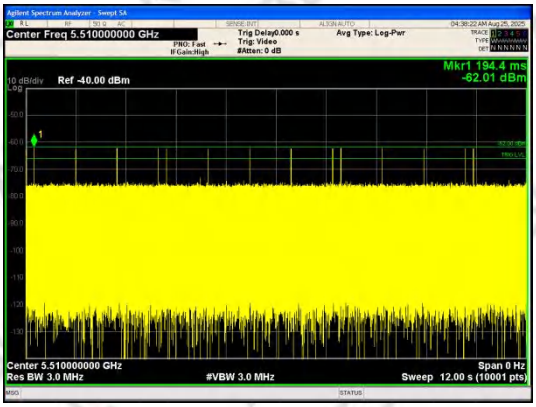
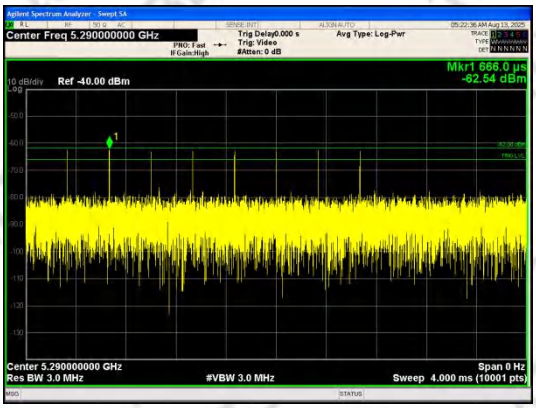
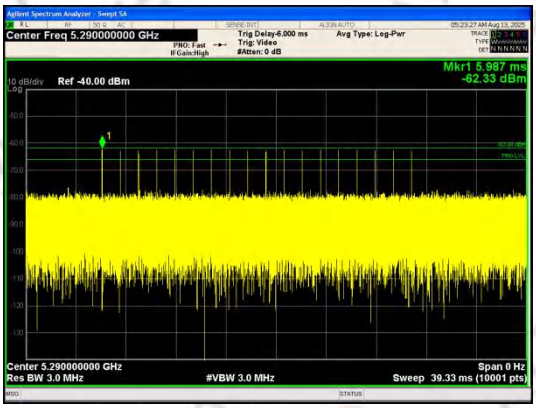
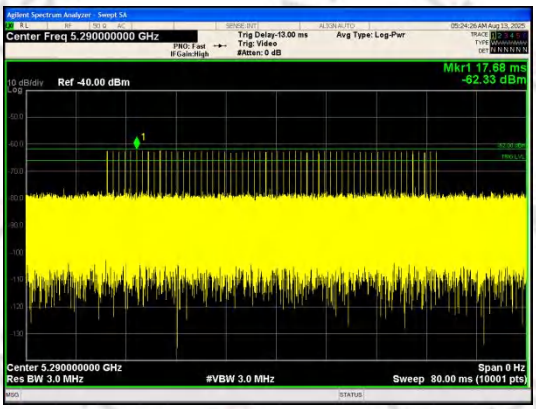
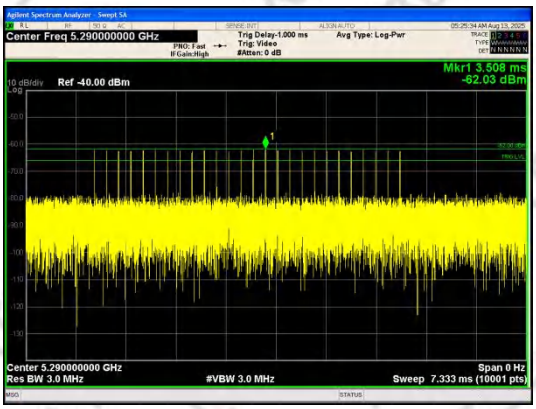
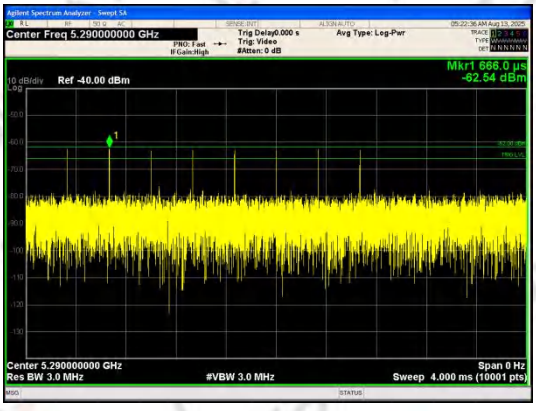
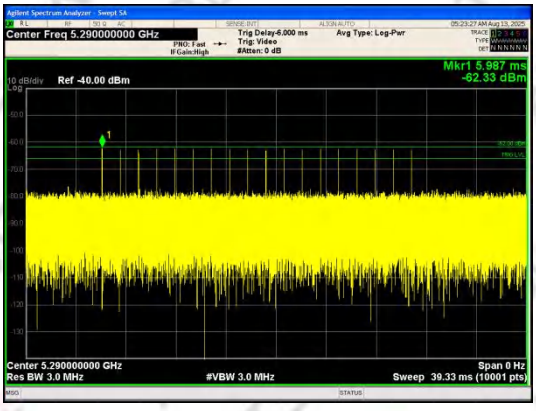
FCC radar test signal Type 0
IEEE 802.11ax_40_Channel 102_Ant.1

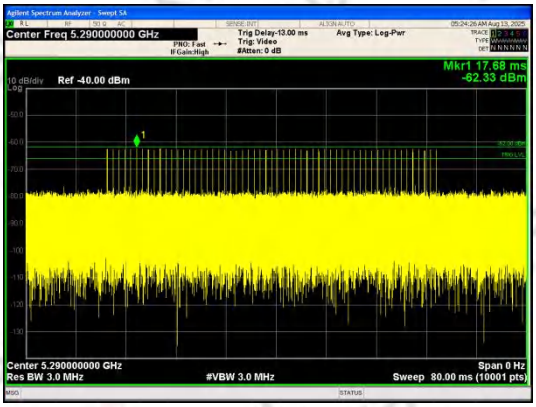
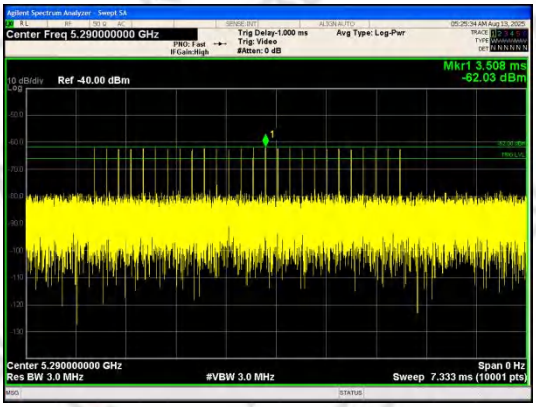
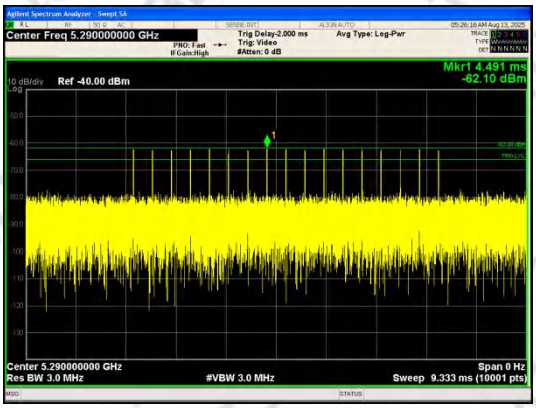
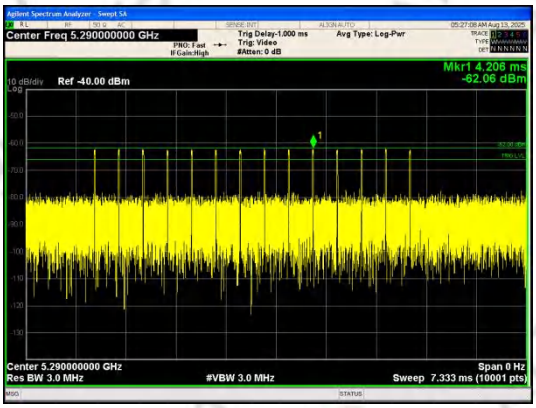
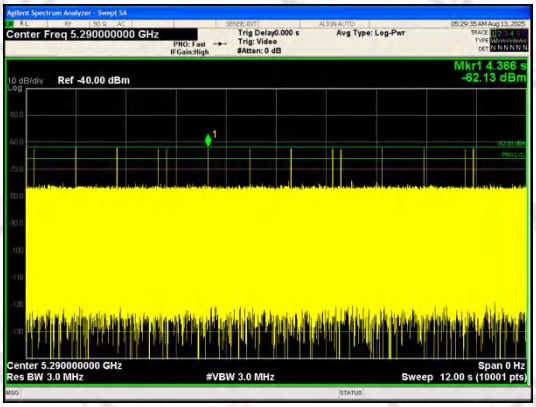
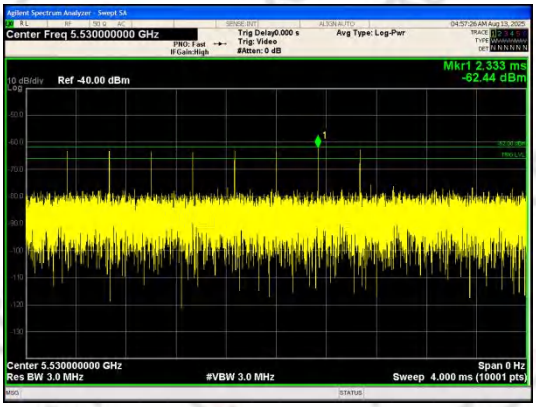


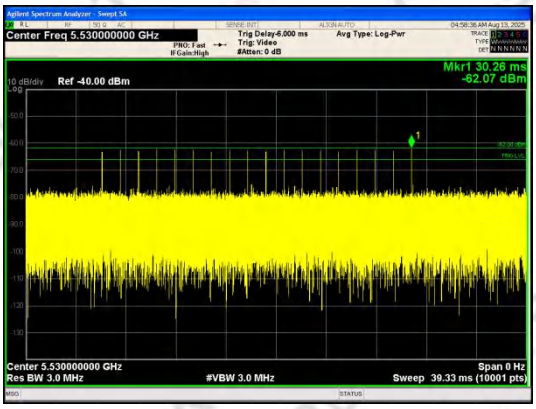
FCC radar test signal Type 1
IEEE 802.11ax_40_Channel 102_Ant.1



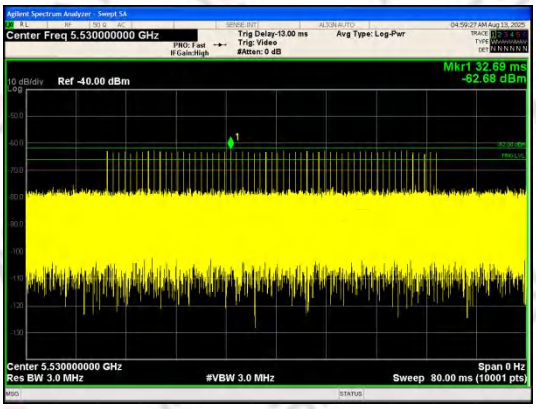


FCC radar test signal Type 2 IEEE 802.11ax_40_Channel 102_Ant.1	FCC radar test signal Type 3 IEEE 802.11ax_40_Channel 102_Ant.1
	
FCC radar test signal Type 4 IEEE 802.11ax_40_Channel 102_Ant.1	FCC radar test signal Type 5 IEEE 802.11ax_40_Channel 102_Ant.1
	
FCC radar test signal Type 6 **IEEE 802.11ax_80_Channel 58**	**FCC radar test signal Type 0** **IEEE 802.11ax_80_Channel 58**
	
	

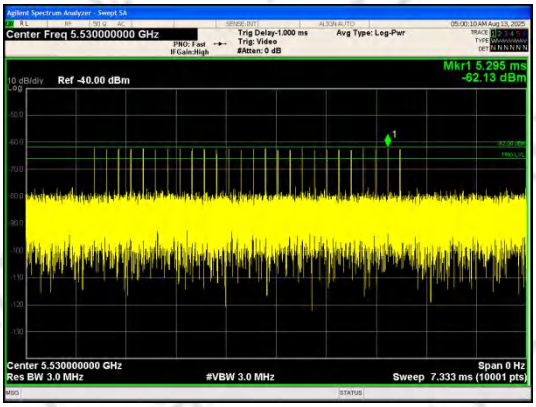
FCC radar test signal Type 6 5290MHz/80MHz	FCC radar test signal Type 0 5290MHz/80MHz
	
FCC radar test signal Type 1 5290MHz/80MHz	FCC radar test signal Type 2 5290MHz/80MHz
	
FCC radar test signal Type 3 5290MHz/80MHz	FCC radar test signal Type 4 5290MHz/80MHz
	
FCC radar test signal Type 5 5290MHz/80MHz	FCC radar test signal Type 6 5530MHz/80MHz



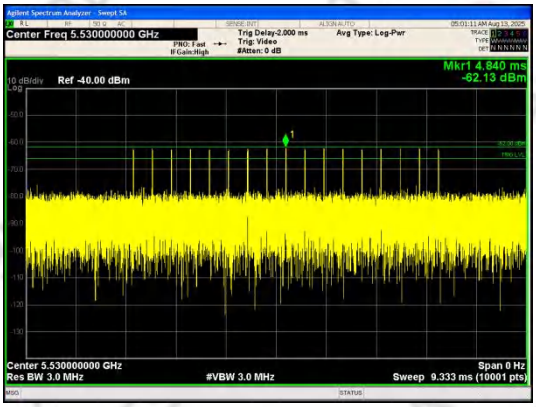
FCC radar test signal Type 0
5530MHz/80MHz



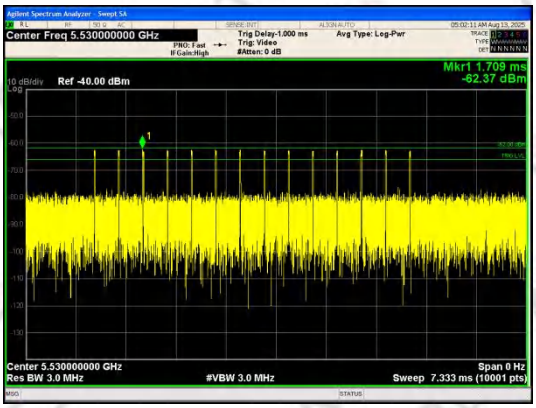
FCC radar test signal Type 1
5530MHz/80MHz



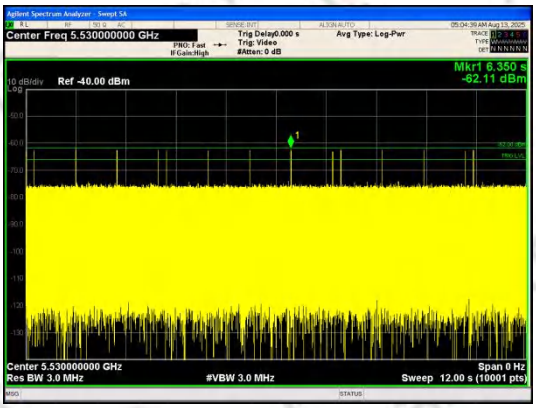
FCC radar test signal Type 2
5530MHz/80MHz



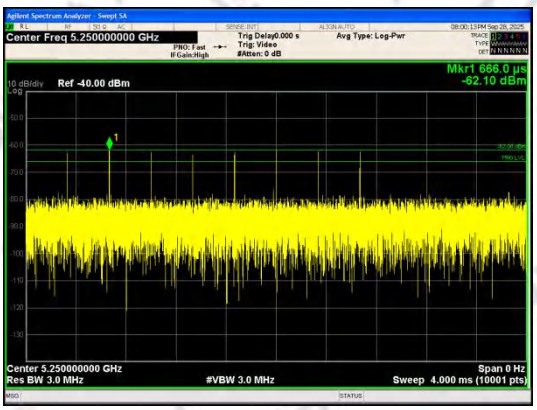
FCC radar test signal Type 3
5530MHz/80MHz

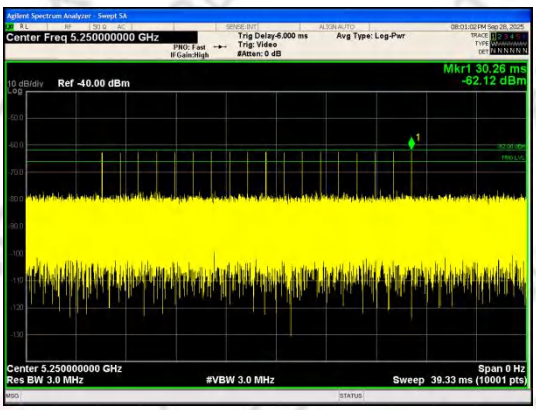


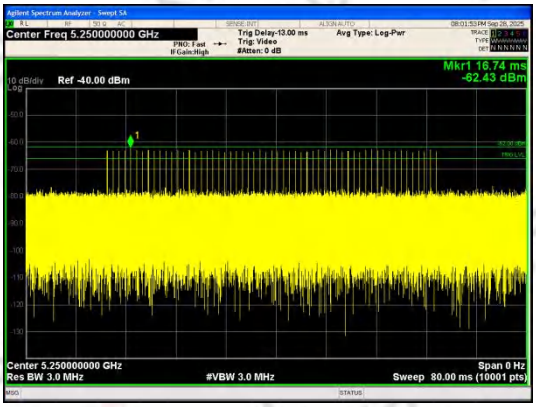
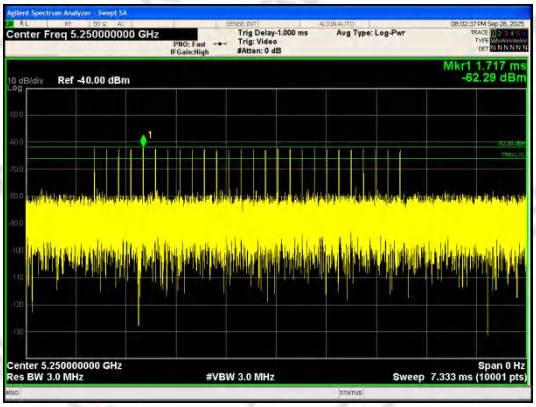
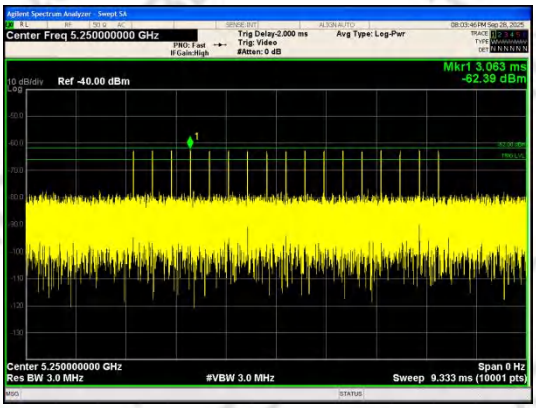
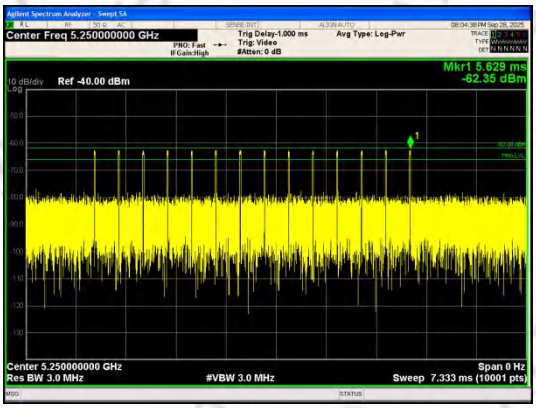
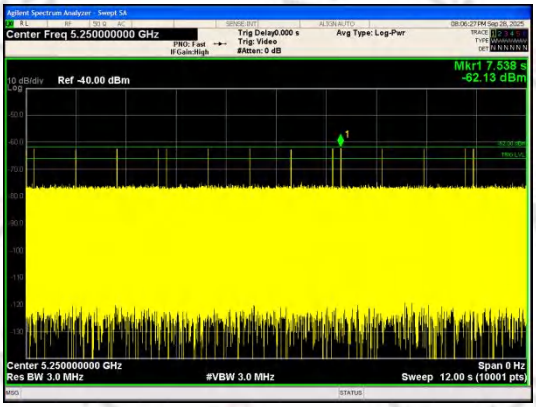
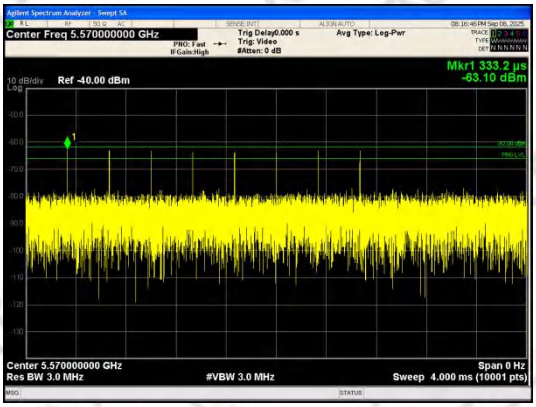
FCC radar test signal Type 4
5530MHz/80MHz

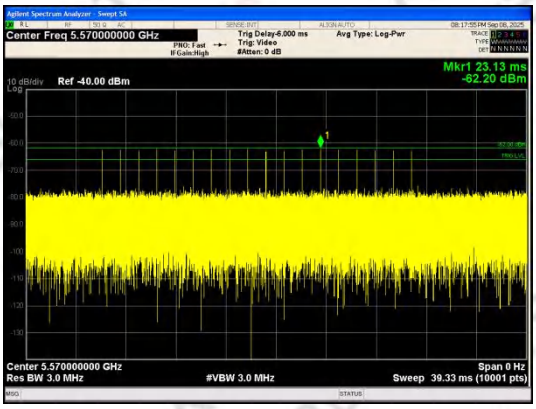


FCC radar test signal Type 5
5530MHz/80MHz

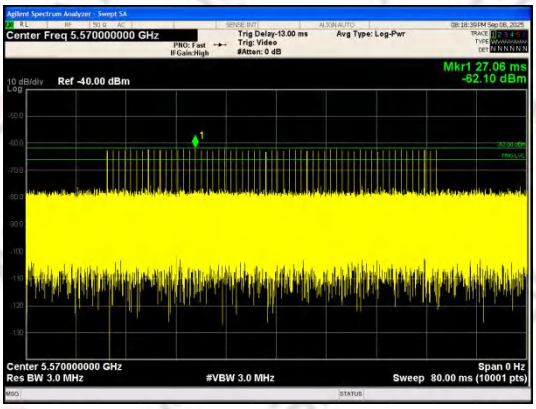




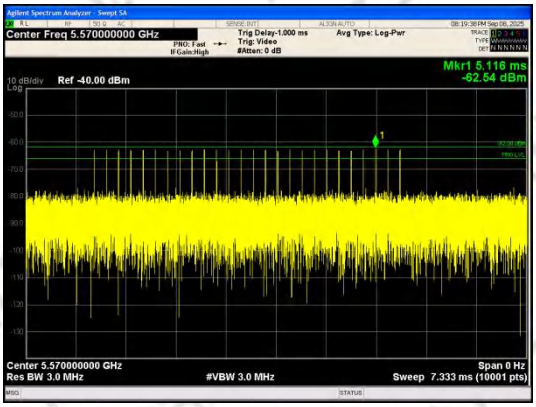
FCC radar test signal Type 6 5250MHz/160MHz	FCC radar test signal Type 0 5250MHz/160MHz
	
FCC radar test signal Type 1 5250MHz/160MHz	FCC radar test signal Type 2 5250MHz/160MHz
	
FCC radar test signal Type 3 5250MHz/160MHz	FCC radar test signal Type 4 5250MHz/160MHz
	
FCC radar test signal Type 5 5250MHz/160MHz	FCC radar test signal Type 6 5570MHz/160MHz



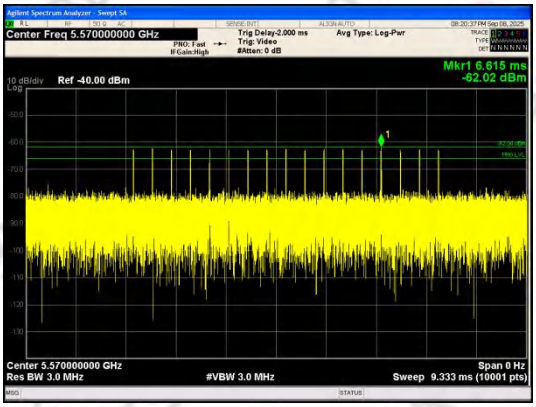
FCC radar test signal Type 0
5570MHz/160MHz



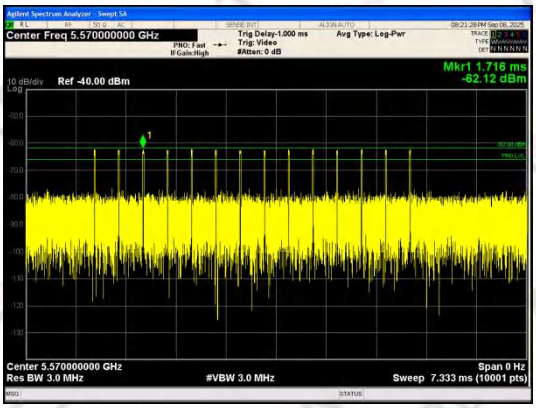
FCC radar test signal Type 1
5570MHz/160MHz



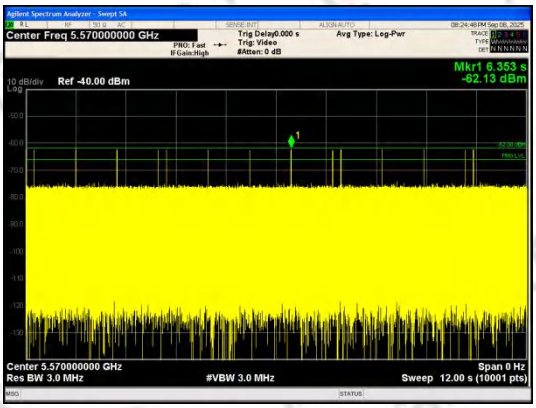
FCC radar test signal Type 2
5570MHz/160MHz



FCC radar test signal Type 3
5570MHz/160MHz



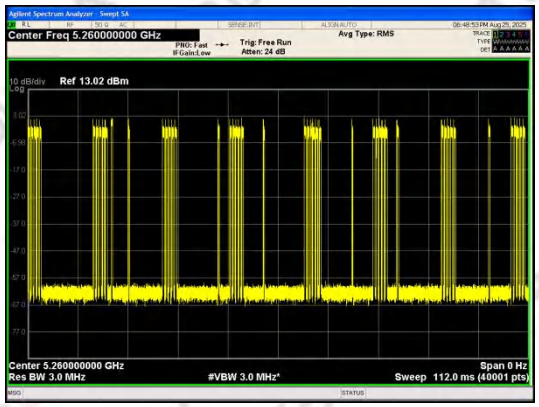
FCC radar test signal Type 4
5570MHz/160MHz



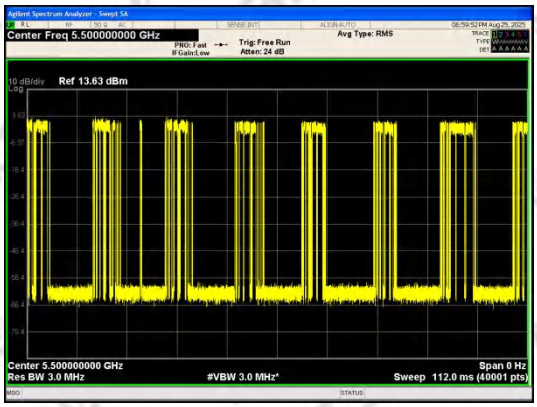
FCC radar test signal Type 5
5570MHz/160MHz

3.8.8.Test Result of Channel Loading

Mode	BW	FREQ	CH	data rate	Ant	ru_and_index	MIMO	Duty Cycle(%)	Tx on points	Tx off points
802.11ax	20	5260	52	MCS 0	1	N/A	False	17.08	6928	33073
802.11ax	20	5500	100	MCS 0	1	N/A	False	25.63	10394	29607
802.11ax	40	5270	54	MCS 0	1	N/A	False	18.99	7769	32232
802.11ax	40	5510	102	MCS 0	1	N/A	False	27.98	11342	28659
802.11ax	80	5290	58	MCS 0	1	N/A	False	20.31	8339	31662
802.11ax	80	5530	106	MCS 0	1	N/A	False	22.01	8393	31608
802.11be	160	5250	50	MCS 0	1	N/A	False	18.25	7767	32207
802.11be	160	5570	114	MCS 0	1	N/A	False	20.11	8332	31613

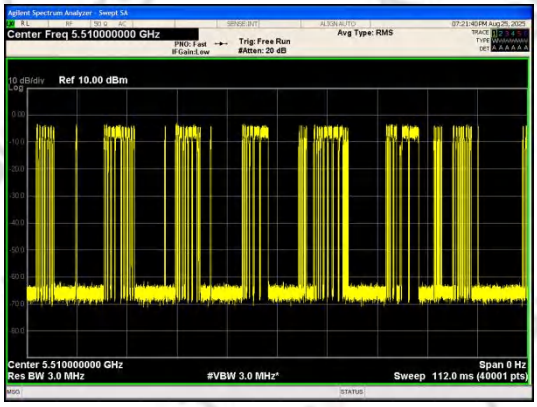


Data Traffic Plot
IEEE 802.11ax_20_Channel 52_Ant.1

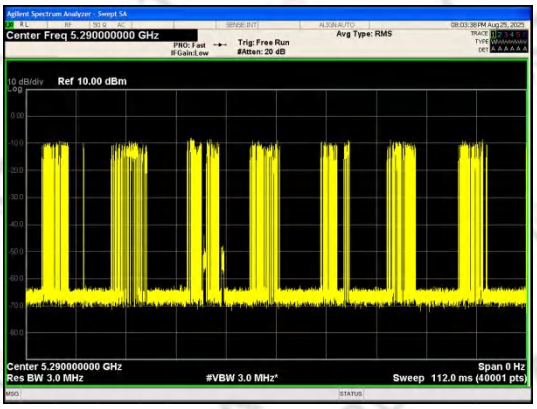
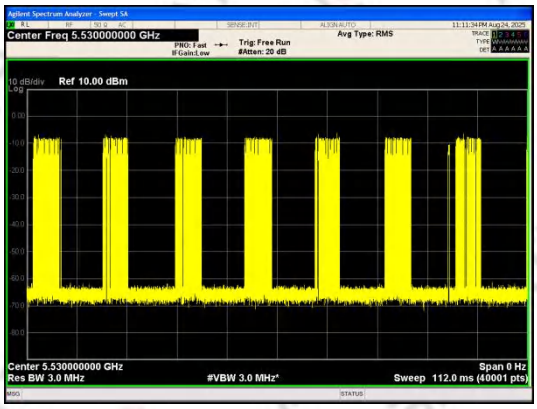
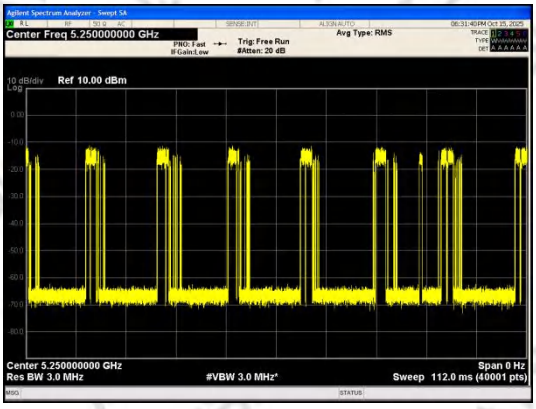
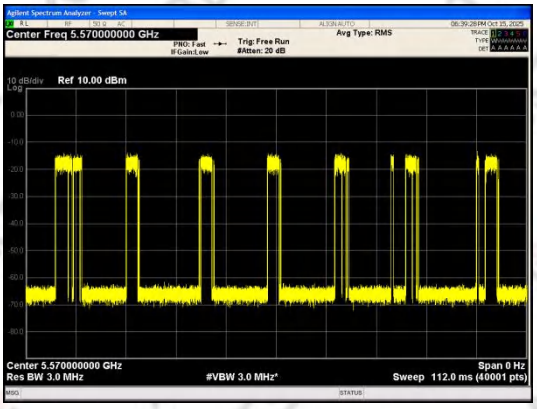


Data Traffic Plot
IEEE 802.11ax_20_Channel 100_Ant.1

Data Traffic Plot
IEEE 802.11ax_40_Channel 54_Ant.1



Data Traffic Plot
IEEE 802.11ax_40_Channel 102_Ant.1

	
Data Traffic Plot IEEE 802.11ax_80_Channel 58_Ant.1	Data Traffic Plot IEEE 802.11ax_80_Channel 106_Ant.1
	
Data Traffic Plot IEEE 802.11be_160_Channel 50_Ant.1	Data Traffic Plot IEEE 802.11be_160_Channel 114_Ant.1

3.8.9.Test Result of Detection Bandwidth

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.

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 3.8.6
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.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: U-NII Detection Bandwidth = FH – 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.

Test Result:

IEEE 802.11be_20

Frequency (MHz)	Fc	1	2	3	4	5	6	7	8	9	10	Rate (%)	FH/FL
5248	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5249	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FL
5250	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5251	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5252	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5253	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5254	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5255	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5260	+0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5265	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5266	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5267	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5268	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5269	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5270	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5271	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FH
5272	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
Result:True													

IEEE 802.11be_40

Frequency(MHz)	Fc	1	2	3	4	5	6	7	8	9	10	Rate (%)	FH/FL
5248	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5249	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FL
5250	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5251	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5252	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5253	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5254	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5255	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5260	+0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5265	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5266	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5267	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5268	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5269	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5270	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5271	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FH
5272	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5248	-22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5249	-21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FL

5250	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5251	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5252	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5253	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5254	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5255	-15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5260	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5265	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5270	+0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5275	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5280	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5285	+15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5286	+16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5287	+17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5288	+18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5289	+19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5290	+20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5291	+21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FH
5292	+22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
Result:True													

IEEE 802.11be_80

Frequency(MHz)	Fc	1	2	3	4	5	6	7	8	9	10	Rate (%)	FH/FL
5490	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5491	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FL
5492	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5493	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5494	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5495	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5500	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5505	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5510	+0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5515	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5520	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5525	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5530	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5535	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5540	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5545	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5550	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5555	-22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5560	-21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5565	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5567	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	

5568	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5569	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FH
5570	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
Result:True													

IEEE 802.11be_160

Frequency(MHz)	Fc	1	2	3	4	5	6	7	8	9	10	Rate (%)	FH/FL
5560	-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5561	-11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FL
5562	-10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5563	-9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5564	-8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5565	-7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5566	-6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5567	-5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5568	+0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5569	+5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5570	+6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5571	+7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5572	+8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5573	+9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5574	+10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5575	+11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5576	+12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5577	-22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5578	-21	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5579	-20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5580	-19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5581	-18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
5582	-17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	FH
5583	-16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100.0	
Result:True													

Conclusion: The result complies with the regulatory requirements.

3.8.10.Test Result of Channel Availability Check (CAC)

Test Limit:

(1).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.

(2).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.

(3).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.

Test Procedure:

Channel Availability Check :

(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.

Beginning of the Channel Availability Check Time:

(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 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 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.

End of the Channel Availability Check Time：

(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

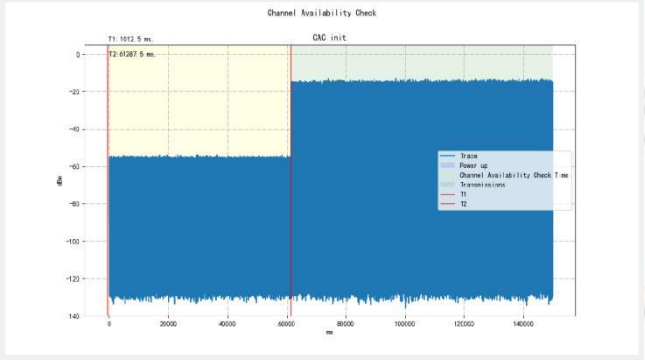
operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold occurs at the beginning of the Channel Availability Check Time.

(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 thanT1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold 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.

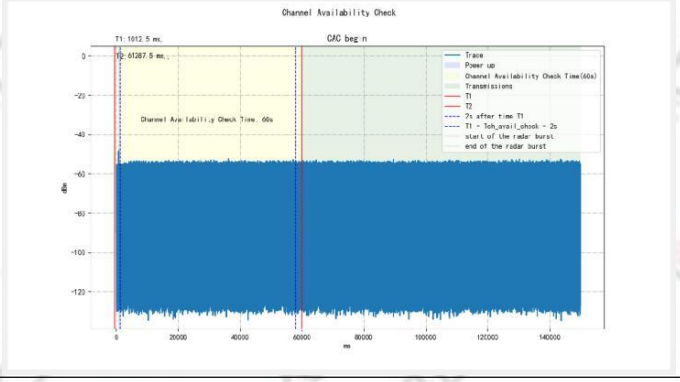
Test Result:

Initial Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Power-on Cycle. (sec)	CAC Time (sec)	Observation Time (min)
802.11be20	5260	N/A	61.3	60	6

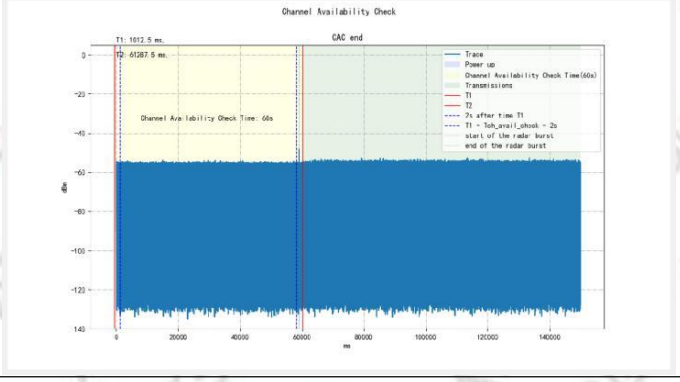


Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Beginning CAC of Timing of radar burst (sec)	End CAC of Timing of radar burst (sec)	DFS Triggered (Yes/No)
802.11be20	5260	0	5	55	Yes

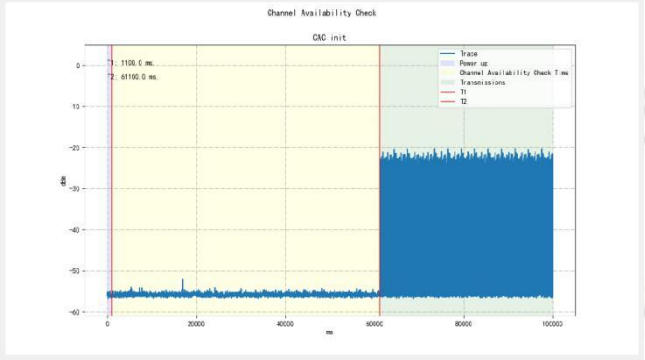
beginning of the Channel Availability Check Time



the end of the Channel Availability Check Time

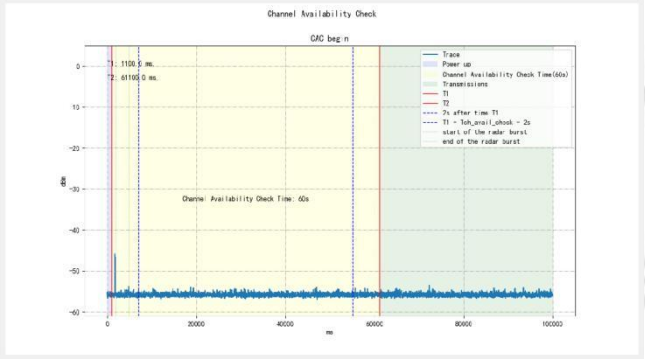


Initial Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Power-on Cycle. (sec)	CAC Time (sec)	Observation Time (min)
802.11be40	5670	N/A	61.10	60	6

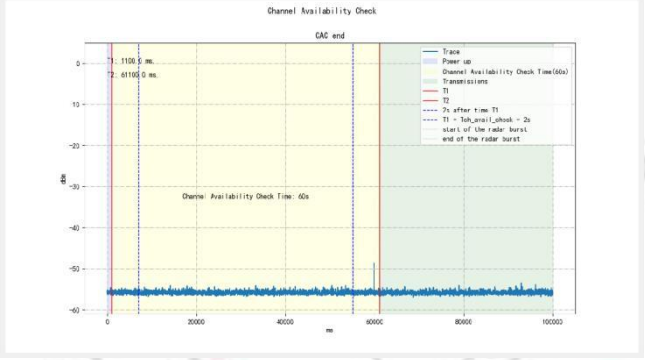


Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Beginning CAC of Timing of radar burst (sec)	End CAC of Timing of radar burst (sec)	DFS Triggered (Yes/No)
802.11be40	5670	0	2	57	Yes

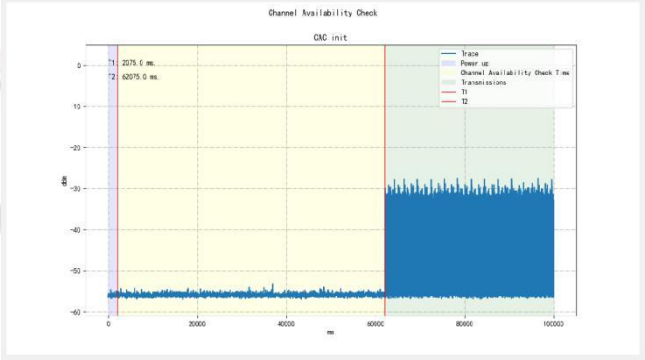
beginning of the Channel Availability Check Time



the end of the Channel Availability Check Time

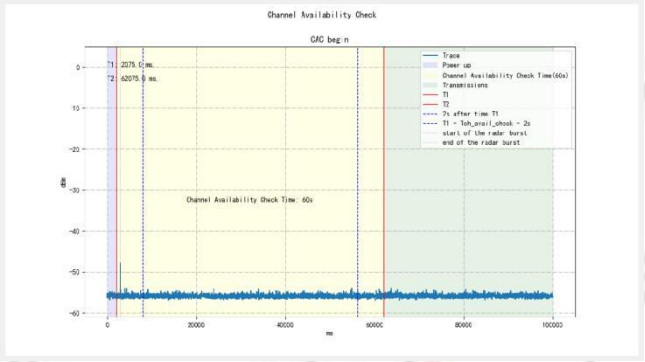


Initial Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Power-on Cycle. (sec)	CAC Time (sec)	Observation Time (min)
802.11be80	5290	N/A	62.0	60	6

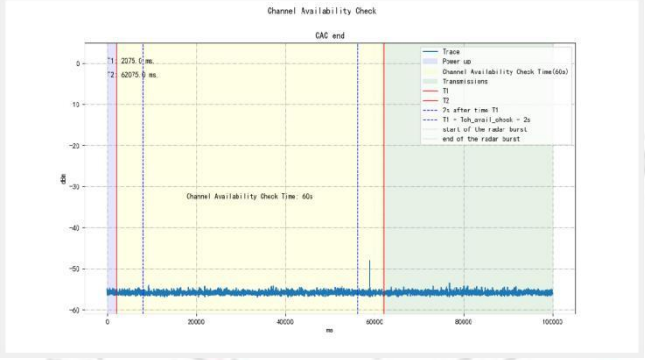


Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Beginning CAC of Timing of radar burst (sec)	End CAC of Timing of radar burst (sec)	DFS Triggered (Yes/No)
802.11be80	5290	0	2	57	Yes

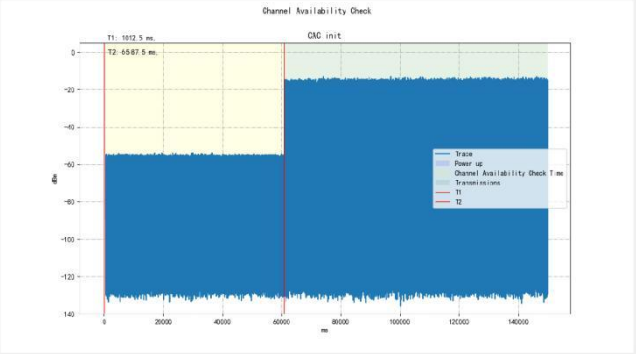
beginning of the Channel Availability Check Time



the end of the Channel Availability Check Time

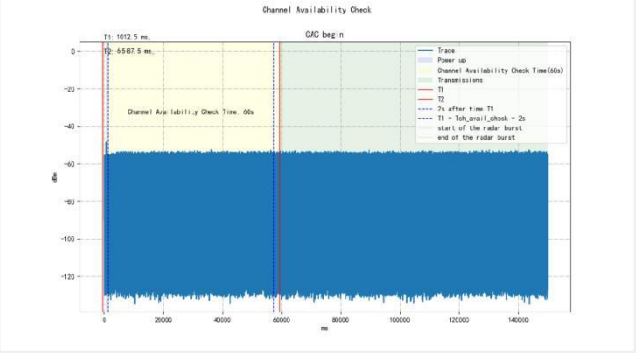


Initial Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Power-on Cycle. (sec)	CAC Time (sec)	Observation Time (min)
802.11be160	5250	N/A	65.87	60	6

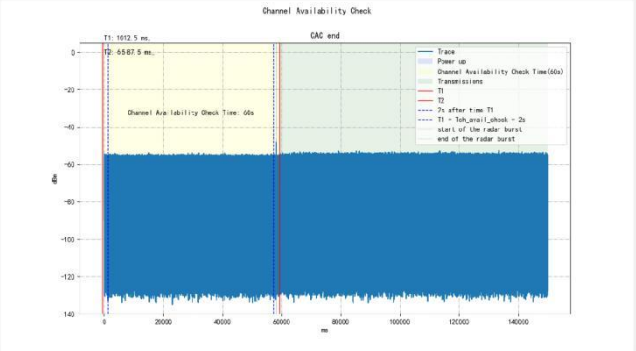


Channel Availability Check Time Result					
Modulation mode (MHz)	Frequency (MHz)	Radar Test Signa	Beginning CAC of Timing of radar burst (sec)	End CAC of Timing of radar burst (sec)	DFS Triggered (Yes/No)
802.11be160	5250	0	5	55	Yes

beginning of the Channel Availability Check Time



the end of the Channel Availability Check Time



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

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.

Test Procedure：

(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 .

(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 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 X 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.

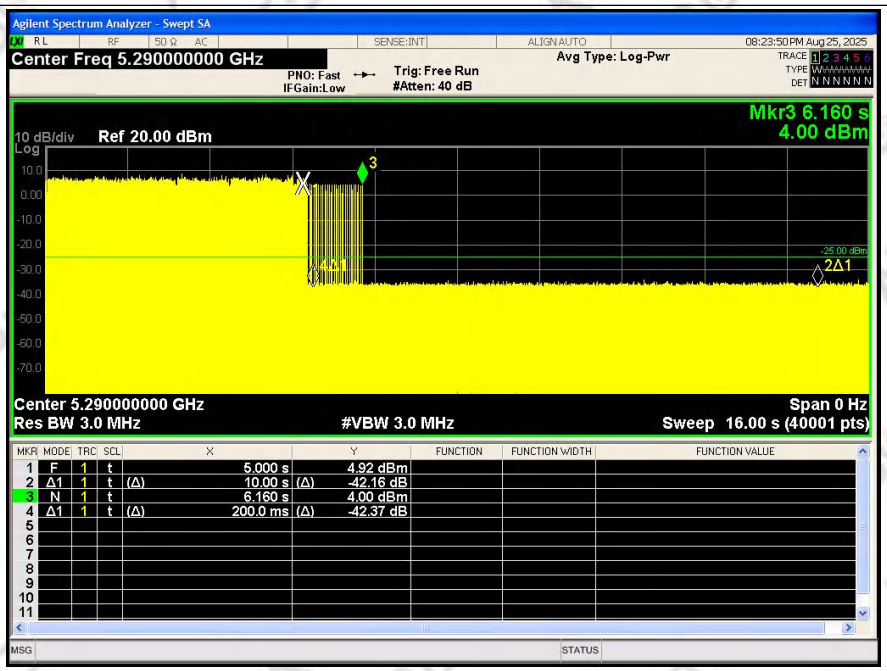
(5).Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

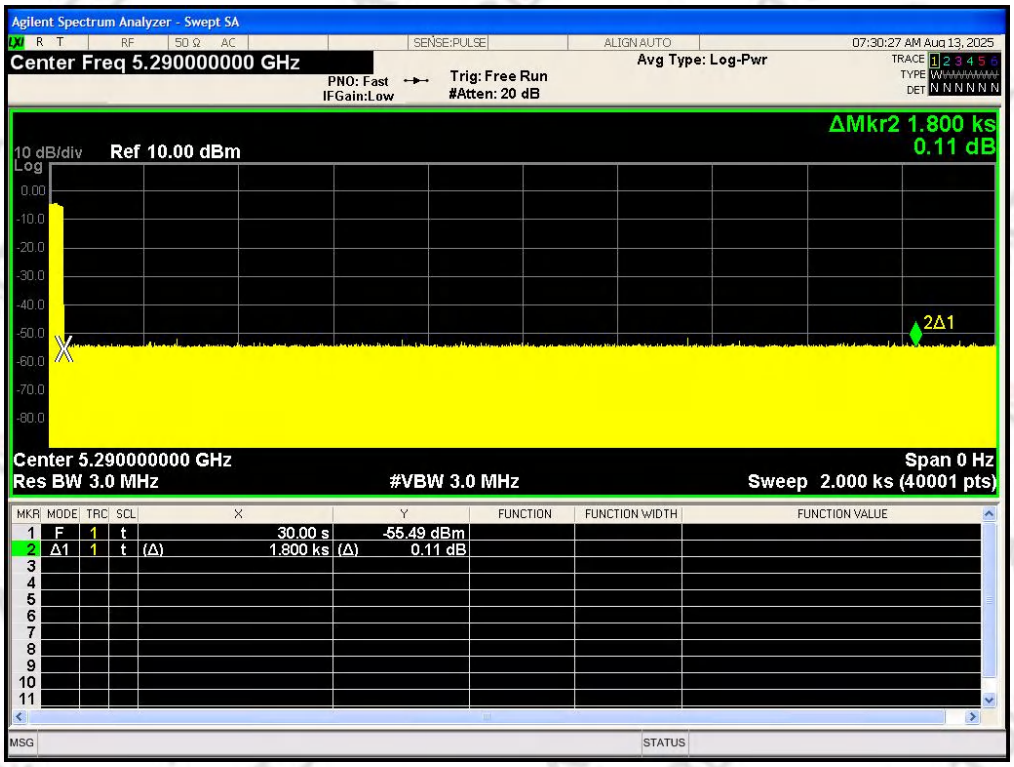
Test Result:

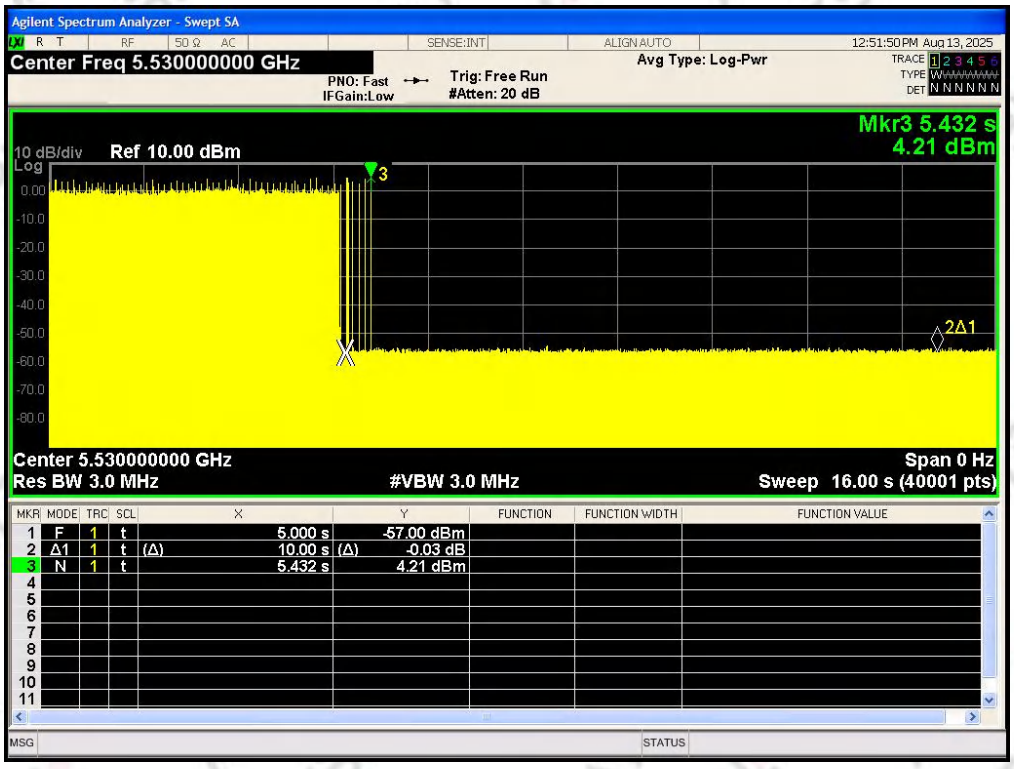
Channel Move Time and Channel Closing Transmission Time

Test Frequency	Requirement	Measurement Level	Limit
5290MHz	Channel Closing Transmission Time	0.020s	≤0.26s
	Channel Move Time	1.16s	≤10s
5530MHz	Channel Closing Transmission Time	0.0036s	≤0.26s
	Channel Move Time	0.432s	≤10s

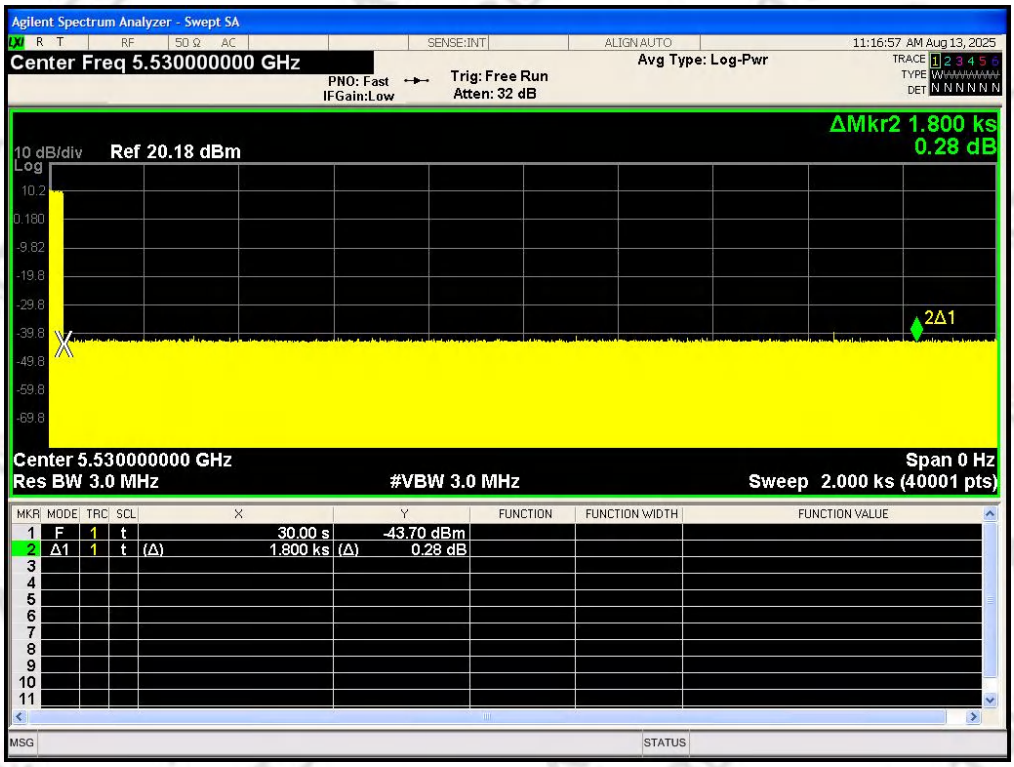
Mode:	802.11be 80
Radar Type 0:	80MHz/5290MHz
Channel shut down	



Non-occupancy Period-Elapse time 30minutes


Mode:	802.11be80
Radar Type 0:	80MHz/5530MHz
Channel shut down	
	

Non-occupancy Period-Elapse time 30minutes



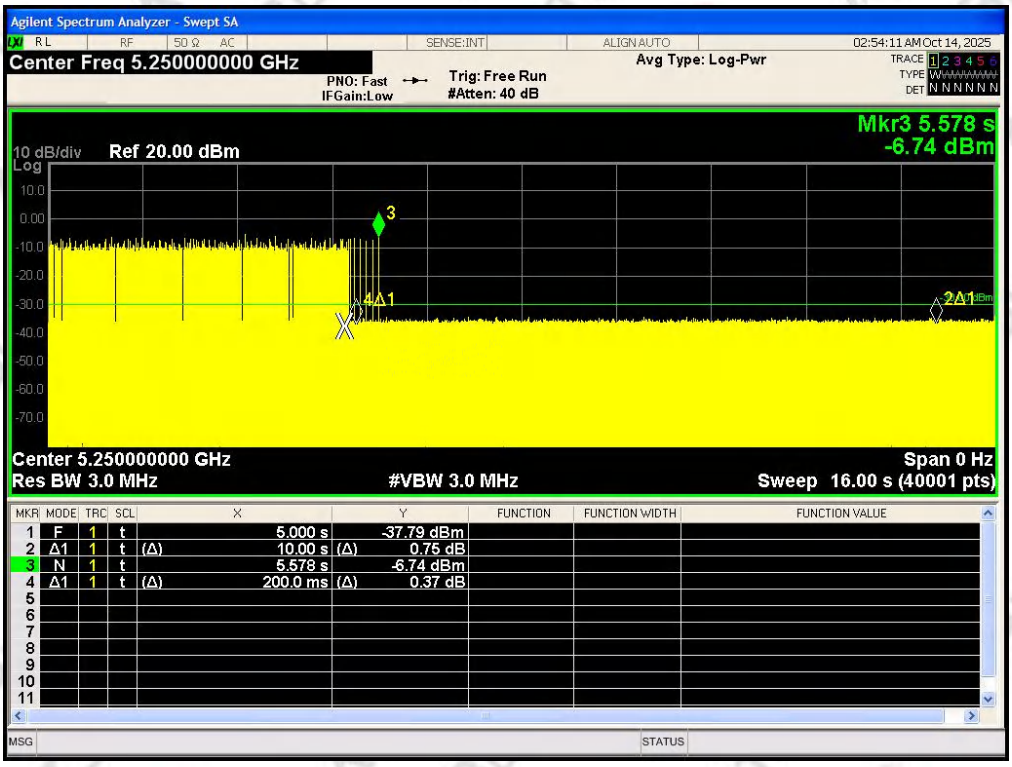
RESULT: PASS

Channel Move Time and Channel Closing Transmission Time

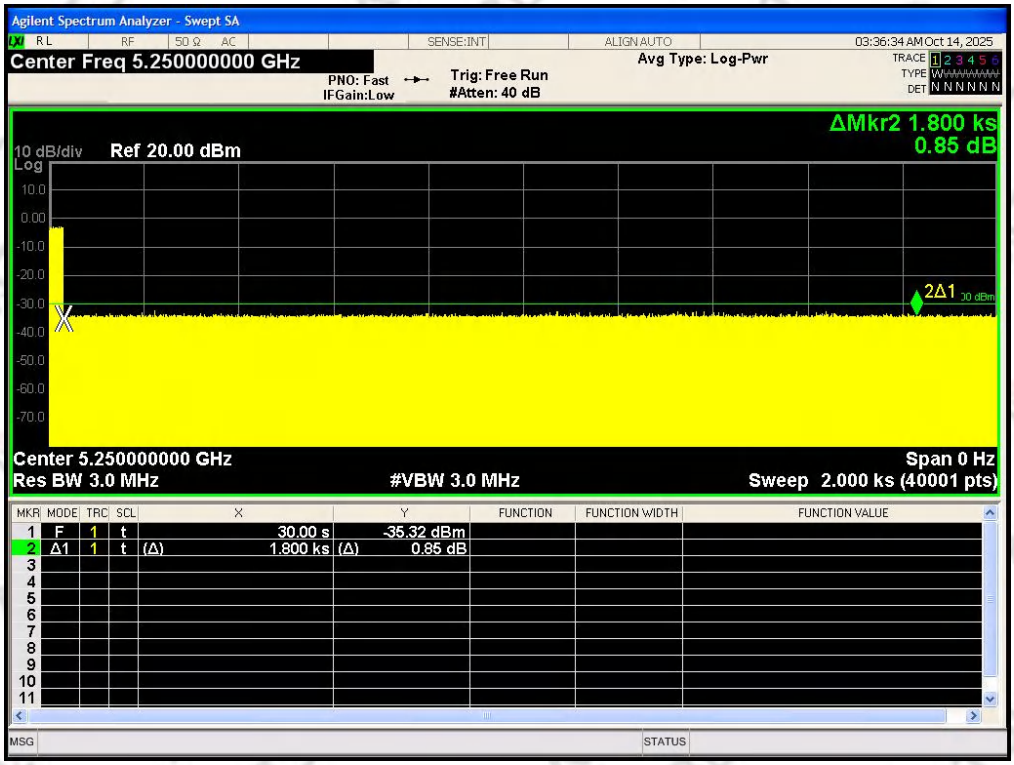
Test Frequency	Requirement	Measurement Level	Limit
5250MHz	Channel Closing Transmission Time	0.058s	≤0.26s
	Channel Move Time	3.2s	≤10s
5570MHz	Channel Closing Transmission Time	0.064s	≤0.26s
	Channel Move Time	0.4s	≤10s

Mode:	802.11be 160
Radar Type 0:	160MHz/5250MHz

Channel shut down

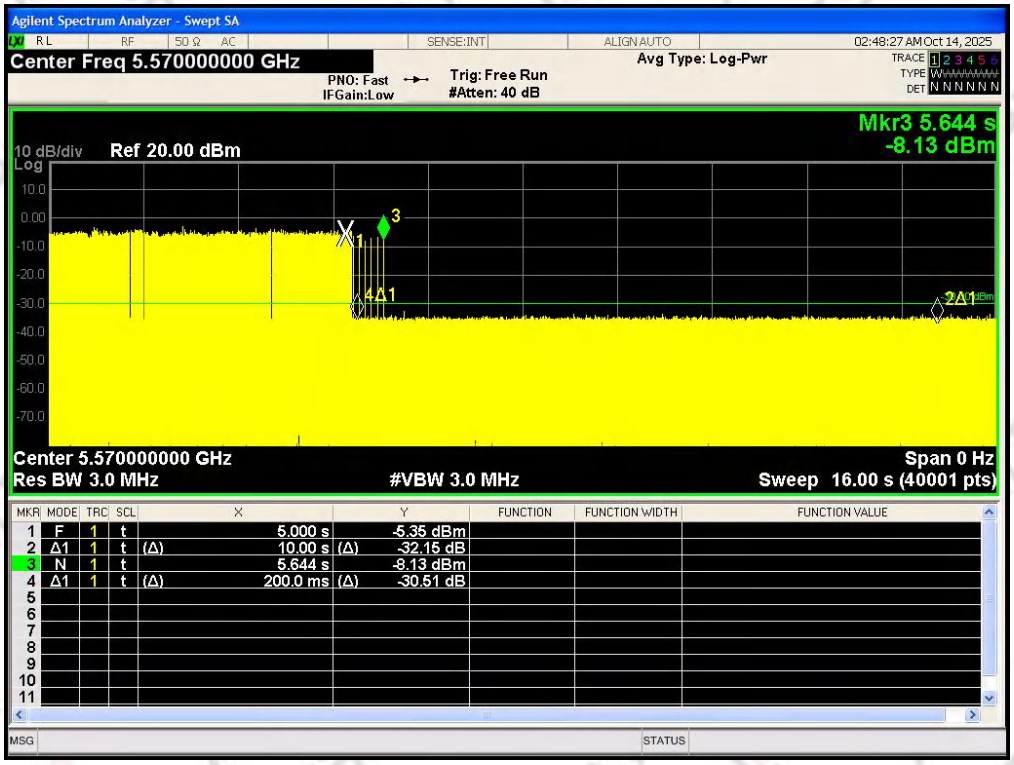


Non-occupancy Period-Elapse time 30minutes

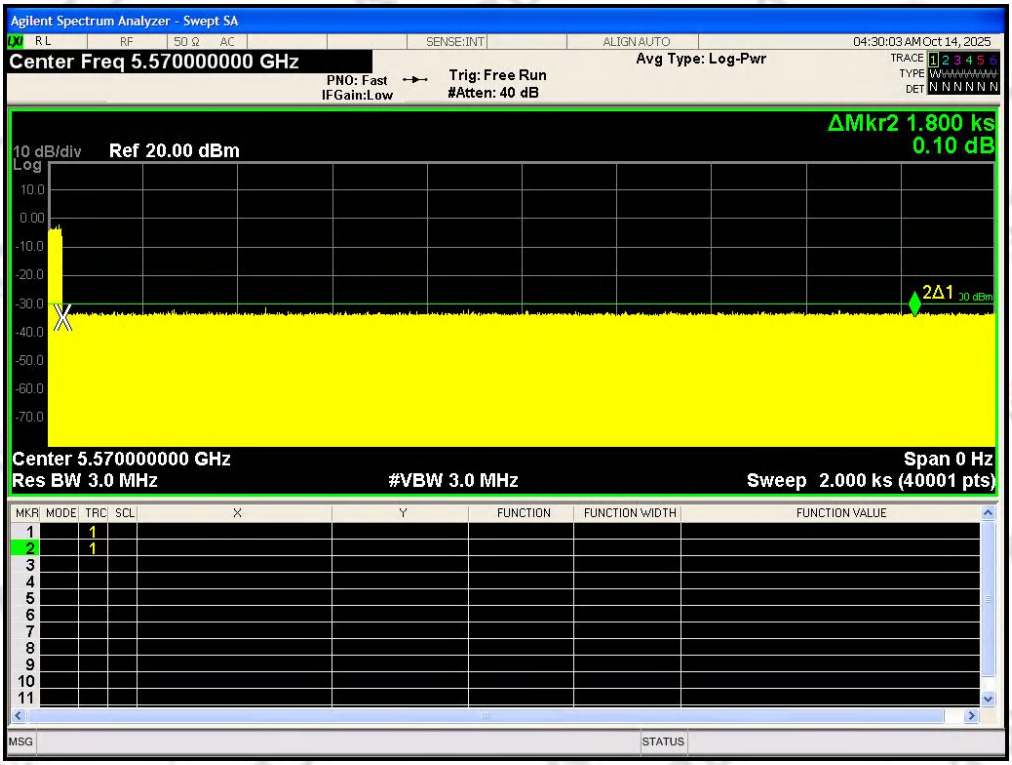


Mode:	802.11be160
Radar Type 0:	80MHz/5570MHz

Channel shut down



Non-occupancy Period-Elapse time 30minutes



RESULT: PASS

3.8.12.Test Result of Statistical Performance Check

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

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, 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.

Test Result:

IEEE 802.11be_20

802.11be_5260MHz/20MHz

Result of Statistical Performance Check

Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Limit (%)	≥60%	≥60%	≥60%	≥60%	≥80%	≥70%

Average Probability of Radar Type 1~4 (%)

Average Probability of Radar Type 1~4 (%)	Limit(%)
100.0%	≥80%

IEEE 802.11be_40

802.11be_5270MHz/40MHz

Result of Statistical Performance Check

Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Limit (%)	≥60%	≥60%	≥60%	≥60%	≥80%	≥70%

Average Probability of Radar Type 1~4 (%)

Average Probability of Radar Type 1~4 (%)	Limit(%)
100.0%	≥80%

IEEE 802.11be_80

802.11be_5530MHz/80MHz

Result of Statistical Performance Check

Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Limit (%)	≥60%	≥60%	≥60%	≥60%	≥80%	≥70%

Average Probability of Radar Type 1~4 (%)

Average Probability of Radar Type 1~4 (%)	Limit(%)
100.0%	≥80%

IEEE 802.11be_160

802.11be_5570MHz/160MHz

Result of Statistical Performance Check

Trial Number	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
1	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y
11	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y
13	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	Y
15	Y	Y	Y	Y	Y	Y
16	Y	Y	Y	Y	Y	Y
17	Y	Y	Y	Y	Y	Y
18	Y	Y	Y	Y	Y	Y
19	Y	Y	Y	Y	Y	Y
20	Y	Y	Y	Y	Y	Y
21	Y	Y	Y	Y	Y	Y
22	Y	Y	Y	Y	Y	Y
23	Y	Y	Y	Y	Y	Y
24	Y	Y	Y	Y	Y	Y
25	Y	Y	Y	Y	Y	Y
26	Y	Y	Y	Y	Y	Y
27	Y	Y	Y	Y	Y	Y
28	Y	Y	Y	Y	Y	Y
29	Y	Y	Y	Y	Y	Y
30	Y	Y	Y	Y	Y	Y
Trial of Detection	30/30	30/30	30/30	30/30	30/30	30/30
Probability (%)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Limit (%)	≥60%	≥60%	≥60%	≥60%	≥80%	≥70%

Average Probability of Radar Type 1~4 (%)

Average Probability of Radar Type 1~4 (%)	Limit(%)
100.0%	≥80%

Test waveform are as follows:

Radar Signal 0

Trial ID	Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Waveform Length (μs)
0	Type 0	1	1428	18	25704

Radar Signal 1

Trial ID	Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Waveform Length (μs)
0	Type 1	1	938	57	53466
1	Type 1	1	698	76	53048
2	Type 1	1	618	86	53148
3	Type 1	1	538	99	53262
4	Type 1	1	878	61	53558
5	Type 1	1	3066	18	55188
6	Type 1	1	638	83	52954
7	Type 1	1	918	58	53244
8	Type 1	1	838	63	52794
9	Type 1	1	858	62	53196
10	Type 1	1	798	67	53466
11	Type 1	1	718	74	53132
12	Type 1	1	578	92	53176
13	Type 1	1	598	89	53222
14	Type 1	1	558	95	53010
15	Type 1	1	2536	21	53256
16	Type 1	1	966	55	53130
17	Type 1	1	827	64	52928
18	Type 1	1	2501	22	55022
19	Type 1	1	2595	21	54495
20	Type 1	1	1114	48	53472
21	Type 1	1	1302	41	53382
22	Type 1	1	3045	18	54810
23	Type 1	1	1624	33	53592
24	Type 1	1	2878	19	54682
25	Type 1	1	1027	52	53404
26	Type 1	1	2485	22	54670
27	Type 1	1	1600	33	52800
28	Type 1	1	1172	46	53912
29	Type 1	1	1177	45	52965

Radar Signal 2

Trial ID	Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Waveform Length (μs)
0	Type 2	3.2	179	26	4654
1	Type 2	1.1	207	23	4761
2	Type 2	2.1	230	24	5520
3	Type 2	4.8	200	29	5800
4	Type 2	3.9	214	28	5992
5	Type 2	2.9	222	26	5772
6	Type 2	3.2	204	26	5304
7	Type 2	2.5	192	25	4800
8	Type 2	3.1	164	26	4264
9	Type 2	1.2	156	23	3588
10	Type 2	3.9	210	27	5670
11	Type 2	4.6	201	29	5829
12	Type 2	3.2	162	26	4212
13	Type 2	2.2	197	25	4925
14	Type 2	4.5	163	29	4727
15	Type 2	3	203	26	5278
16	Type 2	5	168	29	4872
17	Type 2	2.4	217	25	5425
18	Type 2	2.9	191	26	4966
19	Type 2	2.3	166	25	4150
20	Type 2	3.7	150	27	4050
21	Type 2	2.2	176	25	4400
22	Type 2	4.9	195	29	5655
23	Type 2	2.9	202	26	5252
24	Type 2	2.5	178	25	4450
25	Type 2	1.1	206	23	4738
26	Type 2	3.8	155	27	4185
27	Type 2	4.7	157	29	4553
28	Type 2	2.4	224	25	5600
29	Type 2	4.2	159	28	4452

Radar Signal 3

Trial ID	Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Waveform Length (μs)
0	Type 3	8.2	355	17	6035
1	Type 3	6.1	487	16	7792
2	Type 3	7.1	344	16	5504
3	Type 3	9.8	288	18	5184
4	Type 3	8.9	230	18	4140
5	Type 3	7.9	432	17	7344
6	Type 3	8.2	207	17	3519
7	Type 3	7.5	443	17	7531
8	Type 3	8.1	439	17	7463
9	Type 3	6.2	223	16	3568
10	Type 3	8.9	208	18	3744
11	Type 3	9.6	463	18	8334
12	Type 3	8.2	441	17	7497
13	Type 3	7.2	323	16	5168
14	Type 3	9.5	297	18	5346
15	Type 3	8	412	17	7004
16	Type 3	10	324	18	5832
17	Type 3	7.4	271	17	4607
18	Type 3	7.9	349	17	5933
19	Type 3	7.3	409	16	6544
20	Type 3	8.7	373	18	6714
21	Type 3	7.2	254	16	4064
22	Type 3	9.9	274	18	4932
23	Type 3	7.9	278	17	4726
24	Type 3	7.5	317	17	5389
25	Type 3	6.1	260	16	4160
26	Type 3	8.8	211	18	3798
27	Type 3	9.7	272	18	4896
28	Type 3	7.4	264	17	4488
29	Type 3	9.2	284	18	5112

Radar Signal 4

Trial ID	Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Waveform Length (μs)
0	Type 4	16	355	14	4970
1	Type 4	11.3	487	12	5844
2	Type 4	13.5	344	13	4472
3	Type 4	19.4	288	16	4608
4	Type 4	17.5	230	15	3450
5	Type 4	15.3	432	14	6048
6	Type 4	15.9	207	14	2898
7	Type 4	14.3	443	13	5759
8	Type 4	15.8	439	14	6146
9	Type 4	11.5	223	12	2676
10	Type 4	17.4	208	15	3120
11	Type 4	19	463	16	7408
12	Type 4	16	441	14	6174
13	Type 4	13.8	323	13	4199
14	Type 4	18.9	297	16	4752
15	Type 4	15.5	412	14	5768
16	Type 4	19.9	324	16	5184
17	Type 4	14.1	271	13	3523
18	Type 4	15.2	349	14	4886
19	Type 4	13.8	409	13	5317
20	Type 4	17.1	373	15	5595
21	Type 4	13.8	254	13	3302
22	Type 4	19.8	274	16	4384
23	Type 4	15.3	278	14	3892
24	Type 4	14.5	317	13	4121
25	Type 4	11.3	260	12	3120
26	Type 4	17.3	211	15	3165
27	Type 4	19.2	272	16	4352
28	Type 4	14.2	264	13	3432
29	Type 4	18.2	284	15	4260

Radar Signal 5_5530 MHz

Trial ID	Radar Type	Number of Bursts	Burst Period(s)	Wave from Length (s)	Center Frequency(GHz)	-		
0	Type 5	15	0.8	12	5.53	-		
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	636185	77.8	13	2	1665	1477	-
	1	32674	51.9	13	1	1074	-	-
	2	226294	63.8	13	1	1584	-	-
	3	417976	96.6	13	3	1682	1786	1843
	4	611152	85.9	13	3	1795	1215	1729
	5	8789	73.7	13	2	1198	1549	-
	6	201917	77.2	13	2	1837	1819	-
	7	395530	68.4	13	2	1587	1114	-
	8	588564	76.7	13	2	2000	1155	-
	9	783794	53.2	13	1	1147	-	-
	10	177933	85.7	13	3	1433	1695	1394
	11	370624	94.3	13	3	1670	1426	1935
	12	564893	77.6	13	2	1294	1671	-
	13	759583	65.7	13	1	1512	-	-
	14	154262	93.5	13	3	1444	1130	1468
1	Type 5	8	1.5	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	653020	75	5	2	1880	1527	-
	1	1015643	99.4	5	3	1401	1262	1257
	2	1379398	67.4	5	2	1531	1403	-
	3	245489	73.6	5	2	1449	1041	-
	4	609113	65.9	5	1	1432	-	-
	5	970852	83.8	5	3	1356	1292	1419
	6	1335913	65.5	5	1	1543	-	-
	7	200406	98.6	5	3	1548	1796	1728

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
2	Type 5	11	1.090909	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	409565	73.8	9	2	1806	1538	-
	1	673692	69.5	9	2	1117	1649	-
	2	938562	51.9	9	1	1651	-	-
	3	113209	84.6	9	3	1976	1032	1271
	4	376726	95.4	9	3	1060	1903	1388
	5	641212	68	9	2	1368	1351	-
	6	903714	89.6	9	3	1338	1514	1573
	7	80863	81.9	9	2	1022	1689	-
	8	344067	88.3	9	3	1810	1330	1838
	9	609331	53.7	9	1	1597	-	-
	10	871542	91.3	9	3	1961	1106	1001
3	Type 5	20	0.6	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	26541	68.1	19	2	1339	1355	-
	1	171821	58.7	19	1	1251	-	-
	2	316229	75.3	19	2	1136	1640	-
	3	461864	56.4	19	1	1753	-	-
	4	8677	99.7	19	3	1196	1708	1159
	5	153995	57.7	19	1	1013	-	-
	6	299238	59.5	19	1	1072	-	-
	7	443177	80	19	2	1482	1369	-
	8	587671	82	19	2	1993	1197	-
	9	135674	82.8	19	2	1883	1005	-
	10	279928	88	19	3	1061	1928	1101
	11	424279	93.2	19	3	1207	1907	1223
	12	570132	70.4	19	2	1526	1360	-
	13	117439	95.3	19	3	1171	1955	1775
	14	262502	81.9	19	2	1690	1545	-
	15	406573	98.5	19	3	1975	1169	1062
	16	553328	65	19	1	1767	-	-
	17	99799	85.4	19	3	1011	1637	1425
	18	244095	91.6	19	3	1878	1445	1325
	19	390012	67.3	19	2	1091	1218	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
4	Type 5	17	0.705882	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	629614	67.9	16	2	1320	1133	-
	1	96856	62.3	16	1	1957	-	-
	2	267719	53.3	16	1	1592	-	-
	3	436784	90	16	3	1900	1153	1346
	4	608289	77.1	16	2	1166	1646	-
	5	75610	83.9	16	3	1278	1232	1459
	6	245638	89.1	16	3	1240	1384	1939
	7	416355	81.8	16	2	1833	1676	-
	8	588736	50.3	16	1	1075	-	-
	9	54571	87.1	16	3	1116	1996	1756
	10	225175	71.3	16	2	1225	1815	-
	11	394825	97.5	16	3	1884	1465	1132
	12	565361	90.6	16	3	1561	1040	1354
	13	33643	86.3	16	3	1596	1183	1792
	14	203957	97.6	16	3	1365	1073	1361
	15	373812	84.7	16	3	1021	1718	1854
	16	544060	99.7	16	3	1150	1244	1988
5	Type 5	14	0.857143	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	15438	92.9	12	3	1085	1564	1407
	1	222486	67.7	12	2	1744	1747	-
	2	430731	65.8	12	1	1092	-	-
	3	637784	56.3	12	1	1851	-	-
	4	845342	53.7	12	1	1727	-	-
	5	196720	83.5	12	3	1679	1930	1025
	6	404955	65.8	12	1	1519	-	-
	7	610711	85.9	12	3	1134	1034	1808
	8	818057	76.3	12	2	1606	1926	-
	9	171459	81.5	12	2	1891	1714	-
	10	377969	89.4	12	3	1310	1594	1827
	11	586875	63.4	12	1	1568	-	-
	12	792834	69.6	12	2	1307	1925	-
	13	146044	74.5	12	2	1264	1846	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
6	Type 5	15	0.8	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	329022	96.6	13	3	1182	1609	1581
	1	521718	96.7	13	3	1829	1799	1154
	2	714222	86.5	13	3	1923	1396	1865
	3	112450	73.3	13	2	1908	1318	-
	4	306283	55.8	13	1	1688	-	-
	5	500239	55.4	13	1	1145	-	-
	6	690932	85.3	13	3	1336	1504	1820
	7	88645	79.4	13	2	1344	1893	-
	8	282508	65.7	13	1	1476	-	-
	9	475842	68.6	13	2	1008	1028	-
	10	667887	77.7	13	2	1972	1835	-
	11	64845	79.6	13	2	1882	1331	-
	12	257755	94.9	13	3	1830	1070	1349
	13	452335	61.4	13	1	1451	-	-
	14	643395	90.6	13	3	1233	1562	1887
7	Type 5	12	1	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	51446	52.6	10	1	1210	-	-
	1	292696	84.1	10	3	1314	1725	1529
	2	533989	97.7	10	3	1139	1868	1805
	3	775564	97.3	10	3	1341	1446	1755
	4	21542	98.8	10	3	1544	1386	1302
	5	263385	72.2	10	2	1771	1184	-
	6	505581	67.6	10	2	1175	1027	-
	7	747058	75.7	10	2	1026	1871	-
	8	989976	60.9	10	1	1798	-	-
	9	234024	64.2	10	1	1138	-	-
	10	475207	78.8	10	2	1784	1604	-
	11	715825	87.5	10	3	1511	1712	1683

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
8	Type 5	14	0.857143	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	823112	54.1	13	1	1415	-	-
	1	174965	50.7	13	1	1221	-	-
	2	382216	52.3	13	1	1974	-	-
	3	587395	99.8	13	3	1558	1696	1949
	4	796897	68.4	13	2	1014	1099	-
	5	149042	80.8	13	2	1736	1505	-
	6	356750	62.5	13	1	1778	-	-
	7	563824	74.8	13	2	1149	1204	-
	8	772314	50.8	13	1	1049	-	-
	9	123796	54	13	1	1417	-	-
	10	331215	63	13	1	1730	-	-
	11	537402	91.8	13	3	1143	1270	1347
	12	744805	79.3	13	2	1274	1992	-
	13	98172	64.3	13	1	1937	-	-
9	Type 5	8	1.5	12	5.53			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	535615	63.4	6	1	1043	-	-
	1	898668	52	6	1	1863	-	-
	2	1259235	97.2	6	3	1973	1605	1583
	3	127106	78.7	6	2	1466	1743	-
	4	490358	74.2	6	2	1280	1219	-
	5	852409	88.7	6	3	1293	1934	1273
	6	1217152	54.3	6	1	1991	-	-
	7	82296	95.4	6	3	1580	1555	1791

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
10	Type 5	17	0.705882	12	5.4964			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	209249	73.7	16	2	1208	1497	-
	1	378386	97.4	16	3	1942	1754	1613
	2	548411	91.7	16	3	1999	1702	1462
	3	17733	66.2	16	1	1393	-	-
	4	187952	70.8	16	2	1968	1821	-
	5	359277	52.3	16	1	1740	-	-
	6	528886	78.9	16	2	1308	1984	-
	7	700166	70.9	16	2	1050	1358	-
	8	167197	75.6	16	2	1437	1430	-
	9	338262	59.1	16	1	1697	-	-
	10	508324	77	16	2	1397	1304	-
	11	678689	67.9	16	2	1803	1083	-
	12	146031	81.2	16	2	1720	1932	-
	13	316923	78.7	16	2	1247	1121	-
	14	488056	63.3	16	1	1634	-	-
	15	657326	68.9	16	2	1849	1423	-
	16	125509	59.3	16	1	1093	-	-
11	Type 5	19	0.631579	12	5.4976			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	263736	98.9	19	3	1381	1680	1488
	1	416459	82.3	19	2	1716	1855	-
	2	567902	86.7	19	3	1211	1400	1919
	3	92979	89.7	19	3	1861	1068	1282
	4	245155	98.6	19	3	1507	1194	1461
	5	397609	71.1	19	2	1921	1789	-
	6	551431	55.9	19	1	1947	-	-
	7	74413	67.9	19	2	1350	1372	-
	8	226559	84.4	19	3	1203	1107	1443
	9	380056	58.8	19	1	1715	-	-
	10	533408	65.6	19	1	1017	-	-
	11	55547	78.5	19	2	1911	1704	-
	12	207876	82.3	19	2	1845	1686	-
	13	359771	90.1	19	3	1938	1071	1266
	14	511297	90.2	19	3	1989	1089	1950
	15	36803	83.1	19	2	1943	1406	-
	16	189652	58.8	19	1	1742	-	-
	17	341809	77	19	2	1187	1657	-
	18	495737	55	19	1	1012	-	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
12	Type 5	15	0.8	12	5.4952			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	22911	58.1	13	1	1929	-	-
	1	216473	52.1	13	1	1910	-	-
	2	410004	59.9	13	1	1971	-	-
	3	603671	60.2	13	1	1812	-	-
	4	794160	95.9	13	3	1399	1906	1608
	5	192251	79.9	13	2	1626	1859	-
	6	385590	78.5	13	2	1238	1917	-
	7	579862	53.8	13	1	1763	-	-
	8	773423	64.7	13	1	1800	-	-
	9	168898	61.4	13	1	1390	-	-
	10	361606	83.2	13	2	1692	1858	-
	11	553866	84.7	13	3	1533	1677	1638
	12	747241	88.7	13	3	1703	1528	1058
	13	144710	78.3	13	2	1258	1951	-
	14	337856	69.3	13	2	1731	1717	-
13	Type 5	12	1	12	5.494			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	664275	75.3	10	2	1994	1612	-
	1	907886	56.3	10	1	1456	-	-
	2	151316	67.7	10	2	1617	1185	-
	3	393746	55.6	10	1	1337	-	-
	4	635093	75.2	10	2	1421	1267	-
	5	876993	76.3	10	2	1359	1305	-
	6	121278	85.7	10	3	1547	1362	1924
	7	362696	98.4	10	3	1873	1550	1249
	8	604342	86.4	10	3	1779	1439	1046
	9	846453	93.6	10	3	1059	1031	1452
	10	91871	63.3	10	1	1328	-	-
	11	333050	92.4	10	3	1412	1673	1322

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
14	Type 5	19	0.631579	12	5.4972			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	361323	93.3	18	3	1983	1912	1535
	1	515261	69.1	18	2	1102	1794	-
	2	39025	86.9	18	3	1044	1152	1148
	3	190900	84.9	18	3	1894	1948	1118
	4	343941	72.3	18	2	1094	1916	-
	5	497624	51.7	18	1	1447	-	-
	6	20319	58.3	18	1	1429	-	-
	7	172999	60.8	18	1	1979	-	-
	8	325872	57.1	18	1	1641	-	-
	9	475841	88.9	18	3	1886	1964	1489
	10	1489	72	18	2	1909	1297	-
	11	153647	90.9	18	3	1261	1566	1370
	12	307096	59.8	18	1	1552	-	-
	13	458804	70	18	2	1759	1291	-
	14	610798	67.2	18	2	1625	1881	-
	15	134759	91.2	18	3	1382	1832	1661
	16	288306	56.5	18	1	1483	-	-
	17	441296	51.2	18	1	1237	-	-
	18	592780	74.1	18	2	1471	1245	-
15	Type 5	14	0.857143	12	5.4948			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	158286	76.9	12	2	1110	1140	-
	1	366024	50.2	12	1	1316	-	-
	2	573452	62.9	12	1	1520	-	-
	3	780619	64.7	12	1	1902	-	-
	4	132455	83.8	12	3	1410	1097	1621
	5	340207	65.4	12	1	1944	-	-
	6	548208	53.2	12	1	1024	-	-
	7	755333	51.7	12	1	1603	-	-
	8	107117	78.7	12	2	1804	1168	-
	9	314500	72.4	12	2	1030	1343	-
	10	522447	53.8	12	1	1327	-	-
	11	728517	73.6	12	2	1524	1553	-
	12	81611	66.7	12	2	1722	1122	-
	13	288948	82.5	12	2	1404	1019	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
16	Type 5	20	0.6	12	5.498			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	345766	87.6	20	3	1565	1055	1840
	1	490019	85.2	20	3	1735	1541	1408
	2	39073	84.8	20	3	1534	1889	1463
	3	183923	77.9	20	2	1749	1460	-
	4	328777	76.5	20	2	1518	1485	-
	5	474728	60.9	20	1	1540	-	-
	6	21394	83	20	2	1080	1010	-
	7	165992	80.4	20	2	1824	1752	-
	8	310973	67.5	20	2	1764	1181	-
	9	456884	62.1	20	1	1495	-	-
	10	3515	86.4	20	3	1773	1966	1263
	11	147928	84.3	20	3	1593	1188	1788
	12	293225	76.9	20	2	1226	1537	-
	13	436922	95.8	20	3	1192	1298	1844
	14	584015	55.2	20	1	1644	-	-
	15	130832	59	20	1	1402	-	-
	16	274684	94.5	20	3	1296	1700	1283
	17	418579	91.9	20	3	1970	1978	1165
	18	563464	85.2	20	3	1732	1551	1189
	19	112787	69.5	20	2	1038	1224	-
17	Type 5	12	1	12	5.494			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	429224	86.4	10	3	1259	1918	1455
	1	670241	92.2	10	3	1598	1719	1895
	2	912880	80.4	10	2	1816	1899	-
	3	158603	54.3	10	1	1335	-	-
	4	400824	53.1	10	1	1303	-	-
	5	641915	69.4	10	2	1503	1546	-
	6	883823	69.1	10	2	1279	1639	-
	7	128373	100	10	3	1375	1438	1595
	8	370379	79.6	10	2	1239	1705	-
	9	611194	88.4	10	3	1374	1579	1623
	10	855665	53.3	10	1	1016	-	-
	11	98897	65.3	10	1	1709	-	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
18	Type 5	14	0.857143	12	5.4948			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	292143	55.3	12	1	1920	-	-
	1	499633	58.3	12	1	1797	-	-
	2	706377	72.3	12	2	1610	1039	-
	3	58989	84.8	12	3	1131	1761	1721
	4	266161	82.5	12	2	1875	1431	-
	5	474469	63.3	12	1	1095	-	-
	6	680544	80	12	2	1119	1913	-
	7	33519	90.3	12	3	1660	1853	1123
	8	240319	91.1	12	3	1539	1783	1172
	9	447400	96.6	12	3	1525	1036	1385
	10	654516	82.7	12	2	1710	1990	-
	11	8083	50.7	12	1	1234	-	-
	12	215435	78.4	12	2	1047	1109	-
	13	421325	99.5	12	3	1299	1965	1869
19	Type 5	12	1	12	5.494			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	733725	88.6	10	3	1501	1067	1927
	1	977882	57.4	10	1	1723	-	-
	2	221197	96.6	10	3	1086	1658	1324
	3	462915	69.7	10	2	1751	1945	-
	4	705071	77.9	10	2	1642	1317	-
	5	947923	62	10	1	1866	-	-
	6	191373	88.4	10	3	1997	1077	1366
	7	432561	97.3	10	3	1790	1896	1367
	8	674004	96.2	10	3	1391	1787	1672
	9	915842	95.4	10	3	1020	1892	1414
	10	162176	54.8	10	1	1084	-	-
	11	403553	80.4	10	2	1850	1436	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
20	Type 5	16	0.75	12	5.564			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	483470	74.7	15	2	1619	1611	-
	1	666072	57.1	15	1	1560	-	-
	2	98810	91.9	15	3	1392	1475	1276
	3	279914	83.1	15	2	1809	1772	-
	4	462536	50.7	15	1	1003	-	-
	5	642324	79.2	15	2	1574	1600	-
	6	76831	58.7	15	1	1186	-	-
	7	257785	71	15	2	1521	1567	-
	8	438554	79	15	2	1777	1960	-
	9	620397	68.5	15	2	1284	1428	-
	10	54310	73.5	15	2	1904	1352	-
	11	235506	70.5	15	2	1864	1115	-
	12	417036	76.6	15	2	1045	1300	-
	13	597974	81.2	15	2	1160	1675	-
	14	32086	61.8	15	1	1277	-	-
	15	212751	94.9	15	3	1450	1206	1860
21	Type 5	12	1	12	5.5664			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	526149	78.5	9	2	1653	1698	-
	1	767135	89.8	9	3	1174	1962	1167
	2	12955	59.4	9	1	1982	-	-
	3	254612	79.6	9	2	1633	1890	-
	4	496588	76	9	2	1112	1811	-
	5	739728	53.6	9	1	1144	-	-
	6	980872	80.9	9	2	1220	1053	-
	7	225249	61.6	9	1	1724	-	-
	8	467279	53.4	9	1	1901	-	-
	9	709720	59.9	9	1	1379	-	-
	10	951847	60.4	9	1	1453	-	-
	11	194839	91.4	9	3	1768	1726	1227

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
22	Type 5	20	0.6	12	5.562			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	261858	77	20	2	1191	1363	-
	1	407646	58.1	20	1	1248	-	-
	2	552319	62.1	20	1	1836	-	-
	3	99107	76.9	20	2	1334	1236	-
	4	243514	80	20	2	1914	1852	-
	5	389464	52	20	1	1701	-	-
	6	531093	88.6	20	3	1693	1995	1905
	7	81159	72.9	20	2	1922	1387	-
	8	225245	98.5	20	3	1839	1746	1389
	9	371906	57.9	20	1	1193	-	-
	10	514197	95.9	20	3	1659	1870	1066
	11	63561	53.5	20	1	1162	-	-
	12	207510	92	20	3	1745	1654	1458
	13	353638	57.3	20	1	1834	-	-
	14	497515	70.5	20	2	1684	1586	-
	15	45553	70	20	2	1042	1664	-
	16	189821	84	20	3	1765	1630	1176
	17	335330	76.1	20	2	1557	1057	-
	18	478825	93.2	20	3	1985	1018	1340
	19	27594	96.8	20	3	1760	1614	1817
23	Type 5	14	0.857143	12	5.5652			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	247117	50.1	12	1	1841	-	-
	1	453362	93.5	12	3	1590	1081	1413
	2	660875	68.8	12	2	1707	1577	-
	3	14140	56.3	12	1	1056	-	-
	4	220734	86	12	3	1953	1108	1987
	5	428367	75.2	12	2	1572	1536	-
	6	636681	54.4	12	1	1517	-	-
	7	843157	71.1	12	2	1329	1243	-
	8	195585	76.2	12	2	1940	1770	-
	9	403231	80.2	12	2	1098	1209	-
	10	610202	79.7	12	2	1588	1214	-
	11	815229	90.9	12	3	1615	1862	1601
	12	170267	68.7	12	2	1377	1441	-
	13	377306	67.4	12	2	1872	1313	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
24	Type 5	13	0.923077	12	5.5656			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	628071	94	11	3	1643	1748	1941
	1	853391	70.8	11	2	1177	1201	-
	2	156223	56.3	11	1	1006	-	-
	3	378734	96.7	11	3	1230	1163	1332
	4	601331	90.6	11	3	1217	1582	1498
	5	825462	74.5	11	2	1569	1281	-
	6	128265	92.6	11	3	1065	1669	1222
	7	351161	89	11	3	1493	1135	1380
	8	573425	96.5	11	3	1607	1822	1602
	9	798431	70.5	11	2	1141	1178	-
	10	100737	94	11	3	1009	1629	1956
	11	324661	55.8	11	1	1290	-	-
	12	546278	87.7	11	3	1435	1963	1164
25	Type 5	8	1.5	12	5.568			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	1253842	68.6	5	2	1306	1161	-
	1	119486	83.1	5	2	1420	1315	-
	2	482958	60.9	5	1	1687	-	-
	3	845641	77.7	5	2	1776	1158	-
	4	1208428	77.4	5	2	1793	1510	-
	5	74748	66.8	5	2	1576	1323	-
	6	438300	63.7	5	1	1333	-	-
	7	800152	91.2	5	3	1409	1681	1275

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
26	Type 5	17	0.705882	12	5.5636			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	545865	83.6	16	3	1632	1195	1000
	1	14067	89.4	16	3	1173	1627	1656
	2	184953	55.8	16	1	1532	-	-
	3	353759	90.9	16	3	1981	1554	1998
	4	526388	54.7	16	1	1825	-	-
	5	694806	97.7	16	3	1734	1202	1250
	6	163568	67.5	16	2	1571	1434	-
	7	333410	96.7	16	3	1589	1469	1268
	8	504006	68.3	16	2	1750	1954	-
	9	675297	78.3	16	2	1591	1082	-
	10	142890	55	16	1	1427	-	-
	11	312479	84.9	16	3	1129	1936	1199
	12	482953	74.6	16	2	1959	1856	-
	13	655022	63.3	16	1	1885	-	-
	14	121457	99.8	16	3	1035	1515	1120
	15	292606	63.6	16	1	1647	-	-
	16	461322	87.3	16	3	1931	1051	1831
27	Type 5	19	0.631579	12	5.5624			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	565136	85.6	19	3	1946	1078	1015
	1	89970	68.6	19	2	1029	1780	-
	2	243121	54.2	19	1	1111	-	-
	3	396034	61.2	19	1	1104	-	-
	4	546225	97.1	19	3	1157	1969	1100
	5	70998	98.3	19	3	1142	1699	1622
	6	224093	62.4	19	1	1655	-	-
	7	376127	80.2	19	2	1126	1769	-
	8	527806	87.5	19	3	1216	1448	1179
	9	52247	85.8	19	3	1847	1348	1472
	10	204582	88.1	19	3	1023	1124	1631
	11	357941	65.3	19	1	1848	-	-
	12	510977	52.5	19	1	1470	-	-
	13	33698	52.3	19	1	1312	-	-
	14	186023	74.1	19	2	1915	1200	-
	15	339327	54.9	19	1	1479	-	-
	16	491053	76.2	19	2	1376	1502	-
	17	14858	60.4	19	1	1758	-	-
	18	167387	81.5	19	2	1491	1103	-

Trial ID	Radar Type	Number of Bursts	Burst Peried(s)	Wave from Length (s)	Center Frequency(GHz)	-		
28	Type 5	12	1	12	5.566			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	507709	50.5	10	1	1857	-	-
	1	750249	55.7	10	1	1246	-	-
	2	989003	85.8	10	3	1774	1002	1967
	3	235634	76.9	10	2	1125	1474	-
	4	477675	75.1	10	2	1254	1052	-
	5	718312	92.3	10	3	1180	1486	1492
	6	960895	78.1	10	2	1301	1757	-
	7	205370	92.2	10	3	1898	1252	1713
	8	446940	89	10	3	1260	1706	1411
	9	689225	70.9	10	2	1578	1620	-
	10	932305	63.1	10	1	1782	-	-
	11	176231	55.3	10	1	1522	-	-
29	Type 5	18	0.666667	12	5.5632			
	Burst ID	Burst Offset (μs)	Pulse Width (μs)	Chirp Width (MHz)	Number of Pulses per Burst	PRI-1 (μs)	PRI-2 (μs)	PRI-3 (μs)
	0	277485	83.4	17	3	1454	1205	1801
	1	437880	97.3	17	3	1319	1826	1635
	2	598445	90.4	17	3	1079	1986	1674
	3	97088	91.8	17	3	1563	1151	1802
	4	257251	98.2	17	3	1876	1977	1766
	5	419893	59.5	17	1	1952	-	-
	6	580724	80	17	2	1253	1137	-
	7	77366	86.5	17	3	1054	1128	1828
	8	238032	91.1	17	3	1105	1599	1442
	9	398605	93.5	17	3	1867	1373	1087
	10	562025	60.7	17	1	1033	-	-
	11	57684	67.2	17	2	1288	1405	-
	12	219083	61.8	17	1	1585	-	-
	13	379234	79.4	17	2	1933	1667	-
	14	540896	81.4	17	2	1096	1464	-
	15	37916	65.7	17	1	1496	-	-
	16	198794	76	17	2	1733	1255	-
	17	359754	81	17	2	1326	1668	-