

FCC PART 15.407
RSS-247, ISSUE 2, FEBRUARY 2017
DYNAMIC FREQUENCY SELECTION
TEST REPORT

For

Mikrotiks SIA

Brivibas gatve 214i, Riga, Latvia

FCC ID: TV7RBD53-5ACD2ND
IC:7442A-D53AC

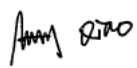
Report Type: Original Report	Product Type: hAP ac ³ LTE6 kit
Report Number:	RSZ200901004-00A1
Report Date:	2021-02-28
Reviewed By:	Allen Qiao RF Supervisor 
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name:	hAP ac ³ LTE6 kit
EUT Model:	RBD53GR-5HacD2HnD-US&R11e-LTE6
Frequency Range:	5150-5250 MHz, 5250-5350 MHz, 5470-5725 MHz, 5725-5850 MHz
Output Power: (Conducted)	17.50 dBm
Antenna Gain:	5.5 dBi
Modulation Technique	OFDM
Rated Input Voltage:	DC 24V from adapter
Serial Number:	RSZ200901004-RF-A1-S1
EUT Received Date:	2020.09.03
EUT Received Status:	Good

Objective

This report is prepared on behalf of **Mikrotikls SIA** in accordance with Part 2-Subpart J, Part 15-Subparts E of the Federal Communications Commission's rules, and RSS-247, Issue 2, February 2017 of the Innovation, Science and Economic Development Canada.

The objective is to determine compliance with Dynamic Frequency Selection (DFS) of the FCC Part 15, Subpart E, section 15.407 and and RSS-247, Issue 2, February 2017 of the Innovation, Science and Economic Development Canada.

Test Methodology

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

Declarations

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "△". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk “★”.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

EUT Exercise Software

The test was performed under: 'IPOP.exe', which was provided by the manufacturer.

Equipment Modifications

No Modification.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Dell	Laptop	E6410	00426-OEM-8992662-00497
Dell	Laptop	PP11L	QDS-BRCM133

External Cable

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45	NO	NO	10	PoE	EUT
RJ45	NO	NO	2	Laptop	PoE

SUMMARY OF TEST RESULTS

The following result table represents the list of measurements required under the CFR §47 Part 15.407(h) and RSS-247, Issue 2, February 2017, KDB: 905462 D02 UNII DFS Compliance Procedures New Rules v02

Items	Description of Test	Result
Detection Bandwidth	UNII Detection Bandwidth	Compliance
Performance Requirements Check	Initial Channel Availability Check Time (CAC)	Compliance
	Radar Burst at the Beginning of the CAC	Compliance
	Radar Burst at the End of the CAC	Compliance
In-Service Monitoring	Channel Move Time	Compliance
	Channel Closing Transmission Time	Compliance
	Non-Occupancy Period	Compliance
Radar Detection	Statistical Performance Check	Compliance

APPLICABLE STANDARDS

DFS Requirement

CFR §47 Part 15.407(h)& RSS-247, Issue 2, February 2017

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

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

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

Table 2: Applicability of DFS requirements during normal operation

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	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.		

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

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

Table 4: DFS Response Requirement Values

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

Table 5 – Short Pulse Radar Test Waveforms

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

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

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 usec is selected, the number of pulses

would be $\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\} = \text{Roundup} \{17.2\} = 18.$

Table 5a - 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

The aggregate is the average of the percentage of successful detections of Short Pulse Radar Types 1-4. For example, the following table indicates how to compute the aggregate of percentage of successful detections.

Radar Type	Number of Trials	Number of Successful Detections	Minimum Percentage of Successful Detection
1	35	29	82.9%
2	30	18	60%
3	30	27	90%
4	50	44	88%
Aggregate $(82.9\% + 60\% + 90\% + 88\%)/4 = 80.2\%$			

Table 6 – Long Pulse Radar Test Waveform

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

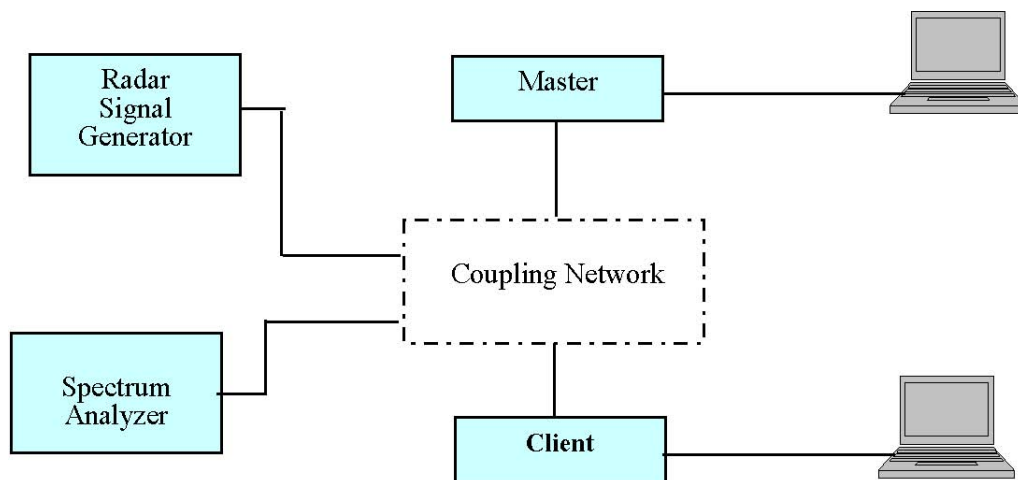
Table 7 – Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (μ sec)	PRI (μ sec)	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

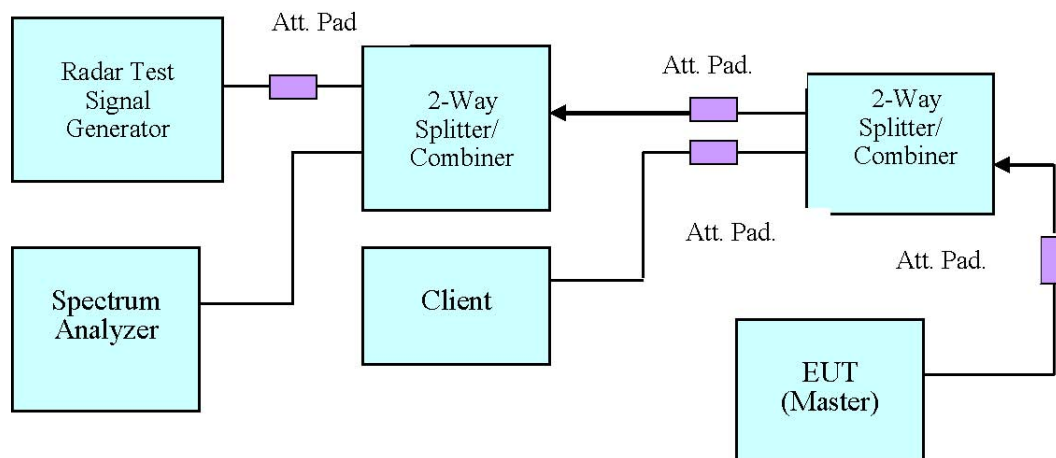
DFS Measurement System

BACL DFS measurement system consists of two subsystems: (1) The radar signal generating subsystem and (2) the traffic monitoring subsystem.

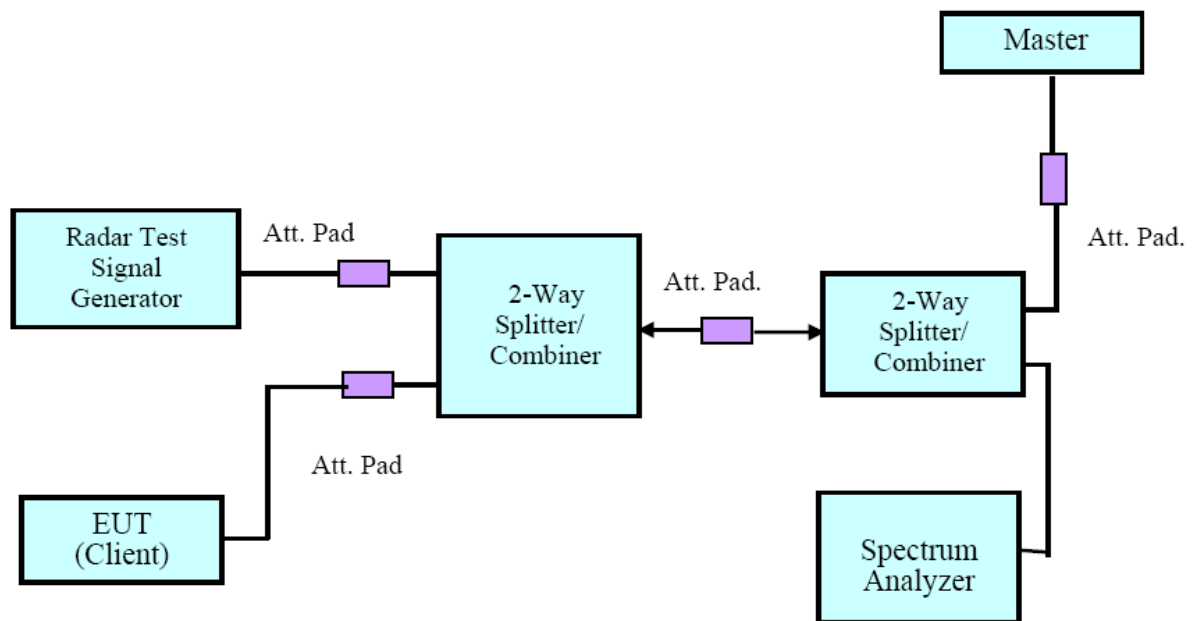
System Block Diagram



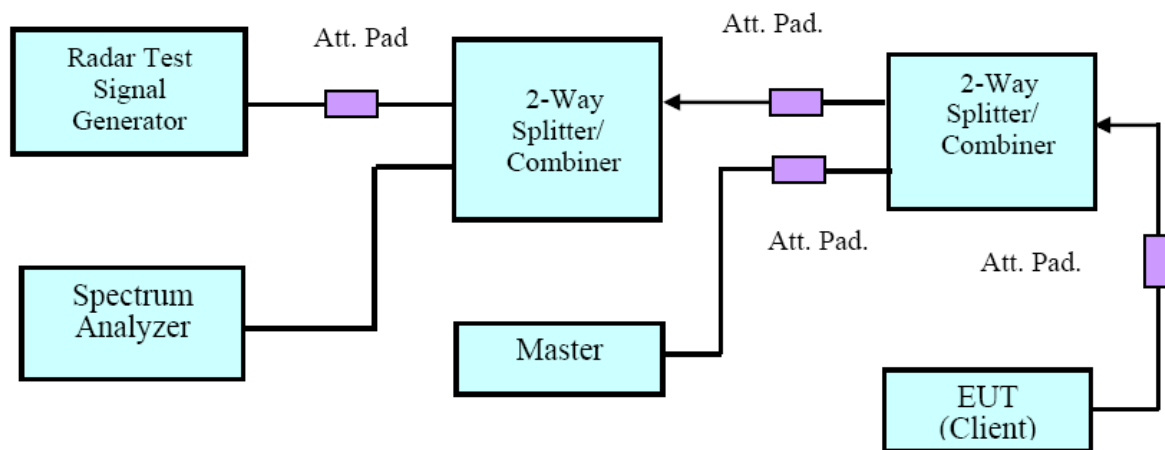
Conducted Method



Setup for Master with injection at the Master

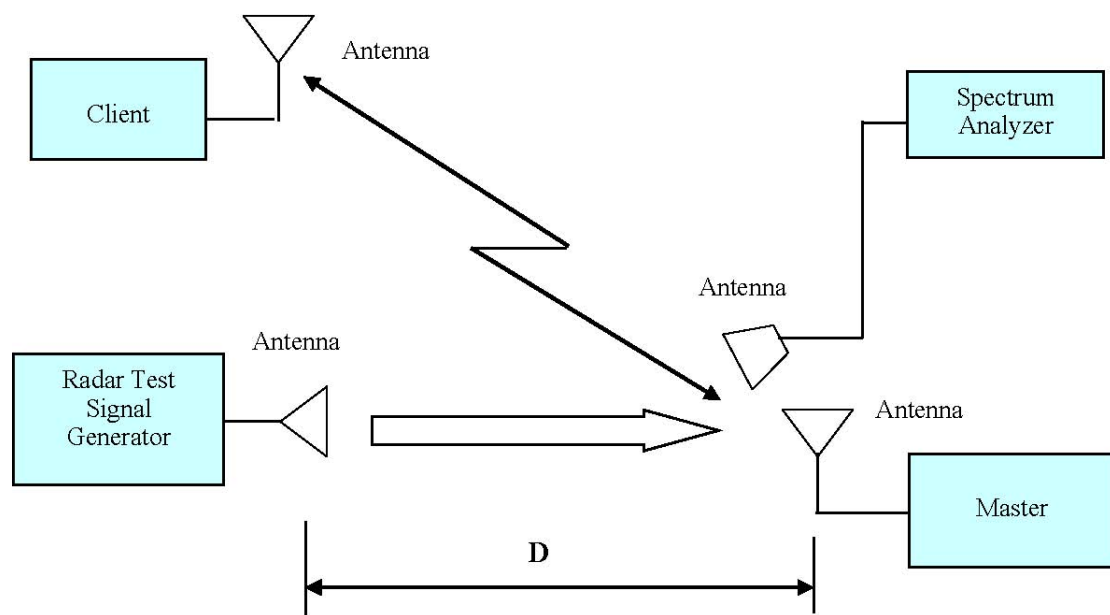


Setup for Client with injection at the Master



Setup for Client with injection at the Client

Radiated Method



Test Procedure

A spectrum analyzer is used as a monitor verifies that the EUT status including Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the diction and Channel move. It is also used to monitor EUT transmissions during the Channel Availability Check Time.

TEST RESULTS

Description of EUT

The EUT EIRP= 23dBm, the calibrated radiated DFS detection threshold level is set to -64 dBm is more stringent.

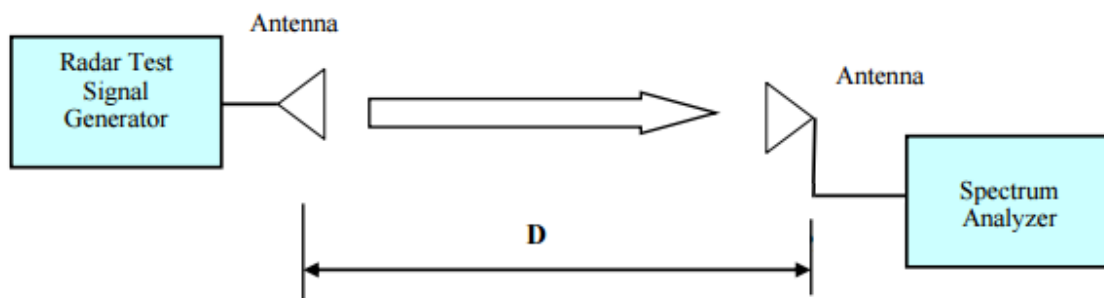
WLAN traffic is generated by streaming the video file TestFile.mpg, this file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. The file is streamed from the Access Point to the Client in full motion video mode using the media player with the V2.61 Codec package.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
National Instruments	NI PXI-1042 8-Slot chassis	PXI-1042	VOBX40FBD	N/A	N/A
National Instruments	Arbitrary Waveform Generator	PXI-5421	N/A	N/A	N/A
National Instruments	RF Upconverter	PXI-5610	N/A	N/A	N/A
ASCOR	Upconverter	AS-7202	N/A	N/A	N/A
Agilent	Spectrum Analyzer	E4440A	SG43360054	2020-07-07	2021-07-07
Ditorn	Splitter/Combiner	D3C4080	SN2244	N/A	N/A
TDK RF	horn antenna	HRN-0118	130 084	2018-10-12	2021-10-12
ETS LINDGREN	horn antenna	3115	000 527 35	2018-10-12	2021-10-12

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Radar Waveform Calibration



Radiated Calibration Setup Block Diagram

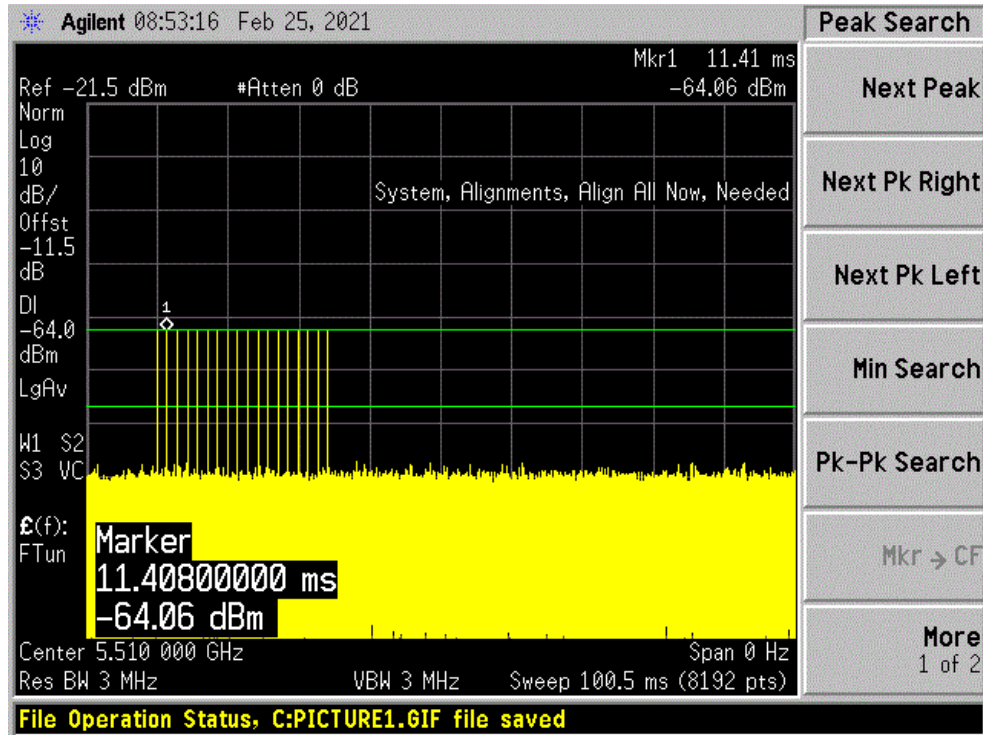
Test Environmental Conditions

Temperature:	24.1~26.5 °C
Relative Humidity:	43~46 %
ATM Pressure:	100.1~101 kPa
Tester:	Thesshy Xie
Test Date:	2020-09-15~2021-02-27

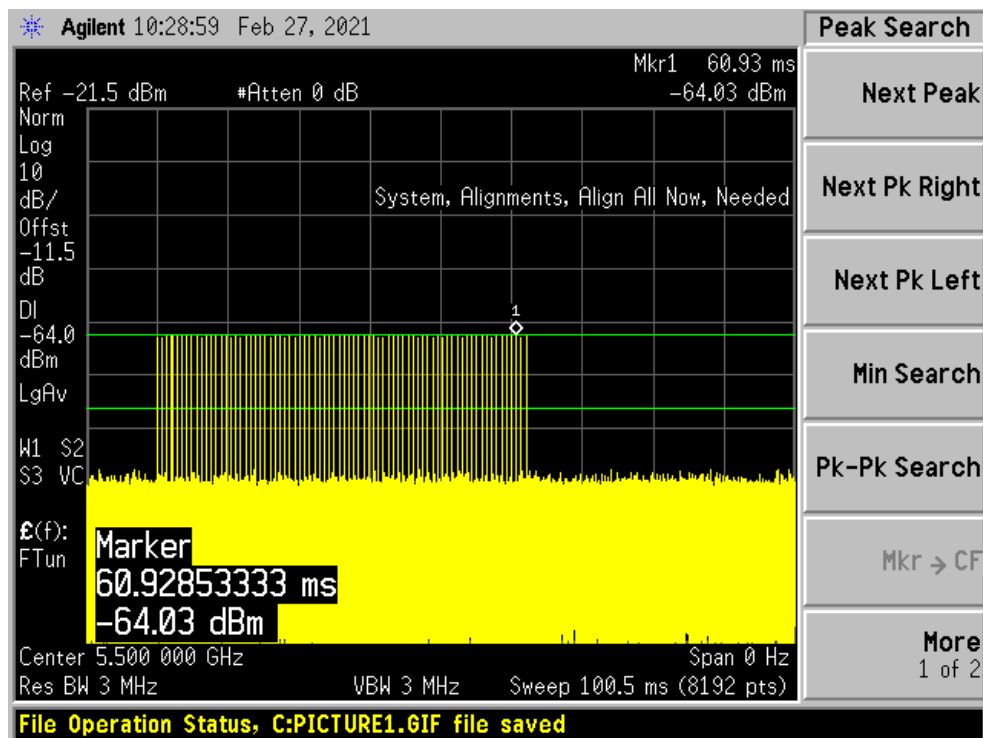
Plots of Radar Waveforms

5510 MHz:

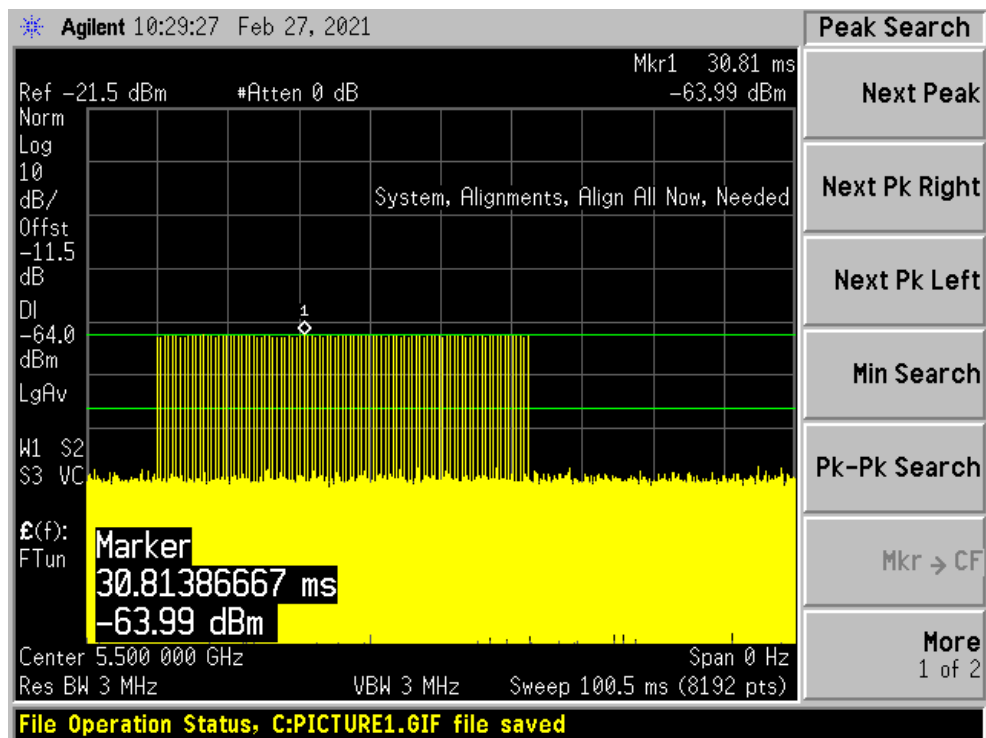
Radar Type 0



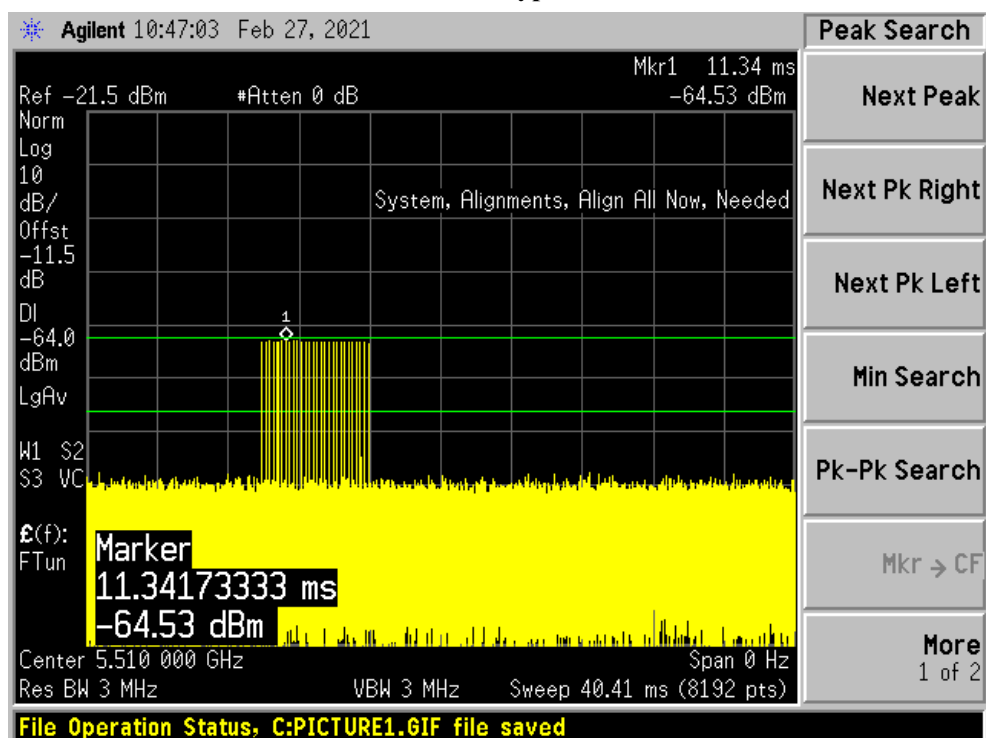
Radar Type 1A



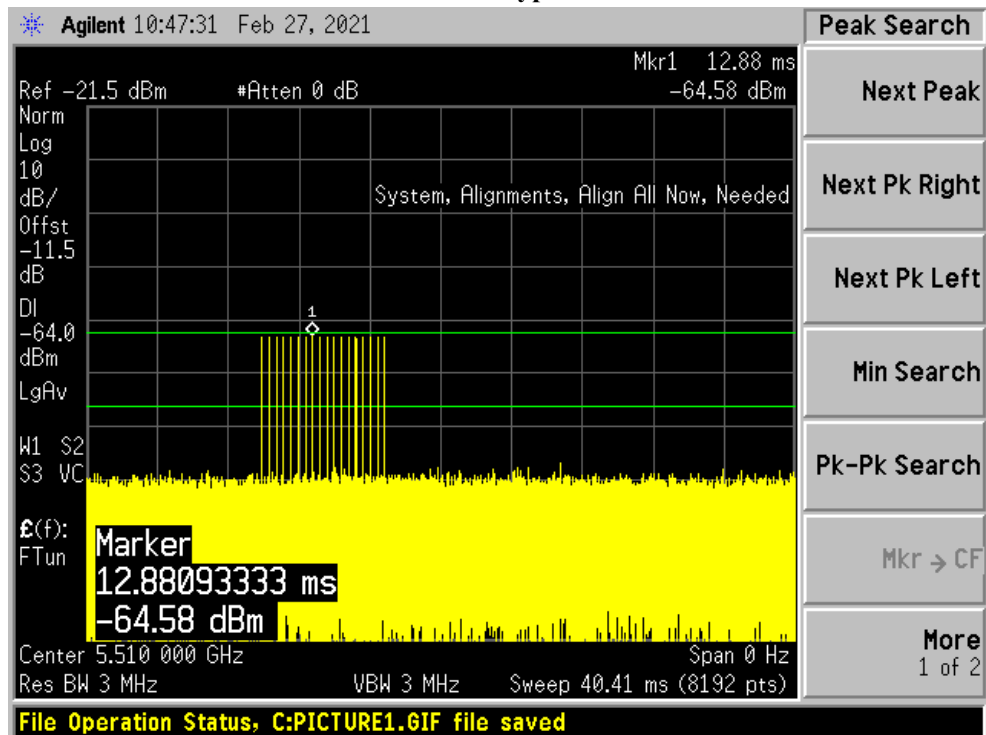
Radar Type 1B



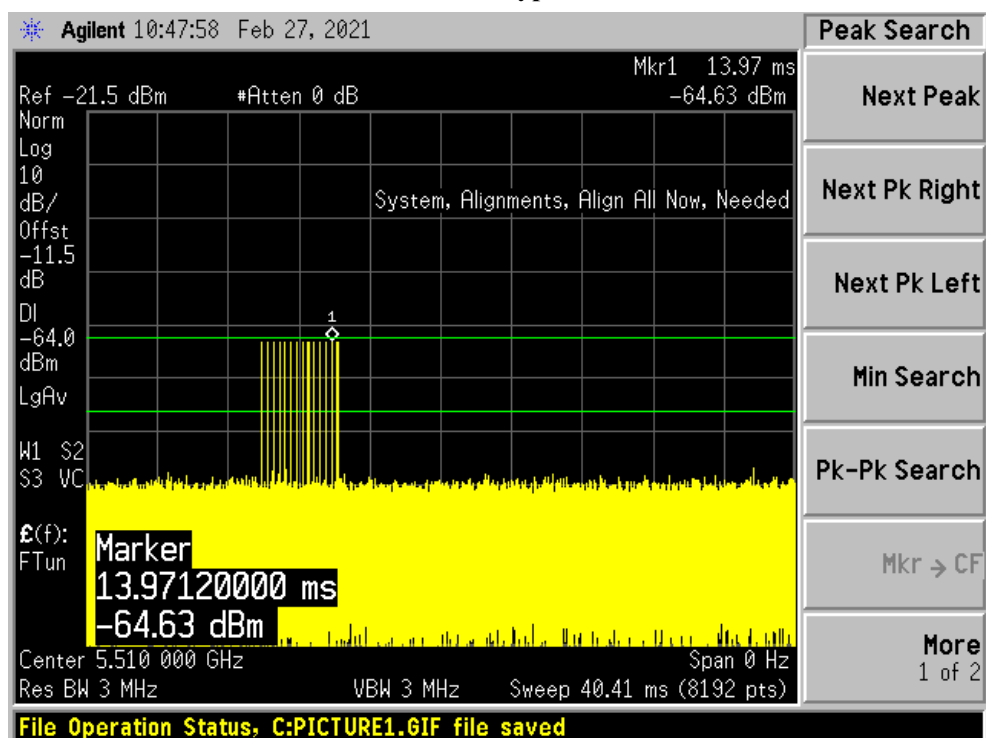
Radar Type 2



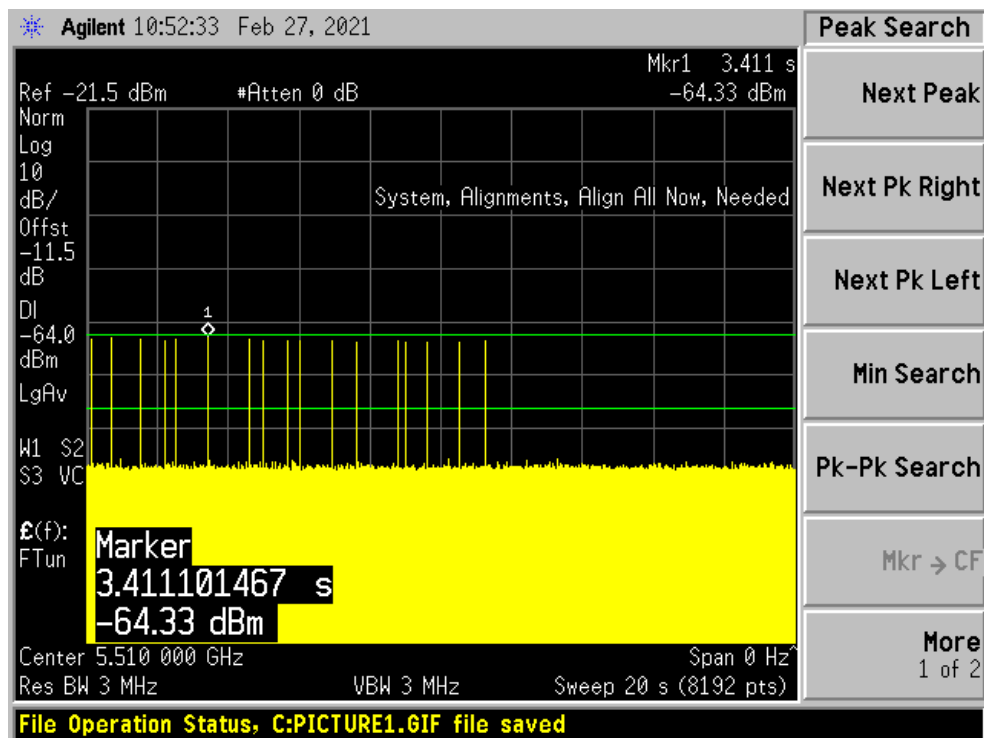
Radar Type 3



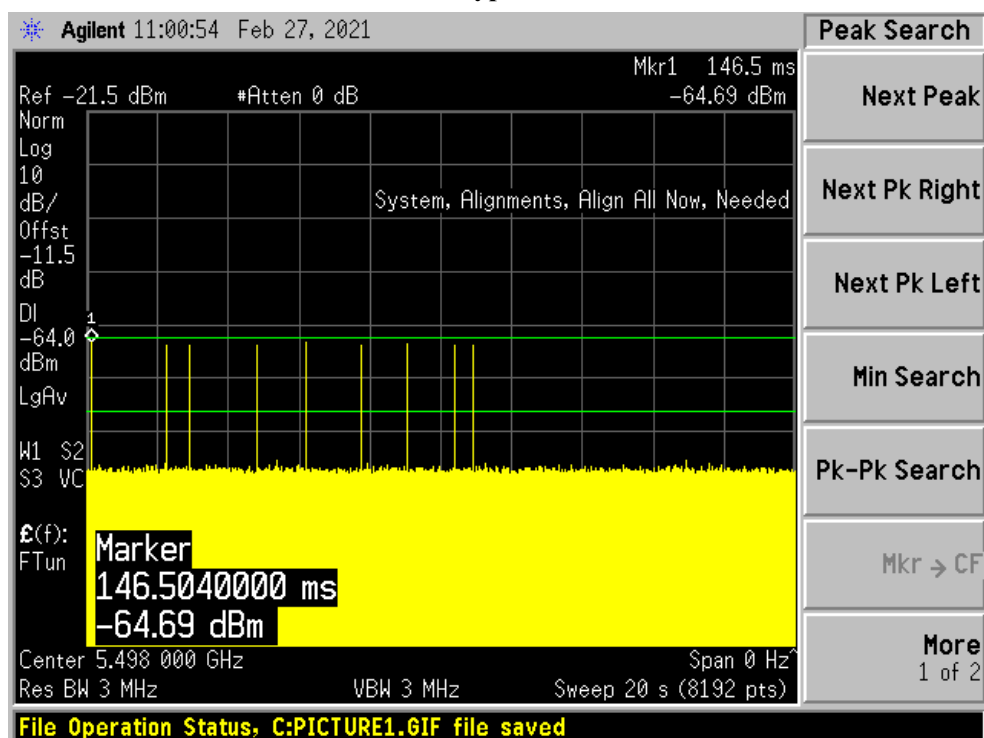
Radar Type 4



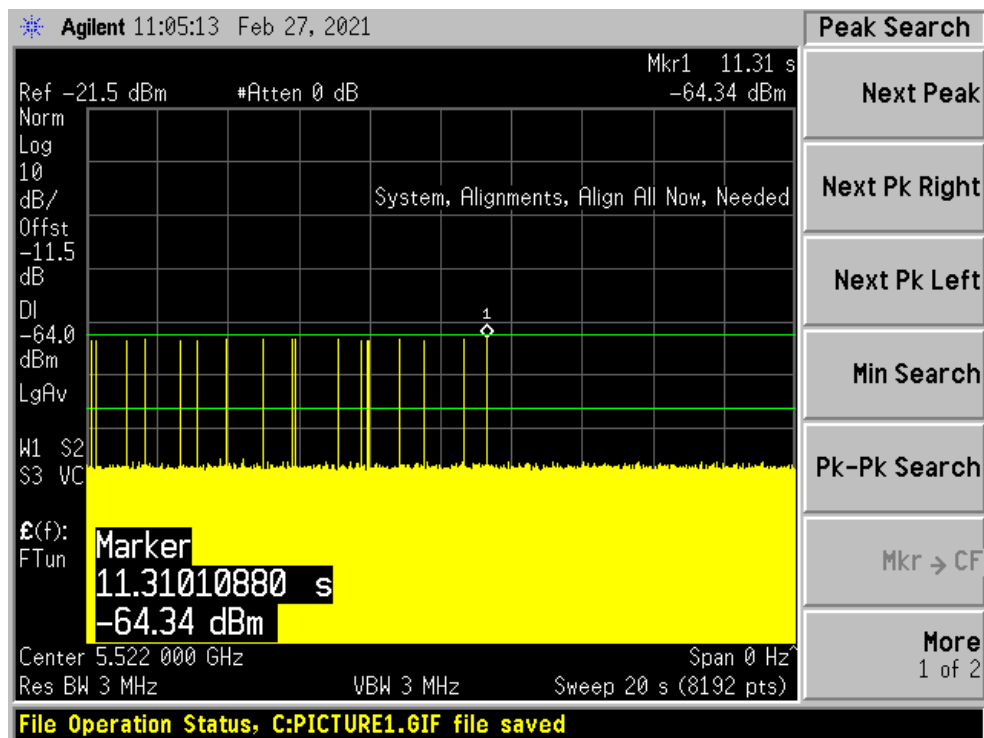
Radar Type 5 Case 1



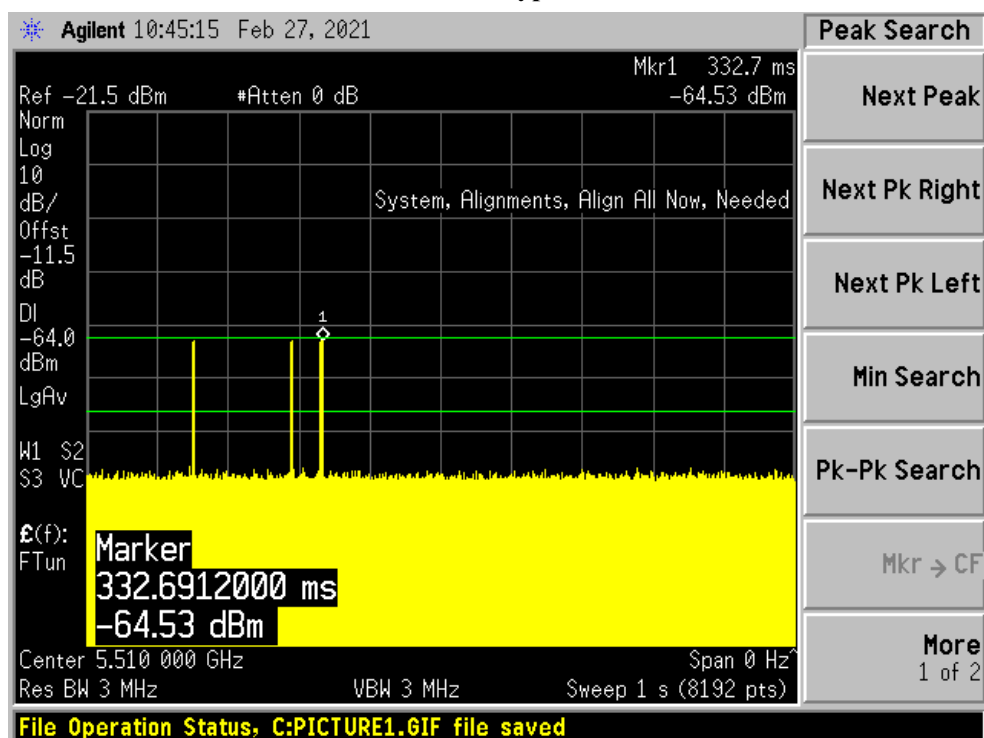
Radar Type 5 Case 2



Radar Type 5 Case 3



Radar Type 6



CHANNEL AVAILABILITY CHECK TIME (CAC)**Test Procedure**

- 1) Channel Availability Check Time (CAC)
- 2) With link established on channel, apply a radar signal within 0~6 seconds after the initial power-up period; monitor the transmissions on channel from the spectrum analyzer.
- 3) Reboot EUT, with a link established on channel, apply a radar signal within 54~60 seconds after the initial power-up period, and monitor the transmission on channel from the spectrum analyzer.

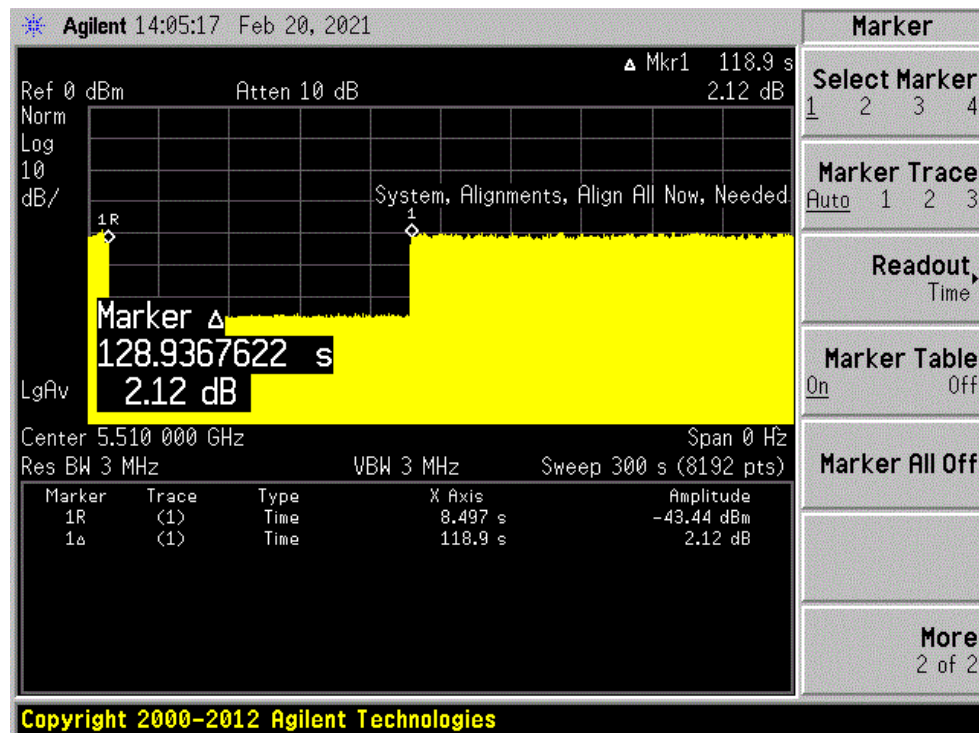
EUT Initial power-up Cycle Time

Test Frequency (MHz)	EUT initial Power-up cycle (Second)
5510	48

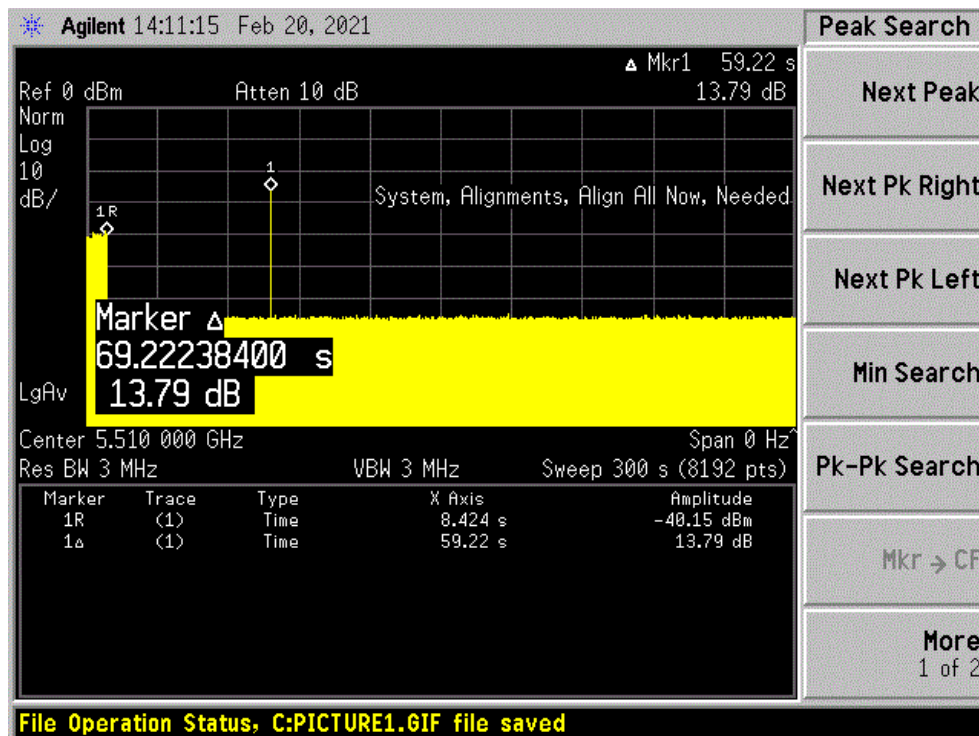
Results:

Timing of Radar Burst	Spectrum Analyzer Display
No Radar Triggered	Transmission begin after power-up cycle +60 seconds CAC
Within 6 seconds of the CAC starting	No transmission
Within the last 6 seconds of the CAC	No transmission

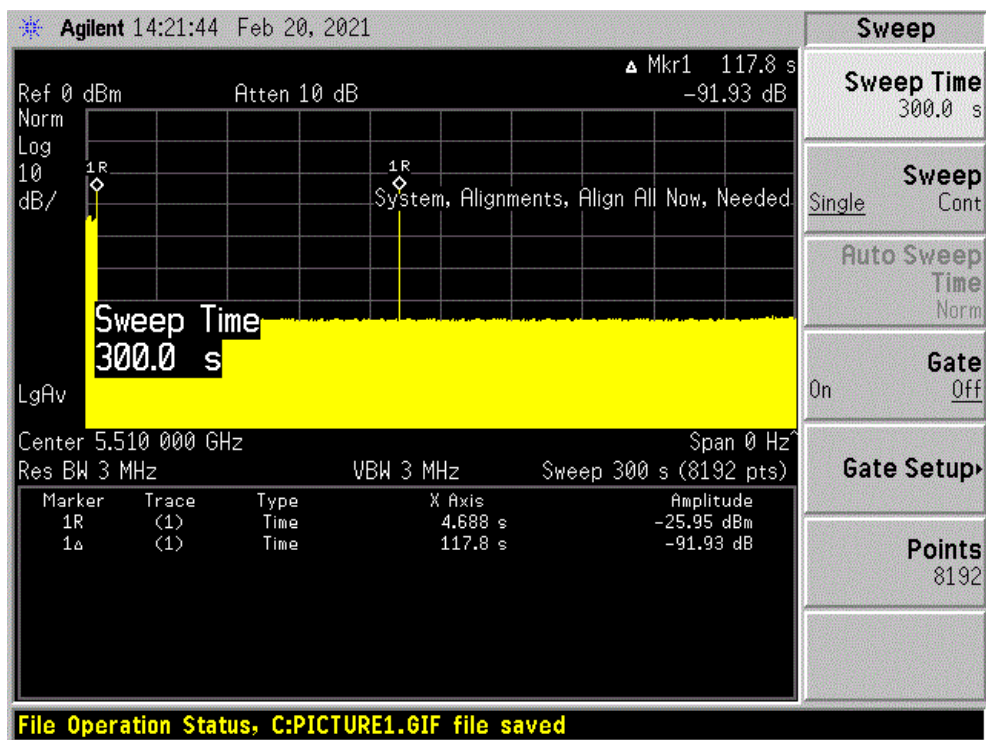
Please refer to the following plots.

Plot of without Radar signal applied

Note: The power-up cycle is 48 seconds.

Plot of Radar signal applied within 6 seconds of start of CAC

No transmissions found after radar signal applied.

Plot of Radar signal applied at the end of 6 seconds of CAC

No transmissions found after radar signal applied.

CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME

Test Procedure

Perform type 0 short pulse radar waveform.

The aggregate channel closing transmission time is calculated as follows:

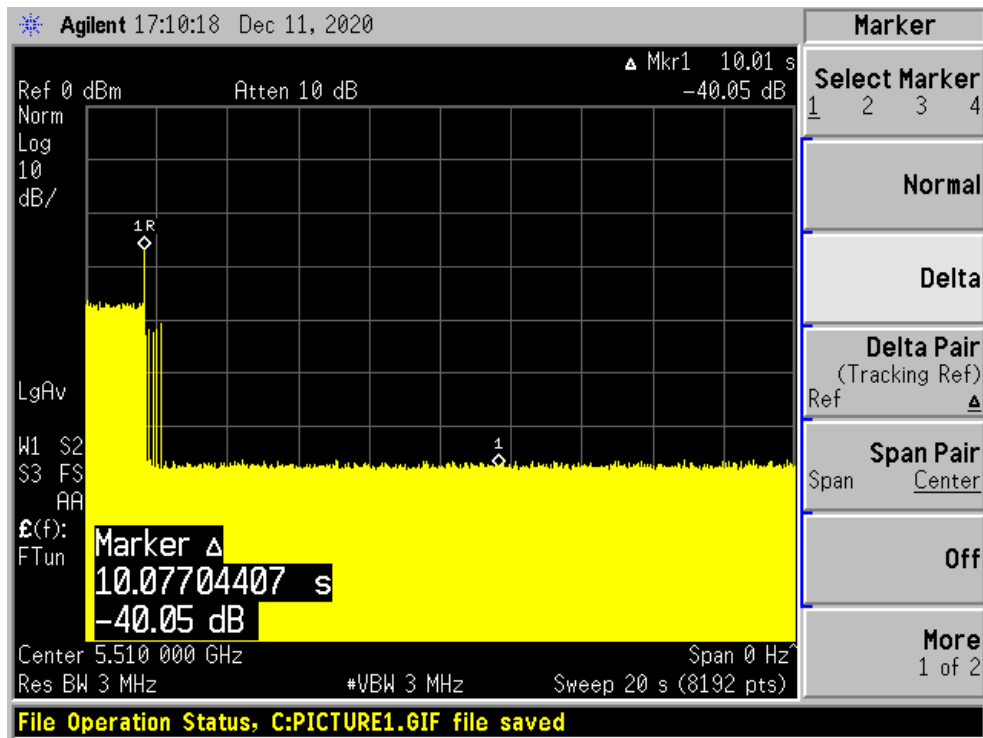
Aggregate Transmission Time = $N \times \text{Dwell Time}$

N is the number of spectrum analyzer bins showing a device transmission Dwell Time is the dwell time per bin (i.e. $\text{Dwell Time} = S/B$, S is the sweep time and B is the number of bin, i.e. 8192)

Test Results

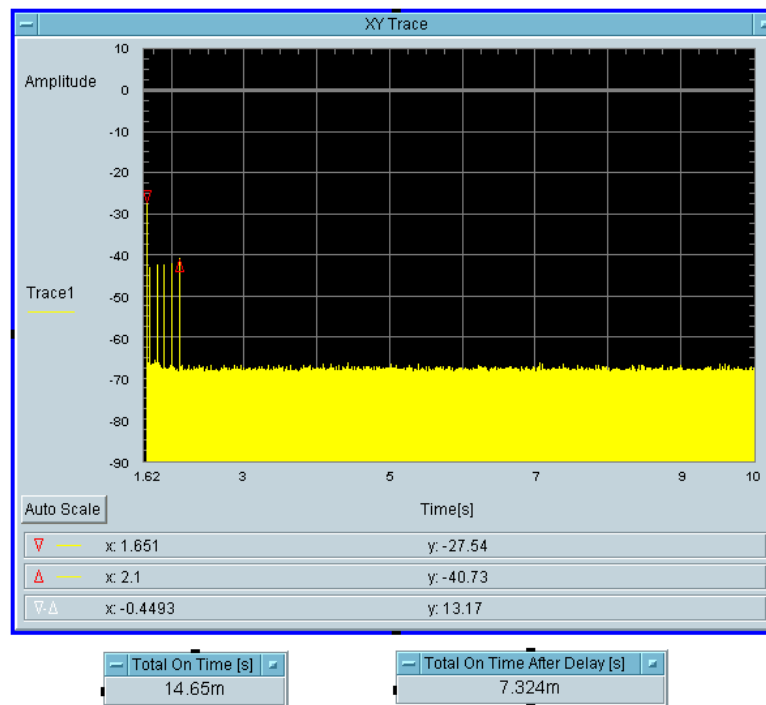
Frequency (MHz)	Bandwidth (MHz)	Radar Type	Results
5510	40	Type 0	Compliant

Please refer to the following tables and plots.

5510 MHzType 0 radar channel move time result:

Type 0 radar channel closing transmission time result:

Transmission After 200ms	Aggregate Transmission Time After 200ms Delay (ms)	Limit for Aggregate Transmission Time After 200ms Delay (ms)	Result
Yes	7.32	60	Pass



NON-OCCUPANCY PERIOD

Test Procedure

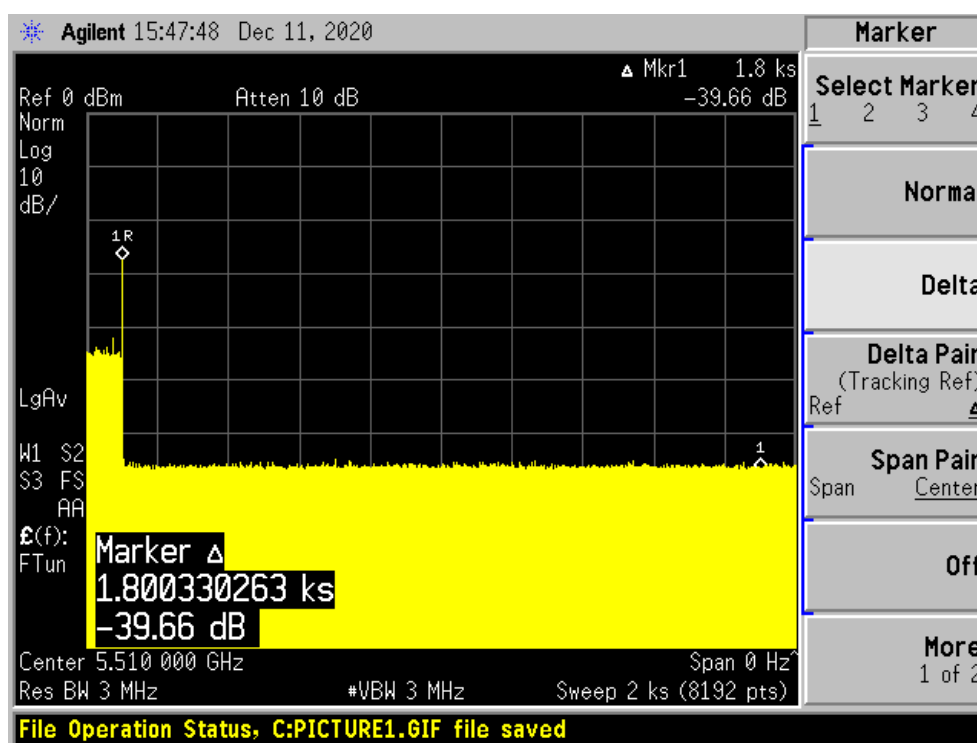
Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this channel. Provide one plot to demonstrate no transmission on the channel for the non-occupancy period (30 minutes observation time)

Test Result

Frequency(MHz)	Bandwidth (MHz)	Spectrum Analyzer Display
5510	40	No transmission within 30 minutes

Please refer to the following plots.

5510 MHz



DETECTION BANDWIDTH

Test Procedure

Performed with Type 0 radar waveforms

Starting at the center frequency of the UUT operating *Channel*, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the *U-NII Detection Bandwidth* criterion specified in **Table 4**. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as F_H) at which detection is greater than or equal to the *U-NII Detection Bandwidth* criterion. Recording the detection rate at frequencies above F_H is not required to demonstrate compliance.

Starting at the center frequency of the UUT operating *Channel*, decrease the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the *U-NII Detection Bandwidth* criterion specified in **Table 4**. Repeat this measurement in 1MHz steps at frequencies 5 MHz above where the detection rate begins to fall. Record the lowest frequency (denote as F_L) at which detection is greater than or equal to the *U-NII Detection Bandwidth* criterion. Recording the detection rate at frequencies below F_L is not required to demonstrate compliance.

The *U-NII Detection Bandwidth* is calculated as follows:

$$U-NII\ Detection\ Bandwidth = F_H - F_L$$

The *U-NII Detection Bandwidth* must meet the *U-NII Detection Bandwidth* criterion specified in **Table 4**. Otherwise, the UUT does not comply with DFS requirements. This is essential to ensure that the UUT is capable of detecting *Radar Waveforms* across the same frequency spectrum that contains the significant energy from the system. In the case that the *U-NII Detection Bandwidth* is greater than or equal to the 99 percent power bandwidth for the measured F_H and F_L , the test can be truncated and the *U-NII Detection Bandwidth* can be reported as the measured F_H and F_L .

Test Result

Frequency (MHz)	Bandwidth Systems (MHz)	F _L (MHz)	F _H (MHz)	Detection Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Minimum Limit	Result
5500	20	5490	5510	20	18.022	100%	Compliance
5510	40	5490	5530	40	36.604	100%	Compliance

Please refer to the following tables and plots.

Results of Detection Bandwidth:

20MHz Bandwidth, EUT Frequency =5500MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490(F _L)	1	1	1	1	1	1	1	1	1	1	100 %
5491	1	1	1	1	1	1	1	1	1	1	100 %
5492	1	1	1	1	1	1	1	1	1	1	100 %
5493	1	1	1	1	1	1	1	1	1	1	100 %
5494	1	1	1	1	1	1	1	1	1	1	100 %
5495	1	1	1	1	1	1	1	1	1	1	100 %
5500	1	1	1	1	1	1	1	1	1	1	100 %
5505	1	1	1	1	1	1	1	1	1	1	100 %
5506	1	1	1	1	1	1	1	1	1	1	100 %
5507	1	1	1	1	1	1	1	1	1	1	100 %
5508	1	1	1	1	1	1	1	1	1	1	100 %
5509	1	1	1	1	1	1	1	1	1	1	100 %
5510(F _H)	1	1	1	1	1	1	1	1	1	1	100 %
Detection Bandwidth = F _H – F _L = 5510-5490 = 20 MHz											
EUT 99% BW = 18.022 MHz;										Result: Pass	

40MHz Bandwidth, EUT Frequency = 5510 MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5491	1	1	1	1	1	1	1	1	1	1	100 %
5492	1	1	1	1	1	1	1	1	1	1	100 %
5493	1	1	1	1	1	1	1	1	1	1	100 %
5494	1	1	1	1	1	1	1	1	1	1	100 %
5495	1	1	1	1	1	1	1	1	1	1	100 %
5500	1	1	1	1	1	1	1	1	1	1	100 %
5505	1	1	1	1	1	1	1	1	1	1	100 %
5510	1	1	1	1	1	1	1	1	1	1	100 %
5515	1	1	1	1	1	1	1	1	1	1	100 %
5520	1	1	1	1	1	1	1	1	1	1	100 %
5525	1	1	1	1	1	1	1	1	1	1	100 %
5526	1	1	1	1	1	1	1	1	1	1	100 %
5527	1	1	1	1	1	1	1	1	1	1	100 %
5528	1	1	1	1	1	1	1	1	1	1	100 %
5529	1	1	1	1	1	1	1	1	1	1	100 %
5530(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
Detection Bandwidth = $F_H - F_L = 5530 - 5490 = 40$ MHz											
EUT 99% BW = 36.604 MHz;											Result: Pass

STATISTICAL PERFORMANCE CHECK

Procedure:

The steps below define the procedure to determine the minimum percentage of successful detection requirements found in **Tables 5-7** 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*).

- a) One frequency will be chosen from the *Operating Channels* of the UUT within the 5250-5350 MHz or 5470-5725 MHz bands.
- b) In case the UUT is a U-NII device operating as a Client Device (with or without Radar Detection), a U-NII device operating as a Master Device will be used to allow the UUT (Client device) to Associate with the Master Device. In case the UUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will Associate with the UUT (Master). In both cases for conducted tests, the Radar Waveform generator will be connected to the Master Device. For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.
- c) Stream the channel loading test file from the *Master Device* to the Client Device on the test *Channel* for the entire period of the test.
- d) At time T_0 the *Radar Waveform* generator sends the individual waveform for each of the Radar Types 1- 6 in **Tables 5-7**, at levels defined in **Table 3**, on the *Operating Channel*. An additional 1 dB is added to the radar test signal to ensure it is at or above the *DFS Detection Threshold*, accounting for equipment variations/errors.
- e) Observe the transmissions of the UUT at the end of the Burst on the *Operating Channel* for duration greater than 10 seconds for Radar Type 0 to ensure detection occurs.
- f) Observe the transmissions of the UUT 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.
- g) In case the UUT is a U-NII device operating as a *Client Device* with *In-Service Monitoring*, perform steps a) to f).

Result:**20MHz**

Radar SignalType	Waveform/Trial Number	Detection (%)	Limit (%)	Pass/Fail
Type 1A	15	100%	60%	pass
Type 1B	15	100%	60%	pass
Type 2	30	93.33 %	60%	Pass
Type 3	30	83.33%	60%	Pass
Type 4	30	96.67%	60%	Pass
Aggregate (Type1 to 4)	30	93.33 %	80%	Pass
Type 5	30	100 %	80%	Pass
Type 6	30	100 %	70%	Pass

Please refer to the following statistical tables:

5500MHz**Radar Type 1A Statistical Performance**

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5500	57	1	938	1
2	5500	99	1	538	1
3	5500	92	1	578	1
4	5500	76	1	698	1
5	5500	61	1	878	1
6	5500	95	1	558	1
7	5500	58	1	918	1
8	5500	62	1	858	1
9	5500	83	1	638	1
10	5500	89	1	598	1
11	5500	74	1	718	1
12	5500	65	1	818	1
13	5500	59	1	898	1
14	5500	78	1	678	1
15	5500	18	1	3066	1
Detection Percentage: 100 % (>60%)					

Radar Type 1B Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5500	66	1	805	1
2	5500	88	1	605	1
3	5500	27	1	2018	1
4	5500	23	1	2347	1
5	5500	67	1	793	1
6	5500	47	1	1129	1
7	5500	22	1	2423	1
8	5500	74	1	721	1
9	5500	23	1	2381	1
10	5500	56	1	953	1
11	5500	18	1	3020	1
12	5500	61	1	876	1
13	5500	28	1	1909	1
14	5500	37	1	1455	1
15	5500	18	1	3001	1
Detection Percentage: 100 % (>60%)					

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5500	29	1.3	210	1
2	5500	25	3.1	205	1
3	5500	27	4.5	177	1
4	5500	27	1.6	221	1
5	5500	27	2.9	215	1
6	5500	24	3.2	190	1
7	5500	24	2.6	198	1
8	5500	29	1	223	1
9	5500	26	3.2	194	1
10	5500	25	1.7	155	1
11	5500	23	2.4	209	0
12	5500	26	4.3	222	1
13	5500	29	5	187	1
14	5500	23	4.7	205	1
15	5500	26	4.8	178	1
16	5500	28	3.5	177	1
17	5500	26	3.3	155	1
18	5500	29	3.1	196	1
19	5500	24	3.9	184	1
20	5500	25	4	204	1
21	5500	24	1.1	205	1
22	5500	25	2.3	163	1
23	5500	24	1.1	169	1
24	5500	25	4.3	159	1
25	5500	23	2.9	203	1
26	5500	28	3.2	155	1
27	5500	26	2.1	209	1
28	5500	29	1.6	193	1
29	5500	24	3.2	156	0
30	5500	27	4.4	217	1
Detection Percentage: 93.33 % (>60%)					

Radar Type 3 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5500	18	7.3	410	1
2	5500	17	7.6	240	1
3	5500	17	7.6	400	1
4	5500	16	6	480	0
5	5500	16	8.9	220	1
6	5500	18	6.9	330	1
7	5500	17	6.8	392	1
8	5500	17	8.9	217	1
9	5500	16	9.1	200	0
10	5500	17	6.7	373	0
11	5500	16	9.3	408	1
12	5500	17	6.9	478	1
13	5500	18	7.1	223	1
14	5500	17	9.5	434	1
15	5500	16	6.7	308	1
16	5500	17	6.5	463	1
17	5500	16	6.6	239	1
18	5500	17	7.3	489	0
19	5500	18	7.3	345	1
20	5500	16	6.5	476	1
21	5500	18	10	376	0
22	5500	17	6.3	378	1
23	5500	18	9.9	287	1
24	5500	16	7.3	445	1
25	5500	17	9.1	351	1
26	5500	16	6.8	275	1
27	5500	18	8.1	424	1
28	5500	18	7.1	415	1
29	5500	18	9.6	494	1
30	5500	16	6.3	490	1
Detection Percentage: 83.33 % (>60%)					

Radar Type 4 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5500	12	13.4	225	1
2	5500	15	19.5	381	1
3	5500	15	13.6	226	1
4	5500	13	19.2	344	1
5	5500	12	19.5	236	1
6	5500	12	17	366	1
7	5500	12	19.7	272	0
8	5500	12	16.1	290	1
9	5500	16	17.6	483	1
10	5500	14	12	270	1
11	5500	14	19.6	213	1
12	5500	13	13	209	1
13	5500	14	13.9	448	1
14	5500	16	11.7	360	1
15	5500	12	17	231	1
16	5500	13	13.9	250	1
17	5500	14	14.5	369	1
18	5500	12	12.3	350	1
19	5500	13	11.7	271	1
20	5500	14	18.4	353	1
21	5500	12	19.6	338	1
22	5500	12	19.6	418	1
23	5500	12	14.8	408	1
24	5500	15	16.1	479	1
25	5500	14	13.4	287	1
26	5500	16	18.5	320	1
27	5500	13	16.4	206	1
28	5500	13	12.4	457	1
29	5500	14	19.1	396	1
30	5500	15	18.3	484	1
Detection Percentage: 96.67 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5500.0MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	11	80.1	1836		0.346476	1
1	2	11	90.4	1486		1.152443	
2	2	11	87.7	1562		1.491429	
3	2	11	94.7	1854		1.943977	
4	2	11	56.1	1156		2.575822	
5	1	11	86.7			3.206085	
6	2	11	72.3	1461		4.08896	
7	2	11	84.4	1559		4.691804	
8	2	11	98.2	1253		5.459063	
9	2	11	59.5	1594		5.733409	
10	3	11	97.5	1582	1578	6.930401	
11	3	11	85.3	1649	1891	7.361491	
12	3	11	74	1706	1607	8.117764	
13	1	11	99.9			8.632905	
14	2	11	96.3	1906		9.332675	
15	2	11	77.7	1448		9.919901	
16	1	11	83.3			10.68288	
17	1	11	80.7			11.00216	
18	3	11	53.5	1721	1290	11.61134	

Statistics 2 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	10	74.7	1685		0.070878	1
1	2	10	83.3	1676		0.648639	
2	3	10	79.8	1035	1356	1.720388	
3	3	10	66.8	1667	1692	1.926104	
4	3	10	95.2	1197	1835	2.9607	
5	3	10	90.8	1424	1291	3.360287	
6	1	10	96.8			4.134887	
7	3	10	68.6	1738	1740	4.618461	
8	3	10	63.8	1026	1281	5.609401	
9	2	10	74.6	1000		6.076386	
10	1	10	64.7			6.7006	
11	1	10	74.1			7.180518	
12	2	10	71.5	1629		8.182733	
13	3	10	55.1	1985	1918	8.677488	
14	2	10	90	1091		9.014657	
15	2	10	72.4	1824		9.677145	
16	2	10	73.5	1318		10.18196	
17	2	10	70.4	1475		10.79468	
18	2	10	64	1228		11.74603	

Statistics 3 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	13	92.6	1734		0.83691	1
1	3	13	52.5	1903	1320	2.262324	
2	3	13	69.1	1559	1425	3.476755	
3	3	13	60.8	1776	1006	4.765007	
4	2	13	88.3	1002		5.633176	
5	3	13	73.9	1532	1075	7.832546	
6	2	13	86.2	1895		8.751748	
7	3	13	58.4	1085	1430	9.470894	
8	3	13	92.6	1880	1753	11.96336	

Statistics 4 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	7	83.5	1192		0.803024	1
1	2	7	57.2	1698		1.508539	
2	2	7	95.7	1519		2.873149	
3	3	7	61.8	1078	1250	4.109625	
4	2	7	60.7	1290		5.631165	
5	1	7	93.3			6.85795	
6	3	7	76.6	1003	1078	8.752065	
7	1	7	84			10.21314	
8	1	7	92.4			11.71412	

Statistics 5(ChirpCenter Frequency:5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	11	74.2	1373		0.686958	1
1	3	11	73.1	1006	1679	0.828674	
2	1	11	57.6			2.058587	
3	3	11	92.3	1941	1700	2.660074	
4	3	11	84.8	1897	1515	3.54767	
5	3	11	57.8	1237	1771	4.581536	
6	2	11	76.1	1977		5.341004	
7	1	11	62.1			6.199671	
8	3	11	66.6	1373	1964	6.821358	
9	1	11	84.5			7.278928	
10	1	11	75.5			8.314635	
11	3	11	94.7	1063	1165	8.807569	
12	3	11	52.1	1578	1456	9.745733	
13	2	11	68.3	1150		10.7581	
14	2	11	82.6	1864		11.90034	

Statistics 6 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	10	51.7			0.566698	1
1	1	10	65.8			0.947369	
2	2	10	61.9	1780		1.460283	
3	1	10	52.9			2.039202	
4	3	10	73.5	1023	1638	2.814626	
5	2	10	78.5	1517		3.020457	
6	1	10	78.1			3.661839	
7	2	10	95.9	1484		4.546371	
8	1	10	52.6			5.077216	
9	2	10	73.6	1672		5.824134	
10	3	10	62.4	1731	1073	6.090239	
11	2	10	66.1	1693		7.092495	
12	3	10	73.9	1972	1095	7.389782	
13	3	10	99.6	1365	1291	7.951363	
14	2	10	93.9	1823		8.984201	
15	2	10	95	1877		9.143338	
16	1	10	91.1			10.08049	
17	3	10	87	1884	1005	10.48024	
18	1	10	59.2			10.99609	
19	2	10	52.1	1722		11.81268	

Statistics 7(ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	10	96.1	1162		0.066502	1
1	3	10	67.2	1561	1917	0.900607	
2	2	10	51.7	1552		2.156263	
3	1	10	86.8			3.010694	
4	2	10	63.7	1122		3.660825	
5	1	10	57.9			4.021498	
6	2	10	58.9	1522		4.827592	
7	2	10	54.4	1998		5.639867	
8	2	10	72.1	1769		6.887535	
9	3	10	56.3	1779	1373	7.471815	
10	1	10	87.3			8.728869	
11	1	10	54.5			9.471739	
12	1	10	67.7			10.14742	
13	3	10	80.6	1942	1534	10.41827	
14	1	10	89			11.66874	

Statistics 8 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	16	52.8	1247		0.622706	1
1	2	16	87.2	1633		1.735504	
2	3	16	73.8	1767	1550	2.490279	
3	1	16	96.2			4.738707	
4	3	16	63.9	1763	1026	5.244899	
5	2	16	80.8	1314		6.688734	
6	1	16	77.6			8.132963	
7	1	16	71.1			8.670471	
8	3	16	97.3	1508	1470	9.990568	
9	2	16	50.4	1392		11.78693	

Statistics 9 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	11	86	1523		0.192197	1
1	2	11	85.9	1045		1.375875	
2	2	11	85.3	1683		1.6485	
3	2	11	86.7	1247		2.80086	
4	1	11	60.4			3.654378	
5	3	11	94.9	1755	1574	4.57486	
6	1	11	72.4			4.987545	
7	3	11	69.5	1867	1765	6.383805	
8	3	11	55.8	1906	1998	6.566037	
9	3	11	84.7	1053	1230	7.222012	
10	1	11	70.7			8.496692	
11	3	11	86.2	1125	1864	9.489405	
12	1	11	94			10.03774	
13	2	11	53	1549		11.10666	
14	3	11	83.6	1166	1921	11.66921	

Statistics 10 (ChirpCenter Frequency: 5500.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	9	51	1537		0.189786	1
1	1	9	51.7			1.438859	
2	3	9	58.6	1082	1888	2.657582	
3	2	9	76.8	1314		3.500677	
4	2	9	78.9	1474		5.394239	
5	1	9	53.6			6.37292	
6	3	9	85.9	1905	1524	7.360737	
7	2	9	91.7	1860		7.697345	
8	2	9	81.5	1415		9.170664	
9	1	9	74.6			9.862499	
10	3	9	95.5	1625	1356	11.1346	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5493.0MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	8	96.3	1283		0.691119	1
1	1	8	52.2			1.966862	
2	2	8	75.9	1879		2.385578	
3	1	8	96			3.075913	
4	2	8	95.9	1811		4.321427	
5	2	8	93.7	1566		5.269193	
6	2	8	60.8	1095		6.30505	
7	2	8	50.5	1967		7.712365	
8	3	8	62.2	1578	1946	8.263381	
9	2	8	54.1	1207		9.374121	
10	2	8	98.7	1556		10.31596	
11	2	8	98.9	1359		11.30398	

Statistics 2 (ChirpCenter Frequency: 5493.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	7	50.3	1146		0.575828	1
1	2	7	65.6	1418		0.864773	
2	1	7	53.4			1.960283	
3	2	7	74.3	1737		2.795489	
4	2	7	89.8	1265		3.85715	
5	1	7	79.2			4.731112	
6	2	7	93.8	1380		5.228016	
7	2	7	95	1216		6.470949	
8	2	7	67.1	1207		6.973259	
9	2	7	59	1196		7.847564	
10	2	7	67.7	1212		8.894424	
11	1	7	51.7			9.694387	
12	3	7	83	1274	1887	10.75976	
13	2	7	60	1183		11.29618	

Statistics 3 (ChirpCenter Frequency: 5496.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	14	52.8	1484	1482	0.377658	1
1	2	14	52.9	1871		0.991505	
2	1	14	84.3			1.708344	
3	1	14	72.1			2.243005	
4	2	14	59.7	1300		2.668411	
5	2	14	78.9	1248		3.225645	
6	1	14	81			4.239913	
7	2	14	62.1	1038		4.916721	
8	3	14	53.7	1064	1141	5.610778	
9	2	14	64.9	1144		5.977632	
10	3	14	76.9	1570	1412	6.874794	
11	2	14	96.3	1787		7.203741	
12	2	14	85	1920		7.719024	
13	2	14	70.8	1293		8.225192	
14	1	14	87.5			9.434405	
15	2	14	81.7	1968		9.577697	
16	3	14	91.3	1983	1080	10.64967	
17	1	14	62			10.84775	
18	1	14	79.9			11.4705	

Statistics 4 (ChirpCenter Frequency: 5493.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	9	67.3	1980		0.459239	1
1	2	9	74.8	1003		1.458396	
2	3	9	77	1957	1307	2.044604	
3	3	9	74.9	1305	1161	3.362252	
4	1	9	81.2			4.795356	
5	2	9	95	1618		5.841368	
6	2	9	98.1	1314		6.237276	
7	1	9	84.6			7.043444	
8	2	9	56.9	1800		8.307291	
9	1	9	51.3			9.511332	
10	1	9	78.3			10.96289	
11	1	9	61.5			11.63993	

Statistics 5 (ChirpCenter Frequency: 5497.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	6	82.3	1842		0.280075	1
1	2	6	56.8	1845		0.829639	
2	2	6	92.3	1384		1.765664	
3	2	6	89.3	1540		3.12862	
4	2	6	87.6	1541		3.856891	
5	2	6	97.3	1781		4.582492	
6	2	6	68.6	1754		5.125674	
7	2	6	84.1	1343		6.223539	
8	2	6	70.1	1177		6.765418	
9	2	6	57.3	1832		7.658105	
10	2	6	61	1759		8.452082	
11	2	6	68.9	1295		9.572654	
12	3	6	64.9	1578	1428	10.39087	
13	2	6	67	1668		10.7181	
14	2	6	85.6	1011		11.47257	

Statistics 6 (ChirpCenter Frequency: 5492.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	9	99.4	1470		0.553603	1
1	2	9	96.4	1509		1.024206	
2	2	9	59.2	1358		1.921682	
3	2	9	83.3	1396		2.799436	
4	3	9	57.5	1410	1107	3.397572	
5	3	9	66.2	1192	1888	4.130786	
6	2	9	60.7	1803		5.356784	
7	2	9	73.5	1600		6.323584	
8	3	9	58.2	1607	1117	7.114499	
9	1	9	73.2			7.979436	
10	2	9	73.1	1748		8.15876	
11	3	9	58.1	1990	1223	9.376169	
12	2	9	60	1590		9.691094	
13	1	9	67.8			10.48107	
14	1	9	84.5			11.22931	

Statistics 7 (ChirpCenter Frequency: 5495.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	15	69.1	1615		0.675918	1
1	2	15	90.6	1095		2.002545	
2	2	15	55.4	1027		3.068561	
3	3	15	93.1	1507	1080	4.671067	
4	3	15	99.7	1583	1874	6.566436	
5	1	15	61.3			7.398571	
6	1	15	92.1			8.872921	
7	3	15	96.5	1814	1614	9.6088	

Statistics 8 (ChirpCenter Frequency: 5496.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	20	61.1	1896	1680	0.127768	1
1	2	20	70.5	1085		1.364022	
2	3	20	86.2	1844	1931	2.285821	
3	3	20	59	1452	1438	3.058926	
4	3	20	99.7	1794	1268	3.742677	
5	1	20	73.9			4.601058	
6	1	20	87.5			5.174198	
7	2	20	69.9	1343		5.831014	
8	3	20	82.6	1821	1950	6.70128	
9	3	20	88.2	1399	1011	7.570675	
10	1	20	99.7			8.603766	
11	3	20	50.9	1360	1745	9.395465	
12	2	20	64.3	1084		10.22205	
13	3	20	52.8	1586	1808	10.83994	
14	1	20	98.5			11.65018	

Statistics 9 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	56.6			0.44565	1
1	1	9	75.3			1.397138	
2	3	9	61.6	1961	1749	2.061801	
3	1	9	67.1			2.575429	
4	2	9	83.2	1732		3.579549	
5	1	9	57.4			4.367929	
6	2	9	98.1	1869		4.980489	
7	2	9	76.1	1575		5.727379	
8	3	9	66.4	1846	1004	6.707482	
9	2	9	61.9	1999		7.445224	
10	2	9	83.3	1173		7.936829	
11	1	9	89.5			8.845673	
12	2	9	55.5	1029		9.345275	
13	2	9	88.2	1206		10.28025	
14	2	9	70	1932		11.16879	
15	2	9	97.5	1843		11.83779	

Statistics 10 (ChirpCenter Frequency: 5495.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	6	99.6			0.766348	1
1	1	6	85			1.566302	
2	2	6	95.2	1281		2.291023	
3	2	6	68.2	1980		3.310461	
4	2	6	66.3	1254		3.841607	
5	2	6	97.5	1916		4.301072	
6	2	6	70.4	1166		5.713821	
7	2	6	51.1	1644		6.067748	
8	2	6	54.5	1364		7.36185	
9	2	6	50.1	1153		8.136346	
10	3	6	86	1646	1407	9.254583	
11	2	6	68.7	1061		9.94596	
12	2	6	55.5	1614		10.55033	
13	2	6	62.5	1682		11.64534	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5507.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	20	55.5	1666		0.243417	1
1	1	20	62.4			1.005366	
2	2	20	80.7	1083		1.807485	
3	3	20	68.3	1805	1428	2.557544	
4	2	20	73.4	1007		3.542637	
5	2	20	98.7	1245		4.106418	
6	1	20	61			5.094789	
7	3	20	70.3	1827	1708	5.655106	
8	1	20	82.2			6.628474	
9	2	20	91.6	1814		7.30912	
10	1	20	54			7.749315	
11	2	20	66.6	1804		8.327506	
12	2	20	81.5	1556		9.539793	
13	3	20	83.4	1215	1039	10.11404	
14	3	20	97.4	1430	1647	11.18746	
15	3	20	59.4	1643	1308	11.80029	

Statistics 2 (ChirpCenter Frequency: 5505.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	54.1			0.479075	1
1	1	9	77.2			1.14509	
2	2	9	96.3	1352		2.42764	
3	1	9	74.5			2.636465	
4	1	9	73.3			3.831839	
5	3	9	70.2	1275	1962	4.880167	
6	1	9	69.9			5.767921	
7	3	9	74.7	1985	1097	6.745621	
8	1	9	90.2			7.262345	
9	3	9	65.9	1687	1254	7.915247	
10	3	9	60.4	1154	1303	9.255211	
11	2	9	91.7	1259		9.90567	
12	3	9	50.3	1642	1875	10.74989	
13	3	9	80.6	1419	1354	11.27927	

Statistics 3 (ChirpCenter Frequency: 5502.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	14	81.8	1412		0.097255	1
1	3	14	67.3	1338	1329	2.207982	
2	1	14	64.1			2.664494	
3	3	14	72.4	1706	1885	4.603776	
4	2	14	71.3	1025		5.276894	
5	2	14	84	1604		6.706711	
6	2	14	53	1360		7.333614	
7	1	14	60			8.825306	
8	1	14	70.4			10.33065	
9	3	14	78.1	1074	1096	11.79794	

Statistics 4 (ChirpCenter Frequency: 5503.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	7	59.7	1821	1357	0.159292	1
1	3	7	71.7	1847	1042	1.278192	
2	2	7	55.6	1537		1.594426	
3	3	7	72.6	1569	1460	2.883309	
4	2	7	89.5	1873		3.687652	
5	2	7	87.3	1202		3.830143	
6	2	7	66.5	1818		4.908906	
7	3	7	66.7	1316	1330	5.759105	
8	3	7	66.4	1199	1037	6.235719	
9	2	7	68.5	1129		7.467716	
10	2	7	93.5	1331		8.036904	
11	2	7	76.6	1431		8.460347	
12	2	7	71.2	1798		9.675482	
13	3	7	74.1	1471	1244	10.44503	
14	3	7	74.5	1906	1870	11.02398	
15	1	7	78.7			11.88488	

Statistics 5 (ChirpCenter Frequency: 5505.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	5	90	1715	1344	0.384317	1
1	2	5	73.8	1487		0.713165	
2	1	5	93.9			1.27595	
3	3	5	94.4	1874	1991	2.104747	
4	3	5	51.5	1581	1185	2.585024	
5	3	5	67.8	1623	1465	3.578532	
6	1	5	68.5			4.228261	
7	2	5	96	1634		4.556623	
8	1	5	89.9			5.325863	
9	2	5	63.6	1850		6.129954	
10	2	5	53	1240		6.900844	
11	2	5	67.2	1851		7.5293	
12	2	5	81.8	1895		8.127212	
13	1	5	88.9			8.821124	
14	2	5	98.3	1188		9.030534	
15	2	5	55.5	1917		9.971453	
16	3	5	83.9	1992	1500	10.3866	
17	1	5	99.4			11.0525	
18	3	5	94.2	1589	1535	11.6047	

Statistics 6 (ChirpCenter Frequency: 5507.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	15	54.8	1618		0.694663	1
1	1	15	88.4			1.138748	
2	3	15	77.1	1954	1796	2.479585	
3	1	15	58.7			3.702512	
4	1	15	78.1			4.447656	
5	2	15	75.1	1239		5.921774	
6	3	15	56.6	1425	1828	6.767813	
7	2	15	99.4	1859		7.561579	
8	3	15	98.1	1702	1615	8.861742	
9	1	15	89.5			9.130927	
10	3	15	96.8	1867	1241	10.44907	
11	1	15	87.2			11.51249	

Statistics 7 (ChirpCenter Frequency: 5505.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	18	79.3	1981		0.103232	1
1	2	18	64.1	1210		1.860014	
2	1	18	71.4			2.908397	
3	3	18	66.8	1294	1781	3.378176	
4	1	18	75.2			4.025211	
5	3	18	62.6	1686	1809	5.317818	
6	1	18	65.6			6.964373	
7	2	18	98.4	1227		7.180171	
8	1	18	70.1			8.792374	
9	3	18	99.4	1038	1808	9.11134	
10	2	18	52.2	1130		10.60654	
11	1	18	89.1			11.69694	

Statistics 8 (ChirpCenter Frequency: 5504.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	97.2	1296		0.214362	1
1	2	19	58.8	1985		1.149004	
2	2	19	86.1	1383		1.770863	
3	2	19	56.3	1769		2.501618	
4	2	19	65.8	1174		3.487149	
5	1	19	89.5			3.661255	
6	1	19	80.9			4.300972	
7	3	19	79.6	1208	1877	4.958144	
8	3	19	81	1868	1331	6.280641	
9	3	19	52.5	1468	1581	6.485423	
10	1	19	63.5			7.087642	
11	1	19	74.7			7.887215	
12	2	19	98.4	1440		8.915602	
13	2	19	75.1	1700		9.667535	
14	3	19	83.4	1678	1261	10.16315	
15	2	19	63.7	1318		11.20192	
16	2	19	88.4	1088		11.45401	

Statistics 9 (ChirpCenter Frequency: 5502.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	20	51.2	1107	1069	0.471763	1
1	1	20	56.4			1.887712	
2	3	20	68.4	1887	1479	3.182414	
3	2	20	75.7	1162		4.00279	
4	2	20	80.5	1675		4.53981	
5	2	20	68.8	1290		5.584558	
6	2	20	73	1369		7.009984	
7	2	20	91.9	1066		7.929039	
8	1	20	69.9			9.622997	
9	1	20	68.8			10.14849	
10	2	20	95.8	1637		11.71539	

Statistics 10 (ChirpCenter Frequency: 5503.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	7	74.4	1203		0.584792	1
1	2	7	51.4	1471		2.15081	
2	2	7	74.1	1708		3.209282	
3	2	7	69.6	1386		3.542827	
4	1	7	56.5			5.338763	
5	1	7	73.9			5.821609	
6	3	7	56	1077	1818	7.189935	
7	1	7	93.4			8.148748	
8	2	7	59.3	1118		8.945154	
9	2	7	61.5	1871		10.16383	
10	3	7	68	1053	1620	11.97282	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5500	9	1	333	1	5385.0, 5686.0, 5693.0, 5627.0, 5643.0, 5443.0, 5492.0, 5493.0, 5436.0, 5571.0, 5369.0, 5457.0, 5556.0, 5514.0, 5705.0, 5405.0, 5346.0, 5523.0, 5701.0, 5407.0, 5456.0, 5551.0, 5477.0, 5290.0, 5607.0, 5535.0, 5432.0, 5503.0, 5606.0, 5695.0, 5433.0, 5459.0, 5590.0, 5320.0, 5307.0, 5529.0, 5667.0, 5315.0, 5370.0, 5518.0, 5363.0, 5525.0, 5659.0, 5365.0, 5453.0, 5311.0, 5722.0, 5257.0, 5613.0, 5287.0, 5416.0, 5632.0, 5434.0, 5258.0, 5275.0, 5624.0, 5347.0, 5317.0, 5377.0, 5490.0, 5386.0, 5586.0, 5561.0, 5715.0, 5669.0, 5411.0, 5608.0, 5694.0, 5660.0, 5560.0, 5497.0, 5584.0, 5651.0, 5406.0, 5381.0, 5260.0, 5595.0, 5267.0, 5272.0, 5550.0, 5510.0, 5273.0, 5269.0, 5305.0, 5412.0, 5371.0, 5675.0, 5261.0, 5664.0, 5647.0, 5589.0, 5508.0, 5638.0, 5415.0, 5431.0, 5450.0, 5349.0, 5635.0, 5512.0, 5604.0
2	5500	9	1	333	1	5634.0, 5540.0, 5496.0, 5666.0, 5714.0, 5476.0, 5542.0, 5394.0, 5400.0, 5645.0, 5346.0, 5562.0, 5405.0, 5335.0, 5717.0, 5651.0, 5683.0, 5593.0, 5402.0, 5622.0, 5378.0, 5412.0, 5389.0, 5551.0, 5393.0, 5673.0, 5461.0, 5437.0, 5397.0, 5500.0, 5616.0, 5283.0, 5277.0, 5576.0, 5374.0, 5501.0, 5336.0, 5377.0, 5406.0, 5516.0, 5632.0, 5319.0, 5502.0, 5677.0, 5483.0, 5548.0, 5272.0, 5615.0, 5426.0, 5625.0, 5362.0, 5696.0, 5575.0, 5452.0, 5547.0, 5626.0, 5479.0, 5594.0, 5606.0, 5601.0, 5450.0, 5413.0, 5681.0, 5472.0, 5448.0, 5326.0, 5713.0, 5280.0, 5427.0, 5628.0, 5265.0, 5627.0, 5354.0, 5259.0, 5549.0, 5264.0, 5485.0, 5596.0, 5284.0, 5607.0, 5481.0, 5414.0, 5263.0, 5470.0, 5703.0, 5474.0, 5712.0, 5701.0, 5560.0, 5710.0, 5684.0, 5340.0, 5499.0, 5539.0, 5301.0, 5359.0, 5530.0, 5536.0, 5541.0, 5343.0
3	5500	9	1	333	1	5605.0, 5579.0, 5536.0, 5532.0, 5509.0, 5500.0, 5676.0, 5262.0, 5338.0, 5390.0, 5602.0, 5394.0, 5432.0, 5330.0, 5473.0, 5541.0, 5551.0, 5332.0, 5321.0, 5437.0, 5677.0, 5377.0, 5620.0, 5395.0, 5589.0, 5429.0, 5438.0, 5695.0, 5646.0, 5296.0, 5687.0, 5391.0, 5359.0, 5520.0, 5310.0, 5495.0, 5470.0, 5406.0, 5455.0, 5270.0, 5696.0, 5622.0, 5255.0, 5464.0, 5460.0, 5598.0, 5552.0, 5476.0, 5300.0, 5307.0, 5474.0, 5693.0, 5342.0, 5553.0, 5447.0, 5409.0, 5373.0, 5268.0, 5486.0, 5292.0, 5428.0, 5682.0, 5309.0, 5272.0, 5261.0,

						5664.0, 5512.0, 5275.0, 5543.0, 5662.0, 5263.0, 5574.0, 5371.0, 5650.0, 5295.0, 5386.0, 5382.0, 5258.0, 5652.0, 5663.0, 5550.0, 5260.0, 5544.0, 5426.0, 5305.0, 5525.0, 5424.0, 5690.0, 5254.0, 5633.0, 5362.0, 5408.0, 5278.0, 5603.0, 5306.0, 5584.0, 5334.0, 5443.0, 5410.0, 5354.0
4	5500	9	1	333	1	5708.0, 5324.0, 5292.0, 5283.0, 5374.0, 5645.0, 5297.0, 5643.0, 5479.0, 5423.0, 5701.0, 5487.0, 5486.0, 5532.0, 5485.0, 5666.0, 5606.0, 5411.0, 5602.0, 5432.0, 5657.0, 5253.0, 5362.0, 5290.0, 5565.0, 5444.0, 5590.0, 5715.0, 5319.0, 5617.0, 5412.0, 5612.0, 5311.0, 5447.0, 5513.0, 5339.0, 5632.0, 5501.0, 5301.0, 5343.0, 5455.0, 5389.0, 5430.0, 5329.0, 5714.0, 5421.0, 5435.0, 5650.0, 5569.0, 5463.0, 5310.0, 5451.0, 5572.0, 5318.0, 5289.0, 5480.0, 5516.0, 5515.0, 5636.0, 5561.0, 5592.0, 5285.0, 5581.0, 5390.0, 5445.0, 5448.0, 5418.0, 5281.0, 5380.0, 5686.0, 5441.0, 5474.0, 5371.0, 5703.0, 5425.0, 5471.0, 5601.0, 5366.0, 5614.0, 5492.0, 5254.0, 5313.0, 5388.0, 5309.0, 5345.0, 5533.0, 5658.0, 5624.0, 5326.0, 5344.0, 5264.0, 5392.0, 5688.0, 5365.0, 5294.0, 5304.0, 5580.0, 5505.0, 5478.0, 5713.0
5	5500	9	1	333	1	5475.0, 5314.0, 5253.0, 5625.0, 5575.0, 5285.0, 5526.0, 5573.0, 5520.0, 5663.0, 5583.0, 5654.0, 5552.0, 5398.0, 5401.0, 5311.0, 5257.0, 5334.0, 5291.0, 5591.0, 5637.0, 5337.0, 5434.0, 5351.0, 5301.0, 5380.0, 5442.0, 5565.0, 5613.0, 5382.0, 5276.0, 5341.0, 5395.0, 5481.0, 5343.0, 5320.0, 5444.0, 5504.0, 5297.0, 5569.0, 5383.0, 5585.0, 5681.0, 5657.0, 5722.0, 5428.0, 5618.0, 5628.0, 5300.0, 5256.0, 5614.0, 5551.0, 5331.0, 5669.0, 5322.0, 5306.0, 5608.0, 5629.0, 5577.0, 5426.0, 5659.0, 5702.0, 5415.0, 5399.0, 5515.0, 5616.0, 5502.0, 5675.0, 5465.0, 5559.0, 5691.0, 5632.0, 5267.0, 5384.0, 5650.0, 5678.0, 5610.0, 5692.0, 5443.0, 5439.0, 5560.0, 5405.0, 5389.0, 5643.0, 5252.0, 5493.0, 5340.0, 5545.0, 5419.0, 5461.0, 5338.0, 5701.0, 5536.0, 5259.0, 5435.0, 5539.0, 5516.0, 5644.0, 5289.0, 5407.0
6	5500	9	1	333	1	5362.0, 5333.0, 5444.0, 5286.0, 5675.0, 5641.0, 5576.0, 5588.0, 5329.0, 5551.0, 5358.0, 5721.0, 5312.0, 5503.0, 5392.0, 5434.0, 5615.0, 5311.0, 5381.0, 5634.0, 5660.0, 5620.0, 5504.0, 5461.0, 5679.0, 5610.0, 5426.0, 5722.0, 5538.0, 5688.0, 5656.0, 5705.0, 5490.0, 5423.0, 5702.0, 5582.0, 5627.0, 5411.0, 5460.0, 5435.0, 5288.0, 5495.0, 5600.0, 5482.0, 5611.0, 5464.0, 5408.0, 5555.0, 5666.0, 5388.0, 5528.0, 5706.0, 5448.0, 5629.0, 5542.0, 5424.0, 5530.0, 5539.0, 5317.0, 5418.0, 5545.0, 5415.0, 5473.0, 5470.0, 5566.0,

						5698.0, 5646.0, 5456.0, 5306.0, 5608.0, 5484.0, 5489.0, 5533.0, 5282.0, 5446.0, 5517.0, 5599.0, 5581.0, 5443.0, 5406.0, 5251.0, 5270.0, 5371.0, 5501.0, 5486.0, 5352.0, 5690.0, 5344.0, 5316.0, 5529.0, 5697.0, 5254.0, 5711.0, 5499.0, 5300.0, 5532.0, 5541.0, 5525.0, 5591.0, 5593.0
7	5500	9	1	333	1	5527.0, 5444.0, 5278.0, 5390.0, 5672.0, 5678.0, 5537.0, 5556.0, 5663.0, 5563.0, 5459.0, 5712.0, 5253.0, 5612.0, 5669.0, 5658.0, 5318.0, 5497.0, 5305.0, 5353.0, 5509.0, 5340.0, 5289.0, 5578.0, 5679.0, 5275.0, 5639.0, 5650.0, 5451.0, 5716.0, 5461.0, 5674.0, 5692.0, 5322.0, 5724.0, 5395.0, 5686.0, 5572.0, 5339.0, 5273.0, 5637.0, 5441.0, 5387.0, 5618.0, 5530.0, 5352.0, 5654.0, 5342.0, 5440.0, 5646.0, 5714.0, 5397.0, 5512.0, 5325.0, 5398.0, 5608.0, 5705.0, 5511.0, 5599.0, 5588.0, 5257.0, 5641.0, 5382.0, 5416.0, 5508.0, 5671.0, 5365.0, 5447.0, 5309.0, 5454.0, 5331.0, 5356.0, 5423.0, 5471.0, 5266.0, 5360.0, 5697.0, 5280.0, 5536.0, 5475.0, 5653.0, 5343.0, 5691.0, 5490.0, 5421.0, 5347.0, 5516.0, 5621.0, 5689.0, 5565.0, 5415.0, 5437.0, 5376.0, 5268.0, 5519.0, 5414.0, 5615.0, 5469.0, 5443.0, 5264.0
8	5500	9	1	333	1	5342.0, 5364.0, 5510.0, 5432.0, 5571.0, 5324.0, 5271.0, 5544.0, 5411.0, 5353.0, 5475.0, 5662.0, 5700.0, 5274.0, 5329.0, 5543.0, 5321.0, 5478.0, 5299.0, 5269.0, 5422.0, 5476.0, 5688.0, 5525.0, 5405.0, 5562.0, 5508.0, 5295.0, 5372.0, 5483.0, 5590.0, 5400.0, 5536.0, 5681.0, 5250.0, 5524.0, 5291.0, 5431.0, 5675.0, 5369.0, 5358.0, 5617.0, 5523.0, 5481.0, 5382.0, 5449.0, 5454.0, 5486.0, 5430.0, 5708.0, 5302.0, 5509.0, 5387.0, 5441.0, 5513.0, 5301.0, 5348.0, 5296.0, 5666.0, 5356.0, 5695.0, 5386.0, 5515.0, 5283.0, 5276.0, 5310.0, 5410.0, 5266.0, 5654.0, 5343.0, 5548.0, 5610.0, 5587.0, 5392.0, 5533.0, 5595.0, 5555.0, 5581.0, 5559.0, 5570.0, 5707.0, 5697.0, 5719.0, 5263.0, 5253.0, 5458.0, 5429.0, 5278.0, 5712.0, 5439.0, 5289.0, 5634.0, 5421.0, 5338.0, 5624.0, 5507.0, 5551.0, 5648.0, 5669.0, 5444.0
9	5500	9	1	333	1	5422.0, 5612.0, 5273.0, 5674.0, 5303.0, 5292.0, 5265.0, 5354.0, 5449.0, 5436.0, 5594.0, 5397.0, 5358.0, 5620.0, 5590.0, 5610.0, 5364.0, 5478.0, 5572.0, 5661.0, 5386.0, 5430.0, 5679.0, 5715.0, 5372.0, 5410.0, 5385.0, 5267.0, 5370.0, 5668.0, 5509.0, 5516.0, 5528.0, 5413.0, 5374.0, 5301.0, 5350.0, 5284.0, 5514.0, 5571.0, 5458.0, 5487.0, 5331.0, 5345.0, 5462.0, 5676.0, 5311.0, 5289.0, 5690.0, 5441.0, 5394.0, 5641.0, 5717.0, 5511.0, 5261.0, 5622.0, 5260.0, 5451.0, 5388.0, 5628.0, 5648.0, 5558.0, 5705.0, 5348.0, 5581.0,

						5616.0, 5712.0, 5442.0, 5498.0, 5655.0, 5403.0, 5340.0, 5621.0, 5524.0, 5534.0, 5546.0, 5684.0, 5439.0, 5425.0, 5490.0, 5555.0, 5435.0, 5561.0, 5677.0, 5320.0, 5504.0, 5293.0, 5459.0, 5722.0, 5529.0, 5456.0, 5365.0, 5300.0, 5556.0, 5584.0, 5338.0, 5613.0, 5294.0, 5576.0, 5700.0
10	5500	9	1	333	1	5415.0, 5453.0, 5345.0, 5483.0, 5395.0, 5419.0, 5540.0, 5409.0, 5309.0, 5563.0, 5686.0, 5310.0, 5536.0, 5656.0, 5335.0, 5425.0, 5662.0, 5390.0, 5491.0, 5262.0, 5322.0, 5550.0, 5303.0, 5437.0, 5515.0, 5343.0, 5692.0, 5665.0, 5354.0, 5341.0, 5297.0, 5451.0, 5455.0, 5576.0, 5585.0, 5373.0, 5655.0, 5478.0, 5460.0, 5546.0, 5432.0, 5316.0, 5524.0, 5534.0, 5414.0, 5430.0, 5293.0, 5445.0, 5666.0, 5462.0, 5511.0, 5301.0, 5481.0, 5555.0, 5545.0, 5528.0, 5337.0, 5625.0, 5377.0, 5647.0, 5475.0, 5626.0, 5681.0, 5282.0, 5447.0, 5549.0, 5640.0, 5283.0, 5287.0, 5599.0, 5442.0, 5374.0, 5636.0, 5457.0, 5716.0, 5638.0, 5568.0, 5327.0, 5525.0, 5382.0, 5392.0, 5500.0, 5547.0, 5342.0, 5289.0, 5560.0, 5350.0, 5469.0, 5263.0, 5413.0, 5314.0, 5551.0, 5362.0, 5284.0, 5393.0, 5672.0, 5699.0, 5614.0, 5537.0, 5420.0
11	5500	9	1	333	1	5518.0, 5425.0, 5436.0, 5638.0, 5685.0, 5675.0, 5600.0, 5347.0, 5632.0, 5648.0, 5419.0, 5529.0, 5610.0, 5356.0, 5349.0, 5333.0, 5719.0, 5304.0, 5502.0, 5389.0, 5346.0, 5504.0, 5503.0, 5477.0, 5345.0, 5593.0, 5252.0, 5627.0, 5322.0, 5569.0, 5682.0, 5272.0, 5394.0, 5671.0, 5583.0, 5621.0, 5681.0, 5723.0, 5348.0, 5418.0, 5447.0, 5530.0, 5467.0, 5353.0, 5693.0, 5563.0, 5562.0, 5270.0, 5571.0, 5292.0, 5576.0, 5288.0, 5299.0, 5605.0, 5265.0, 5695.0, 5285.0, 5295.0, 5677.0, 5472.0, 5692.0, 5262.0, 5317.0, 5275.0, 5690.0, 5660.0, 5517.0, 5261.0, 5328.0, 5294.0, 5532.0, 5544.0, 5492.0, 5351.0, 5435.0, 5486.0, 5557.0, 5438.0, 5646.0, 5396.0, 5411.0, 5509.0, 5716.0, 5592.0, 5305.0, 5694.0, 5608.0, 5290.0, 5300.0, 5587.0, 5316.0, 5686.0, 5330.0, 5409.0, 5511.0, 5670.0, 5386.0, 5476.0, 5326.0, 5612.0
12	5500	9	1	333	1	5290.0, 5633.0, 5581.0, 5464.0, 5303.0, 5491.0, 5672.0, 5705.0, 5294.0, 5512.0, 5560.0, 5420.0, 5424.0, 5266.0, 5565.0, 5617.0, 5328.0, 5699.0, 5629.0, 5315.0, 5649.0, 5397.0, 5309.0, 5478.0, 5439.0, 5408.0, 5571.0, 5517.0, 5465.0, 5256.0, 5477.0, 5621.0, 5485.0, 5552.0, 5563.0, 5535.0, 5349.0, 5275.0, 5324.0, 5375.0, 5289.0, 5558.0, 5692.0, 5504.0, 5474.0, 5637.0, 5320.0, 5344.0, 5467.0, 5671.0, 5530.0, 5423.0, 5264.0, 5453.0, 5435.0, 5554.0, 5514.0, 5444.0, 5608.0, 5664.0, 5614.0, 5511.0, 5411.0, 5475.0, 5628.0,

						5286.0, 5656.0, 5689.0, 5657.0, 5559.0, 5304.0, 5500.0, 5651.0, 5615.0, 5647.0, 5595.0, 5543.0, 5668.0, 5627.0, 5620.0, 5515.0, 5311.0, 5400.0, 5341.0, 5714.0, 5346.0, 5601.0, 5443.0, 5277.0, 5635.0, 5265.0, 5332.0, 5650.0, 5335.0, 5533.0, 5282.0, 5318.0, 5321.0, 5401.0, 5442.0
13	5500	9	1	333	1	5351.0, 5395.0, 5592.0, 5595.0, 5666.0, 5363.0, 5614.0, 5267.0, 5578.0, 5250.0, 5273.0, 5563.0, 5482.0, 5261.0, 5307.0, 5368.0, 5609.0, 5704.0, 5300.0, 5682.0, 5315.0, 5385.0, 5522.0, 5586.0, 5481.0, 5480.0, 5435.0, 5392.0, 5493.0, 5348.0, 5509.0, 5659.0, 5369.0, 5699.0, 5555.0, 5519.0, 5416.0, 5439.0, 5556.0, 5424.0, 5566.0, 5587.0, 5321.0, 5652.0, 5452.0, 5600.0, 5317.0, 5648.0, 5620.0, 5406.0, 5532.0, 5260.0, 5379.0, 5494.0, 5616.0, 5715.0, 5628.0, 5653.0, 5668.0, 5603.0, 5524.0, 5255.0, 5427.0, 5292.0, 5297.0, 5257.0, 5537.0, 5575.0, 5705.0, 5714.0, 5719.0, 5276.0, 5716.0, 5688.0, 5611.0, 5486.0, 5641.0, 5693.0, 5457.0, 5572.0, 5422.0, 5472.0, 5636.0, 5723.0, 5405.0, 5458.0, 5496.0, 5562.0, 5389.0, 5724.0, 5265.0, 5706.0, 5270.0, 5717.0, 5658.0, 5428.0, 5360.0, 5551.0, 5465.0, 5437.0
14	5500	9	1	333	1	5340.0, 5321.0, 5326.0, 5497.0, 5564.0, 5595.0, 5660.0, 5448.0, 5631.0, 5723.0, 5583.0, 5663.0, 5322.0, 5552.0, 5423.0, 5602.0, 5363.0, 5362.0, 5300.0, 5645.0, 5558.0, 5441.0, 5591.0, 5666.0, 5303.0, 5260.0, 5694.0, 5258.0, 5400.0, 5511.0, 5467.0, 5316.0, 5606.0, 5658.0, 5411.0, 5373.0, 5707.0, 5534.0, 5486.0, 5716.0, 5701.0, 5652.0, 5615.0, 5454.0, 5479.0, 5708.0, 5547.0, 5348.0, 5407.0, 5677.0, 5314.0, 5383.0, 5302.0, 5674.0, 5462.0, 5508.0, 5282.0, 5439.0, 5451.0, 5620.0, 5718.0, 5430.0, 5641.0, 5687.0, 5453.0, 5546.0, 5280.0, 5589.0, 5720.0, 5483.0, 5570.0, 5656.0, 5283.0, 5555.0, 5584.0, 5544.0, 5580.0, 5655.0, 5330.0, 5700.0, 5673.0, 5442.0, 5669.0, 5579.0, 5417.0, 5654.0, 5254.0, 5445.0, 5291.0, 5269.0, 5294.0, 5318.0, 5586.0, 5608.0, 5484.0, 5256.0, 5310.0, 5481.0, 5529.0, 5449.0
15	5500	9	1	333	1	5722.0, 5626.0, 5522.0, 5302.0, 5255.0, 5636.0, 5405.0, 5309.0, 5258.0, 5621.0, 5576.0, 5696.0, 5384.0, 5653.0, 5616.0, 5497.0, 5704.0, 5567.0, 5713.0, 5362.0, 5684.0, 5268.0, 5413.0, 5429.0, 5604.0, 5339.0, 5368.0, 5330.0, 5393.0, 5676.0, 5453.0, 5693.0, 5422.0, 5489.0, 5411.0, 5428.0, 5560.0, 5499.0, 5285.0, 5690.0, 5495.0, 5392.0, 5707.0, 5265.0, 5447.0, 5689.0, 5262.0, 5371.0, 5614.0, 5419.0, 5321.0, 5543.0, 5479.0, 5535.0, 5351.0, 5383.0, 5372.0, 5720.0, 5544.0, 5274.0, 5553.0, 5610.0, 5677.0, 5483.0, 5284.0,

						5618.0, 5377.0, 5333.0, 5407.0, 5573.0, 5373.0, 5523.0, 5579.0, 5272.0, 5310.0, 5708.0, 5432.0, 5414.0, 5678.0, 5382.0, 5484.0, 5687.0, 5375.0, 5355.0, 5357.0, 5700.0, 5434.0, 5315.0, 5314.0, 5257.0, 5388.0, 5639.0, 5379.0, 5412.0, 5657.0, 5396.0, 5625.0, 5316.0, 5617.0, 5435.0
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29	5500	9	1	333	1	5345.0, 5312.0, 5596.0, 5716.0, 5712.0, 5539.0, 5577.0, 5293.0, 5442.0, 5655.0, 5295.0, 5378.0, 5287.0, 5250.0, 5524.0, 5446.0, 5703.0, 5612.0, 5549.0, 5478.0, 5362.0, 5441.0, 5648.0, 5683.0, 5454.0, 5605.0, 5280.0, 5673.0, 5488.0, 5519.0, 5310.0, 5309.0, 5459.0, 5452.0, 5586.0, 5490.0, 5565.0, 5305.0, 5610.0, 5679.0, 5650.0, 5457.0, 5580.0, 5477.0, 5611.0, 5529.0, 5548.0, 5618.0, 5562.0, 5291.0, 5523.0, 5373.0, 5500.0, 5358.0, 5433.0, 5530.0, 5455.0, 5402.0, 5625.0, 5466.0, 5579.0, 5427.0, 5616.0, 5620.0, 5573.0, 5337.0, 5269.0, 5559.0, 5268.0, 5653.0, 5690.0, 5593.0, 5664.0, 5532.0, 5715.0, 5553.0, 5670.0, 5323.0, 5568.0, 5254.0, 5540.0, 5704.0, 5453.0, 5551.0, 5348.0, 5321.0, 5390.0, 5514.0, 5578.0, 5614.0, 5482.0, 5341.0, 5720.0, 5434.0, 5581.0, 5609.0, 5597.0, 5430.0, 5684.0, 5395.0
30	5500	9	1	333	1	5349.0, 5535.0, 5498.0, 5365.0, 5529.0, 5409.0, 5510.0, 5455.0, 5275.0, 5329.0, 5287.0, 5381.0, 5635.0, 5567.0, 5382.0, 5505.0, 5607.0, 5406.0, 5654.0, 5402.0, 5701.0, 5363.0, 5595.0, 5470.0, 5420.0, 5309.0, 5555.0, 5625.0, 5519.0, 5331.0, 5372.0, 5579.0, 5277.0, 5330.0, 5312.0, 5518.0, 5267.0, 5587.0, 5551.0, 5347.0, 5341.0, 5445.0, 5571.0, 5598.0, 5439.0, 5471.0, 5423.0, 5460.0, 5481.0, 5630.0, 5260.0, 5613.0, 5462.0, 5549.0, 5485.0, 5495.0, 5641.0, 5576.0, 5342.0, 5384.0, 5667.0, 5286.0, 5259.0, 5301.0, 5302.0,

						5642.0, 5448.0, 5566.0, 5392.0, 5645.0, 5611.0, 5450.0, 5256.0, 5355.0, 5597.0, 5292.0, 5281.0, 5568.0, 5376.0, 5608.0, 5401.0, 5553.0, 5422.0, 5516.0, 5335.0, 5622.0, 5316.0, 5466.0, 5646.0, 5404.0, 5537.0, 5655.0, 5539.0, 5317.0, 5705.0, 5425.0, 5617.0, 5717.0, 5618.0, 5592.0
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40MHz

Radar SignalType	Waveform/Trial Number	Detection (%)	Limit (%)	Pass/Fail
Type 1A	15	100%	60%	pass
Type 1B	15	100%	60%	pass
Type 2	30	100 %	60%	Pass
Type 3	30	100%	60%	Pass
Type 4	30	100 %	60%	Pass
Aggregate(Type1 to 4)	120	100%	80%	Pass
Type 5	30	100 %	80%	Pass
Type 6	30	100 %	70%	Pass

Please refer to the following statistical tables:

5510MHz**Radar Type 1A Statistical Performance**

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5510	65	1	818	1
2	5510	81	1	658	1
3	5510	68	1	778	1
4	5510	99	1	538	1
5	5510	102	1	518	1
6	5510	63	1	838	1
7	5510	59	1	898	1
8	5510	76	1	698	1
9	5510	92	1	578	1
10	5510	72	1	738	1
11	5510	62	1	858	1
12	5510	58	1	918	1
13	5510	70	1	758	1
14	5510	61	1	878	1
15	5510	67	1	798	1
Detection Percentage: 100 % (>60%)					

Radar Type 1B Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5510	19	1	2928	1
2	5510	50	1	1063	1
3	5510	32	1	1665	1
4	5510	24	1	2217	1
5	5510	22	1	2452	1
6	5510	20	1	2736	1
7	5510	30	1	1812	1
8	5510	19	1	2931	1
9	5510	18	1	2958	1
10	5510	20	1	2665	1
11	5510	91	1	584	1
12	5510	29	1	1884	1
13	5510	20	1	2740	1
14	5510	24	1	2293	1
15	5510	31	1	1725	1
Detection Percentage: 100 % (>60%)					

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5510	25	2.2	161	1
2	5510	25	1.5	158	1
3	5510	24	2.4	178	1
4	5510	24	1.4	219	1
5	5510	26	3.5	169	1
6	5510	27	4	170	1
7	5510	24	3.1	180	1
8	5510	27	3.7	194	1
9	5510	27	4.8	155	1
10	5510	24	2.7	183	1
11	5510	25	2.8	180	1
12	5510	27	4	177	1
13	5510	29	1	186	1
14	5510	26	4.2	217	1
15	5510	23	2.7	206	1
16	5510	28	3.6	185	1
17	5510	25	2.1	156	1
18	5510	23	1.5	201	1
19	5510	24	3.9	209	1
20	5510	26	1.8	221	1
21	5510	27	2.9	179	1
22	5510	23	3.8	220	1
23	5510	28	3.4	169	1
24	5510	25	1.1	205	1
25	5510	27	4	217	1
26	5510	26	2.2	180	1
27	5510	28	3.8	162	1
28	5510	25	2.6	191	1
29	5510	26	1.9	220	1
30	5510	27	3.4	200	1
Detection Percentage: 100% (>60%)					

Radar Type 3 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5510	18	9.9	272	1
2	5510	18	6.8	352	1
3	5510	18	7.5	363	1
4	5510	18	6.4	408	1
5	5510	17	7.7	268	1
6	5510	16	9.9	308	1
7	5510	17	7.7	340	1
8	5510	17	7.2	270	1
9	5510	18	6.1	351	1
10	5510	17	7.4	292	1
11	5510	18	9.4	488	1
12	5510	16	6.2	253	1
13	5510	18	8.9	430	1
14	5510	18	8.1	331	1
15	5510	18	7.4	213	1
16	5510	16	8.4	278	1
17	5510	17	9.4	369	1
18	5510	16	6.3	369	1
19	5510	18	6.7	259	1
20	5510	16	8.3	415	1
21	5510	16	9.9	419	1
22	5510	16	7.7	203	1
23	5510	16	6.1	296	1
24	5510	17	6.6	305	1
25	5510	17	7.9	246	1
26	5510	17	9.6	272	1
27	5510	18	8.4	428	1
28	5510	16	6.5	295	1
29	5510	18	9.7	263	1
30	5510	18	9.4	264	1
Detection Percentage: 100 % (>60%)					

Radar Type 4 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5510	14	20	273	1
2	5510	12	19.5	478	1
3	5510	12	15.9	491	1
4	5510	12	18	477	1
5	5510	12	11.2	377	1
6	5510	14	15.7	442	1
7	5510	16	11.9	350	1
8	5510	15	13.6	267	1
9	5510	16	11.5	226	1
10	5510	14	13.5	418	1
11	5510	13	12	396	1
12	5510	16	11.9	362	1
13	5510	13	15.4	240	1
14	5510	14	11.5	370	1
15	5510	12	13.8	483	1
16	5510	13	12.5	342	1
17	5510	14	12.8	381	1
18	5510	15	12.8	289	1
19	5510	12	17	440	1
20	5510	12	19.8	463	1
21	5510	15	19	496	1
22	5510	12	15.7	452	1
23	5510	13	17.2	267	1
24	5510	12	13.8	419	1
25	5510	16	16	302	1
26	5510	15	13.8	499	1
27	5510	16	11.5	424	1
28	5510	12	13	385	1
29	5510	13	16.5	406	1
30	5510	14	19.2	216	1
Detection Percentage: 100 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5510.0MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	15	78.6	1128		0.958288	1
1	3	15	88.4	1229	1212	1.94954	
2	3	15	75	1904	1755	3.643526	
3	1	15	69.8			5.192411	
4	2	15	65	1707		6.217157	
5	2	15	59.6	1601		7.157935	
6	3	15	64.8	1161	1181	8.909159	
7	2	15	68.9	1174		9.659333	
8	3	15	98.8	1134	1346	11.74105	

Statistics 2 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	7	95.8	1345	1305	0.176518	1
1	3	7	61.6	1272	1857	1.330398	
2	2	7	98.5	1715		2.287704	
3	2	7	52.3	1913		3.359214	
4	2	7	56	1471		3.929852	
5	3	7	65.4	1678	1040	5.040891	
6	2	7	94.6	1991		5.538248	
7	3	7	56.9	1579	1799	6.733073	
8	1	7	75			7.025806	
9	2	7	73	1896		8.383533	
10	2	7	55	1329		9.423561	
11	2	7	95.3	1720		10.03093	
12	1	7	63.1			10.76594	
13	2	7	76.7	1984		11.6544	

Statistics 3 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	7	65.4	1035	1611	1.173112	1
1	2	7	59.1	1376		1.524884	
2	3	7	92	1477	1232	3.521816	
3	2	7	72.5	1655		4.434758	
4	1	7	89.9			6.568293	
5	3	7	67	1845	1854	7.57926	
6	2	7	59.9	1187		9.020625	
7	3	7	96.8	1220	1064	9.780457	
8	3	7	82.4	1885	1930	11.7725	

Statistics 4 (ChirpCenter Frequency: 5270.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	10	85.7	1362		0.063474	1
1	1	10	91.2			2.620686	
2	1	10	61.5			2.822314	
3	1	10	56.6			4.240844	
4	1	10	80.2			6.62949	
5	3	10	67.3	1241	1707	7.369293	
6	1	10	63			8.883231	
7	2	10	80	1195		10.41361	
8	1	10	66.9			11.47951	

Statistics 5(ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	7	57.6	1246		0.571596	1
1	2	7	85.7	1805		0.947592	
2	3	7	52	1290	1535	1.636741	
3	2	7	81.4	1169		2.336271	
4	2	7	64.3	1370		3.517991	
5	3	7	86.2	1718	1665	3.836966	
6	1	7	98.8			4.859973	
7	1	7	79.3			5.577458	
8	3	7	85.2	1994	1100	6.17427	
9	2	7	85	1118		7.356983	
10	1	7	94.5			8.246665	
11	1	7	55.9			8.328707	
12	2	7	90.7	1428		9.478748	
13	3	7	54.4	1211	1869	9.790534	
14	2	7	70.2	1194		10.56367	
15	2	7	61.5	1670		11.98259	

Statistics 6 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	14	56			0.188125	1
1	2	14	62.6	1707		1.104423	
2	1	14	83.4			1.797969	
3	3	14	88.1	1350	1349	2.934725	
4	2	14	67.1	1011		3.457007	
5	2	14	69.9	1763		4.078414	
6	3	14	95.4	1405	1078	4.932826	
7	1	14	76.1			5.64422	
8	3	14	70	1054	1384	6.693894	
9	1	14	76.9			7.261561	
10	3	14	95.2	1292	1693	8.594584	
11	1	14	99.1			9.480018	
12	3	14	70.7	1051	1449	10.04059	
13	3	14	71.5	1825	1913	11.02751	
14	2	14	59.5	1404		11.41419	

Statistics 7(ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	5	94.8	1014	1078	0.389151	1
1	1	5	66.4			1.588592	
2	3	5	51.6	1955	1397	2.282783	
3	2	5	59.8	1368		2.984663	
4	2	5	82.4	1258		3.463618	
5	2	5	56.7	1893		5.013388	
6	2	5	57.2	1355		5.254667	
7	1	5	84.8			6.031628	
8	1	5	67.9			7.619658	
9	3	5	95.4	1881	1214	8.406616	
10	2	5	66.6	1799		9.015224	
11	3	5	95.1	1392	1837	10.26106	
12	2	5	54.8	1305		10.77492	
13	1	5	70.6			11.96617	

Statistics 8 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	12	91.6	1826		0.765878	1
1	1	12	90.2			1.534771	
2	1	12	97.8			3.227002	
3	2	12	71.9	1973		5.613607	
4	1	12	68.9			6.023118	
5	3	12	70.2	1346	1566	8.299421	
6	1	12	99.4			9.356228	
7	1	12	68			11.84678	

Statistics 9 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	6	66.5	1342		0.147126	1
1	3	6	72	1171	1968	1.087111	
2	1	6	69.1			1.752448	
3	2	6	66.8	1518		2.055384	
4	1	6	92.3			3.011734	
5	1	6	67.6			3.315111	
6	2	6	91.4	1507		4.024007	
7	2	6	85.1	1007		4.483329	
8	3	6	55.3	1429	1956	5.496134	
9	1	6	57.6			6.027436	
10	2	6	95.6	1201		6.539768	
11	2	6	69.1	1151		7.275763	
12	1	6	81.7			7.642516	
13	3	6	56.5	1983	1761	8.523619	
14	2	6	72	1005		9.056685	
15	2	6	87.5	1163		9.558234	
16	2	6	69.9	1285		10.30578	
17	1	6	74			11.00045	
18	3	6	73.1	1917	1837	11.64049	

Statistics 10 (ChirpCenter Frequency: 5510.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	15	63.6	1080		0.174901	1
1	2	15	62.7	1821		1.27765	
2	2	15	64.8	1360		2.105941	
3	2	15	51	1443		3.26392	
4	1	15	95.2			3.545979	
5	2	15	57.9	1054		4.574509	
6	2	15	62.5	1515		5.538023	
7	1	15	57.2			6.328171	
8	1	15	86.6			7.391046	
9	2	15	82.6	1287		8.010696	
10	2	15	98.4	1898		9.280992	
11	2	15	96.7	1932		9.648654	
12	1	15	93.4			10.45428	
13	3	15	76.2	1231	1055	11.7964	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	14	55.9	1107		1.110122	1
1	3	14	78.8	1497	1798	1.602191	
2	2	14	74.2	1349		2.610216	
3	3	14	52.6	1554	1107	3.801707	
4	3	14	76.7	1019	1931	5.965022	
5	3	14	58.1	1745	1820	6.068008	
6	2	14	99.2	1722		7.347249	
7	2	14	96.9	1953		8.456756	
8	3	14	75.6	1118	1953	10.03155	
9	2	14	69	1882		11.37082	

Statistics 2 (ChirpCenter Frequency: 5496.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	14	62.5	1456	1722	0.132862	1
1	2	14	90.5	1750		2.498193	
2	1	14	68.9			3.003781	
3	1	14	65.4			4.955661	
4	2	14	96.2	1774		6.109227	
5	3	14	72.4	1165	1150	7.632056	
6	2	14	75.4	1064		8.408388	
7	3	14	57.5	1815	1836	10.38683	
8	1	14	85			10.88193	

Statistics 3 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	16	62.9	1865	1504	0.94551	1
1	3	16	89.1	1517	1748	2.120939	
2	3	16	74.6	1843	1582	2.419246	
3	1	16	99.7			3.410772	
4	2	16	59.7	1315		4.920851	
5	2	16	95.8	1616		6.506614	
6	2	16	56.8	1919		7.051574	
7	2	16	88.2	1255		7.773424	
8	3	16	95.8	1057	1091	9.086857	
9	1	16	96.4			10.34256	
10	1	16	73.1			11.85794	

Statistics 4 (ChirpCenter Frequency: 5493.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	18	81.9	1929		0.094547	1
1	3	18	86.1	1903	1344	1.201464	
2	2	18	74.4	1320		1.671133	
3	2	18	77.4	1456		2.845127	
4	3	18	84.7	1976	1162	3.027832	
5	3	18	62	1466	1907	3.981129	
6	2	18	80.8	1735		4.79332	
7	2	18	92.4	1694		5.269865	
8	3	18	68.3	1341	1942	6.413207	
9	3	18	67.1	1155	1080	6.810352	
10	3	18	55.8	1825	1046	8.215926	
11	2	18	88.9	1325		8.573673	
12	2	18	74.4	1103		9.707591	
13	2	18	86.1	1468		9.925226	
14	2	18	95.2	1306		11.18312	
15	1	18	88.6			11.65453	

Statistics 5 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	6	87.1			0.925295	1
1	3	6	94.4	1508	1235	1.817194	
2	2	6	66.7	1679		2.202665	
3	2	6	77.6	1775		3.704859	
4	3	6	97.9	1924	1310	4.568626	
5	2	6	58.7	1633		5.256464	
6	2	6	72.5	1869		6.389533	
7	3	6	59.4	1430	1939	7.610332	
8	3	6	52.4	1306	1565	8.450022	
9	2	6	52.2	1743		9.55927	
10	2	6	66.6	1514		10.40173	
11	2	6	59.9	1222		11.28764	

Statistics 6 (ChirpCenter Frequency: 5492.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	10	60.5	2000		0.473049	1
1	3	10	59.7	1909	1209	0.853938	
2	2	10	75	1053		1.709073	
3	1	10	84.5			2.512663	
4	3	10	89	1109	1182	3.179126	
5	3	10	99.6	1097	1458	3.891085	
6	3	10	75.8	1808	1489	4.614304	
7	2	10	54	1501		4.942605	
8	3	10	92.4	1537	1605	5.733834	
9	1	10	62.2			6.680274	
10	1	10	64.3			7.504772	
11	1	10	76			7.96159	
12	3	10	68.6	1675	1501	9.145081	
13	2	10	84.9	1237		9.844906	
14	2	10	64.3	1340		10.46487	
15	2	10	65.9	1021		10.79866	
16	2	10	51.7	1538		11.88932	

Statistics 7 (ChirpCenter Frequency: 5493.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(uS)	Pulse 2-3 spacing(uS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	9	96.1	1209		0.250968	1
1	1	9	58.5			0.81425	
2	3	9	97.4	1498	1569	1.946756	
3	2	9	86.8	1776		2.14245	
4	1	9	74.5			3.187678	
5	2	9	83	1790		3.771597	
6	2	9	53.7	1476		4.16435	
7	1	9	77.4			5.065092	
8	2	9	93.5	1429		5.567837	
9	1	9	93.8			6.454866	
10	2	9	96.3	1934		7.158985	
11	3	9	51.8	1531	1532	7.582006	
12	2	9	59.3	1817		8.121333	
13	2	9	66.8	1476		9.173557	
14	2	9	88.6	1900		9.886765	
15	3	9	86.6	1076	1817	10.61946	
16	1	9	87.2			10.7981	
17	2	9	66.1	1775		11.76048	

Statistics 8 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	8	81.1	1847		0.545274	1
1	2	8	90.7	1837		1.144538	
2	1	8	78.5			1.588998	
3	3	8	97.9	1039	1122	2.505661	
4	2	8	53	1506		2.705664	
5	1	8	75.1			3.175452	
6	2	8	78.5	1742		3.978942	
7	2	8	79.6	1998		4.813948	
8	2	8	97	1113		5.117628	
9	1	8	85.5			5.934969	
10	2	8	57.2	1792		6.675762	
11	2	8	66.6	1772		7.067823	
12	1	8	68.6			8.112545	
13	2	8	51.2	1094		8.6304	
14	2	8	63.3	1860		9.303841	
15	2	8	90.7	1906		9.782716	
16	3	8	91.4	1806	1870	10.63074	
17	2	8	82.4	1075		10.77836	
18	1	8	91.8			11.52332	

Statistics 9 (ChirpCenter Frequency: 5494.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	6	62.9	1875		0.347569	1
1	3	6	90	1090	1302	1.244858	
2	3	6	62.9	1695	1038	2.427734	
3	1	6	67.8			3.017396	
4	3	6	67.9	1288	1640	4.608181	
5	2	6	84.2	1076		5.507622	
6	2	6	55.9	1099		6.425624	
7	3	6	63.3	1836	1886	6.935159	
8	2	6	83	1483		7.403673	
9	2	6	79.7	1005		9.176977	
10	1	6	60.9			9.898752	
11	2	6	73.5	1292		10.74551	
12	2	6	56.1	1003		11.73579	

Statistics 10 (ChirpCenter Frequency: 5497.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	14	65.3	1492		0.404529	1
1	3	14	63.4	1988	1048	0.936759	
2	2	14	83.7	1503		1.900404	
3	1	14	50.6			2.576332	
4	3	14	57.7	1718	1762	3.546788	
5	2	14	58.4	1203		3.792771	
6	3	14	56.3	1290	1009	5.109623	
7	2	14	94.9	1876		5.92463	
8	3	14	63.6	1920	1850	6.219973	
9	2	14	50.4	1218		6.813857	
10	2	14	87	1951		7.704863	
11	2	14	92.3	1274		8.663085	
12	1	14	90.8			9.047036	
13	2	14	80.2	1752		10.29295	
14	3	14	94.4	1990	1295	10.75272	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5526.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	93.9	1489		0.618367	1
1	2	19	94.8	1820		0.850852	
2	3	19	52.7	1558	1417	1.866935	
3	1	19	60.4			2.625128	
4	1	19	54.4			2.875754	
5	3	19	87.1	1868	1526	4.185883	
6	2	19	77.2	1332		4.345982	
7	1	19	84.4			5.15258	
8	2	19	59.2	1115		5.66501	
9	2	19	51.6	1052		6.755231	
10	1	19	59.1			7.114263	
11	2	19	83.5	1880		8.325033	
12	2	19	75.1	1614		8.73504	
13	2	19	57.5	1739		9.80885	
14	3	19	89.6	1368	1242	10.39302	
15	2	19	95.2	1696		10.61775	
16	3	19	95.2	1449	1826	11.84894	

Statistics 2 (ChirpCenter Frequency: 5524.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	19	86	1586	1231	0.349867	1
1	2	19	63.2	1876		2.026339	
2	2	19	88.6	1884		3.9418	
3	2	19	69.6	1966		4.262375	
4	2	19	74.1	1342		5.519432	
5	2	19	70.1	1374		6.805445	
6	3	19	64.3	1649	1055	9.304963	
7	3	19	56.5	1654	1780	9.395091	
8	1	19	56.7			11.44486	

Statistics 3 (ChirpCenter Frequency: 5523.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	5	70.4			0.012226	1
1	2	5	88.6	1103		2.632414	
2	2	5	53.6	1858		3.47978	
3	3	5	76.7	1946	1595	4.411055	
4	1	5	75.4			5.996404	
5	2	5	73.4	1712		7.804863	
6	3	5	52.3	1735	1895	8.267485	
7	1	5	55.8			10.61744	
8	1	5	63.9			10.68383	

Statistics 4 (ChirpCenter Frequency: 5526.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	80.3			0.544861	1
1	1	13	85.5			0.654974	
2	3	13	64.3	1124	1401	1.34008	
3	2	13	89.7	1077		2.128212	
4	2	13	77.2	1422		2.583542	
5	1	13	59.4			3.614567	
6	2	13	70.9	1952		3.922599	
7	3	13	56.5	1484	1137	4.707289	
8	2	13	87.8	1405		5.364096	
9	2	13	87.5	1444		5.794421	
10	3	13	80.3	1359	1452	6.480445	
11	3	13	74.8	1619	1713	7.246303	
12	1	13	78.8			7.882456	
13	2	13	82.6	1310		8.652628	
14	2	13	99	1206		9.387377	
15	1	13	97.7			9.744238	
16	1	13	77.9			10.71132	
17	3	13	80.1	1724	1735	10.902	
18	2	13	84	1604		11.44146	

Statistics 5 (ChirpCenter Frequency: 5524.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	6	93.7	1231	1791	0.515392	1
1	2	6	79.3	1901		1.490305	
2	3	6	93.9	1236	1470	2.133916	
3	2	6	71.9	1578		2.725181	
4	1	6	88.6			4.254988	
5	3	6	52.5	1787	1680	4.852994	
6	2	6	96.1	1393		5.848036	
7	3	6	91.9	1148	1945	6.551838	
8	3	6	65.4	1717	1671	6.886454	
9	2	6	51.4	1876		8.488939	
10	3	6	89.9	1770	1368	8.76802	
11	1	6	76.9			9.799785	
12	2	6	73.7	1436		10.53277	
13	3	6	79.8	1241	1473	11.23699	

Statistics 6 (ChirpCenter Frequency: 5523.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	16	80.7			0.682077	1
1	2	16	72.5	1311		0.769743	
2	2	16	90.7	1158		2.078615	
3	1	16	87.2			2.347921	
4	2	16	85.8	1525		3.293931	
5	2	16	96.8	1006		3.735686	
6	3	16	90.1	1691	1455	4.314739	
7	1	16	68.1			5.114234	
8	3	16	94.6	1223	1678	5.868241	
9	2	16	59.7	1539		6.74596	
10	1	16	76.4			7.409467	
11	1	16	52			7.866879	
12	1	16	55.5			8.930394	
13	2	16	68.1	1586		9.492732	
14	3	16	68.4	1777	1645	10.112	
15	2	16	88.4	1877		11.28504	
16	2	16	60.3	1228		11.87801	

Statistics 7 (ChirpCenter Frequency: 5526.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	69.5			0.063493	1
1	1	9	59.1			0.926701	
2	2	9	86	1330		1.981788	
3	2	9	75.6	1579		2.959469	
4	2	9	62.1	1994		3.893816	
5	1	9	82			4.904773	
6	2	9	62	1450		6.087045	
7	1	9	67.1			6.476539	
8	1	9	83.1			7.530619	
9	2	9	96.5	1386		8.958402	
10	2	9	61.3	1154		9.702509	
11	3	9	79.9	1847	1296	10.94084	
12	3	9	93.4	1994	1171	11.23416	

Statistics 8 (ChirpCenter Frequency: 5524.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	19	89.1			0.208231	1
1	3	19	59.4	1258	1658	1.504878	
2	1	19	93.6			1.78201	
3	2	19	78.2	1725		2.904441	
4	2	19	76.1	1473		4.107196	
5	2	19	98.1	1809		4.514261	
6	2	19	50.9	1551		5.693418	
7	1	19	94.5			6.448393	
8	2	19	67.9	1478		7.570731	
9	3	19	72.8	1326	1939	8.178104	
10	2	19	57.7	1835		9.269335	
11	2	19	83.7	1968		9.571608	
12	2	19	68.4	1513		10.63711	
13	1	19	73.4			11.71379	

Statistics 9 (ChirpCenter Frequency: 5528.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	12	64.3	1925	1758	0.558366	1
1	3	12	67.1	1032	1292	1.306357	
2	2	12	85.1	1444		1.79934	
3	2	12	87.7	1922		2.289597	
4	3	12	99.3	1413	1575	3.053017	
5	3	12	84.3	1416	1925	3.882748	
6	3	12	55.8	1851	1898	4.378675	
7	3	12	80	1610	1819	5.473419	
8	2	12	91.7	1201		5.818435	
9	2	12	77.8	1121		6.955714	
10	2	12	92.2	1953		7.718944	
11	3	12	60.5	1572	1927	8.450399	
12	2	12	94.5	1646		8.761776	
13	3	12	57.9	1441	1690	9.424458	
14	2	12	88	1198		10.20272	
15	2	12	54.3	1542		10.88134	
16	3	12	90.5	1457	1226	11.88119	

Statistics 10 (ChirpCenter Frequency: 5528.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	63.9			0.753621	1
1	2	13	79.4	1021		2.349017	
2	3	13	75.1	1771	1671	2.50219	
3	1	13	68.9			4.151189	
4	2	13	76.3	1753		5.251727	
5	3	13	87.9	1035	1991	6.533261	
6	2	13	57.9	1431		7.753823	
7	2	13	74.9	1275		8.751709	
8	1	13	57.6			9.873505	
9	2	13	87.2	1339		11.4565	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5510	9	1	333	1	5597.0, 5264.0, 5319.0, 5632.0, 5514.0, 5582.0, 5293.0, 5334.0, 5635.0, 5579.0, 5566.0, 5694.0, 5368.0, 5362.0, 5255.0, 5268.0, 5257.0, 5551.0, 5502.0, 5358.0, 5627.0, 5679.0, 5378.0, 5510.0, 5609.0, 5371.0, 5703.0, 5426.0, 5458.0, 5272.0, 5596.0, 5316.0, 5603.0, 5367.0, 5544.0, 5630.0, 5463.0, 5616.0, 5653.0, 5473.0, 5696.0, 5391.0, 5370.0, 5290.0, 5493.0, 5477.0, 5423.0, 5440.0, 5672.0, 5300.0, 5454.0, 5433.0, 5263.0, 5386.0, 5480.0, 5666.0, 5470.0, 5369.0, 5636.0, 5550.0, 5363.0, 5674.0, 5496.0, 5575.0, 5534.0, 5375.0, 5652.0, 5523.0, 5688.0, 5396.0, 5536.0, 5697.0, 5565.0, 5451.0, 5284.0, 5313.0, 5574.0, 5613.0, 5435.0, 5417.0, 5537.0, 5706.0, 5307.0, 5275.0, 5585.0, 5301.0, 5507.0, 5287.0, 5614.0, 5407.0, 5590.0, 5662.0, 5475.0, 5373.0, 5705.0, 5282.0, 5592.0, 5556.0, 5626.0, 5311.0
2	5510	9	1	333	1	5665.0, 5626.0, 5253.0, 5295.0, 5663.0, 5525.0, 5509.0, 5606.0, 5659.0, 5479.0, 5698.0, 5403.0, 5466.0, 5464.0, 5383.0, 5523.0, 5399.0, 5723.0, 5506.0, 5490.0, 5436.0, 5331.0, 5449.0, 5300.0, 5261.0, 5560.0, 5693.0, 5316.0, 5273.0, 5521.0, 5487.0, 5443.0, 5396.0, 5440.0, 5596.0, 5426.0, 5409.0, 5475.0, 5346.0, 5391.0, 5569.0, 5639.0, 5676.0, 5432.0, 5257.0, 5505.0, 5618.0, 5619.0, 5317.0, 5688.0, 5265.0, 5720.0, 5472.0, 5515.0, 5422.0, 5644.0, 5573.0, 5252.0, 5294.0, 5465.0, 5357.0, 5638.0, 5473.0, 5678.0, 5653.0, 5354.0, 5469.0, 5482.0, 5272.0, 5624.0, 5634.0, 5381.0, 5349.0, 5411.0, 5476.0, 5514.0, 5535.0, 5478.0, 5371.0, 5563.0, 5494.0, 5404.0, 5377.0, 5703.0, 5438.0, 5542.0, 5452.0, 5406.0, 5707.0, 5463.0, 5263.0, 5675.0, 5335.0, 5583.0, 5528.0, 5630.0, 5457.0, 5603.0, 5326.0, 5651.0
3	5510	9	1	333	1	5462.0, 5625.0, 5632.0, 5686.0, 5631.0, 5416.0, 5363.0, 5664.0, 5536.0, 5361.0, 5652.0, 5289.0, 5497.0, 5506.0, 5403.0, 5453.0, 5597.0, 5381.0, 5709.0, 5569.0, 5373.0, 5372.0, 5256.0, 5563.0, 5552.0, 5657.0, 5389.0, 5429.0, 5356.0, 5267.0, 5701.0, 5579.0, 5465.0, 5324.0, 5500.0, 5713.0, 5303.0, 5587.0, 5560.0, 5509.0, 5304.0, 5620.0, 5472.0, 5630.0, 5347.0, 5299.0, 5409.0, 5640.0, 5724.0, 5699.0, 5382.0, 5458.0, 5295.0, 5437.0, 5438.0, 5584.0, 5666.0, 5468.0, 5410.0, 5469.0, 5473.0, 5518.0, 5704.0, 5254.0, 5553.0

						5503.0, 5515.0, 5392.0, 5672.0, 5287.0, 5678.0, 5345.0, 5300.0, 5258.0, 5479.0, 5274.0, 5611.0, 5546.0, 5609.0, 5431.0, 5405.0, 5610.0, 5272.0, 5682.0, 5498.0, 5523.0, 5635.0, 5663.0, 5548.0, 5288.0, 5328.0, 5507.0, 5335.0, 5351.0, 5558.0, 5592.0, 5702.0, 5279.0, 5613.0, 5266.0
4	5510	9	1	333	1	5343.0, 5553.0, 5476.0, 5478.0, 5410.0, 5670.0, 5669.0, 5308.0, 5377.0, 5501.0, 5371.0, 5314.0, 5461.0, 5375.0, 5583.0, 5589.0, 5426.0, 5699.0, 5665.0, 5555.0, 5286.0, 5613.0, 5637.0, 5291.0, 5701.0, 5453.0, 5560.0, 5487.0, 5316.0, 5357.0, 5443.0, 5459.0, 5616.0, 5711.0, 5278.0, 5441.0, 5252.0, 5462.0, 5611.0, 5658.0, 5294.0, 5557.0, 5615.0, 5688.0, 5381.0, 5655.0, 5349.0, 5320.0, 5683.0, 5321.0, 5319.0, 5265.0, 5626.0, 5499.0, 5608.0, 5571.0, 5488.0, 5590.0, 5635.0, 5404.0, 5617.0, 5507.0, 5597.0, 5322.0, 5386.0, 5342.0, 5425.0, 5306.0, 5304.0, 5405.0, 5328.0, 5642.0, 5434.0, 5643.0, 5284.0, 5473.0, 5469.0, 5448.0, 5351.0, 5672.0, 5676.0, 5570.0, 5251.0, 5702.0, 5454.0, 5438.0, 5578.0, 5689.0, 5293.0, 5370.0, 5389.0, 5451.0, 5604.0, 5326.0, 5385.0, 5457.0, 5312.0, 5254.0, 5605.0, 5539.0
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23	5510	9	1	333	1	5526.0, 5339.0, 5481.0, 5662.0, 5611.0, 5617.0, 5608.0, 5584.0, 5628.0, 5319.0, 5680.0, 5569.0, 5352.0, 5322.0, 5350.0, 5519.0, 5265.0, 5417.0, 5575.0, 5493.0, 5715.0, 5653.0, 5623.0, 5534.0, 5332.0, 5644.0, 5471.0, 5668.0, 5635.0, 5341.0, 5262.0, 5452.0, 5472.0, 5723.0, 5407.0, 5709.0, 5427.0, 5718.0, 5429.0, 5619.0, 5267.0, 5302.0, 5649.0, 5724.0, 5359.0, 5647.0, 5286.0, 5577.0, 5271.0, 5552.0, 5454.0, 5707.0, 5629.0, 5430.0, 5268.0, 5363.0, 5385.0, 5316.0, 5593.0, 5702.0, 5431.0, 5545.0, 5567.0, 5326.0, 5654.0, 5600.0, 5432.0, 5478.0, 5376.0, 5602.0, 5412.0, 5259.0, 5631.0, 5521.0, 5251.0, 5446.0, 5285.0, 5261.0, 5687.0, 5392.0, 5703.0, 5418.0, 5491.0, 5490.0, 5389.0, 5540.0, 5609.0, 5652.0, 5328.0, 5462.0, 5279.0, 5690.0, 5536.0, 5253.0, 5639.0, 5582.0, 5529.0, 5461.0, 5425.0, 5353.0
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25	5510	9	1	333	1	5710.0, 5264.0, 5299.0, 5536.0, 5586.0, 5552.0, 5375.0, 5313.0, 5619.0, 5549.0, 5520.0, 5417.0, 5327.0, 5562.0, 5484.0, 5506.0, 5465.0, 5659.0, 5339.0, 5305.0, 5480.0, 5445.0, 5255.0, 5548.0, 5631.0, 5635.0, 5544.0, 5555.0, 5539.0, 5713.0, 5541.0, 5436.0, 5253.0, 5547.0, 5487.0, 5414.0, 5402.0, 5508.0, 5566.0, 5595.0, 5343.0, 5307.0, 5605.0, 5275.0, 5721.0, 5470.0, 5473.0, 5522.0, 5453.0, 5529.0, 5420.0, 5355.0, 5661.0, 5577.0, 5585.0, 5303.0, 5328.0, 5476.0, 5565.0, 5371.0, 5362.0, 5335.0, 5615.0, 5326.0, 5518.0, 5329.0, 5426.0, 5686.0, 5582.0, 5393.0, 5340.0, 5510.0, 5651.0, 5283.0, 5338.0, 5276.0, 5581.0, 5598.0, 5359.0, 5273.0, 5692.0, 5270.0, 5676.0, 5365.0, 5309.0, 5380.0, 5491.0, 5639.0, 5336.0, 5415.0, 5505.0, 5678.0, 5461.0, 5543.0, 5648.0, 5704.0, 5640.0, 5381.0, 5408.0, 5369.0
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