TESTING LABORATORY
CERTIFICATE #4820.01

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

For

Smartlabs Holding Ltd

Nafpliou 15, Limassol, 3025 Cyprus

FCC ID: 2ASFLSML5041W
IC:24800-SML5041W

Report Type: Original Report	**Product Type:** IPTV Set-top box
Report Number:	RSZ190311811-00A
Report Date:	2019-09-11
Reviewed By:	Jerry Zhang EMC Manager Jerry Zhang
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The Smartlabs Holding Ltd's product, model number: SML-5041W (the "EUT") in this report was a ***IPTV Set-top box***, rated input voltage: DC 12V form adapter.

**All measurement and test data in this report was gathered from production sample serial number: 190311811 (Assigned by BACL, Dongguan). The EUT was received on 2019-03-13.*

Objective

This report is prepared on behalf of ***Smartlabs Holding Ltd*** 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.

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

N/A

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Dell	Laptop	E6410	00426-OEM-8992662-00497
Huawei	Wireless Router	HG8245Q2	/
Smartlabs Holding Ltd	IPTV Set-top box	SML-5041W	/

External Cable

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45	NO	NO	10	Router	EUT
RJ45	NO	NO	2	Laptop	Router
USB	NO	NO	3	Laptop	EUT

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
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in 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 ≥ 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**
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. **Note 2:** The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. **Note 3:** During the *U-NII Detection Bandwidth* detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{PRI_{\mu sec}}\right)\right\}$	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 (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per *Burst*	Number of *Bursts*	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

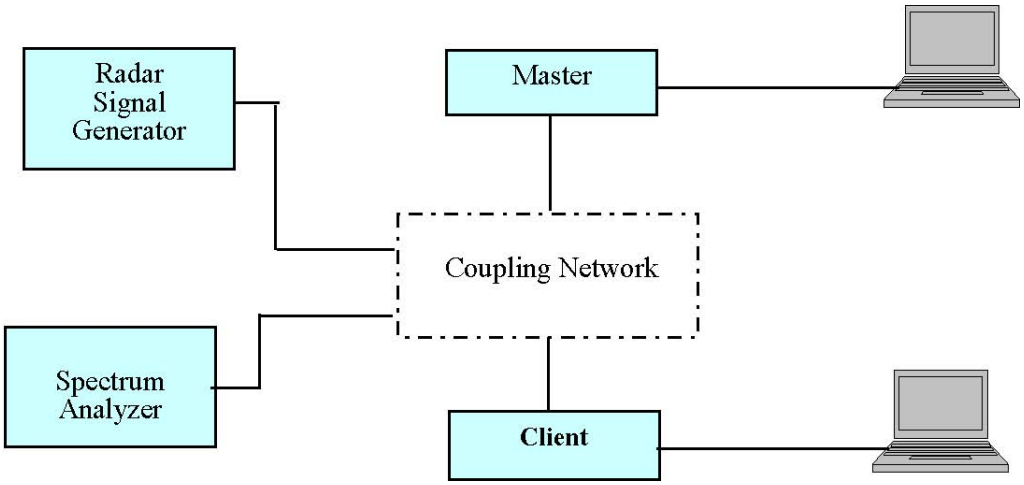
Table 7 – Frequency Hopping Radar Test Waveform

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

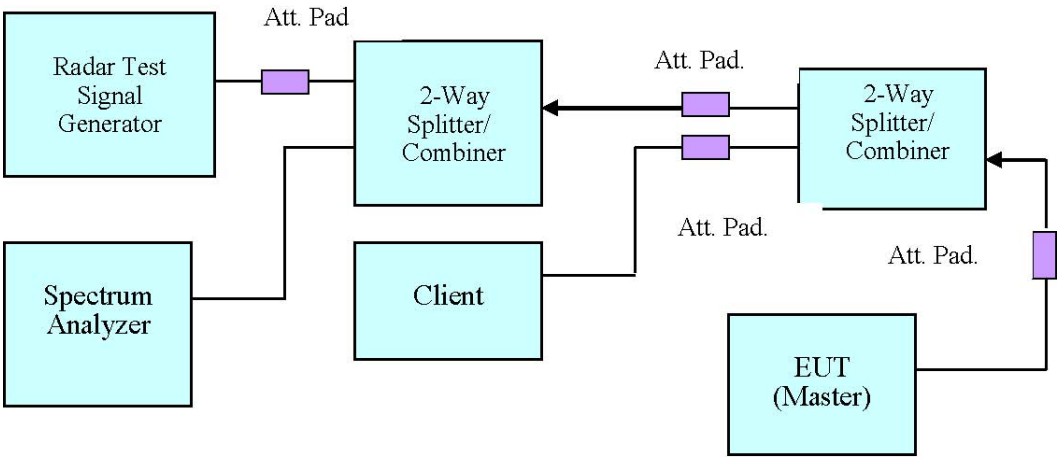
DFS Measurement System

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

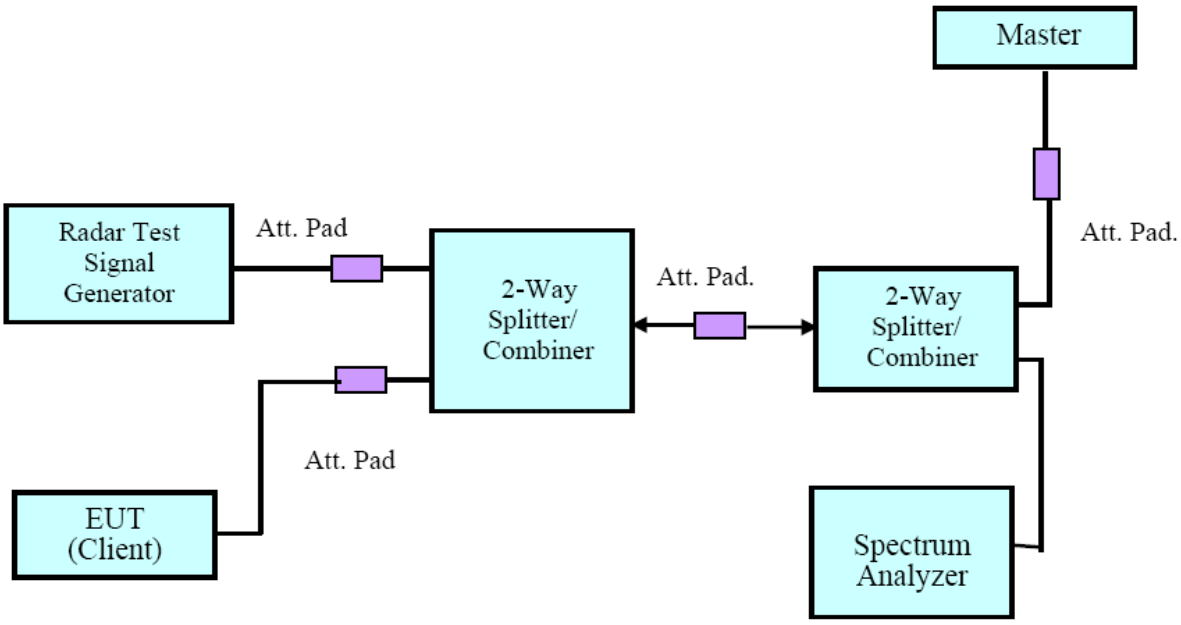
System Block Diagram



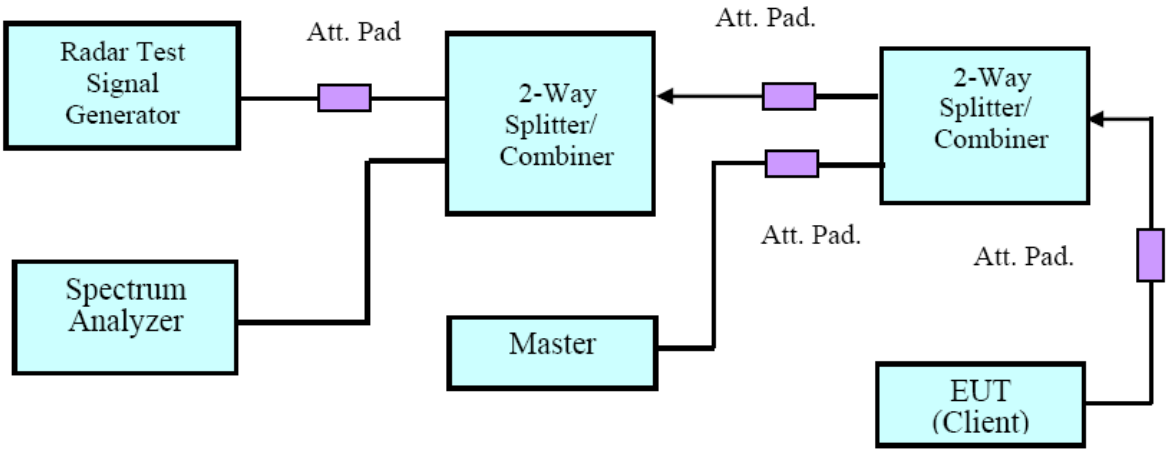
Conducted Method



Setup for Master with injection at the Master

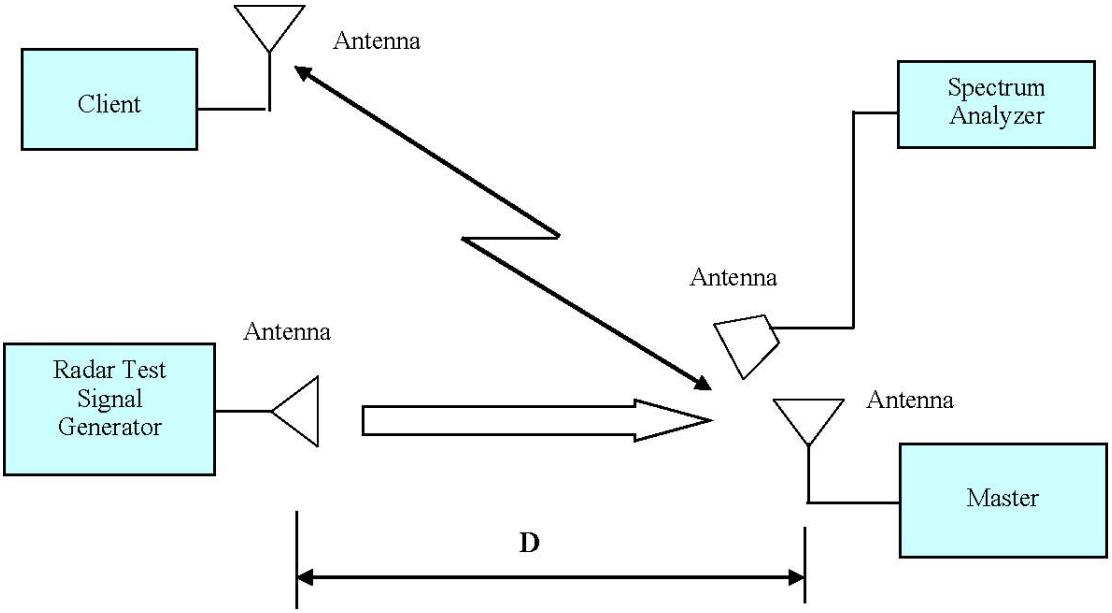


Setup for Client with injection at the Master



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 calibrated radiated DFS detection threshold level is set to -64 dBm is more stringent.

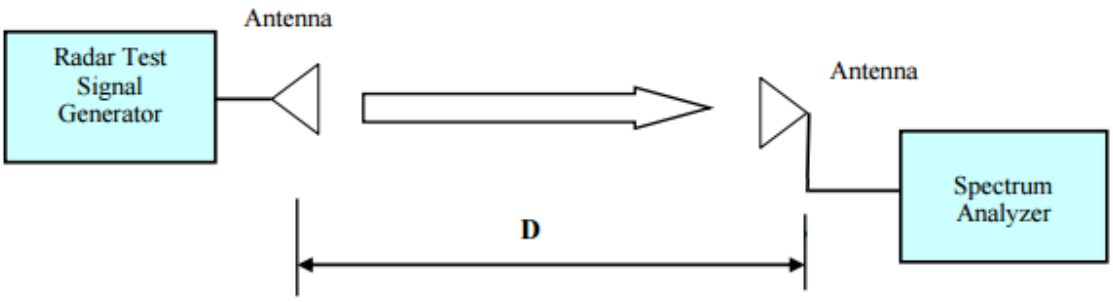
WLAN traffic is generated by streaming the video file TestFile.mpg, this file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. The file is streamed from the Access Point to the Client in full motion video mode using the media 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	2018-12-08	2019-12-08
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-12-08	2019-12-08
Ditorn	Splitter/Combiner	D3C4080	SN2244	N/A	N/A
TDK RF	Horn Antenna	HRN-0118	130 084	2017-01-05	2020-01-04
ETS LINDGREN	Horn Antenna	3115	000 527 35	2017-01-05	2020-01-04

*** 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

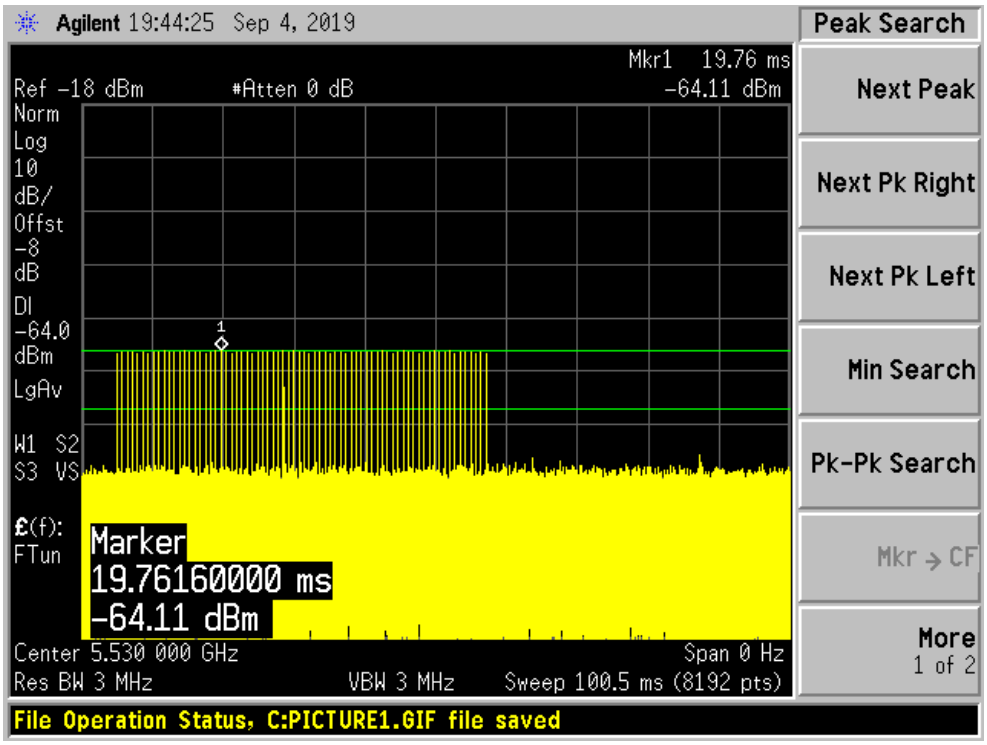
Temperature:	27.8~28.4 °C
Relative Humidity:	35~59 %
ATM Pressure:	101.3~101.6 kPa

The testing was performed by Andy Huang on 2019-04-07~2019-09-09.

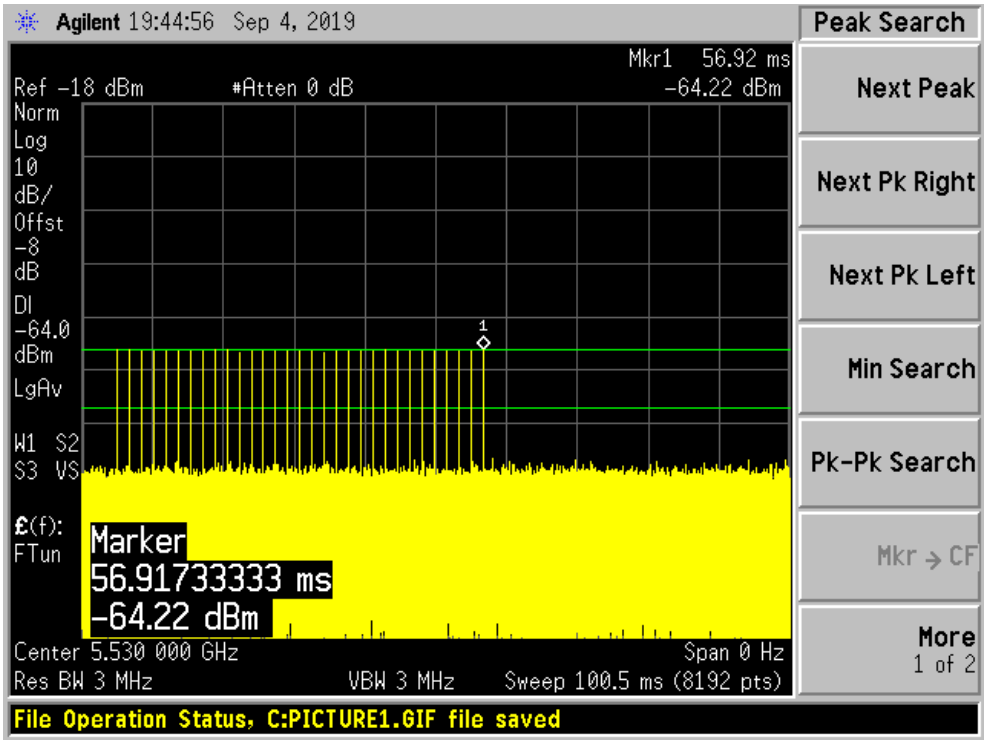
Plots of Radar Waveforms

5530 MHz:

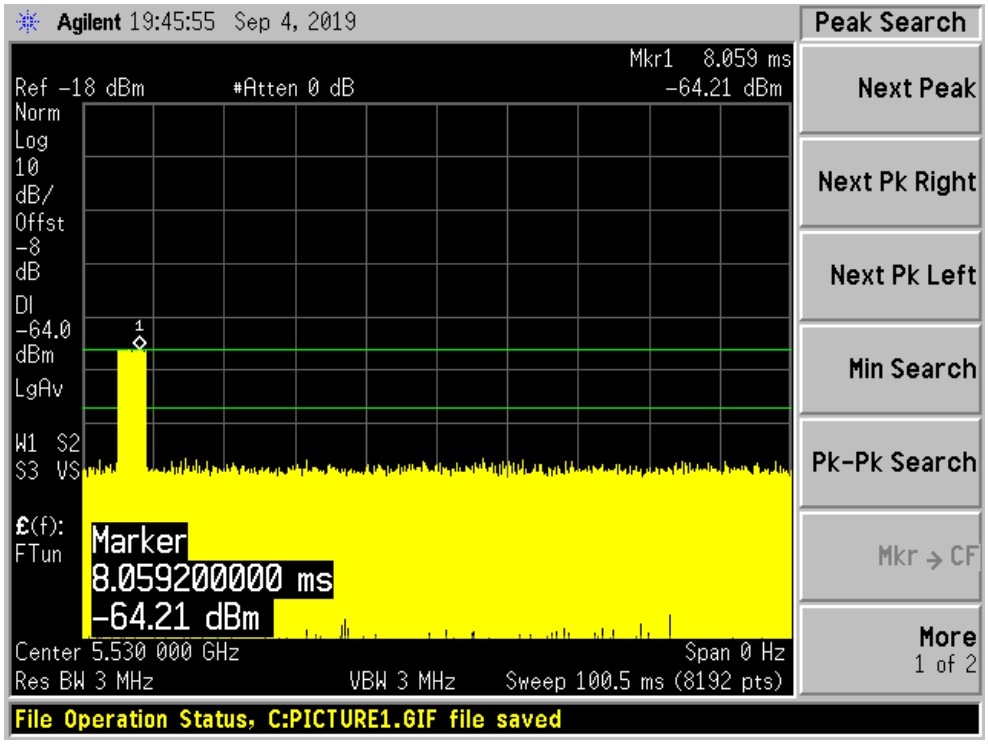
Radar Type 1A



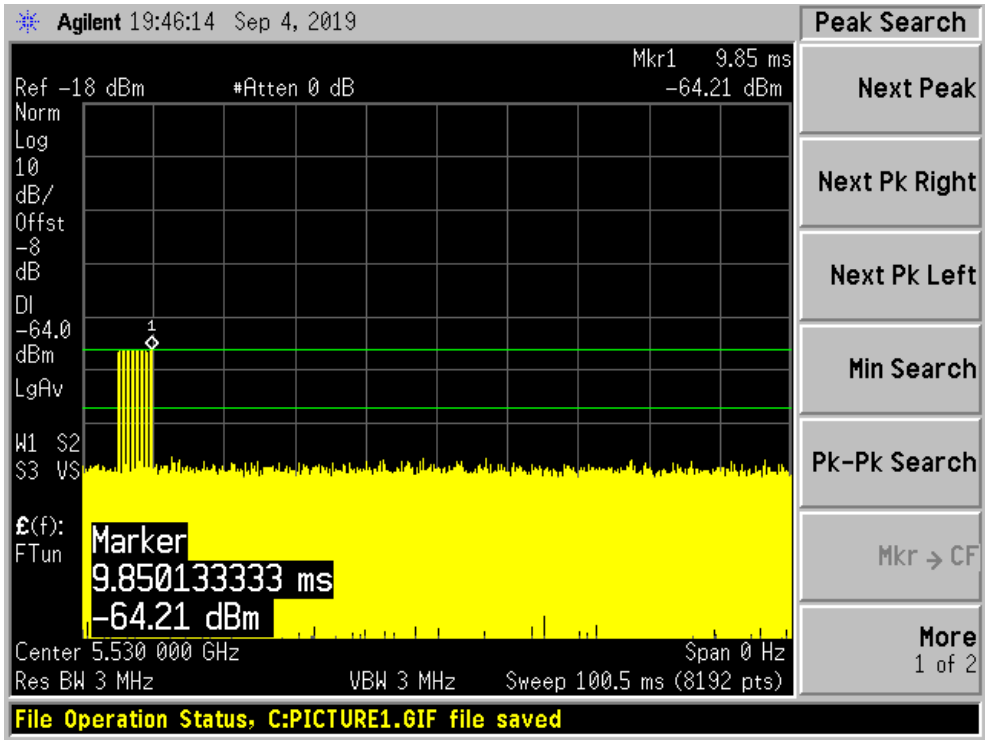
Radar Type 1B



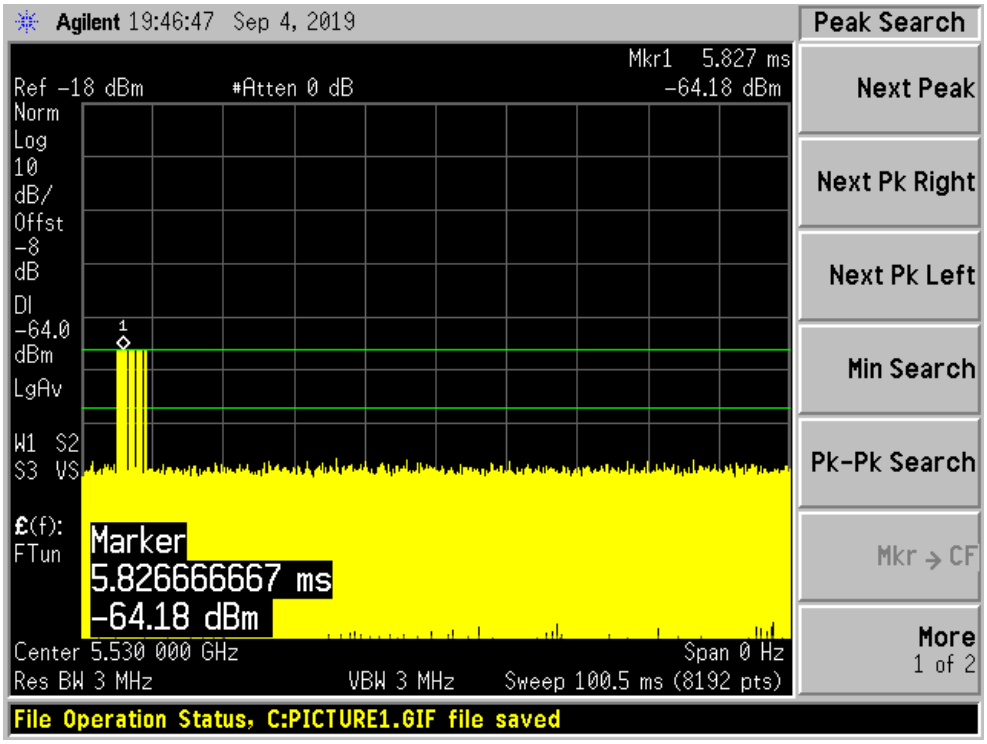
Radar Type 2



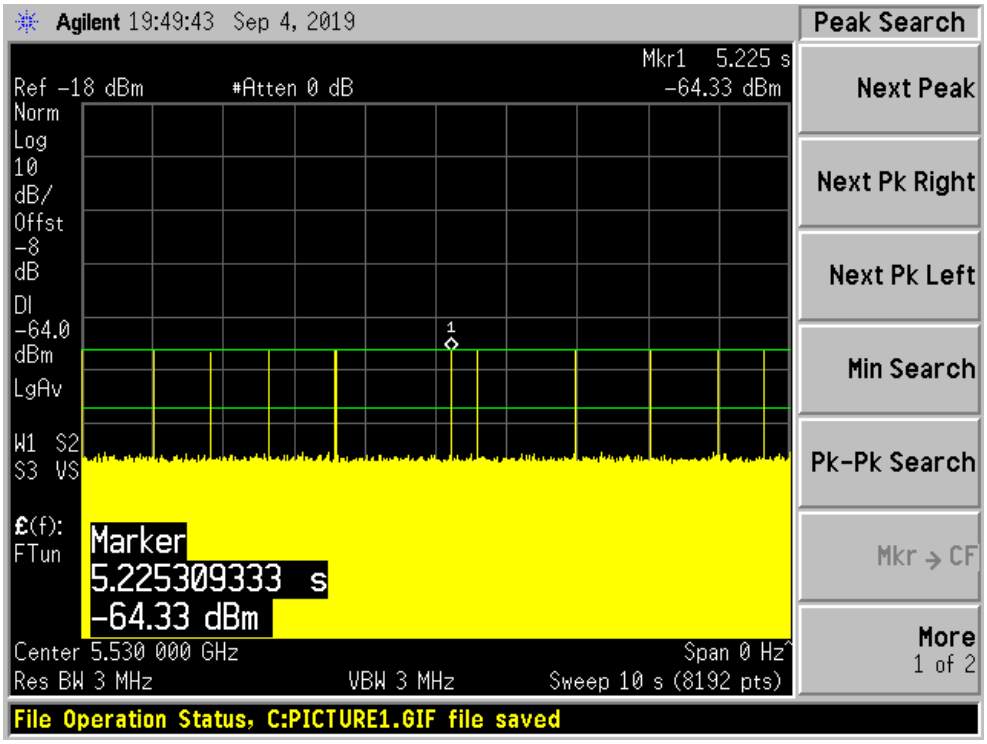
Radar Type 3



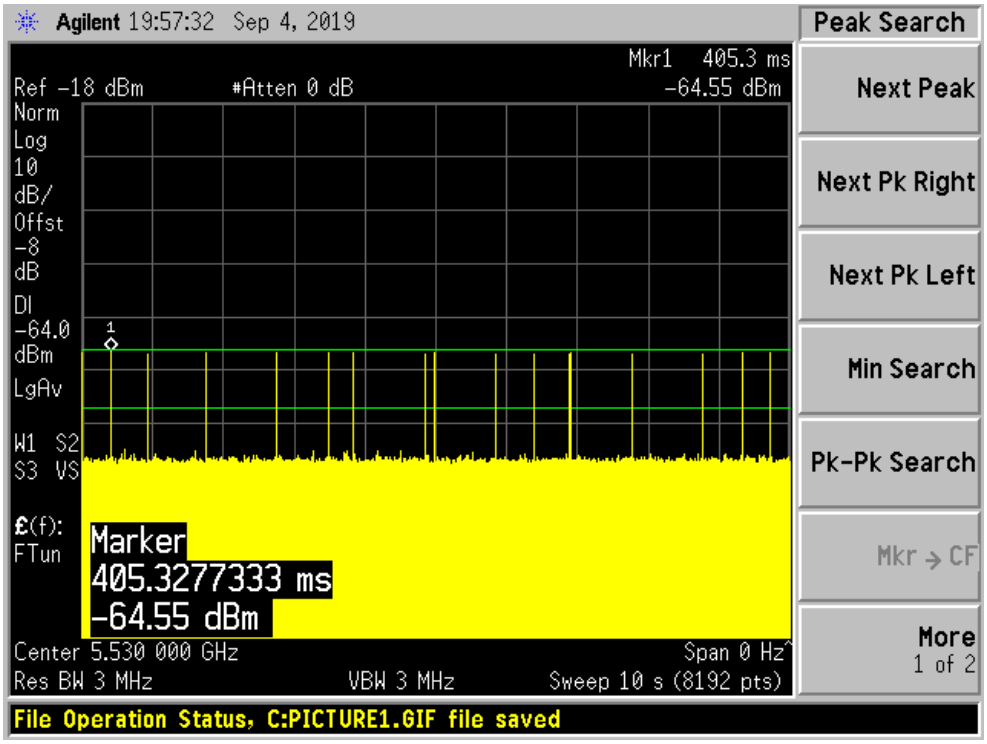
Radar Type 4



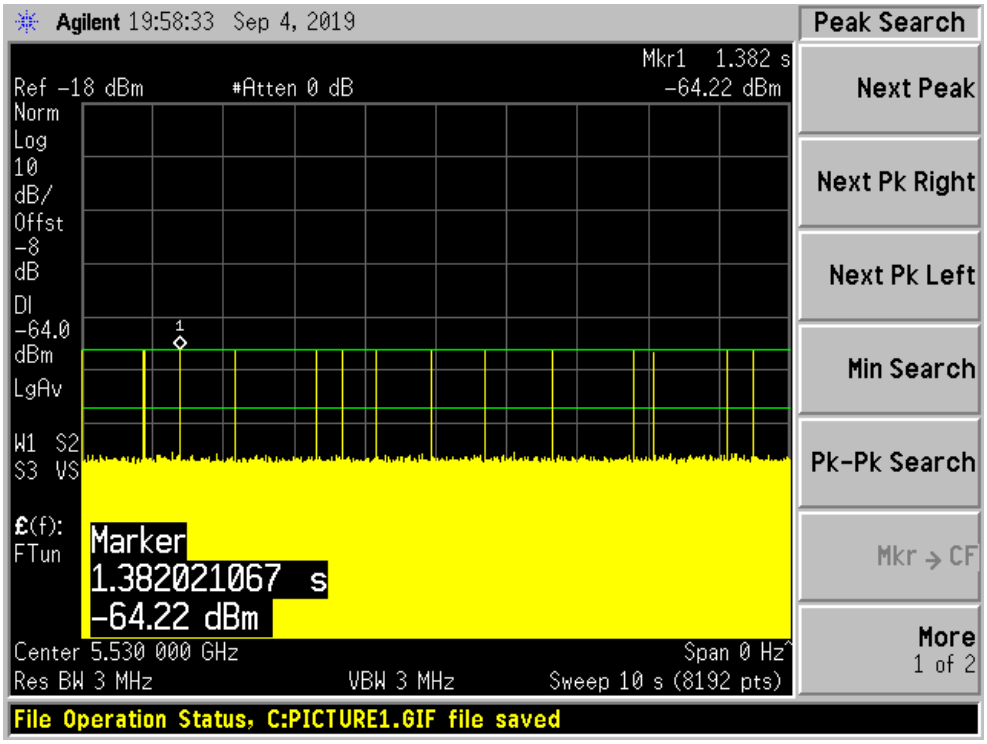
Radar Type 5 Case 1



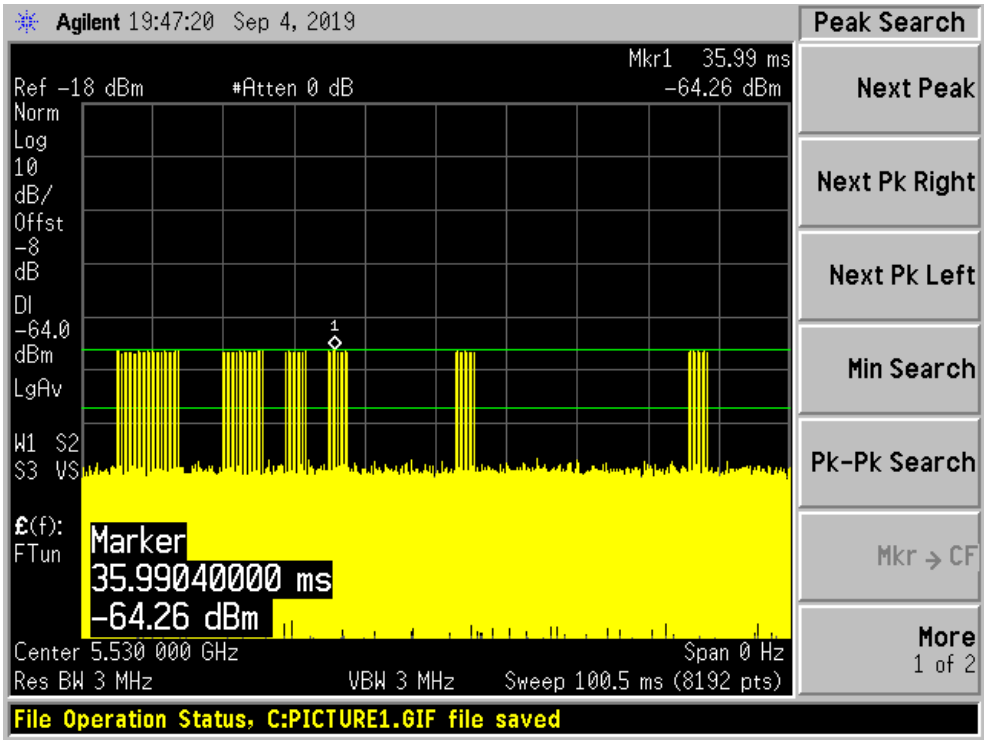
Radar Type 5 Case 2



Radar Type 5 Case 3



Radar Type 6


Agilent 19:47:20 Sep 4, 2019
Peak Search
Mkr1 35.99 ms
Ref -18 dBm
#Atten 0 dB
-64.26 dBm
Norm
Log
10
dB/
Offst
-8
dB
Dl
-64.0
dBm
LgAv
W1 S2
S3 VS
£(f):
FTun
Marker
35.99040000 ms
-64.26 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 5.530 000 GHz
Span 0 Hz
Res BW 3 MHz
VBW 3 MHz
Sweep 100.5 ms (8192 pts)
File Operation Status, C:PICTURE1.GIF file saved

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)
5530	96

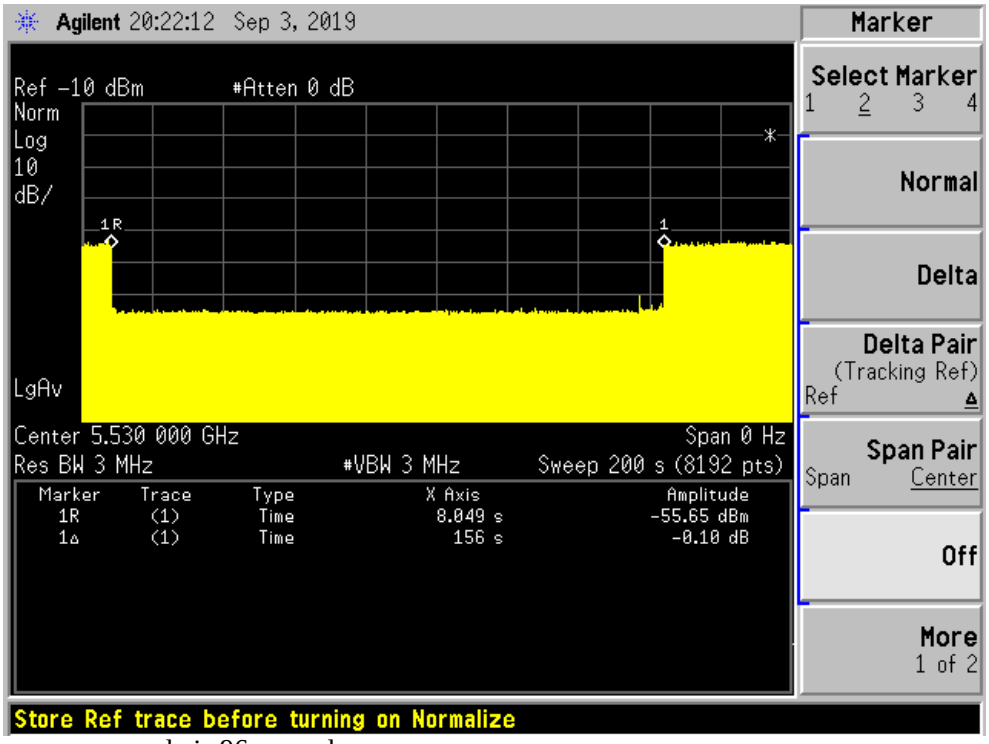
Results:

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.

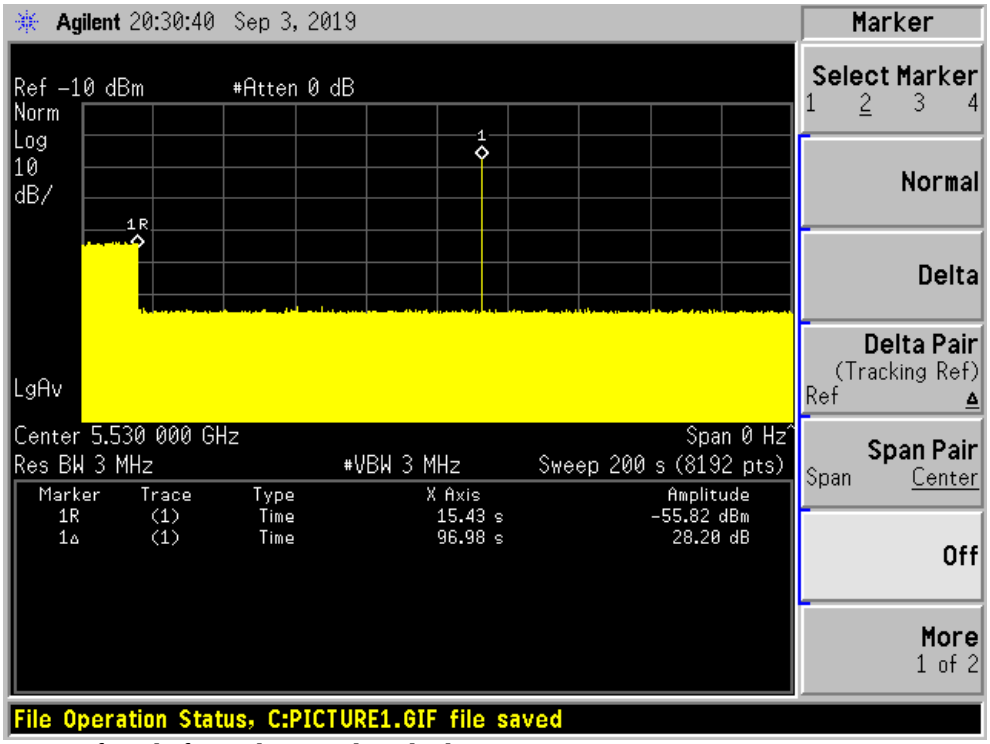
Radio,5530 MHz:

Plot of without Radar signal applied



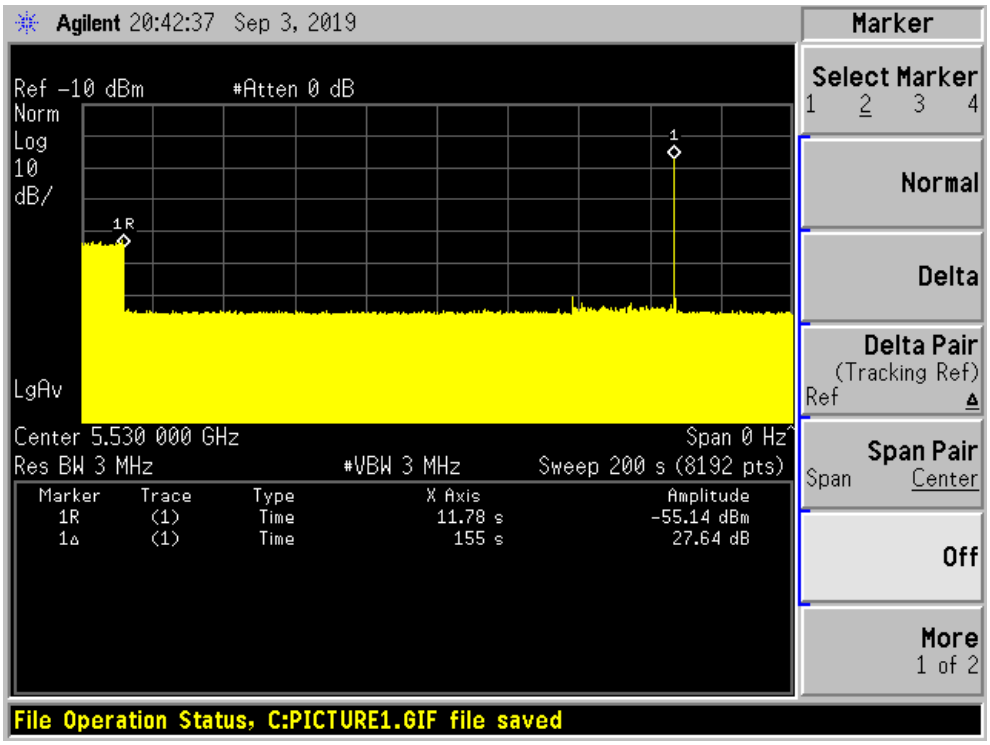
Note: The power-up cycle is 96 seconds.

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, repeat using a long pulse radar type5 waveform.
The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time = N*Dwell Time

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

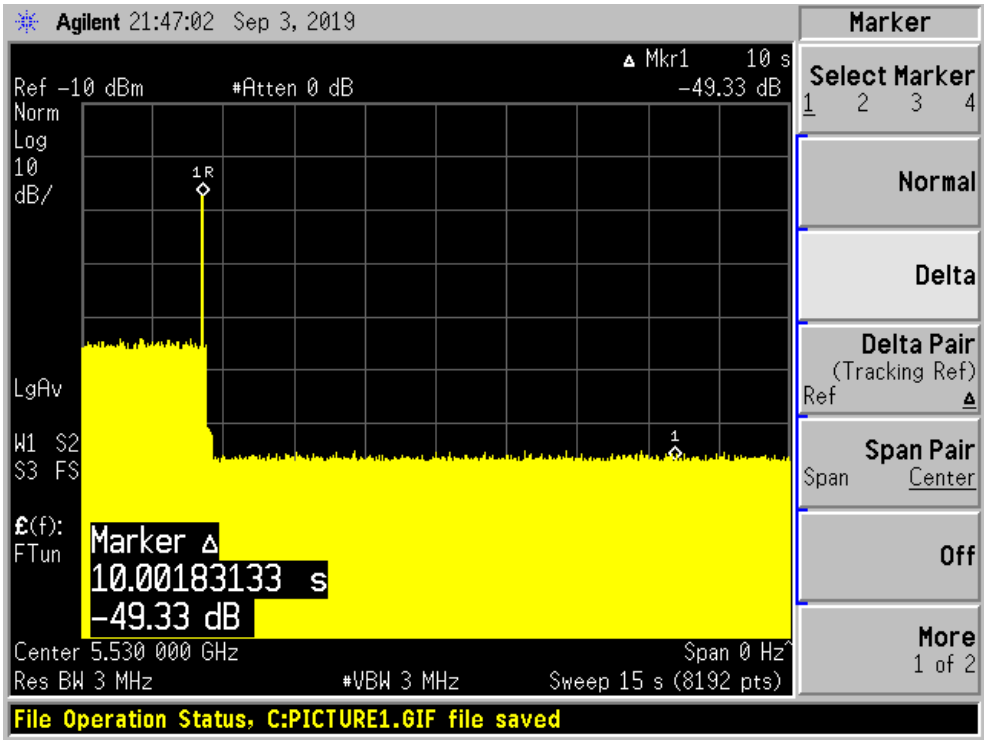
Test Results

Frequency (MHz)	Bandwidth (MHz)	Radar Type	Results
5290	80	Type 0	Compliant

Please refer to the following tables and plots.

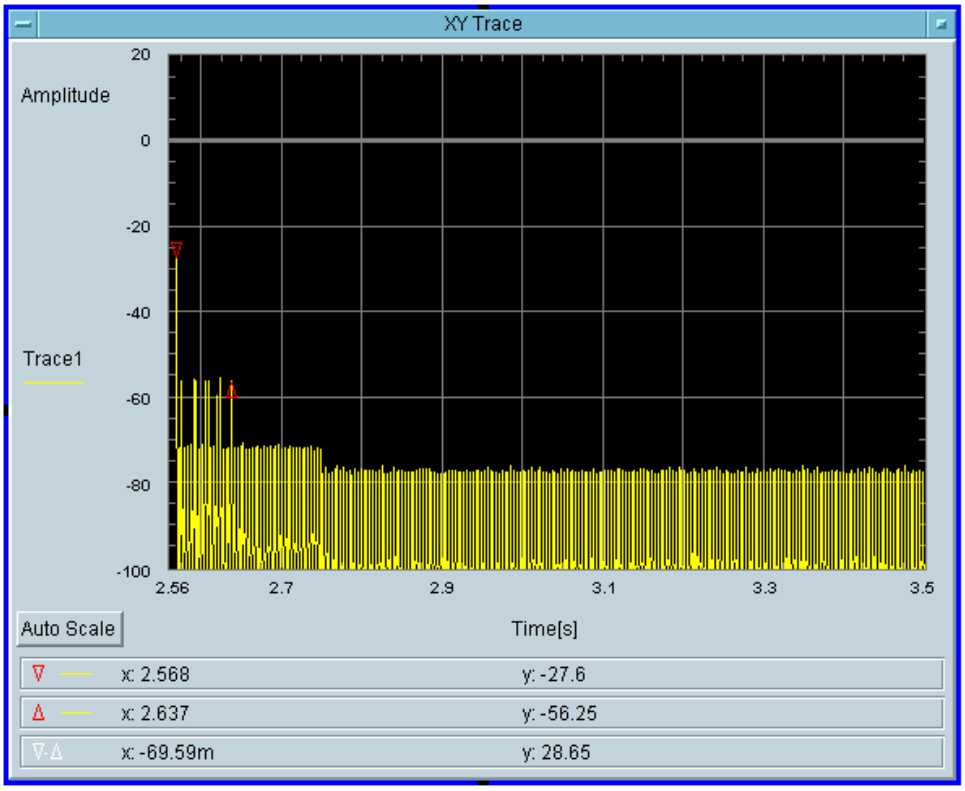
5530 MHz

Type 0 radar channel move time result:



Type0 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
No	0	60	Pass



NON-OCCUPANCY PERIOD

Test Procedure

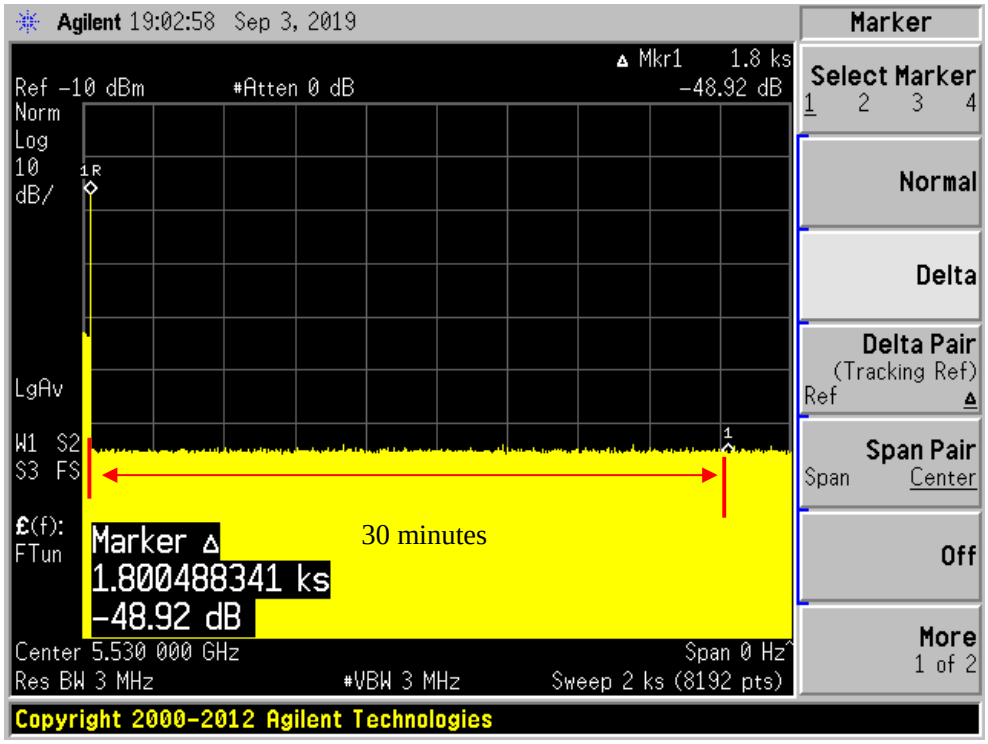
Measure the EUT for more than 30 minutes following the channel close/move time to very that the EUT does not resume any transmissions on this channel. Provide one plot to demonstrate no transmission on the channel for the non-occupancy period (30 minutes observation time)

Test Result

Frequency(MHz)	Bandwidth (MHz)	Spectrum Analyzer Display
5530	80	No transmission within 30 minutes

Please refer to the following plots.

5530 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
5540	20	5530	5550	20	18.88	100%	Compliance
5550	40	5530	5570	40	37.44	100%	Compliance
5530	80	5491	5569	78	76.80	100%	Compliance

Please refer to the following tables and plots.

Results of Detection Bandwidth:

20MHz Bandwidth, EUT Frequency = 5540MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**
5530(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5531	1	1	1	1	1	1	1	1	1	1	100 %
5532	1	1	1	1	1	1	1	1	1	1	100 %
5533	1	1	1	1	1	1	1	1	1	1	100 %
5534	1	1	1	1	1	1	1	1	1	1	100 %
5535	1	1	1	1	1	1	1	1	1	1	100 %
5540	1	1	1	1	1	1	1	1	1	1	100 %
5545	1	1	1	1	1	1	1	1	1	1	100 %
5546	1	1	1	1	1	1	1	1	1	1	100 %
5547	1	1	1	1	1	1	1	1	1	1	100 %
5548	1	1	1	1	1	1	1	1	1	1	100 %
5549	1	1	1	1	1	1	1	1	1	1	100 %
5550(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
Detection Bandwidth = $F_H – F_L$ = 5550-5530 = 20 MHz											
EUT 99% BW = 18.88 MHz;											**Result:** Pass

40MHz Bandwidth, EUT Frequency = 5550 MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**
5530(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5531	1	1	1	1	1	1	1	1	1	1	100 %
5532	1	1	1	1	1	1	1	1	1	1	100 %
5533	1	1	1	1	1	1	1	1	1	1	100 %
5534	1	1	1	1	1	1	1	1	1	1	100 %
5535	1	1	1	1	1	1	1	1	1	1	100 %
5540	1	1	1	1	1	1	1	1	1	1	100 %
5545	1	1	1	1	1	1	1	1	1	1	100 %
5550	1	1	1	1	1	1	1	1	1	1	100 %
5555	1	1	1	1	1	1	1	1	1	1	100 %
5560	1	1	1	1	1	1	1	1	1	1	100 %
5565	1	1	1	1	1	1	1	1	1	1	100 %
5566	1	1	1	1	1	1	1	1	1	1	100 %
5567	1	1	1	1	1	1	1	1	1	1	100 %
5568	1	1	1	1	1	1	1	1	1	1	100 %
5569	1	1	1	1	1	1	1	1	1	1	100 %
5570(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
Detection Bandwidth = $F_H – F_L$ = 5570-5530 = 40 MHz											
EUT 99% BW = 37.44 MHz; **Result:** Pass											

80MHz Bandwidth, EUT Frequency = 5530 MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**
5491(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5492	1	1	1	1	1	1	1	1	1	1	100 %
5493	1	1	1	1	1	1	1	1	1	1	100 %
5494	1	1	1	1	1	1	1	1	1	1	100 %
5495	1	1	1	1	1	1	1	1	1	1	100 %
5500	1	1	1	1	1	1	1	1	1	1	100 %
5505	1	1	1	1	1	1	1	1	1	1	100 %
5510	1	1	1	1	1	1	1	1	1	1	100 %
5515	1	1	1	1	1	1	1	1	1	1	100 %
5520	1	1	1	1	1	1	1	1	1	1	100 %
5525	1	1	1	1	1	1	1	1	1	1	100 %
5530	1	1	1	1	1	1	1	1	1	1	100 %
5535	1	1	1	1	1	1	1	1	1	1	100 %
5540	1	1	1	1	1	1	1	1	1	1	100 %
5545	1	1	1	1	1	1	1	1	1	1	100 %
5550	1	1	1	1	1	1	1	1	1	1	100 %
5555	1	1	1	1	1	1	1	1	1	1	100 %
5560	1	1	1	1	1	1	1	1	1	1	100 %
5565	1	1	1	1	1	1	1	1	1	1	100 %
5566	1	1	1	1	1	1	1	1	1	1	100 %
5567	1	1	1	1	1	1	1	1	1	1	100 %
5568	1	1	1	1	1	1	1	1	1	1	100 %
5569(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
Detection Bandwidth = $F_H – F_L$ = 5569-5491 = 78 MHz											
EUT 99% BW = 76.80 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:

80MHz

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	96.7 %	60%	Pass
Aggregate (Type1 to 4)	120	99.17 %	80%	Pass
Type 5	30	93.3 %	80%	Pass
Type 6	30	100 %	70%	Pass

Please refer to the following statistical tables:

5530MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)
1	5530	59	1	898	1
2	5530	67	1	798	1
3	5530	76	1	698	1
4	5530	81	1	658	1
5	5530	72	1	738	1
6	5530	58	1	918	1
7	5530	61	1	878	1
8	5530	65	1	818	1
9	5530	99	1	538	1
10	5530	86	1	618	1
11	5530	92	1	578	1
12	5530	83	1	638	1
13	5530	95	1	558	1
14	5530	70	1	758	1
15	5530	78	1	678	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	5530	20	1	2667	1
2	5530	43	1	1238	1
3	5530	21	1	2610	1
4	5530	83	1	637	1
5	5530	19	1	2881	1
6	5530	25	1	2113	1
7	5530	18	1	2995	1
8	5530	76	1	703	1
9	5530	55	1	967	1
10	5530	18	1	3044	1
11	5530	35	1	1529	1
12	5530	18	1	2934	1
13	5530	26	1	2091	1
14	5530	22	1	2498	1
15	5530	29	1	1883	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	5530	24	1.9	171	1
2	5530	25	3.3	183	1
3	5530	27	2.5	193	1
4	5530	27	4.4	229	1
5	5530	25	2.5	173	1
6	5530	29	5.0	153	1
7	5530	25	2.2	225	1
8	5530	28	4.7	201	1
9	5530	28	4.4	218	1
10	5530	25	4.5	158	1
11	5530	26	3.6	168	1
12	5530	27	4.2	198	1
13	5530	28	4.5	171	1
14	5530	26	3.5	230	1
15	5530	25	4.5	176	1
16	5530	29	3.1	209	1
17	5530	29	1.9	181	1
18	5530	25	2.7	214	1
19	5530	24	3.3	214	1
20	5530	29	1.6	221	1
21	5530	25	3.0	176	1
22	5530	27	3.2	164	1
23	5530	28	4.4	224	1
24	5530	24	4.2	157	1
25	5530	24	4.2	153	1
26	5530	28	4.4	220	1
27	5530	26	3.1	226	1
28	5530	24	1.7	215	1
29	5530	24	2.3	207	1
30	5530	26	2.6	184	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	5530	17	6.8	448	1
2	5530	16	7.6	325	1
3	5530	16	9.7	357	1
4	5530	18	8.5	267	1
5	5530	18	8.1	437	1
6	5530	18	7.7	430	1
7	5530	18	8	426	1
8	5530	17	8.8	250	1
9	5530	18	7.9	476	1
10	5530	16	7.2	398	1
11	5530	16	6.1	239	1
12	5530	18	8	219	1
13	5530	18	7.4	319	1
14	5530	18	9	259	1
15	5530	17	9.9	225	1
16	5530	17	6.4	424	1
17	5530	17	8.6	334	1
18	5530	17	8.1	440	1
19	5530	18	7.5	209	1
20	5530	17	7.2	200	1
21	5530	17	6.6	463	1
22	5530	17	9	497	1
23	5530	16	6.5	351	1
24	5530	18	6.9	261	1
25	5530	16	6.3	281	1
26	5530	18	9	342	1
27	5530	16	6.1	281	1
28	5530	16	9.4	245	1
29	5530	17	7.9	288	1
30	5530	17	6	480	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	5500	16	11	265	1
2	5500	16	12.9	360	1
3	5500	15	16.9	491	1
4	5500	13	13.1	385	1
5	5500	12	18.1	346	1
6	5500	15	11.3	219	1
7	5500	13	19.2	388	1
8	5500	16	13.7	499	1
9	5500	12	11.9	427	1
10	5500	16	17.3	435	1
11	5500	14	15.7	393	1
12	5500	12	11.4	331	1
13	5500	13	11.4	323	1
14	5500	14	19.5	472	1
15	5500	16	18.2	210	1
16	5500	15	13.4	393	1
17	5500	14	11.6	251	1
18	5500	16	14.4	408	1
19	5500	14	12.3	330	1
20	5500	14	19.6	409	1
21	5500	12	14.7	249	0
22	5500	14	14.4	368	1
23	5500	12	19.5	285	1
24	5500	12	17.9	368	1
25	5500	12	18.6	345	1
26	5500	15	12.2	361	1
27	5500	15	12.2	389	1
28	5500	16	16.2	263	1
29	5500	13	17.1	414	1
30	5500	12	16	266	1
Detection Percentage: 96.67 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5530.0MHz)

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	6	99.4	1329		0.491919	
1	2	6	87.5	1224		0.929834	
2	3	6	80.6	1058	1079	1.598716	
3	2	6	60.5	1965		2.595732	
4	2	6	90.8	1795		3.370912	
5	2	6	79	1476		4.01264	
6	2	6	60.3	1710		4.688945	
7	2	6	74	1490		5.416912	
8	1	6	82.6			5.800775	1
9	1	6	60.2			6.663069	
10	3	6	74	1251	1414	7.161827	
11	3	6	99.7	1756	1576	7.820474	
12	3	6	100	1556	1375	8.563379	
13	3	6	51.8	1546	1909	9.477617	
14	2	6	81	1576		9.906405	
15	1	6	56.4			11.02379	
16	3	6	53.3	1085	1936	11.71855	

Statistics 2 (ChirpCenter Frequency: 5530.0 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	83.2	1126	1071	0.534735	
1	1	14	76.7			1.197459	
2	3	14	87.6	1887	1598	1.607177	
3	3	14	54	1085	1865	2.662711	
4	3	14	93.2	1322	1926	3.448351	
5	2	14	73.1	1209		4.24353	
6	2	14	98.7	1860		5.577891	
7	3	14	82	1250	1061	5.739331	1
8	2	14	76.5	1862		6.76128	
9	3	14	58.1	1942	1602	7.669986	
10	2	14	96.5	1330		8.745443	
11	1	14	78.9			9.115858	
12	2	14	63.7	1393		10.17254	
13	2	14	76.9	1123		11.07503	
14	2	14	70.9	1352		11.22033	

Statistics 3 (ChirpCenter Frequency: 5530.0 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	10	58.2	1980	1931	0.513666	1
1	3	10	99.9	1759	1372	1.405946	
2	1	10	88.1			1.589468	
3	2	10	65.1	1234		2.27752	
4	2	10	92.3	1519		3.213353	
5	3	10	52.5	1642	1288	4.158381	
6	2	10	73.3	1810		4.746705	
7	3	10	68.9	1417	1608	5.680016	
8	1	10	98			6.70523	
9	2	10	89.3	1308		6.761097	
10	1	10	65.9			7.911437	
11	2	10	70.9	1463		8.574932	
12	2	10	82.8	1775		9.295966	
13	1	10	55.4			9.816777	
14	3	10	65	1048	1885	10.8443	
15	2	10	51.6	1061		11.64337	

Statistics 4 (ChirpCenter Frequency: 5530.0 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	5	87.7	1818		1.268866	1
1	2	5	63.9	1065		1.552371	
2	2	5	63.6	1452		3.145042	
3	3	5	92.7	1412	1403	5.212274	
4	2	5	92.1	1869		6.43753	
5	1	5	70.2			7.335947	
6	1	5	51.5			9.211457	
7	2	5	85.2	1691		10.62016	
8	1	5	54			11.6525	

Statistics 5(ChirpCenter Frequency: 5530.0 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	88.8	1611		0.123318	1
1	2	9	92.4	1514		0.877018	
2	1	9	71.8			2.167697	
3	2	9	94.3	1296		2.42555	
4	3	9	72.4	1201	1633	3.689751	
5	2	9	67.7	1026		4.716301	
6	2	9	91.9	1765		5.082582	
7	2	9	78.7	1601		6.353837	
8	2	9	53.3	1719		6.673527	
9	2	9	55.3	1097		7.945066	
10	2	9	85.2	1588		8.434614	
11	2	9	80.8	1156		9.518493	
12	2	9	62.6	1793		9.78809	
13	3	9	74.6	1287	1464	11.06291	
14	2	9	80.8	1071		11.77766	

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	2	11	50.9	1248		0.093213	1
1	2	11	53.7	1393		1.395002	
2	2	11	54.1	1208		2.904578	
3	1	11	75.6			4.339191	
4	2	11	99.9	1807		5.147195	
5	2	11	92	1679		6.054642	
6	2	11	88.8	1629		8.215105	
7	2	11	63.6	1584		9.536414	
8	2	11	66.9	1345		10.7558	
9	2	11	97.5	1938		11.56846	

Statistics 7(ChirpCenter Frequency: 5530.0 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	50	1014	1506	0.25908	1
1	2	6	93.9	1509		0.746601	
2	2	6	52.9	1937		1.872673	
3	1	6	83.4			2.288508	
4	2	6	79.9	1615		3.260923	
5	2	6	57	1429		3.905633	
6	1	6	57.6			4.32901	
7	3	6	81.1	1175	1419	5.519788	
8	2	6	75	1707		6.193195	
9	3	6	69.3	1730	1054	6.533107	
10	2	6	74.1	1469		7.434296	
11	1	6	57.8			8.100468	
12	3	6	75.1	1709	1755	8.853022	
13	2	6	54.8	1869		9.479716	
14	3	6	94.3	1559	1834	10.09849	
15	2	6	98	1146		10.71395	
16	3	6	73.7	1202	1897	11.43487	

Statistics 8 (ChirpCenter Frequency: 5530.0 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	53.4	1787		0.149284	1
1	2	8	58.8	1913		1.655004	
2	3	8	94.1	1922	1989	2.127260	
3	1	8	91.1			3.873843	
4	2	8	66.4	1663		4.553876	
5	2	8	69.3	1895		5.665723	
6	1	8	71.4			6.248926	
7	2	8	90.2	1092		7.076674	
8	1	8	88.5			8.920466	
9	2	8	50.8	1870		9.718699	
10	2	8	88.2	1364		10.597031	
11	1	8	72.7			11.501129	

Statistics 9 (ChirpCenter Frequency: 5530.0 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	11	53.4	1730	1125	0.666914	1
1	2	11	72.4	1727		1.877282	
2	2	11	71.5	1208		2.916172	
3	3	11	62.2	1584	1772	3.508459	
4	3	11	78.1	1473	1422	5.268032	
5	3	11	80.3	1946	1978	5.781647	
6	2	11	87.8	1362		7.0593	
7	1	11	76.6			8.634295	
8	1	11	51.4			8.881715	
9	2	11	77.8	1227		10.36214	
10	2	11	71.2	1733		11.17748	

Statistics 10 (ChirpCenter Frequency: 5530.0 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	79.6	1897		0.175181	1
1	3	11	91.9	1049	1266	0.949367	
2	1	11	83.6			2.015119	
3	2	11	87.4	1878		2.762802	
4	2	11	86.4	1514		3.018278	
5	2	11	55.6	1022		3.893482	
6	2	11	90.4	1039		4.863939	
7	2	11	73.6	1790		5.086737	
8	1	11	67.2			5.866649	
9	2	11	55.5	1364		6.614522	
10	2	11	67	1410		7.576492	
11	3	11	90	1447	1294	7.992763	
12	1	11	84			8.881955	
13	3	11	50.4	1648	1131	9.280783	
14	1	11	75.6			10.177088	
15	2	11	76.4	1748		11.16909	
16	2	11	82.2	1175		11.68212	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5495.0MHz)

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	12	93.5	1904		0.871470	1
1	1	12	58.6			1.653458	
2	2	12	67.0	1324		2.167090	
3	3	12	78.4	1652	1013	3.047743	
4	2	12	82.8	1591		3.991067	
5	3	12	73.6	1496	1515	5.062092	
6	1	12	78.1			5.555096	
7	1	12	70.5			7.126828	
8	2	12	99.2	1855		8.196947	
9	2	12	80.9	1688		8.997035	
10	2	12	50.3	1970		9.555376	
11	2	12	99.6	1880		10.340638	
12	3	12	92.1	1668	1625	11.594728	

Statistics 2 (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	12	61.2			1.065312	1
1	2	12	80.5	1435		1.975829	
2	1	12	73.2			3.240684	
3	2	12	55.1	1911		3.536093	
4	2	12	73.4	1056		4.370859	
5	2	12	61.2	1959		5.829088	
6	1	12	61.9			7.345126	
7	2	12	65.2	1199		8.148799	
8	2	12	78.1	1999		9.577201	
9	2	12	67.9	1185		10.331222	
10	3	12	95.8	1565	1409	11.352818	

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	11	90.8	1428	1065	0.198441	
1	3	11	88.8	1597	1671	0.685859	
2	1	11	97.3			1.418998	
3	1	11	68.7			1.951780	
4	3	11	67.6	1493	1513	3.097156	
5	3	11	91.4	1255	1156	3.178137	
6	1	11	88.0			3.857388	
7	3	11	73.4	1592	1470	4.550312	
8	2	11	58.8	1482		5.400155	
9	2	11	70.4	1544		5.755699	1
10	1	11	99.0			6.425798	
11	3	11	63.7	1756	1320	7.100717	
12	3	11	82.8	1637	1721	8.043496	
13	1	11	58.1			8.239784	
14	1	11	87.8			9.020708	
15	1	11	85.1			9.626912	
16	3	11	58.5	1647	1080	10.487330	
17	2	11	74.9	1721		11.294385	
18	3	11	50.5	1654	1536	11.595100	

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	8	57.5	1172		0.587180	
1	2	8	53.5	1102		1.400967	
2	1	8	59.7			1.884663	
3	3	8	64.5	1594	1524	2.568395	
4	2	8	94.1	1906		3.286358	
5	1	8	77.4			4.259573	
6	2	8	94.6	1905		5.372580	
7	2	8	89.1	1538		6.113414	1
8	2	8	90.9	1458		7.137325	
9	3	8	89.4	1647	1704	7.326304	
10	2	8	96.6	1070		8.707560	
11	2	8	72.1	1868		9.058489	
12	2	8	82.1	1520		10.175917	
13	1	8	76.9			10.751418	
14	2	8	80.1	1109		11.671289	

Statistics 5(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	75.2	1117		0.224246	0
1	3	7	70.9	1136	1576	1.172694	
2	3	7	55.4	1947	1627	1.527789	
3	2	7	52.8	1123		2.636280	
4	3	7	73.1	1525	1015	2.775665	
5	1	7	75.8			3.987877	
6	3	7	50.1	1416	1205	4.351212	
7	3	7	66.9	1279	1821	5.048495	
8	3	7	58.7	1346	1765	5.456295	
9	2	7	98.0	1365		6.243259	
10	1	7	74.8			6.820308	
11	2	7	58.8	1067		7.805922	
12	3	7	98.2	1293	1834	8.538645	
13	3	7	78.4	1993	1248	9.003326	
14	3	7	72.1	1335	1093	9.464911	
15	2	7	84.1	1748		10.108314	
16	1	7	93.2			10.847174	
17	3	7	71.8	1473	1397	11.783862	

Statistics 6 (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	3	18	55.8	1915	1106	0.964551	0
1	2	18	61.4	1750		1.352183	
2	3	18	63.3	1367	1055	2.683580	
3	2	18	61.7	1260		4.196310	
4	3	18	92.2	1634	1405	5.830453	
5	3	18	92.7	1091	1726	6.957831	
6	2	18	75.7	1704		8.071655	
7	2	18	56.1	1152		8.544489	
8	1	18	90.8			10.679281	
9	3	18	85.7	1746	1351	11.649562	

Statistics 7(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	9	90.2	1542	1303	0.371645	1
1	1	9	89.3			2.326877	
2	2	9	53.9	1398		3.445557	
3	2	9	50.8	1834		3.836105	
4	2	9	72.0	1013		5.743901	
5	3	9	71.1	1590	1983	6.299463	
6	1	9	97.0			7.692385	
7	2	9	94.3	1925		8.882882	
8	2	9	98.3	1793		9.919722	
9	2	9	80.3	1094		11.914867	

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	3	11	65.7	1721	1635	0.345528	1
1	3	11	60.5	1671	1693	1.241948	
2	3	11	88.9	1799	1426	1.819648	
3	2	11	84.4	1117		2.412348	
4	3	11	60.5	1824	1845	3.135891	
5	3	11	65.0	1672	1201	3.482516	
6	3	11	63.7	1479	1008	4.009578	
7	2	11	85.5	1110		4.916349	
8	1	11	92.8			5.085081	
9	3	11	85.0	1810	1197	6.176646	
10	2	11	62.8	1221		6.662705	
11	3	11	51.3	1106	1829	7.489674	
12	2	11	64.6	1935		7.607353	
13	2	11	72.6	1731		8.462826	
14	3	11	67.3	1831	1348	9.240808	
15	2	11	72.2	1697		9.864967	
16	2	11	63.7	1662		10.485336	
17	3	11	62.1	1692	1181	10.930310	
18	3	11	80.7	1543	1339	11.416120	

Statistics 9 (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)
1	3	18	51.9	1331	1851	1.509665	1
2	1	18	75.0			1.804432	
3	2	18	83.6	1820		2.636189	
4	1	18	69.3			3.272169	
5	2	18	87.2	1267		4.088204	
6	1	18	67.4			4.852220	
7	2	18	58.8	1665		5.825832	
8	3	18	86.4	1976	1579	6.676055	
9	2	18	96.8	1863		7.863750	
10	1	18	68.9			8.230311	
11	2	18	68.4	1433		8.866869	
12	2	18	99.4	1681		10.006247	
13	2	18	80.7	1878		10.745116	
14	3	18	74.5	1681	1373	11.683032	

Statistics 10 (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	0	1	15	67.3		0.701935	1
1	1	2	15	91.0	1643	2.636045	
2	2	2	15	75.4	1815	3.121617	
3	3	3	15	83.9	1789	5.605336	
4	4	2	15	83.0	1146	6.821212	
5	5	3	15	93.1	1466	7.742098	
6	6	1	15	74.5		10.168277	
7	7	3	15	52.4	1956	11.301708	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5562.0MHz)

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	55.0	1140		0.117810	
1	2	11	57.0	1617		1.990322	
2	2	11	81.4	1264		3.227084	
3	3	11	87.0	1039	1476	4.000191	
4	3	11	98.3	1270	1739	5.737114	
5	2	11	63.6	1082		6.591405	1
6	2	11	73.6	1885		7.278987	
7	1	11	50.3			9.512425	
8	1	11	56.0			10.193763	
9	2	11	64.9	1504		11.582844	
10	3	17	97.1	1957	1034	7.715067	

Statistics 2 (ChirpCenter Frequency: 5565.0 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	77.3	1935		0.541461	
1	2	13	76.9	1310		1.131315	
2	2	13	91.8	1069		1.281186	
3	3	13	88.3	1811	1310	2.171290	
4	2	13	50.0	1998		2.744653	
5	2	13	65.4	1599		3.621218	
6	2	13	51.0	1582		4.315647	
7	3	13	59.2	1546	1383	4.639397	
8	2	13	86.6	1297		5.567869	
9	2	13	61.3	1143		6.048787	1
10	1	13	97.2			6.848532	
11	1	13	65.9			7.359649	
12	2	13	95.1	1041		8.023039	
13	3	13	59.2	1559	1258	8.350168	
14	1	13	89.9			9.352391	
15	2	13	87.2	1656		10.064044	
16	1	13	87.6			10.301346	
17	3	13	88.6	1431	1369	10.854159	
18	2	13	61.4	1700		11.980050	

Statistics 3 (ChirpCenter Frequency: 5567.0 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	7	96.0			0.443954	
1	1	7	93.6			0.982981	
2	3	7	62.3	1641	1309	1.408844	
3	3	7	99.9	1662	1516	2.046508	
4	2	7	79.8	1264		2.642396	
5	2	7	64.8	1425		3.409350	
6	1	7	88.8			4.178992	
7	2	7	99.8	1625		4.715438	
8	3	7	66.5	1008	1916	5.623849	
9	2	7	64.8	1011		5.700520	1
10	2	7	75.2	1062		6.670207	
11	1	7	58.2			7.125028	
12	3	7	63.5	1542	1674	8.018973	
13	2	7	84.2	1341		8.649966	
14	1	7	76.7			9.328895	
15	2	7	80.5	1637		9.618069	
16	1	7	86.5			10.212337	
17	1	7	94.4			11.065887	
18	3	7	86.5	1325	1617	11.394001	

Statistics 4 (ChirpCenter Frequency: 5566.0 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	69.6	1346		0.453785	
1	2	11	50.1	1918		1.256590	
2	3	11	89.0	1738	1979	3.173367	
3	2	11	92.6	1969		3.526734	
4	1	11	63.5			5.254279	
5	2	11	66.7	1084		6.368544	1
6	2	11	93.9	1992		7.422130	
7	2	11	86.3	1922		8.174803	
8	3	11	71.9	1515	1776	9.272421	
9	3	11	92.4	1989	1373	10.608543	
10	3	11	88.1	1864	1833	11.221094	

Statistics 5(ChirpCenter Frequency: 5564.0 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	65.9	1296		0.607344	1
1	2	16	77.0	1767		0.951959	
2	2	16	56.0	1279		2.004669	
3	3	16	51.0	1439	1444	3.043850	
4	3	16	74.3	1232	1990	3.421161	
5	1	16	94.7			4.649938	
6	3	16	81.0	1145	1654	4.833316	
7	3	16	85.1	1948	1399	5.847524	
8	3	16	93.6	1951	1220	6.640308	
9	2	16	78.0	1859		7.307234	
10	1	16	92.5			8.770682	
11	2	16	98.0	1748		9.341488	
12	1	16	84.1			9.694613	
13	1	16	53.0			10.538327	
14	1	16	51.1			11.463189	

Statistics 6 (ChirpCenter Frequency: 5563.0 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	17	54.0			0.241779	1
1	2	17	98.4	1314		0.980190	
2	1	17	78.7			1.202204	
3	3	17	50.9	1963	1296	2.034140	
4	2	17	91.3	1667		2.541573	
5	2	17	87.1	1787		3.319361	
6	2	17	87.3	1720		3.932501	
7	2	17	57.0	1931		4.255953	
8	1	17	87.9			5.328631	
9	2	17	98.5	1158		5.701263	
10	2	17	65.5	1178		6.340005	
11	3	17	80.1	1825	1191	6.678620	
12	2	17	80.0	1464		7.553681	
13	2	17	64.0	1650		8.215929	
14	1	17	98.4			8.756626	
15	3	17	51.5	1347	1501	9.246343	
16	2	17	63.9	1806		9.946506	
17	2	17	89.8	1541		10.295988	
18	2	17	76.5	1407		11.134411	
19	2	17	77.3	1252		11.576987	

Statistics 7(ChirpCenter Frequency: 5567.0 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	56.0	1938		0.416422	1
1	1	8	57.2			1.234330	
2	3	8	92.4	1952	1560	1.470462	
3	2	8	66.6	1974		2.300113	
4	2	8	54.8	1538		2.942106	
5	2	8	86.8	1611		3.391339	
6	2	8	82.6	1883		4.384299	
7	2	8	95.8	1062		4.600834	
8	2	8	74.8	1769		5.458340	
9	2	8	52.7	1644		6.181284	
10	1	8	85.9			6.385187	
11	3	8	82.2	1564	1323	7.088468	
12	2	8	80.5	1261		7.883286	
13	2	8	88.8	1321		8.274235	
14	2	8	60.4	1544		9.328814	
15	1	8	57.7			9.903750	
16	2	8	54.8	1623		10.246846	
17	1	8	77.0			11.269856	
18	2	8	76.5	1758		11.945264	

Statistics 8 (ChirpCenter Frequency: 5565.0 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	78.7	1082		0.274755	1
1	2	12	65.1	1256		1.705997	
2	2	12	80.6	1004		3.329339	
3	2	12	68.5	1791		3.628937	
4	1	12	65.7			5.827413	
5	3	12	90.5	1625	1981	7.003612	
6	2	12	80.9	1969		7.831429	
7	2	12	77.6	1201		8.744872	
8	2	12	67.3	1185		10.055165	
9	2	12	87.0	1792		11.210557	

Statistics 9 (ChirpCenter Frequency: 5567.0 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	8	63.2			0.018539	1
1	2	8	81.4	1078		1.013942	
2	3	8	52.5	1556	1094	2.141690	
3	2	8	81.3	1675		3.126745	
4	1	8	64.0			3.536588	
5	1	8	86.2			4.331698	
6	2	8	82.6	1235		4.969609	
7	1	8	87.0			5.831380	
8	3	8	77.7	1851	1910	7.156961	
9	1	8	61.7			7.260183	
10	1	8	72.3			8.568614	
11	2	8	72.0	1421		9.181865	
12	2	8	52.3	1365		9.728449	
13	1	8	52.8			11.111874	
14	2	8	60.6	1437		11.538990	

Statistics 10 (ChirpCenter Frequency: 5564.0 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	50.6	1123		0.501063	1
1	2	14	90.7	1501		1.824682	
2	2	14	52.8	1248		3.433938	
3	3	14	90.8	1252	1378	4.562587	
4	2	14	70.6	1962		5.149690	
5	1	14	90.9			7.189862	
6	2	14	53.7	1151		7.640799	
7	2	14	69.2	1274		9.594567	
8	2	14	66.4	1868		10.232751	
9	1	14	88.0			11.186600	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5530	9	1	333	1	5280.0, 5353.0, 5301.0, 5374.0, 5604.0, 5659.0, 5650.0, 5666.0, 5267.0, 5652.0, 5256.0, 5547.0, 5285.0, 5271.0, 5351.0, 5697.0, 5482.0, 5263.0, 5452.0, 5251.0, 5318.0, 5702.0, 5531.0, 5311.0, 5331.0, 5493.0, 5490.0, 5552.0, 5305.0, 5266.0, 5473.0, 5377.0, 5535.0, 5391.0, 5577.0, 5346.0, 5292.0, 5683.0, 5358.0, 5278.0, 5658.0, 5515.0, 5455.0, 5370.0, 5444.0, 5481.0, 5542.0, 5646.0, 5422.0, 5447.0, 5543.0, 5610.0, 5296.0, 5622.0, 5350.0, 5338.0, 5509.0, 5614.0, 5380.0, 5379.0, 5596.0, 5290.0, 5588.0, 5496.0, 5343.0, 5586.0, 5511.0, 5642.0, 5695.0, 5324.0, 5507.0, 5688.0, 5687.0, 5340.0, 5499.0, 5716.0, 5410.0, 5578.0, 5274.0, 5454.0, 5640.0, 5383.0, 5440.0, 5392.0, 5497.0, 5300.0, 5333.0, 5563.0, 5406.0, 5307.0, 5317.0, 5566.0, 5282.0, 5394.0, 5625.0, 5668.0, 5595.0, 5637.0, 5657.0, 5593.0
2	5530	9	1	333	1	5642.0, 5484.0, 5445.0, 5508.0, 5579.0, 5534.0, 5324.0, 5647.0, 5398.0, 5696.0, 5492.0, 5402.0, 5323.0, 5586.0, 5495.0, 5360.0, 5637.0, 5601.0, 5294.0, 5576.0, 5464.0, 5612.0, 5531.0, 5291.0, 5650.0, 5333.0, 5671.0, 5651.0, 5580.0, 5353.0, 5439.0, 5669.0, 5629.0, 5255.0, 5721.0, 5633.0, 5303.0, 5314.0, 5554.0, 5278.0, 5262.0, 5544.0, 5648.0, 5478.0, 5585.0, 5693.0, 5555.0, 5600.0, 5441.0, 5680.0, 5556.0, 5443.0, 5435.0, 5444.0, 5709.0, 5293.0, 5321.0, 5515.0, 5527.0, 5605.0, 5468.0, 5485.0, 5634.0, 5520.0, 5286.0, 5298.0, 5661.0, 5641.0, 5285.0, 5300.0, 5440.0, 5688.0, 5339.0, 5252.0, 5588.0, 5265.0, 5549.0, 5706.0, 5299.0, 5394.0, 5621.0, 5422.0, 5453.0, 5674.0, 5507.0, 5296.0, 5427.0, 5380.0, 5590.0, 5476.0, 5329.0, 5623.0, 5421.0, 5631.0, 5267.0, 5359.0, 5543.0, 5367.0, 5416.0, 5392.0
3	5530	9	1	333	1	5496.0, 5718.0, 5407.0, 5568.0, 5325.0, 5351.0, 5272.0, 5278.0, 5257.0, 5673.0, 5524.0, 5676.0, 5405.0, 5506.0, 5659.0, 5557.0, 5458.0, 5527.0, 5571.0, 5551.0, 5304.0, 5626.0, 5396.0, 5590.0, 5529.0, 5704.0, 5319.0, 5487.0, 5397.0, 5444.0, 5399.0, 5415.0, 5370.0, 5616.0, 5700.0, 5359.0, 5294.0, 5522.0, 5703.0, 5543.0, 5644.0, 5631.0, 5697.0, 5409.0, 5315.0, 5564.0, 5621.0, 5612.0, 5716.0, 5698.0, 5714.0, 5637.0, 5471.0, 5513.0, 5381.0, 5439.0, 5339.0, 5672.0, 5326.0, 5578.0, 5618.0, 5623.0, 5427.0, 5270.0, 5508.0,

						5384.0, 5490.0, 5650.0, 5525.0, 5572.0, 5538.0, 5400.0, 5664.0, 5256.0, 5255.0, 5303.0, 5488.0, 5425.0, 5287.0, 5289.0, 5340.0, 5280.0, 5519.0, 5431.0, 5391.0, 5277.0, 5263.0, 5321.0, 5386.0, 5539.0, 5353.0, 5624.0, 5577.0, 5628.0, 5666.0, 5544.0, 5556.0, 5348.0, 5383.0, 5334.0
4	5530	9	1	333	1	5515.0, 5659.0, 5464.0, 5351.0, 5584.0, 5652.0, 5400.0, 5257.0, 5667.0, 5451.0, 5511.0, 5436.0, 5508.0, 5534.0, 5631.0, 5432.0, 5701.0, 5579.0, 5518.0, 5591.0, 5673.0, 5498.0, 5682.0, 5255.0, 5656.0, 5677.0, 5412.0, 5391.0, 5574.0, 5348.0, 5454.0, 5458.0, 5478.0, 5560.0, 5596.0, 5625.0, 5347.0, 5680.0, 5521.0, 5484.0, 5253.0, 5386.0, 5259.0, 5442.0, 5474.0, 5668.0, 5519.0, 5704.0, 5492.0, 5267.0, 5395.0, 5709.0, 5588.0, 5457.0, 5309.0, 5550.0, 5700.0, 5296.0, 5552.0, 5273.0, 5604.0, 5642.0, 5653.0, 5329.0, 5265.0, 5627.0, 5577.0, 5427.0, 5463.0, 5282.0, 5408.0, 5449.0, 5506.0, 5344.0, 5528.0, 5575.0, 5669.0, 5345.0, 5299.0, 5410.0, 5717.0, 5356.0, 5375.0, 5529.0, 5694.0, 5444.0, 5364.0, 5481.0, 5600.0, 5614.0, 5301.0, 5485.0, 5466.0, 5689.0, 5338.0, 5279.0, 5396.0, 5537.0, 5675.0, 5634.0
5	5530	9	1	333	1	5272.0, 5495.0, 5472.0, 5433.0, 5484.0, 5590.0, 5578.0, 5715.0, 5636.0, 5307.0, 5624.0, 5271.0, 5424.0, 5462.0, 5426.0, 5350.0, 5613.0, 5682.0, 5329.0, 5470.0, 5599.0, 5294.0, 5267.0, 5572.0, 5394.0, 5357.0, 5589.0, 5442.0, 5337.0, 5601.0, 5491.0, 5457.0, 5514.0, 5576.0, 5289.0, 5417.0, 5600.0, 5432.0, 5297.0, 5556.0, 5707.0, 5304.0, 5293.0, 5653.0, 5257.0, 5468.0, 5372.0, 5266.0, 5702.0, 5299.0, 5513.0, 5648.0, 5459.0, 5428.0, 5681.0, 5282.0, 5516.0, 5409.0, 5720.0, 5296.0, 5647.0, 5705.0, 5577.0, 5533.0, 5341.0, 5474.0, 5328.0, 5332.0, 5312.0, 5672.0, 5467.0, 5419.0, 5374.0, 5323.0, 5509.0, 5630.0, 5256.0, 5684.0, 5586.0, 5302.0, 5382.0, 5281.0, 5710.0, 5508.0, 5287.0, 5501.0, 5665.0, 5454.0, 5558.0, 5639.0, 5331.0, 5416.0, 5283.0, 5602.0, 5487.0, 5534.0, 5262.0, 5292.0, 5499.0, 5512.
6	5530	9	1	333	1	523.0, 5370.0, 5639.0, 5473.0, 5507.0, 5346.0, 5585.0, 5433.0, 5357.0, 5479.0, 5322.0, 5670.0, 5354.0, 5510.0, 5497.0, 5692.0, 5310.0, 5527.0, 5554.0, 5555.0, 5660.0, 5422.0, 5546.0, 5395.0, 5540.0, 5669.0, 5287.0, 5562.0, 5338.0, 5389.0, 5663.0, 5489.0, 5714.0, 5703.0, 5659.0, 5382.0, 5339.0, 5701.0, 5404.0, 5371.0, 5498.0, 5543.0, 5432.0, 5356.0, 5719.0, 5637.0, 5379.0, 5307.0, 5485.0, 5291.0, 5565.0, 5484.0, 5631.0, 5601.0, 5687.0, 5366.0, 5710.0, 5455.0, 5304.0, 5563.0, 5340.0, 5306.0, 5297.0, 5292.0, 5462.0,

						5419.0, 5674.0, 5584.0, 5301.0, 5614.0, 5458.0, 5607.0, 5392.0, 5715.0, 5482.0, 5568.0, 5276.0, 5608.0, 5579.0, 5684.0, 5251.0, 5569.0, 5575.0, 5680.0, 5488.0, 5412.0, 5677.0, 5350.0, 5636.0, 5505.0, 5375.0, 5401.0, 5449.0, 5407.0, 5358.0, 5521.0, 5402.0, 5272.0, 5550.0, 5296.0
7	5530	9	1	333	1	5366.0, 5393.0, 5555.0, 5625.0, 5408.0, 5689.0, 5512.0, 5425.0, 5361.0, 5546.0, 5374.0, 5381.0, 5649.0, 5342.0, 5659.0, 5583.0, 5265.0, 5607.0, 5622.0, 5567.0, 5467.0, 5651.0, 5558.0, 5483.0, 5485.0, 5331.0, 5656.0, 5275.0, 5701.0, 5337.0, 5535.0, 5352.0, 5403.0, 5455.0, 5486.0, 5304.0, 5600.0, 5673.0, 5424.0, 5432.0, 5697.0, 5654.0, 5526.0, 5260.0, 5710.0, 5276.0, 5279.0, 5298.0, 5545.0, 5562.0, 5492.0, 5634.0, 5481.0, 5392.0, 5412.0, 5416.0, 5595.0, 5672.0, 5708.0, 5280.0, 5462.0, 5665.0, 5368.0, 5297.0, 5537.0, 5268.0, 5443.0, 5390.0, 5645.0, 5309.0, 5334.0, 5628.0, 5568.0, 5339.0, 5348.0, 5479.0, 5307.0, 5272.0, 5274.0, 5490.0, 5491.0, 5473.0, 5560.0, 5722.0, 5270.0, 5418.0, 5439.0, 5576.0, 5499.0, 5399.0, 5295.0, 5273.0, 5477.0, 5333.0, 5588.0, 5252.0, 5407.0, 5417.0, 5315.0, 5282.0
8	5530	9	1	333	1	5357.0, 5579.0, 5660.0, 5259.0, 5312.0, 5639.0, 5557.0, 5448.0, 5544.0, 5563.0, 5342.0, 5574.0, 5560.0, 5447.0, 5533.0, 5575.0, 5412.0, 5547.0, 5274.0, 5605.0, 5565.0, 5599.0, 5688.0, 5463.0, 5347.0, 5630.0, 5377.0, 5422.0, 5701.0, 5441.0, 5265.0, 5697.0, 5722.0, 5721.0, 5384.0, 5475.0, 5335.0, 5275.0, 5612.0, 5428.0, 5529.0, 5256.0, 5632.0, 5271.0, 5346.0, 5301.0, 5543.0, 5719.0, 5662.0, 5584.0, 5486.0, 5473.0, 5499.0, 5383.0, 5462.0, 5330.0, 5576.0, 5695.0, 5527.0, 5445.0, 5578.0, 5524.0, 5636.0, 5280.0, 5549.0, 5510.0, 5681.0, 5671.0, 5258.0, 5311.0, 5720.0, 5410.0, 5672.0, 5286.0, 5658.0, 5442.0, 5706.0, 5339.0, 5351.0, 5601.0, 5368.0, 5516.0, 5627.0, 5309.0, 5582.0, 5715.0, 5416.0, 5644.0, 5716.0, 5488.0, 5676.0, 5420.0, 5677.0, 5392.0, 5711.0, 5452.0, 5482.0, 5464.0, 5317.0, 5699.0.0
9	5530	9	1	333	1	5660.0, 5715.0, 5272.0, 5369.0, 5253.0, 5334.0, 5704.0, 5707.0, 5469.0, 5350.0, 5325.0, 5578.0, 5276.0, 5421.0, 5626.0, 5588.0, 5473.0, 5706.0, 5439.0, 5403.0, 5362.0, 5505.0, 5691.0, 5482.0, 5414.0, 5440.0, 5526.0, 5453.0, 5313.0, 5476.0, 5357.0, 5419.0, 5507.0, 5293.0, 5500.0, 5381.0, 5596.0, 5599.0, 5628.0, 5360.0, 5411.0, 5688.0, 5577.0, 5271.0, 5361.0, 5607.0, 5342.0, 5312.0, 5372.0, 5643.0, 5298.0, 5539.0, 5719.0, 5722.0, 5280.0, 5717.0, 5591.0, 5376.0, 5266.0, 5268.0, 5653.0, 5344.0, 5673.0, 5554.0, 5503.0,

						5603.0, 5584.0, 5609.0, 5631.0, 5441.0, 5282.0, 5671.0, 5562.0, 5430.0, 5527.0, 5264.0, 5375.0, 5489.0, 5433.0, 5427.0, 5284.0, 5667.0, 5420.0, 5646.0, 5472.0, 5517.0, 5593.0, 5481.0, 5386.0, 5697.0, 5640.0, 5415.0, 5304.0, 5532.0, 5529.0, 5365.0, 5465.0, 5549.0, 5567.0, 5340.0
10	5530	9	1	333	1	5552.0, 5499.0, 5444.0, 5404.0, 5268.0, 5514.0, 5625.0, 5458.0, 5576.0, 5697.0, 5644.0, 5349.0, 5540.0, 5294.0, 5415.0, 5638.0, 5633.0, 5548.0, 5324.0, 5565.0, 5289.0, 5582.0, 5274.0, 5290.0, 5466.0, 5698.0, 5521.0, 5673.0, 5377.0, 5413.0, 5718.0, 5690.0, 5707.0, 5339.0, 5399.0, 5271.0, 5416.0, 5551.0, 5549.0, 5588.0, 5630.0, 5713.0, 5535.0, 5443.0, 5610.0, 5585.0, 5572.0, 5308.0, 5335.0, 5517.0, 5312.0, 5326.0, 5500.0, 5345.0, 5265.0, 5316.0, 5491.0, 5526.0, 5700.0, 5463.0, 5464.0, 5397.0, 5346.0, 5356.0, 5695.0, 5523.0, 5518.0, 5272.0, 5417.0, 5534.0, 5354.0, 5275.0, 5251.0, 5615.0, 5454.0, 5682.0, 5561.0, 5659.0, 5590.0, 5655.0, 5395.0, 5703.0, 5353.0, 5414.0, 5532.0, 5365.0, 5667.0, 5473.0, 5639.0, 5453.0, 5581.0, 5260.0, 5452.0, 5719.0, 5278.0, 5614.0, 5411.0, 5273.0, 5675.0, 5374.0
11	5530	9	1	333	1	5713.0, 5452.0, 5720.0, 5471.0, 5253.0, 5669.0, 5557.0, 5674.0, 5394.0, 5437.0, 5315.0, 5710.0, 5625.0, 5463.0, 5586.0, 5384.0, 5535.0, 5566.0, 5295.0, 5634.0, 5671.0, 5538.0, 5431.0, 5629.0, 5457.0, 5709.0, 5512.0, 5442.0, 5479.0, 5323.0, 5477.0, 5278.0, 5336.0, 5481.0, 5262.0, 5577.0, 5252.0, 5653.0, 5583.0, 5641.0, 5489.0, 5612.0, 5459.0, 5365.0, 5373.0, 5497.0, 5670.0, 5277.0, 5345.0, 5381.0, 5522.0, 5652.0, 5406.0, 5350.0, 5267.0, 5480.0, 5453.0, 5317.0, 5260.0, 5306.0, 5259.0, 5518.0, 5426.0, 5272.0, 5447.0, 5416.0, 5346.0, 5620.0, 5430.0, 5667.0, 5342.0, 5665.0, 5666.0, 5440.0, 5363.0, 5413.0, 5286.0, 5678.0, 5302.0, 5304.0, 5361.0, 5389.0, 5376.0, 5560.0, 5556.0, 5318.0, 5526.0, 5399.0, 5543.0, 5414.0, 5420.0, 5467.0, 5506.0, 5472.0, 5485.0, 5435.0, 5716.0, 5415.0, 5364.0, 5639.0
12	5530	9	1	333	1	5309.0, 5401.0, 5638.0, 5491.0, 5294.0, 5288.0, 5348.0, 5424.0, 5645.0, 5250.0, 5709.0, 5300.0, 5635.0, 5630.0, 5576.0, 5521.0, 5323.0, 5298.0, 5701.0, 5711.0, 5325.0, 5531.0, 5453.0, 5672.0, 5263.0, 5663.0, 5718.0, 5381.0, 5471.0, 5631.0, 5315.0, 5670.0, 5487.0, 5652.0, 5283.0, 5506.0, 5644.0, 5379.0, 5634.0, 5679.0, 5286.0, 5276.0, 5494.0, 5640.0, 5703.0, 5360.0, 5340.0, 5603.0, 5553.0, 5646.0, 5318.0, 5593.0, 5612.0, 5337.0, 5322.0, 5252.0, 5601.0, 5353.0, 5373.0, 5476.0, 5472.0, 5259.0, 5282.0, 5588.0, 5522.0,

						5504.0, 5607.0, 5427.0, 5425.0, 5430.0, 5689.0, 5497.0, 5404.0, 5565.0, 5722.0, 5335.0, 5660.0, 5536.0, 5482.0, 5657.0, 5280.0, 5343.0, 5618.0, 5547.0, 5432.0, 5339.0, 5324.0, 5457.0, 5629.0, 5666.0, 5485.0, 5617.0, 5391.0, 5518.0, 5260.0, 5428.0, 5704.0, 5668.0, 5447.0, 5532.0
13	5530	9	1	333	1	5524.0, 5425.0, 5509.0, 5362.0, 5660.0, 5632.0, 5489.0, 5269.0, 5567.0, 5416.0, 5497.0, 5482.0, 5485.0, 5265.0, 5392.0, 5431.0, 5405.0, 5492.0, 5700.0, 5575.0, 5581.0, 5622.0, 5518.0, 5574.0, 5481.0, 5295.0, 5702.0, 5699.0, 5534.0, 5668.0, 5615.0, 5717.0, 5386.0, 5506.0, 5555.0, 5260.0, 5359.0, 5315.0, 5501.0, 5560.0, 5495.0, 5512.0, 5645.0, 5662.0, 5298.0, 5709.0, 5293.0, 5422.0, 5278.0, 5289.0, 5296.0, 5587.0, 5522.0, 5710.0, 5568.0, 5493.0, 5664.0, 5364.0, 5271.0, 5459.0, 5650.0, 5630.0, 5292.0, 5367.0, 5449.0, 5470.0, 5573.0, 5254.0, 5716.0, 5602.0, 5510.0, 5301.0, 5612.0, 5326.0, 5572.0, 5557.0, 5580.0, 5333.0, 5514.0, 5403.0, 5542.0, 5723.0, 5652.0, 5712.0, 5677.0, 5711.0, 5357.0, 5606.0, 5355.0, 5715.0, 5525.0, 5308.0, 5532.0, 5719.0, 5342.0, 5310.0, 5434.0, 5562.0, 5539.0, 5421.0
14	5530	9	1	333	1	5479.0, 5282.0, 5369.0, 5432.0, 5563.0, 5388.0, 5648.0, 5501.0, 5464.0, 5658.0, 5578.0, 5473.0, 5714.0, 5357.0, 5391.0, 5445.0, 5516.0, 5277.0, 5413.0, 5354.0, 5453.0, 5537.0, 5507.0, 5636.0, 5599.0, 5628.0, 5328.0, 5593.0, 5276.0, 5256.0, 5706.0, 5630.0, 5472.0, 5511.0, 5710.0, 5589.0, 5458.0, 5624.0, 5380.0, 5585.0, 5640.0, 5389.0, 5695.0, 5376.0, 5610.0, 5581.0, 5532.0, 5351.0, 5570.0, 5349.0, 5492.0, 5493.0, 5456.0, 5512.0, 5587.0, 5311.0, 5625.0, 5616.0, 5455.0, 5372.0, 5573.0, 5656.0, 5463.0, 5562.0, 5561.0, 5527.0, 5307.0, 5440.0, 5321.0, 5469.0, 5250.0, 5475.0, 5252.0, 5684.0, 5423.0, 5272.0, 5364.0, 5341.0, 5645.0, 5422.0, 5481.0, 5720.0, 5650.0, 5263.0, 5653.0, 5313.0, 5316.0, 5613.0, 5470.0, 5395.0, 5646.0, 5382.0, 5304.0, 5614.0, 5681.0, 5427.0, 5412.0, 5405.0, 5332.0, 5689.0
15	5530	9	1	333	1	5480.0, 5422.0, 5354.0, 5551.0, 5277.0, 5473.0, 5382.0, 5476.0, 5500.0, 5601.0, 5321.0, 5387.0, 5721.0, 5633.0, 5646.0, 5656.0, 5584.0, 5472.0, 5526.0, 5609.0, 5359.0, 5511.0, 5420.0, 5317.0, 5270.0, 5316.0, 5294.0, 5644.0, 5686.0, 5264.0, 5630.0, 5669.0, 5524.0, 5695.0, 5429.0, 5265.0, 5366.0, 5650.0, 5443.0, 5565.0, 5441.0, 5542.0, 5492.0, 5627.0, 5616.0, 5291.0, 5370.0, 5535.0, 5553.0, 5482.0, 5720.0, 5336.0, 5673.0, 5590.0, 5323.0, 5286.0, 5575.0, 5715.0, 5668.0, 5518.0, 5587.0, 5266.0, 5328.0, 5536.0, 5402.0,

						5438.0, 5427.0, 5613.0, 5593.0, 5672.0, 5290.0, 5434.0, 5635.0, 5642.0, 5682.0, 5410.0, 5263.0, 5528.0, 5344.0, 5474.0, 5559.0, 5687.0, 5251.0, 5699.0, 5343.0, 5588.0, 5541.0, 5295.0, 5576.0, 5454.0, 5507.0, 5520.0, 5466.0, 5713.0, 5419.0, 5567.0, 5320.0, 5538.0, 5488.0, 5430.0
16	5530	9	1	333	1	5672.0, 5447.0, 5558.0, 5588.0, 5675.0, 5358.0, 5340.0, 5462.0, 5626.0, 5460.0, 5380.0, 5471.0, 5715.0, 5568.0, 5700.0, 5482.0, 5264.0, 5387.0, 5376.0, 5540.0, 5633.0, 5418.0, 5636.0, 5343.0, 5489.0, 5642.0, 5514.0, 5696.0, 5402.0, 5285.0, 5497.0, 5279.0, 5257.0, 5474.0, 5483.0, 5330.0, 5585.0, 5467.0, 5289.0, 5722.0, 5384.0, 5712.0, 5362.0, 5691.0, 5390.0, 5702.0, 5622.0, 5667.0, 5382.0, 5276.0, 5436.0, 5665.0, 5372.0, 5656.0, 5475.0, 5338.0, 5393.0, 5686.0, 5472.0, 5374.0, 5262.0, 5345.0, 5366.0, 5320.0, 5346.0, 5629.0, 5435.0, 5334.0, 5449.0, 5444.0, 5613.0, 5451.0, 5584.0, 5555.0, 5500.0, 5278.0, 5332.0, 5635.0, 5692.0, 5503.0, 5563.0, 5525.0, 5530.0, 5359.0, 5590.0, 5367.0, 5405.0, 5657.0, 5662.0, 5695.0, 5409.0, 5308.0, 5599.0, 5404.0, 5342.0, 5566.0, 5608.0, 5445.0, 5424.0, 5552.0
17	5530	9	1	333	1	5332.0, 5282.0, 5347.0, 5388.0, 5682.0, 5311.0, 5352.0, 5514.0, 5592.0, 5375.0, 5553.0, 5535.0, 5278.0, 5370.0, 5508.0, 5619.0, 5258.0, 5369.0, 5567.0, 5487.0, 5354.0, 5374.0, 5357.0, 5571.0, 5697.0, 5695.0, 5341.0, 5287.0, 5719.0, 5599.0, 5673.0, 5308.0, 5356.0, 5507.0, 5650.0, 5488.0, 5670.0, 5419.0, 5696.0, 5280.0, 5268.0, 5383.0, 5565.0, 5491.0, 5284.0, 5445.0, 5662.0, 5334.0, 5446.0, 5562.0, 5456.0, 5534.0, 5472.0, 5546.0, 5672.0, 5387.0, 5495.0, 5440.0, 5350.0, 5304.0, 5366.0, 5484.0, 5300.0, 5262.0, 5340.0, 5624.0, 5264.0, 5401.0, 5716.0, 5525.0, 5538.0, 5259.0, 5349.0, 5593.0, 5318.0, 5260.0, 5549.0, 5438.0, 5614.0, 5307.0, 5602.0, 5658.0, 5360.0, 5436.0, 5648.0, 5286.0, 5569.0, 5548.0, 5424.0, 5381.0, 5298.0, 5303.0, 5652.0, 5459.0, 5529.0, 5325.0, 5339.0, 5526.0, 5427.0, 5550.0
18	5530	9	1	333	1	5604.0, 5533.0, 5561.0, 5516.0, 5526.0, 5436.0, 5507.0, 5685.0, 5266.0, 5550.0, 5563.0, 5688.0, 5263.0, 5577.0, 5322.0, 5631.0, 5368.0, 5272.0, 5528.0, 5506.0, 5564.0, 5319.0, 5584.0, 5255.0, 5476.0, 5608.0, 5424.0, 5254.0, 5379.0, 5286.0, 5705.0, 5612.0, 5330.0, 5252.0, 5250.0, 5384.0, 5700.0, 5498.0, 5359.0, 5414.0, 5390.0, 5344.0, 5622.0, 5431.0, 5722.0, 5657.0, 5647.0, 5445.0, 5289.0, 5687.0, 5321.0, 5672.0, 5395.0, 5626.0, 5676.0, 5671.0, 5653.0, 5714.0, 5644.0, 5571.0, 5477.0, 5591.0, 5389.0, 5304.0, 5706.0,

						5376.0, 5375.0, 5388.0, 5505.0, 5680.0, 5519.0, 5483.0, 5568.0, 5426.0, 5278.0, 5595.0, 5399.0, 5268.0, 5513.0, 5474.0, 5605.0, 5504.0, 5303.0, 5257.0, 5610.0, 5548.0, 5621.0, 5686.0, 5331.0, 5590.0, 5488.0, 5478.0, 5693.0, 5678.0, 5467.0, 5611.0, 5674.0, 5607.0, 5675.0, 5402.0
19	5530	9	1	333	1	5349.0, 5293.0, 5330.0, 5348.0, 5381.0, 5715.0, 5438.0, 5723.0, 5421.0, 5619.0, 5650.0, 5447.0, 5671.0, 5649.0, 5469.0, 5503.0, 5716.0, 5458.0, 5324.0, 5486.0, 5310.0, 5576.0, 5661.0, 5617.0, 5714.0, 5565.0, 5485.0, 5378.0, 5424.0, 5638.0, 5476.0, 5377.0, 5264.0, 5303.0, 5463.0, 5404.0, 5435.0, 5521.0, 5448.0, 5443.0, 5534.0, 5542.0, 5454.0, 5252.0, 5410.0, 5399.0, 5417.0, 5390.0, 5373.0, 5296.0, 5493.0, 5356.0, 5653.0, 5710.0, 5697.0, 5360.0, 5402.0, 5426.0, 5336.0, 5561.0, 5375.0, 5621.0, 5615.0, 5385.0, 5682.0, 5283.0, 5428.0, 5672.0, 5255.0, 5575.0, 5554.0, 5700.0, 5513.0, 5609.0, 5721.0, 5571.0, 5656.0, 5393.0, 5657.0, 5277.0, 5322.0, 5624.0, 5522.0, 5644.0, 5511.0, 5350.0, 5290.0, 5340.0, 5478.0, 5477.0, 5587.0, 5389.0, 5564.0, 5374.0, 5271.0, 5679.0, 5339.0, 5433.0, 5665.0, 5724.0
20	5530	9	1	333	1	5601.0, 5480.0, 5682.0, 5607.0, 5404.0, 5503.0, 5271.0, 5506.0, 5517.0, 5577.0, 5377.0, 5553.0, 5260.0, 5281.0, 5312.0, 5373.0, 5389.0, 5369.0, 5461.0, 5257.0, 5673.0, 5473.0, 5303.0, 5458.0, 5321.0, 5672.0, 5305.0, 5334.0, 5688.0, 5449.0, 5408.0, 5277.0, 5643.0, 5469.0, 5358.0, 5270.0, 5353.0, 5327.0, 5381.0, 5709.0, 5448.0, 5562.0, 5611.0, 5262.0, 5683.0, 5545.0, 5525.0, 5430.0, 5721.0, 5376.0, 5392.0, 5350.0, 5332.0, 5558.0, 5360.0, 5724.0, 5330.0, 5633.0, 5471.0, 5395.0, 5713.0, 5339.0, 5479.0, 5639.0, 5438.0, 5318.0, 5513.0, 5676.0, 5551.0, 5667.0, 5407.0, 5486.0, 5420.0, 5589.0, 5394.0, 5384.0, 5347.0, 5348.0, 5548.0, 5365.0, 5308.0, 5515.0, 5390.0, 5531.0, 5440.0, 5647.0, 5387.0, 5711.0, 5349.0, 5587.0, 5655.0, 5641.0, 5431.0, 5592.0, 5362.0, 5534.0, 5292.0, 5497.0, 5336.0, 5651.0
21	5530	9	1	333	1	5421.0, 5588.0, 5515.0, 5276.0, 5630.0, 5573.0, 5629.0, 5412.0, 5608.0, 5458.0, 5298.0, 5453.0, 5683.0, 5617.0, 5340.0, 5669.0, 5282.0, 5606.0, 5682.0, 5297.0, 5489.0, 5569.0, 5613.0, 5477.0, 5658.0, 5317.0, 5676.0, 5260.0, 5326.0, 5268.0, 5420.0, 5634.0, 5557.0, 5354.0, 5319.0, 5575.0, 5435.0, 5255.0, 5347.0, 5483.0, 5467.0, 5582.0, 5304.0, 5674.0, 5291.0, 5532.0, 5546.0, 5393.0, 5361.0, 5416.0, 5434.0, 5699.0, 5687.0, 5521.0, 5651.0, 5475.0, 5705.0, 5637.0, 5703.0, 5358.0, 5685.0, 5586.0, 5496.0, 5332.0, 5306.0,

						5510.0, 5271.0, 5390.0, 5584.0, 5721.0, 5587.0, 5591.0, 5552.0, 5641.0, 5660.0, 5610.0, 5484.0, 5457.0, 5411.0, 5714.0, 5307.0, 5708.0, 5345.0, 5691.0, 5488.0, 5628.0, 5397.0, 5577.0, 5627.0, 5408.0, 5425.0, 5472.0, 5555.0, 5461.0, 5561.0, 5414.0, 5429.0, 5604.0, 5338.0, 5574.0
22	5530	9	1	333	1	5403.0, 5513.0, 5501.0, 5312.0, 5597.0, 5607.0, 5538.0, 5648.0, 5702.0, 5585.0, 5542.0, 5401.0, 5528.0, 5293.0, 5404.0, 5426.0, 5583.0, 5442.0, 5270.0, 5621.0, 5439.0, 5681.0, 5415.0, 5609.0, 5413.0, 5313.0, 5663.0, 5400.0, 5626.0, 5379.0, 5657.0, 5416.0, 5305.0, 5527.0, 5611.0, 5497.0, 5278.0, 5533.0, 5307.0, 5375.0, 5333.0, 5423.0, 5408.0, 5259.0, 5638.0, 5645.0, 5701.0, 5524.0, 5649.0, 5670.0, 5629.0, 5577.0, 5683.0, 5550.0, 5635.0, 5253.0, 5251.0, 5505.0, 5521.0, 5336.0, 5526.0, 5590.0, 5275.0, 5698.0, 5414.0, 5347.0, 5514.0, 5298.0, 5499.0, 5496.0, 5582.0, 5539.0, 5264.0, 5714.0, 5370.0, 5690.0, 5421.0, 5471.0, 5445.0, 5606.0, 5661.0, 5722.0, 5427.0, 5422.0, 5470.0, 5655.0, 5282.0, 5565.0, 5328.0, 5531.0, 5529.0, 5687.0, 5668.0, 5367.0, 5323.0, 5302.0, 5508.0, 5588.0, 5718.0, 5254.0
23	5530	9	1	333	1	5505.0, 5565.0, 5534.0, 5556.0, 5403.0, 5518.0, 5668.0, 5722.0, 5291.0, 5657.0, 5463.0, 5314.0, 5350.0, 5330.0, 5524.0, 5629.0, 5720.0, 5666.0, 5701.0, 5504.0, 5608.0, 5474.0, 5361.0, 5575.0, 5621.0, 5472.0, 5715.0, 5661.0, 5639.0, 5253.0, 5523.0, 5590.0, 5407.0, 5542.0, 5667.0, 5630.0, 5254.0, 5277.0, 5622.0, 5713.0, 5676.0, 5606.0, 5452.0, 5251.0, 5465.0, 5372.0, 5448.0, 5535.0, 5424.0, 5576.0, 5397.0, 5708.0, 5579.0, 5632.0, 5359.0, 5365.0, 5618.0, 5596.0, 5712.0, 5411.0, 5607.0, 5453.0, 5548.0, 5252.0, 5333.0, 5375.0, 5302.0, 5680.0, 5533.0, 5471.0, 5258.0, 5696.0, 5691.0, 5290.0, 5324.0, 5441.0, 5623.0, 5280.0, 5550.0, 5357.0, 5527.0, 5327.0, 5591.0, 5532.0, 5337.0, 5467.0, 5389.0, 5705.0, 5634.0, 5683.0, 5601.0, 5394.0, 5723.0, 5559.0, 5256.0, 5627.0, 5331.0, 5654.0, 5416.0, 5537.0
24	5530	9	1	333	1	5465.0, 5652.0, 5703.0, 5340.0, 5491.0, 5466.0, 5710.0, 5405.0, 5281.0, 5537.0, 5490.0, 5539.0, 5657.0, 5346.0, 5351.0, 5529.0, 5477.0, 5431.0, 5452.0, 5639.0, 5444.0, 5592.0, 5433.0, 5410.0, 5421.0, 5485.0, 5604.0, 5482.0, 5416.0, 5285.0, 5712.0, 5276.0, 5570.0, 5514.0, 5266.0, 5660.0, 5556.0, 5600.0, 5256.0, 5316.0, 5557.0, 5420.0, 5284.0, 5255.0, 5605.0, 5714.0, 5422.0, 5307.0, 5439.0, 5443.0, 5459.0, 5622.0, 5339.0, 5418.0, 5363.0, 5661.0, 5619.0, 5504.0, 5633.0, 5411.0, 5402.0, 5401.0, 5381.0, 5322.0, 5334.0,

						5298.0, 5342.0, 5425.0, 5508.0, 5486.0, 5370.0, 5473.0, 5640.0, 5616.0, 5671.0, 5542.0, 5388.0, 5708.0, 5309.0, 5356.0, 5646.0, 5594.0, 5662.0, 5574.0, 5475.0, 5453.0, 5694.0, 5314.0, 5379.0, 5548.0, 5324.0, 5397.0, 5450.0, 5417.0, 5517.0, 5269.0, 5530.0, 5348.0, 5274.0, 5533.0
25	5530	9	1	333	1	5593.0, 5311.0, 5383.0, 5359.0, 5378.0, 5300.0, 5533.0, 5538.0, 5390.0, 5374.0, 5429.0, 5283.0, 5510.0, 5622.0, 5711.0, 5287.0, 5469.0, 5426.0, 5479.0, 5461.0, 5302.0, 5421.0, 5599.0, 5511.0, 5523.0, 5433.0, 5328.0, 5507.0, 5550.0, 5441.0, 5663.0, 5273.0, 5478.0, 5255.0, 5254.0, 5436.0, 5464.0, 5476.0, 5488.0, 5611.0, 5716.0, 5444.0, 5292.0, 5518.0, 5582.0, 5524.0, 5286.0, 5616.0, 5346.0, 5620.0, 5335.0, 5381.0, 5608.0, 5411.0, 5455.0, 5397.0, 5668.0, 5379.0, 5704.0, 5380.0, 5447.0, 5667.0, 5566.0, 5641.0, 5483.0, 5657.0, 5274.0, 5597.0, 5591.0, 5669.0, 5366.0, 5344.0, 5665.0, 5619.0, 5659.0, 5275.0, 5575.0, 5592.0, 5329.0, 5709.0, 5666.0, 5537.0, 5670.0, 5578.0, 5462.0, 5536.0, 5263.0, 5297.0, 5258.0, 5414.0, 5497.0, 5342.0, 5332.0, 5567.0, 5690.0, 5596.0, 5388.0, 5296.0, 5568.0, 5521.0
26	5530	9	1	333	1	5694.0, 5252.0, 5522.0, 5478.0, 5542.0, 5403.0, 5422.0, 5332.0, 5277.0, 5653.0, 5444.0, 5559.0, 5364.0, 5285.0, 5337.0, 5665.0, 5467.0, 5614.0, 5460.0, 5260.0, 5357.0, 5687.0, 5493.0, 5259.0, 5605.0, 5519.0, 5536.0, 5401.0, 5267.0, 5356.0, 5636.0, 5659.0, 5647.0, 5492.0, 5376.0, 5534.0, 5723.0, 5578.0, 5306.0, 5611.0, 5567.0, 5654.0, 5712.0, 5615.0, 5300.0, 5477.0, 5307.0, 5461.0, 5496.0, 5371.0, 5635.0, 5604.0, 5520.0, 5600.0, 5670.0, 5645.0, 5663.0, 5312.0, 5639.0, 5555.0, 5620.0, 5418.0, 5276.0, 5672.0, 5494.0, 5479.0, 5446.0, 5342.0, 5369.0, 5640.0, 5349.0, 5250.0, 5409.0, 5431.0, 5587.0, 5504.0, 5428.0, 5265.0, 5505.0, 5594.0, 5558.0, 5500.0, 5579.0, 5526.0, 5481.0, 5299.0, 5707.0, 5325.0, 5601.0, 5308.0, 5411.0, 5613.0, 5682.0, 5482.0, 5531.0, 5529.0, 5515.0, 5590.0, 5366.0, 5706.0
27	5530	9	1	333	1	5608.0, 5424.0, 5688.0, 5420.0, 5488.0, 5457.0, 5393.0, 5685.0, 5456.0, 5283.0, 5436.0, 5375.0, 5406.0, 5377.0, 5282.0, 5317.0, 5584.0, 5615.0, 5583.0, 5498.0, 5604.0, 5670.0, 5568.0, 5710.0, 5272.0, 5715.0, 5472.0, 5597.0, 5388.0, 5649.0, 5251.0, 5397.0, 5338.0, 5676.0, 5630.0, 5398.0, 5719.0, 5396.0, 5586.0, 5293.0, 5534.0, 5664.0, 5253.0, 5410.0, 5529.0, 5596.0, 5692.0, 5330.0, 5318.0, 5641.0, 5562.0, 5554.0, 5637.0, 5455.0, 5362.0, 5696.0, 5425.0, 5380.0, 5466.0, 5647.0, 5409.0, 5288.0, 5329.0, 5547.0, 5702.0,

						5360.0, 5481.0, 5412.0, 5707.0, 5553.0, 5599.0, 5550.0, 5593.0, 5453.0, 5366.0, 5309.0, 5681.0, 5621.0, 5483.0, 5347.0, 5504.0, 5361.0, 5535.0, 5292.0, 5357.0, 5382.0, 5704.0, 5625.0, 5638.0, 5679.0, 5427.0, 5451.0, 5365.0, 5298.0, 5660.0, 5497.0, 5713.0, 5449.0, 5505.0, 5635.0
28	5530	9	1	333	1	5641.0, 5356.0, 5392.0, 5423.0, 5484.0, 5587.0, 5643.0, 5468.0, 5326.0, 5690.0, 5717.0, 5406.0, 5529.0, 5496.0, 5399.0, 5607.0, 5674.0, 5709.0, 5375.0, 5670.0, 5288.0, 5323.0, 5524.0, 5378.0, 5451.0, 5444.0, 5672.0, 5357.0, 5621.0, 5676.0, 5691.0, 5503.0, 5401.0, 5341.0, 5528.0, 5626.0, 5364.0, 5476.0, 5441.0, 5633.0, 5597.0, 5376.0, 5668.0, 5305.0, 5354.0, 5516.0, 5314.0, 5620.0, 5656.0, 5369.0, 5564.0, 5566.0, 5290.0, 5425.0, 5644.0, 5645.0, 5548.0, 5426.0, 5428.0, 5418.0, 5412.0, 5349.0, 5522.0, 5624.0, 5417.0, 5421.0, 5330.0, 5639.0, 5461.0, 5358.0, 5588.0, 5578.0, 5256.0, 5279.0, 5661.0, 5498.0, 5316.0, 5319.0, 5327.0, 5482.0, 5532.0, 5510.0, 5687.0, 5546.0, 5658.0, 5309.0, 5579.0, 5365.0, 5284.0, 5508.0, 5682.0, 5313.0, 5535.0, 5665.0, 5563.0, 5538.0, 5396.0, 5367.0, 5518.0, 5442.0
29	5530	9	1	333	1	5303.0, 5446.0, 5408.0, 5502.0, 5389.0, 5423.0, 5583.0, 5464.0, 5331.0, 5603.0, 5656.0, 5345.0, 5415.0, 5686.0, 5710.0, 5491.0, 5654.0, 5376.0, 5670.0, 5536.0, 5539.0, 5672.0, 5493.0, 5621.0, 5661.0, 5550.0, 5687.0, 5351.0, 5279.0, 5260.0, 5383.0, 5669.0, 5277.0, 5342.0, 5521.0, 5617.0, 5633.0, 5580.0, 5426.0, 5420.0, 5657.0, 5445.0, 5410.0, 5308.0, 5270.0, 5590.0, 5297.0, 5325.0, 5466.0, 5722.0, 5444.0, 5299.0, 5518.0, 5306.0, 5709.0, 5480.0, 5719.0, 5545.0, 5629.0, 5294.0, 5579.0, 5542.0, 5571.0, 5436.0, 5372.0, 5319.0, 5300.0, 5384.0, 5391.0, 5439.0, 5355.0, 5431.0, 5333.0, 5576.0, 5255.0, 5721.0, 5589.0, 5459.0, 5700.0, 5463.0, 5368.0, 5556.0, 5352.0, 5541.0, 5591.0, 5495.0, 5367.0, 5267.0, 5341.0, 5487.0, 5507.0, 5492.0, 5337.0, 5695.0, 5273.0, 5403.0, 5508.0, 5353.0, 5673.0, 5503.0
30	5530	9	1	333	1	5650.0, 5366.0, 5428.0, 5554.0, 5301.0, 5475.0, 5481.0, 5660.0, 5346.0, 5592.0, 5580.0, 5253.0, 5307.0, 5621.0, 5323.0, 5422.0, 5497.0, 5326.0, 5345.0, 5651.0, 5517.0, 5432.0, 5618.0, 5511.0, 5282.0, 5629.0, 5275.0, 5473.0, 5480.0, 5683.0, 5384.0, 5566.0, 5721.0, 5338.0, 5468.0, 5589.0, 5365.0, 5572.0, 5330.0, 5535.0, 5255.0, 5495.0, 5681.0, 5417.0, 5291.0, 5405.0, 5443.0, 5541.0, 5582.0, 5615.0, 5392.0, 5513.0, 5604.0, 5622.0, 5485.0, 5340.0, 5438.0, 5588.0, 5590.0, 5424.0, 5425.0, 5324.0, 5579.0, 5540.0, 5599.0,

						5652.0, 5267.0, 5527.0, 5451.0, 5408.0, 5309.0, 5638.0, 5265.0, 5343.0, 5306.0, 5426.0, 5391.0, 5587.0, 5669.0, 5602.0, 5523.0, 5591.0, 5385.0, 5319.0, 5585.0, 5672.0, 5492.0, 5276.0, 5486.0, 5524.0, 5548.0, 5642.0, 5457.0, 5437.0, 5284.0, 5593.0, 5429.0, 5302.0, 5568.0, 5633.0

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:

5550MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)
1	5550	95	1	558	1
2	5550	76	1	698	1
3	5550	99	1	538	1
4	5550	70	1	758	1
5	5550	86	1	618	1
6	5550	61	1	878	1
7	5550	58	1	918	1
8	5550	18	1	3066	1
9	5550	67	1	798	1
10	5550	78	1	678	1
11	5550	59	1	898	1
12	5550	74	1	718	1
13	5550	62	1	858	1
14	5550	68	1	778	1
15	5550	92	1	578	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	5550	19	1	2789	1
2	5550	24	1	2224	1
3	5550	20	1	2678	1
4	5550	28	1	1895	1
5	5550	91	1	580	1
6	5550	23	1	2388	1
7	5550	62	1	865	1
8	5550	23	1	2353	1
9	5550	49	1	1098	1
10	5550	21	1	2543	1
11	5550	54	1	995	1
12	5550	23	1	2398	1
13	5550	23	1	2333	1
14	5550	21	1	2610	1
15	5550	50	1	1069	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	5550	29	2.1	189	1
2	5550	26	3.1	161	1
3	5550	29	2.3	188	1
4	5550	27	1.3	199	1
5	5550	29	2.5	176	1
6	5550	24	3.5	187	1
7	5550	25	2.7	166	1
8	5550	25	1.9	219	1
9	5550	29	1.3	212	1
10	5550	27	3	176	1
11	5550	27	1.7	185	1
12	5550	25	2.3	202	1
13	5550	28	2	217	1
14	5550	24	4.2	202	1
15	5550	29	3.5	180	1
16	5550	24	2	229	1
17	5550	29	2.2	157	1
18	5550	23	1.5	156	1
19	5550	25	3.8	185	1
20	5550	26	1.1	209	1
21	5550	28	4	221	1
22	5550	23	3.7	193	1
23	5550	23	3.3	209	1
24	5550	26	4.8	204	1
25	5550	28	3.2	211	1
26	5550	25	1.5	177	1
27	5550	24	1.5	176	1
28	5550	23	5	177	1
29	5550	29	3.2	223	1
30	5550	24	3	202	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	5550	17	10	221	1
2	5550	18	8.5	456	1
3	5550	18	8.9	329	1
4	5550	18	7.2	345	1
5	5550	17	8.6	337	1
6	5550	16	7.4	259	1
7	5550	16	7.9	245	1
8	5550	17	6.2	491	1
9	5550	17	9.1	404	1
10	5550	17	8.6	388	1
11	5550	18	7.3	453	1
12	5550	17	6.1	449	1
13	5550	17	9.8	344	1
14	5550	17	7.3	424	1
15	5550	16	7.3	497	1
16	5550	17	8.4	333	1
17	5550	16	8.3	430	1
18	5550	17	9.7	279	1
19	5550	17	6.6	221	1
20	5550	17	9	445	1
21	5550	18	6.2	223	1
22	5550	17	6.5	427	1
23	5550	16	9.6	468	1
24	5550	16	7.9	262	1
25	5550	16	7.2	245	1
26	5550	16	8.4	334	1
27	5550	16	9.1	246	1
28	5550	16	10	289	1
29	5550	18	6	479	1
30	5550	16	7.7	359	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	5550	13	15.2	227	1
2	5550	12	19.3	358	1
3	5550	13	12.5	365	1
4	5550	12	16.5	319	1
5	5550	13	13.1	219	1
6	5550	16	12.7	452	1
7	5550	13	17.4	300	1
8	5550	15	12.8	205	1
9	5550	13	19.2	462	1
10	5550	14	15	406	1
11	5550	16	14.1	485	1
12	5550	16	19.8	475	1
13	5550	14	18.9	278	1
14	5550	16	13.7	277	1
15	5550	15	15.4	317	1
16	5550	16	17.6	208	1
17	5550	16	18.5	389	1
18	5550	13	15.7	495	1
19	5550	13	13.1	366	1
20	5550	16	15	288	1
21	5550	16	17.2	399	1
22	5550	13	12.4	297	1
23	5550	13	14.1	296	1
24	5550	14	11.9	238	1
25	5550	15	11.5	374	1
26	5550	15	11.4	233	1
27	5550	13	16.4	287	1
28	5550	12	17.4	336	1
29	5550	15	14.8	277	1
30	5550	13	12.4	285	1
Detection Percentage: 100 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5550.0MHz)

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	14	92.8	1438		0.583257	1
1	2	14	90.6	1747		0.801616	
2	2	14	63.7	1480		1.639707	
3	2	14	77.1	1756		2.448991	
4	3	14	70.1	1272	1012	3.040802	
5	3	14	82.6	1755	1266	3.391052	
6	2	14	76.6	1893		4.595769	
7	2	14	51	1309		5.128813	
8	1	14	82.2			5.899358	
9	2	14	60.2	1018		6.165436	
10	2	14	55.4	1309		6.72503	
11	3	14	73.5	1559	1071	7.523736	
12	1	14	70.3			8.376057	
13	3	14	92.6	1334	1109	8.876106	
14	3	14	73.5	1115	1215	9.738334	
15	1	14	80.2			10.37678	
16	1	14	81.8			11.15944	
17	2	14	63.3	1164		11.9676	

Statistics 2 (ChirpCenter Frequency: 5550.0 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	15	86.3	1799	1116	0.331315	1
1	2	15	56.9	1466		1.884212	
2	2	15	86	1058		3.007136	
3	2	15	64.7	1627		3.699546	
4	2	15	88.2	1969		5.308265	
5	2	15	89	1161		6.324833	
6	2	15	75.8	1695		7.709352	
7	2	15	85.2	1827		8.839585	
8	1	15	75.7			9.988543	
9	2	15	89.6	1059		11.666177	

Statistics 3 (ChirpCenter Frequency: 5550.0 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	51.6			0.474817	1
1	3	16	91.1	1566	1664	1.835045	
2	1	16	99			3.387439	
3	2	16	55.1	1414		4.051169	
4	2	16	78.6	1933		5.889052	
5	2	16	68.1	1028		6.182425	
6	2	16	77.5	1257		7.579128	
7	2	16	89.9	1227		8.57518	
8	1	16	74.1			9.616612	
9	2	16	86.1	1321		11.121496	

Statistics 4 (ChirpCenter Frequency: 5550.0 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	88	1115		0.603058	1
1	1	15	69.8			1.512002	
2	2	15	77.6	1414		3.761328	
3	1	15	82.7			4.648229	
4	2	15	54.2	1886		5.946736	
5	2	15	64.5	1552		7.166393	
6	2	15	51.5	1151		9.235271	
7	1	15	80.8			9.71009	
8	2	15	67.8	1719		11.52416	

Statistics 5(ChirpCenter Frequency: 5550.0 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	75	1656		0.753127	1
1	2	12	53.7	1321		1.262557	
2	3	12	99.5	1708	1609	2.350997	
3	2	12	69.6	1955		4.264594	
4	1	12	89.4			5.269729	
5	3	12	71.5	1321	1892	5.99893	
6	1	12	98			7.30793	
7	1	12	71			8.394809	
8	2	12	56	1930		9.612512	
9	2	12	77	1874		10.631695	
10	2	12	51	1036		10.965593	

Statistics 6 (ChirpCenter Frequency: 5550.0 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	1238		0.301278	1
1	2	14	85.3	1114		1.014884	
2	3	14	64.7	1366	1136	1.558439	
3	1	14	69.7			2.128414	
4	3	14	74.3	1853	1314	3.2778	
5	1	14	85.8			3.861958	
6	1	14	92.8			4.215968	
7	2	14	75.5	1773		5.291644	
8	1	14	65			5.651571	
9	2	14	50	1497		6.381264	
10	2	14	64.9	1501		6.745672	
11	2	14	93.9	1084		7.636669	
12	2	14	55.4	1667		8.215641	
13	1	14	83.3			9.07327	
14	2	14	99.1	1797		9.619965	
15	2	14	63.5	1676		10.041603	
16	3	14	93.4	1151	1090	10.90991	
17	3	14	71.8	1092	1878	11.990174	

Statistics 7(ChirpCenter Frequency: 5550.0 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	50.8	1395		0.678266	1
1	2	15	73.2	1758		1.401869	
2	3	15	79.8	1847	1380	2.850933	
3	1	15	52.5			3.678036	
4	3	15	85.3	1667	1596	4.462969	
5	2	15	97	1306		5.324696	
6	2	15	91.9	1739		6.22529	
7	1	15	95.8			7.519507	
8	2	15	89	1023		8.772677	
9	2	15	51.6	1067		9.714726	
10	2	15	71.5	1848		10.781782	
11	3	15	74.8	1605	1288	11.472843	

Statistics 8 (ChirpCenter Frequency: 5550.0 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	13	78.3	1710	1468	0.695236	1
1	1	13	70.6			1.441555	
2	1	13	50.1			1.829944	
3	2	13	98.5	1847		2.81749	
4	2	13	55.8	1900		3.701451	
5	1	13	86.4			4.770189	
6	1	13	93.7			4.892206	
7	1	13	72.3			5.643664	
8	2	13	98.2	1611		6.671291	
9	2	13	55.1	1720		7.654039	
10	2	13	65.5	1705		8.403491	
11	2	13	77.7	1690		9.123028	
12	3	13	96.5	1284	1384	9.913537	
13	3	13	67.6	1354	1770	10.631843	

Statistics 9 (ChirpCenter Frequency: 5550.0 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	13	78.3	1710	1468	0.695236	1
1	1	13	70.6			1.441555	
2	1	13	50.1			1.829944	
3	2	13	98.5	1847		2.81749	
4	2	13	55.8	1900		3.701451	
5	1	13	86.4			4.770189	
6	1	13	93.7			4.892206	
7	1	13	72.3			5.643664	
8	2	13	98.2	1611		6.671291	
9	2	13	55.1	1720		7.654039	
10	2	13	65.5	1705		8.403491	
11	2	13	77.7	1690		9.123028	
12	3	13	96.5	1284	1384	9.913537	
13	3	13	67.6	1354	1770	10.631843	
14	1	13	80.8			11.906163	

Statistics 10 (ChirpCenter Frequency: 5550.0 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	73	1781		0.555892	1
1	1	8	89.4			1.504767	
2	3	8	64.6	1811	1171	2.687141	
3	2	8	93.2	1881		3.415182	
4	2	8	59	1287		4.384039	
5	2	8	89.5	1949		5.261379	
6	1	8	73.6			6.72757	
7	1	8	99.9			7.042247	
8	2	8	87.8	1888		8.09601	
9	3	8	68.2	1449	1765	9.825046	
10	2	8	66.5	1335		10.848566	
11	1	8	84.2			11.232745	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5534.0 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	11	94.2	1491	1405	0.944653	1
1	2	11	51.7	1272		1.628709	
2	3	11	61.4	1880	1251	2.764137	
3	1	11	94.8			3.408928	
4	1	11	86.2			4.75984	
5	2	11	79	1647		6.290783	
6	1	11	74.8			7.48561	
7	3	11	68.5	1705	1789	7.840105	
8	2	11	89.6	1105		9.328313	
9	3	11	85.3	1791	1286	10.697299	
10	2	11	79.5	1800		11.780851	

Statistics 2 (ChirpCenter Frequency: 5533.0 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	76.1	1019		0.293411	1
1	2	8	81.5	1198		1.052689	
2	2	8	73.1	1964		1.43597	
3	2	8	84.6	1514		2.298978	
4	2	8	95.2	1438		2.771217	
5	1	8	89.9			3.36579	
6	2	8	59.4	1214		4.132995	
7	3	8	94.1	1943	1553	4.734445	
8	2	8	92.3	1255		5.341169	
9	2	8	60.6	1610		6.05079	
10	2	8	81.4	1070		6.49612	
11	2	8	50.9	1213		7.345016	
12	2	8	87.7	1498		7.711277	
13	1	8	66.7			8.784046	
14	2	8	64.5	1242		8.849299	
15	2	8	66.2	1950		10.071166	
16	2	8	50.7	1422		10.423768	
17	2	8	59.4	1160		10.863081	
18	1	8	99.5			11.743643	

Statistics 3 (ChirpCenter Frequency: 5537.0 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	17	80.5			0.485697	1
1	1	17	84.6			0.62279	
2	1	17	72.6			1.327597	
3	1	17	76.4			2.109035	
4	3	17	93.9	1185	1736	2.680501	
5	3	17	55.2	1937	1387	3.56696	
6	3	17	53.3	1927	1811	4.020273	
7	2	17	98	1137		4.559495	
8	2	17	63.1	1808		5.029805	
9	3	17	93.6	1830	1749	5.490762	
10	1	17	56.7			6.413008	
11	2	17	68.4	1358		7.094371	
12	2	17	97.7	1770		7.464259	
13	2	17	86.7	1620		7.812716	
14	2	17	76.3	1301		8.684175	
15	2	17	59.5	1853		9.570307	
16	2	17	66.9	1185		9.661464	
17	2	17	83.6	1907		10.727354	
18	3	17	95.8	1893	1686	11.189768	
19	2	17	58.3	1110		11.993976	

Statistics 4 (ChirpCenter Frequency: 5534.0 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	56.5	1475		0.907551	1
1	2	11	80.3	1155		1.865104	
2	2	11	84	1317		3.592621	
3	2	11	72.4	1292		5.466899	
4	1	11	82.3			7.055197	
5	1	11	61.3			8.533228	
6	3	11	64	1751	1760	10.027205	
7	3	11	89.1	1816	1011	11.040645	
0	2	11	56.5	1475		0.907551	
1	2	11	80.3	1155		1.865104	

Statistics 5 (ChirpCenter Frequency: 5534.0 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	52.9	1163		0.059988	1
1	2	11	96.8	1400		1.145047	
2	1	11	95.6			1.764612	
3	2	11	99	1537		3.291217	
4	2	11	70.1	1359		3.546588	
5	1	11	81.1			5.046398	
6	2	11	68.5	1982		5.238875	
7	1	11	62.2			6.164781	
8	2	11	98.1	1406		6.998797	
9	2	11	64.6	1177		8.407926	
10	3	11	77.3	1313	1309	8.70872	
11	2	11	59.5	1986		10.188742	
12	3	11	53.7	1472	1610	10.626871	
13	2	11	91.9	1612		11.621394	

Statistics 6 (ChirpCenter Frequency: 5534.0 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	11	80.4	1651	1630	0.81461	1
1	2	11	91	1035		1.107409	
2	2	11	81.9	1843		2.471147	
3	2	11	83.5	1100		3.657204	
4	3	11	95.5	1722	1263	5.21503	
5	3	11	94.5	1562	1706	5.600961	
6	3	11	93.7	1613	1530	7.502213	
7	3	11	81.5	1610	1259	7.714493	
8	2	11	79.1	1156		9.188761	
9	2	11	59.5	1551		10.231628	
10	1	11	54.7			11.58014	

Statistics 7 (ChirpCenter Frequency: 5536.0 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	3	15	62.9	1016	1113	0.530228	1
1	3	15	66.5	1728	1936	2.065202	
2	2	15	88.3	1947		2.399588	
3	2	15	82.9	1522		4.303111	
4	3	15	86.9	1384	1044	4.491228	
5	3	15	86.1	1163	1916	5.513483	
6	3	15	51.7	1020	1148	7.4731	
7	2	15	94.4	1687		8.116027	
8	1	15	63.1			9.615892	
9	2	15	74.4	1413		9.907708	
10	2	15	71.5	1348		11.649989	

Statistics 8 (ChirpCenter Frequency: 5538.0 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	84.5			0.493475	1
1	2	19	66.8	1791		1.790245	
2	2	19	97.9	1821		2.219306	
3	2	19	74	1051		3.736815	
4	1	19	66.9			4.466852	
5	3	19	71.2	1222	1375	5.194369	
6	3	19	84.6	1689	1278	6.130134	
7	2	19	55.7	1567		7.645258	
8	2	19	95.9	1609		8.535494	
9	1	19	68.9			9.502444	
10	1	19	88.3			10.015778	
11	1	19	76.3			11.675547	

Statistics 9 (ChirpCenter Frequency: 5536.0 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	15	89.4		0	0.318299	1
1	2	15	68.3	1273	1	2.141938	
2	1	15	51.6		2	3.474182	
3	1	15	87.9		3	5.501097	
4	2	15	57.8	1346	4	6.894614	
5	2	15	58.4	1532	5	8.718232	
6	2	15	88.6	1915	6	9.917024	
7	2	15	53.9	1924	7	11.154861	

Statistics 10 (ChirpCenter Frequency: 5535.0 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	73.5	1818		0.392025	1
1	3	12	95.2	1514	1201	0.931226	
2	1	12	99.7			1.62124	
3	2	12	76.4	1165		2.305681	
4	1	12	68.3			2.952088	
5	1	12	70.3			3.269295	
6	2	12	93.1	1931		3.843382	
7	2	12	85.8	1898		4.998502	
8	2	12	69.3	1447		5.645102	
9	3	12	94.8	1628	1514	6.23964	
10	2	12	75.9	1286		6.321115	
11	2	12	58.5	1277		7.268719	
12	2	12	63.3	1744		7.87769	
13	2	12	71	1286		8.394458	
14	2	12	72.8	1727		9.344355	
15	3	12	53.1	1040	1263	9.514448	
16	2	12	77.1	1753		10.59914	
17	2	12	53.3	1900		11.006405	
18	3	12	86.4	1365	1315	11.937171	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5563.0 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	56.6	1017		0.383587	1
1	1	18	61.7			1.185144	
2	3	18	98.4	1119	1046	1.624563	
3	2	18	87.7	1839		2.379143	
4	2	18	62.1	1545		2.896721	
5	2	18	58.7	1804		3.599954	
6	2	18	96.8	1266		4.447363	
7	1	18	99.1			5.268359	
8	2	18	85.4	1700		6.045228	
9	3	18	89.6	1817	1496	6.401285	
10	2	18	81.4	1729		7.533104	
11	2	18	50.1	1690		8.09824	
12	1	18	78.7			8.501905	
13	2	18	99.8	1479		9.252408	
14	1	18	67.9			10.410016	
15	2	18	72.1	1837		11.150609	
16	1	18	86.3			11.665501	

Statistics 2 (ChirpCenter Frequency: 5568.0 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	5	64.8	1685		0.508401	1
1	2	5	84.2	1953		1.141459	
2	1	5	90.2			2.084027	
3	2	5	60	1818		3.072029	
4	2	5	71.9	1965		3.98787	
5	3	5	71.3	1585	1417	5.228683	
6	3	5	65.7	1242	1909	6.264135	
7	1	5	70.9			6.615003	
8	2	5	65.4	1043		7.501646	
9	2	5	72.4	1884		9.137136	
10	3	5	67.1	1760	1554	10.060186	
11	2	5	70.8	1417		10.767813	
12	2	5	58.2	1040		11.321747	

Statistics 3 (ChirpCenter Frequency: 5564.0 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	69.5	1048	1910	0.481931	1
1	1	16	97.6			1.756929	
2	2	16	66.5	1933		2.368902	
3	3	16	94.4	1002	1727	4.082373	
4	2	16	95.2	1616		5.297029	
5	1	16	97.5			5.669095	
6	2	16	98.1	1534		7.26136	
7	3	16	90.3	1954	1453	8.055698	
8	3	16	57.9	1451	1274	9.359248	
9	1	16	51.3			10.730813	
10	2	16	58.3	1371		11.363339	

Statistics 4 (ChirpCenter Frequency: 5566.0 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	75.4	1699		0.943505	1
1	2	10	88.8	1843		2.020786	
2	1	10	75.1			2.572208	
3	1	10	86.5			3.647604	
4	3	10	53.5	1193	1431	5.888366	
5	3	10	60.2	1751	1069	6.778785	
6	2	10	67.9	1351		7.384762	
7	2	10	61	1309		8.99832	
8	2	10	69.6	1273		10.623149	
9	2	10	74.3	1000		11.895173	

Statistics 5 (ChirpCenter Frequency: 5566.0 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	50	1726		0.695234	1
1	2	9	94.3	1584		0.929714	
2	3	9	76.8	1363	1104	2.011758	
3	3	9	58.3	1443	1353	2.370809	
4	1	9	64.8			3.301034	
5	2	9	52.6	1309		3.773794	
6	3	9	71	1088	1767	4.84319	
7	3	9	78.6	1998	1687	5.588283	
8	3	9	84.3	1792	1563	6.255599	
9	2	9	92.6	1458		7.204808	
10	1	9	78			8.153661	
11	3	9	62.2	1186	1713	8.796135	
12	2	9	61.9	1021		9.164942	
13	3	9	98.6	1735	1250	10.064269	
14	1	9	62.9			11.130433	
15	3	9	87	1347	1494	11.910156	

Statistics 6 (ChirpCenter Frequency: 5568.0 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	92.5	1257		0.059898	1
1	3	6	83.1	1217	1414	0.674081	
2	3	6	63.8	1770	1802	1.842825	
3	2	6	99.9	1030		2.198763	
4	3	6	66.1	1783	1729	2.531806	
5	3	6	80.4	1861	1044	3.179986	
6	3	6	98	1563	1472	4.111033	
7	2	6	75.2	1793		4.657711	
8	1	6	95.4			5.256316	
9	2	6	76.1	1151		5.856584	
10	1	6	79.9			6.513519	
11	2	6	80.1	1827		7.429713	
12	3	6	80.9	1125	1863	7.981338	
13	2	6	53.1	1996		8.654212	
14	2	6	80.3	1935		9.25169	
15	1	6	57.8			9.671708	
16	3	6	60.8	1733	1581	10.206242	
17	2	6	67.9	1519		11.084621	
18	3	6	92.1	1959	1795	11.405555	

Statistics 7 (ChirpCenter Frequency: 5565.0 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	73.1	1745		0.287258	1
1	2	12	63	1047		1.180512	
2	1	12	91.1			1.940243	
3	2	12	60.3	1674		3.286789	
4	3	12	86.9	1188	1586	3.550507	
5	2	12	53.3	1472		5.003653	
6	2	12	86	1140		5.397442	
7	3	12	50.2	1662	1200	6.646705	
8	2	12	79.1	1253		7.55622	
9	2	12	96.7	1469		8.558067	
10	2	12	92.5	1110		8.860248	
11	3	12	52.9	1196	1156	10.162385	
12	2	12	76	1355		10.449182	
13	1	12	78.7			11.44827	

Statistics 8 (ChirpCenter Frequency: 5567.0 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	66.1	1677		0.501295	1
1	2	7	50.2	1776		2.358751	
2	1	7	63.4			3.035101	
3	2	7	71	1022		4.279129	
4	3	7	86.8	1737	1033	5.021393	
5	1	7	59.4			6.938276	
6	3	7	96	1607	1021	7.238993	
7	2	7	54.3	1033		9.267475	
8	1	7	69.4			10.098499	
9	2	7	78.3	1324		11.816349	

Statistics 9 (ChirpCenter Frequency: 5565.0 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	86.8	1546		0.3085	1
1	2	12	68	1864		1.624338	
2	3	12	83.7	1257	1729	2.492046	
3	3	12	55.7	1426	1575	3.302552	
4	1	12	57.8			4.938378	
5	2	12	91.9	1638		5.683272	
6	1	12	86.3			6.542071	
7	3	12	52.7	1963	1657	7.769026	
8	2	12	84.3	1683		8.567748	
9	2	12	69.1	1910		9.491998	
10	3	12	69.6	1907	1154	10.741618	
11	2	12	51.1	1307		11.45543	

Statistics 10 (ChirpCenter Frequency: 5565.0 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	87.6	1125		0.118755	1
1	1	12	60.4			1.110311	
2	2	12	86.8	1972		2.089338	
3	3	12	52.7	1071	1025	3.325334	
4	3	12	63.2	1625	1097	3.761271	
5	3	12	67.4	1861	1837	4.481749	
6	3	12	62.4	1973	1636	5.780089	
7	2	12	83.7	1619		6.785863	
8	2	12	98.9	1084		7.524602	
9	3	12	95.5	1384	1736	8.321274	
10	2	12	92.6	1513		8.624547	
11	2	12	97.2	1937		10.165277	
12	3	12	64	1092	1722	11.099816	
13	2	12	81	1344		11.169485	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5550	9	1	333	1	5289.0, 5658.0, 5543.0, 5606.0, 5439.0, 5452.0, 5419.0, 5263.0, 5508.0, 5313.0, 5590.0, 5541.0, 5453.0, 5386.0, 5547.0, 5309.0, 5686.0, 5692.0, 5466.0, 5437.0, 5425.0, 5269.0, 5588.0, 5520.0, 5284.0, 5424.0, 5401.0, 5451.0, 5616.0, 5716.0, 5585.0, 5370.0, 5704.0, 5503.0, 5574.0, 5259.0, 5371.0, 5571.0, 5295.0, 5671.0, 5553.0, 5261.0, 5664.0, 5445.0, 5478.0, 5324.0, 5639.0, 5515.0, 5397.0, 5558.0, 5317.0, 5421.0, 5492.0, 5338.0, 5288.0, 5355.0, 5569.0, 5685.0, 5682.0, 5518.0, 5350.0, 5485.0, 5304.0, 5560.0, 5373.0, 5311.0, 5342.0, 5356.0, 5641.0, 5271.0, 5556.0, 5700.0, 5672.0, 5701.0, 5327.0, 5254.0, 5527.0, 5476.0, 5283.0, 5599.0, 5634.0, 5290.0, 5418.0, 5459.0, 5276.0, 5361.0, 5384.0, 5640.0, 5490.0, 5713.0, 5454.0, 5650.0, 5429.0, 5318.0, 5456.0, 5635.0, 5475.0, 5467.0, 5532.0, 5709.0
2	5550	9	1	333	1	5310.0, 5509.0, 5320.0, 5313.0, 5692.0, 5395.0, 5415.0, 5688.0, 5639.0, 5609.0, 5714.0, 5360.0, 5574.0, 5333.0, 5723.0, 5435.0, 5453.0, 5354.0, 5603.0, 5499.0, 5424.0, 5271.0, 5518.0, 5556.0, 5634.0, 5258.0, 5346.0, 5441.0, 5608.0, 5489.0, 5359.0, 5535.0, 5351.0, 5591.0, 5604.0, 5659.0, 5670.0, 5434.0, 5502.0, 5438.0, 5713.0, 5355.0, 5303.0, 5389.0, 5648.0, 5414.0, 5587.0, 5500.0, 5613.0, 5402.0, 5292.0, 5541.0, 5374.0, 5718.0, 5288.0, 5507.0, 5706.0, 5647.0, 5281.0, 5560.0, 5315.0, 5699.0, 5469.0, 5467.0, 5357.0, 5280.0, 5601.0, 5527.0, 5397.0, 5483.0, 5326.0, 5405.0, 5408.0, 5430.0, 5490.0, 5665.0, 5484.0, 5710.0, 5367.0, 5442.0, 5390.0, 5568.0, 5383.0, 5451.0, 5401.0, 5319.0, 5705.0, 5270.0, 5517.0, 5478.0, 5498.0, 5709.0, 5466.0, 5380.0, 5698.0, 5668.0, 5627.0, 5345.0, 5356.0, 5643.0
3	5550	9	1	333	1	5517.0, 5574.0, 5698.0, 5645.0, 5464.0, 5434.0, 5696.0, 5697.0, 5460.0, 5267.0, 5390.0, 5650.0, 5541.0, 5666.0, 5494.0, 5676.0, 5501.0, 5596.0, 5632.0, 5577.0, 5354.0, 5437.0, 5433.0, 5293.0, 5469.0, 5252.0, 5349.0, 5386.0, 5423.0, 5714.0, 5619.0, 5503.0, 5306.0, 5405.0, 5427.0, 5447.0, 5475.0, 5333.0, 5723.0, 5572.0, 5514.0, 5713.0, 5468.0, 5266.0, 5431.0, 5364.0, 5644.0, 5417.0, 5262.0, 5481.0, 5543.0, 5331.0, 5414.0, 5299.0, 5720.0, 5443.0, 5631.0, 5504.0, 5329.0, 5654.0, 5550.0, 5527.0, 5410.0, 5387.0, 5302.0,

						5413.0, 5500.0, 5347.0, 5316.0, 5454.0, 5363.0, 5699.0, 5444.0, 5681.0, 5356.0, 5453.0, 5546.0, 5678.0, 5474.0, 5576.0, 5322.0, 5621.0, 5357.0, 5516.0, 5341.0, 5286.0, 5588.0, 5288.0, 5614.0, 5702.0, 5568.0, 5388.0, 5399.0, 5311.0, 5280.0, 5394.0, 5310.0, 5424.0, 5351.0, 5573.0
4	5550	9	1	333	1	5642.0, 5683.0, 5275.0, 5412.0, 5288.0, 5708.0, 5296.0, 5682.0, 5300.0, 5532.0, 5343.0, 5636.0, 5406.0, 5710.0, 5314.0, 5590.0, 5470.0, 5644.0, 5511.0, 5567.0, 5427.0, 5422.0, 5460.0, 5574.0, 5523.0, 5667.0, 5650.0, 5651.0, 5251.0, 5400.0, 5483.0, 5315.0, 5712.0, 5611.0, 5514.0, 5537.0, 5456.0, 5463.0, 5510.0, 5678.0, 5668.0, 5363.0, 5643.0, 5591.0, 5689.0, 5577.0, 5386.0, 5381.0, 5473.0, 5573.0, 5370.0, 5656.0, 5376.0, 5397.0, 5713.0, 5350.0, 5581.0, 5563.0, 5357.0, 5348.0, 5402.0, 5655.0, 5324.0, 5272.0, 5597.0, 5471.0, 5480.0, 5284.0, 5342.0, 5408.0, 5401.0, 5704.0, 5675.0, 5322.0, 5635.0, 5724.0, 5289.0, 5601.0, 5583.0, 5575.0, 5546.0, 5268.0, 5266.0, 5627.0, 5425.0, 5695.0, 5684.0, 5606.0, 5669.0, 5253.0, 5506.0, 5299.0, 5518.0, 5492.0, 5662.0, 5384.0, 5341.0, 5379.0, 5652.0, 5269.0
5	5550	9	1	333	1	5338.0, 5466.0, 5647.0, 5593.0, 5573.0, 5718.0, 5515.0, 5259.0, 5503.0, 5708.0, 5461.0, 5481.0, 5584.0, 5545.0, 5352.0, 5491.0, 5397.0, 5316.0, 5421.0, 5325.0, 5462.0, 5579.0, 5529.0, 5366.0, 5656.0, 5370.0, 5471.0, 5400.0, 5324.0, 5514.0, 5501.0, 5355.0, 5312.0, 5717.0, 5610.0, 5723.0, 5588.0, 5560.0, 5536.0, 5632.0, 5604.0, 5459.0, 5597.0, 5431.0, 5530.0, 5353.0, 5268.0, 5685.0, 5382.0, 5595.0, 5699.0, 5528.0, 5424.0, 5527.0, 5677.0, 5301.0, 5654.0, 5686.0, 5547.0, 5450.0, 5606.0, 5465.0, 5565.0, 5667.0, 5522.0, 5333.0, 5423.0, 5394.0, 5566.0, 5445.0, 5696.0, 5673.0, 5342.0, 5309.0, 5557.0, 5444.0, 5426.0, 5282.0, 5650.0, 5720.0, 5497.0, 5504.0, 5374.0, 5640.0, 5429.0, 5438.0, 5339.0, 5587.0, 5623.0, 5304.0, 5258.0, 5499.0, 5383.0, 5701.0, 5596.0, 5267.0, 5538.0, 5558.0, 5440.0, 5581.0
6	5550	9	1	333	1	5685.0, 5359.0, 5373.0, 5317.0, 5439.0, 5550.0, 5312.0, 5343.0, 5291.0, 5526.0, 5501.0, 5257.0, 5682.0, 5554.0, 5647.0, 5432.0, 5618.0, 5286.0, 5259.0, 5483.0, 5333.0, 5579.0, 5560.0, 5342.0, 5662.0, 5666.0, 5558.0, 5534.0, 5633.0, 5253.0, 5376.0, 5694.0, 5339.0, 5269.0, 5650.0, 5619.0, 5436.0, 5699.0, 5613.0, 5680.0, 5377.0, 5574.0, 5700.0, 5595.0, 5723.0, 5522.0, 5601.0, 5606.0, 5405.0, 5591.0, 5500.0, 5404.0, 5684.0, 5268.0, 5416.0, 5698.0, 5561.0, 5588.0, 5264.0, 5566.0, 5499.0, 5471.0, 5683.0, 5562.0, 5258.0,

						5319.0, 5665.0, 5251.0, 5624.0, 5434.0, 5641.0, 5719.0, 5514.0, 5714.0, 5535.0, 5433.0, 5363.0, 5281.0, 5417.0, 5496.0, 5600.0, 5442.0, 5287.0, 5663.0, 5676.0, 5325.0, 5517.0, 5406.0, 5385.0, 5435.0, 5355.0, 5430.0, 5637.0, 5557.0, 5715.0, 5670.0, 5608.0, 5472.0, 5485.0, 5656.0
7	5550	9	1	333	1	5349.0, 5494.0, 5296.0, 5417.0, 5572.0, 5353.0, 5386.0, 5406.0, 5538.0, 5259.0, 5465.0, 5414.0, 5486.0, 5429.0, 5634.0, 5263.0, 5256.0, 5586.0, 5267.0, 5583.0, 5611.0, 5708.0, 5430.0, 5563.0, 5504.0, 5499.0, 5700.0, 5650.0, 5647.0, 5461.0, 5692.0, 5507.0, 5681.0, 5531.0, 5550.0, 5648.0, 5519.0, 5502.0, 5537.0, 5269.0, 5360.0, 5404.0, 5590.0, 5701.0, 5584.0, 5508.0, 5691.0, 5292.0, 5316.0, 5680.0, 5395.0, 5602.0, 5707.0, 5541.0, 5694.0, 5295.0, 5656.0, 5294.0, 5566.0, 5302.0, 5436.0, 5592.0, 5407.0, 5289.0, 5343.0, 5356.0, 5522.0, 5516.0, 5454.0, 5587.0, 5442.0, 5679.0, 5577.0, 5673.0, 5604.0, 5474.0, 5337.0, 5622.0, 5553.0, 5722.0, 5279.0, 5482.0, 5425.0, 5416.0, 5653.0, 5365.0, 5554.0, 5596.0, 5677.0, 5281.0, 5320.0, 5633.0, 5651.0, 5521.0, 5609.0, 5303.0, 5548.0, 5684.0, 5398.0, 5346.0
8	5550	9	1	333	1	5528.0, 5649.0, 5348.0, 5713.0, 5302.0, 5413.0, 5637.0, 5591.0, 5454.0, 5558.0, 5278.0, 5382.0, 5282.0, 5444.0, 5432.0, 5718.0, 5573.0, 5571.0, 5702.0, 5605.0, 5340.0, 5517.0, 5385.0, 5259.0, 5274.0, 5527.0, 5447.0, 5275.0, 5369.0, 5547.0, 5710.0, 5311.0, 5350.0, 5682.0, 5675.0, 5326.0, 5490.0, 5717.0, 5451.0, 5329.0, 5645.0, 5562.0, 5478.0, 5264.0, 5545.0, 5414.0, 5305.0, 5452.0, 5377.0, 5367.0, 5496.0, 5386.0, 5358.0, 5502.0, 5515.0, 5299.0, 5424.0, 5616.0, 5472.0, 5276.0, 5281.0, 5663.0, 5397.0, 5252.0, 5460.0, 5366.0, 5652.0, 5521.0, 5374.0, 5683.0, 5578.0, 5689.0, 5435.0, 5541.0, 5606.0, 5400.0, 5285.0, 5401.0, 5561.0, 5661.0, 5631.0, 5532.0, 5646.0, 5677.0, 5346.0, 5457.0, 5539.0, 5266.0, 5379.0, 5529.0, 5504.0, 5287.0, 5655.0, 5438.0, 5687.0, 5360.0, 5615.0, 5540.0, 5483.0, 5390.0
9	5550	9	1	333	1	5377.0, 5372.0, 5389.0, 5559.0, 5712.0, 5649.0, 5426.0, 5525.0, 5674.0, 5376.0, 5648.0, 5592.0, 5590.0, 5519.0, 5473.0, 5504.0, 5574.0, 5618.0, 5476.0, 5410.0, 5558.0, 5530.0, 5692.0, 5470.0, 5257.0, 5452.0, 5652.0, 5691.0, 5421.0, 5653.0, 5303.0, 5503.0, 5321.0, 5481.0, 5554.0, 5688.0, 5259.0, 5521.0, 5643.0, 5597.0, 5455.0, 5626.0, 5385.0, 5437.0, 5622.0, 5671.0, 5327.0, 5276.0, 5416.0, 5614.0, 5612.0, 5301.0, 5308.0, 5689.0, 5252.0, 5472.0, 5366.0, 5507.0, 5342.0, 5490.0, 5581.0, 5288.0, 5578.0, 5351.0, 5570.0,

						5268.0, 5624.0, 5362.0, 5482.0, 5299.0, 5478.0, 5629.0, 5485.0, 5300.0, 5556.0, 5661.0, 5695.0, 5483.0, 5533.0, 5696.0, 5356.0, 5406.0, 5447.0, 5633.0, 5571.0, 5261.0, 5621.0, 5650.0, 5596.0, 5486.0, 5417.0, 5278.0, 5553.0, 5251.0, 5324.0, 5274.0, 5254.0, 5264.0, 5270.0, 5346.0
10	5550	9	1	333	1	5603.0, 5540.0, 5472.0, 5326.0, 5601.0, 5307.0, 5383.0, 5321.0, 5556.0, 5495.0, 5398.0, 5604.0, 5275.0, 5413.0, 5330.0, 5627.0, 5663.0, 5477.0, 5634.0, 5677.0, 5460.0, 5392.0, 5567.0, 5515.0, 5313.0, 5584.0, 5494.0, 5309.0, 5475.0, 5347.0, 5534.0, 5444.0, 5471.0, 5531.0, 5476.0, 5318.0, 5250.0, 5372.0, 5605.0, 5291.0, 5635.0, 5453.0, 5586.0, 5368.0, 5596.0, 5297.0, 5469.0, 5456.0, 5411.0, 5400.0, 5559.0, 5354.0, 5557.0, 5387.0, 5694.0, 5668.0, 5443.0, 5648.0, 5511.0, 5332.0, 5723.0, 5670.0, 5620.0, 5715.0, 5585.0, 5350.0, 5522.0, 5563.0, 5564.0, 5353.0, 5268.0, 5292.0, 5359.0, 5418.0, 5381.0, 5314.0, 5450.0, 5704.0, 5532.0, 5501.0, 5629.0, 5547.0, 5538.0, 5679.0, 5652.0, 5492.0, 5369.0, 5440.0, 5508.0, 5294.0, 5719.0, 5544.0, 5489.0, 5717.0, 5548.0, 5573.0, 5618.0, 5348.0, 5463.0, 5370.0
11	5550	9	1	333	1	5288.0, 5478.0, 5485.0, 5518.0, 5619.0, 5423.0, 5587.0, 5405.0, 5413.0, 5548.0, 5538.0, 5642.0, 5358.0, 5535.0, 5588.0, 5568.0, 5314.0, 5480.0, 5442.0, 5531.0, 5445.0, 5498.0, 5604.0, 5589.0, 5379.0, 5557.0, 5276.0, 5377.0, 5285.0, 5560.0, 5579.0, 5286.0, 5490.0, 5715.0, 5669.0, 5451.0, 5389.0, 5303.0, 5450.0, 5399.0, 5482.0, 5682.0, 5698.0, 5602.0, 5454.0, 5606.0, 5264.0, 5625.0, 5458.0, 5404.0, 5525.0, 5563.0, 5506.0, 5595.0, 5331.0, 5416.0, 5270.0, 5537.0, 5381.0, 5703.0, 5516.0, 5638.0, 5678.0, 5267.0, 5594.0, 5382.0, 5671.0, 5580.0, 5540.0, 5578.0, 5717.0, 5519.0, 5621.0, 5295.0, 5339.0, 5406.0, 5460.0, 5266.0, 5291.0, 5685.0, 5425.0, 5656.0, 5274.0, 5328.0, 5309.0, 5307.0, 5418.0, 5325.0, 5664.0, 5660.0, 5297.0, 5708.0, 5254.0, 5324.0, 5301.0, 5645.0, 5618.0, 5514.0, 5663.0, 5357.0
12	5550	9	1	333	1	5273.0, 5635.0, 5573.0, 5633.0, 5522.0, 5607.0, 5595.0, 5503.0, 5661.0, 5634.0, 5445.0, 5721.0, 5467.0, 5545.0, 5667.0, 5375.0, 5605.0, 5642.0, 5547.0, 5490.0, 5652.0, 5701.0, 5486.0, 5568.0, 5502.0, 5719.0, 5293.0, 5477.0, 5343.0, 5415.0, 5526.0, 5299.0, 5673.0, 5469.0, 5418.0, 5578.0, 5550.0, 5645.0, 5715.0, 5537.0, 5532.0, 5499.0, 5409.0, 5720.0, 5713.0, 5284.0, 5341.0, 5700.0, 5513.0, 5683.0, 5316.0, 5283.0, 5338.0, 5585.0, 5456.0, 5535.0, 5392.0, 5603.0, 5348.0, 5357.0, 5344.0, 5405.0, 5663.0, 5555.0, 5285.0,

						5399.0, 5288.0, 5340.0, 5258.0, 5303.0, 5301.0, 5708.0, 5561.0, 5470.0, 5481.0, 5454.0, 5592.0, 5257.0, 5699.0, 5452.0, 5413.0, 5623.0, 5707.0, 5510.0, 5349.0, 5626.0, 5438.0, 5417.0, 5411.0, 5420.0, 5308.0, 5579.0, 5472.0, 5269.0, 5608.0, 5453.0, 5286.0, 5430.0, 5575.0, 5416.0
13	5550	9	1	333	1	5305.0, 5544.0, 5358.0, 5657.0, 5701.0, 5722.0, 5289.0, 5622.0, 5688.0, 5357.0, 5440.0, 5637.0, 5511.0, 5365.0, 5573.0, 5318.0, 5344.0, 5433.0, 5431.0, 5516.0, 5250.0, 5328.0, 5685.0, 5486.0, 5504.0, 5556.0, 5512.0, 5553.0, 5454.0, 5292.0, 5542.0, 5399.0, 5405.0, 5392.0, 5522.0, 5439.0, 5460.0, 5585.0, 5683.0, 5586.0, 5346.0, 5574.0, 5297.0, 5564.0, 5336.0, 5606.0, 5514.0, 5692.0, 5645.0, 5703.0, 5572.0, 5309.0, 5611.0, 5308.0, 5288.0, 5294.0, 5428.0, 5476.0, 5578.0, 5468.0, 5343.0, 5551.0, 5593.0, 5480.0, 5490.0, 5257.0, 5529.0, 5441.0, 5406.0, 5407.0, 5316.0, 5530.0, 5656.0, 5421.0, 5443.0, 5502.0, 5535.0, 5618.0, 5310.0, 5477.0, 5258.0, 5650.0, 5541.0, 5653.0, 5452.0, 5378.0, 5681.0, 5410.0, 5619.0, 5620.0, 5462.0, 5481.0, 5380.0, 5326.0, 5273.0, 5521.0, 5597.0, 5671.0, 5436.0, 5580.0
14	5550	9	1	333	1	5679.0, 5475.0, 5724.0, 5571.0, 5621.0, 5309.0, 5296.0, 5253.0, 5619.0, 5258.0, 5314.0, 5698.0, 5678.0, 5591.0, 5581.0, 5434.0, 5392.0, 5494.0, 5301.0, 5265.0, 5642.0, 5440.0, 5699.0, 5404.0, 5498.0, 5331.0, 5488.0, 5713.0, 5365.0, 5684.0, 5562.0, 5268.0, 5260.0, 5685.0, 5453.0, 5487.0, 5696.0, 5403.0, 5615.0, 5303.0, 5327.0, 5375.0, 5376.0, 5567.0, 5584.0, 5648.0, 5594.0, 5288.0, 5546.0, 5252.0, 5297.0, 5609.0, 5381.0, 5586.0, 5500.0, 5287.0, 5627.0, 5346.0, 5635.0, 5560.0, 5418.0, 5351.0, 5659.0, 5332.0, 5602.0, 5623.0, 5613.0, 5313.0, 5486.0, 5605.0, 5424.0, 5282.0, 5673.0, 5291.0, 5406.0, 5633.0, 5281.0, 5274.0, 5409.0, 5513.0, 5543.0, 5458.0, 5359.0, 5277.0, 5606.0, 5352.0, 5451.0, 5632.0, 5412.0, 5348.0, 5620.0, 5450.0, 5508.0, 5646.0, 5686.0, 5575.0, 5499.0, 5423.0, 5489.0, 5415.0
15	5550	9	1	333	1	5446.0, 5421.0, 5611.0, 5422.0, 5400.0, 5578.0, 5285.0, 5482.0, 5458.0, 5607.0, 5255.0, 5416.0, 5691.0, 5492.0, 5330.0, 5490.0, 5639.0, 5331.0, 5640.0, 5628.0, 5673.0, 5403.0, 5372.0, 5303.0, 5636.0, 5507.0, 5592.0, 5679.0, 5280.0, 5343.0, 5320.0, 5497.0, 5516.0, 5327.0, 5332.0, 5306.0, 5358.0, 5522.0, 5520.0, 5656.0, 5557.0, 5428.0, 5493.0, 5612.0, 5480.0, 5685.0, 5406.0, 5309.0, 5722.0, 5433.0, 5260.0, 5514.0, 5649.0, 5441.0, 5455.0, 5478.0, 5684.0, 5614.0, 5319.0, 5268.0, 5586.0, 5307.0, 5350.0, 5680.0, 5341.0,

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29	5550	9	1	333	1	5424.0, 5645.0, 5521.0, 5702.0, 5513.0, 5299.0, 5523.0, 5462.0, 5631.0, 5663.0, 5548.0, 5603.0, 5483.0, 5722.0, 5285.0, 5368.0, 5304.0, 5596.0, 5703.0, 5638.0, 5287.0, 5460.0, 5515.0, 5305.0, 5509.0, 5672.0, 5344.0, 5330.0, 5562.0, 5708.0, 5292.0, 5429.0, 5698.0, 5689.0, 5585.0, 5395.0, 5546.0, 5664.0, 5277.0, 5724.0, 5527.0, 5310.0, 5503.0, 5331.0, 5616.0, 5551.0, 5520.0, 5531.0, 5427.0, 5644.0, 5386.0, 5540.0, 5643.0, 5691.0, 5463.0, 5682.0, 5555.0, 5491.0, 5367.0, 5502.0, 5512.0, 5605.0, 5457.0, 5583.0, 5621.0, 5286.0, 5547.0, 5400.0, 5539.0, 5590.0, 5380.0, 5528.0, 5524.0, 5618.0, 5389.0, 5265.0, 5568.0, 5435.0, 5461.0, 5300.0, 5665.0, 5567.0, 5409.0, 5252.0, 5294.0, 5706.0, 5571.0, 5431.0, 5351.0, 5376.0, 5281.0, 5413.0, 5510.0, 5455.0, 5488.0, 5588.0, 5535.0, 5311.0, 5676.0, 5549.0
30	5550	9	1	333	1	5687.0, 5628.0, 5459.0, 5644.0, 5563.0, 5267.0, 5353.0, 5484.0, 5594.0, 5302.0, 5657.0, 5635.0, 5355.0, 5379.0, 5619.0, 5697.0, 5493.0, 5622.0, 5705.0, 5647.0, 5533.0, 5382.0, 5535.0, 5671.0, 5716.0, 5480.0, 5411.0, 5552.0, 5251.0, 5458.0, 5437.0, 5583.0, 5400.0, 5449.0, 5488.0, 5599.0, 5507.0, 5281.0, 5412.0, 5440.0, 5253.0, 5293.0, 5667.0, 5646.0, 5259.0, 5566.0, 5309.0, 5543.0, 5585.0, 5431.0, 5314.0, 5423.0, 5258.0, 5397.0, 5295.0, 5723.0, 5375.0, 5633.0, 5532.0, 5317.0, 5549.0, 5421.0, 5587.0, 5373.0, 5558.0,

						5268.0, 5673.0, 5540.0, 5638.0, 5491.0, 5296.0, 5463.0, 5500.0, 5718.0, 5664.0, 5674.0, 5367.0, 5557.0, 5514.0, 5456.0, 5311.0, 5283.0, 5284.0, 5710.0, 5712.0, 5510.0, 5410.0, 5394.0, 5709.0, 5289.0, 5380.0, 5598.0, 5301.0, 5617.0, 5660.0, 5305.0, 5529.0, 5321.0, 5494.0, 5680.0

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	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:

5540MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)
1	5540	58	1	918	1
2	5540	92	1	578	1
3	5540	57	1	938	1
4	5540	62	1	858	1
5	5540	70	1	758	1
6	5540	67	1	798	1
7	5540	68	1	778	1
8	5540	81	1	658	1
9	5540	18	1	3066	1
10	5540	65	1	818	1
11	5540	76	1	698	1
12	5540	61	1	878	1
13	5540	78	1	678	1
14	5540	63	1	838	1
15	5540	59	1	898	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	5540	38	1	1403	1
2	5540	50	1	1060	1
3	5540	54	1	981	1
4	5540	95	1	557	1
5	5540	39	1	1356	1
6	5540	29	1	1878	1
7	5540	18	1	3005	1
8	5540	24	1	2210	1
9	5540	32	1	1685	1
10	5540	55	1	965	1
11	5540	52	1	1031	1
12	5540	53	1	1002	1
13	5540	22	1	2425	1
14	5540	33	1	1633	1
15	5540	24	1	2207	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	5540	28	1.3	153	1
2	5540	24	2.7	174	1
3	5540	29	2.6	161	1
4	5540	27	4.6	194	1
5	5540	27	1.1	216	1
6	5540	23	3.6	202	1
7	5540	23	5	223	1
8	5540	25	4.2	223	1
9	5540	23	3.6	176	1
10	5540	28	5	158	1
11	5540	25	2.3	173	1
12	5540	27	3	225	1
13	5540	26	1.9	224	1
14	5540	24	1.4	222	1
15	5540	27	4.8	179	1
16	5540	24	4.2	179	1
17	5540	27	4.9	191	1
18	5540	27	1.5	150	1
19	5540	23	4.2	173	1
20	5540	23	4.6	221	1
21	5540	26	3.7	194	1
22	5540	26	1.1	223	1
23	5540	28	4.7	190	1
24	5540	25	2.1	161	1
25	5540	25	2.8	154	1
26	5540	27	3.5	158	1
27	5540	24	4.8	226	1
28	5540	25	2.5	230	1
29	5540	29	5	167	1
30	5540	26	2.2	168	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	5540	18	9	334	1
2	5540	17	8.2	439	1
3	5540	17	9	351	1
4	5540	18	8.7	241	1
5	5540	17	9.6	266	1
6	5540	17	10	426	1
7	5540	17	7.3	341	1
8	5540	18	9.8	415	1
9	5540	17	7.1	360	1
10	5540	18	7	371	1
11	5540	18	9.3	419	1
12	5540	16	7.5	368	1
13	5540	17	8.1	437	1
14	5540	17	8.6	233	1
15	5540	18	9.7	337	1
16	5540	16	6.2	390	1
17	5540	17	8.5	429	1
18	5540	17	9.2	489	1
19	5540	17	9.9	490	1
20	5540	17	7.7	209	1
21	5540	16	9	443	1
22	5540	17	7.4	395	1
23	5540	16	6.4	296	1
24	5540	18	7.9	269	1
25	5540	18	8.7	378	1
26	5540	17	8.4	359	1
27	5540	18	6.6	434	1
28	5540	18	6.6	398	1
29	5540	18	8	421	1
30	5540	17	8	326	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	5540	15	19.7	251	1
2	5540	14	13.9	383	1
3	5540	14	20	326	1
4	5540	14	15.2	245	1
5	5540	15	18.7	271	1
6	5540	12	15.8	302	1
7	5540	15	11.1	334	1
8	5540	16	12.3	277	1
9	5540	14	19.4	239	1
10	5540	14	11.6	323	1
11	5540	14	13.6	446	1
12	5540	14	11	452	1
13	5540	13	18.3	491	1
14	5540	14	15.6	234	1
15	5540	14	15.8	324	1
16	5540	14	17.3	236	1
17	5540	13	13.5	261	1
18	5540	16	16.6	273	1
19	5540	12	20	218	1
20	5540	14	18.7	328	1
21	5540	13	12.5	358	1
22	5540	15	18.1	468	1
23	5540	12	14.1	253	1
24	5540	14	12.9	267	1
25	5540	15	20	273	1
26	5540	12	11.4	373	1
27	5540	15	12.5	363	1
28	5540	13	16.1	237	1
29	5540	14	14	453	1
30	5540	12	16.8	319	1
Detection Percentage: 100 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5540.0MHz)

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	1	12	75			0.573965	1
1	1	12	99.5			1.854757	
2	2	12	88.3	1634		3.945165	
3	2	12	92.1	1612		4.81468	
4	1	12	59.3			5.795542	
5	3	12	61.7	1033	1087	7.063585	
6	1	12	79.6			8.222197	
7	2	12	82.7	1247		9.61795	
8	3	12	59.1	1278	1347	10.673702	

Statistics 2 (ChirpCenter Frequency: 5540.0 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	54	1526		0.985881	1
1	2	13	67.7	1325		1.953882	
2	2	13	97.8	1819		2.991198	
3	3	13	51.6	1860	1844	3.818482	
4	2	13	74.8	1522		5.189953	
5	2	13	79.1	1606		6.905331	
6	2	13	63.6	1835		7.341528	
7	1	13	53.5			9.188006	
8	2	13	82	1972		10.445796	
9	3	13	80.8	1523	1373	11.927895	

Statistics 3 (ChirpCenter Frequency: 5540.0 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	94.8	1757		0.54983	1
1	2	9	83.6	1341		1.148982	
2	1	9	78.2			2.498619	
3	3	9	77.1	1995	1363	3.28874	
4	2	9	55.9	1676		4.138333	
5	3	9	83.7	1371	1555	4.567323	
6	1	9	90			5.311822	
7	1	9	73.6			6.45068	
8	2	9	63.7	1362		7.467897	
9	2	9	63.9	1175		8.244449	
10	2	9	72	1567		9.390467	
11	2	9	92.8	1463		9.870669	
12	3	9	75.5	1452	1280	10.930706	
13	2	9	97.2	1136		11.50754	

Statistics 4 (ChirpCenter Frequency: 5540.0 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	12	80.9			0.720926	1
1	3	12	58.5	1168	1648	1.741023	
2	2	12	88.5	1410		3.44508	
3	2	12	52	1817		5.308994	
4	3	12	86.8	1810	1140	6.632969	
5	1	12	95.9			7.282896	
6	2	12	89.7	1812		8.277942	
7	2	12	68.6	1832		10.062108	
8	2	12	80.2	1696		11.460342	

Statistics 5(ChirpCenter Frequency: 5540.0 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	93.9	1296	1618	0.056344	1
1	2	7	84.5	1077		0.928528	
2	2	7	66.9	1049		1.98835	
3	1	7	70.1			3.284327	
4	3	7	85.8	1202	1298	3.457616	
5	3	7	68.8	1345	1381	4.661051	
6	3	7	53.5	1378	1508	5.232639	
7	1	7	89.8			6.372203	
8	2	7	67.5	1883		6.862662	
9	1	7	81.6			7.912362	
10	2	7	78.8	1425		9.14547	
11	2	7	70.4	1747		9.624733	
12	2	7	84.5	1728		10.610716	
13	2	7	65.3	1840		11.547342	

Statistics 6 (ChirpCenter Frequency: 5540.0 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	50.3			0.314559	1
1	3	10	54.7	1704	1482	1.307292	
2	2	10	78.7	1530		1.483789	
3	2	10	60.4	1946		2.1009	
4	3	10	82.1	1066	1122	3.043926	
5	3	10	77.1	1842	1372	3.896485	
6	1	10	85.5			4.298626	
7	2	10	76.6	1018		5.085755	
8	2	10	84.1	1732		5.828966	
9	2	10	71.5	1124		6.185044	
10	2	10	70.1	1027		6.746689	
11	2	10	77.6	1861		7.492635	
12	2	10	84	1507		8.301437	
13	1	10	54.7			8.675296	
14	1	10	70.8			9.677936	
15	2	10	90	1808		10.007273	
16	1	10	83.4			10.759594	
17	3	10	61.4	1683	1118	11.508678	

Statistics 7(ChirpCenter Frequency: 5540.0 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	15	77.6			0.074179	1
1	2	15	83.4	1704		1.600274	
2	2	15	80.2	1608		2.163591	
3	2	15	87.8	1426		3.126109	
4	1	15	98.9			4.188953	
5	3	15	67	1074	1825	4.69046	
6	1	15	82.9			5.606044	
7	2	15	95.8	1537		6.644224	
8	1	15	96.1			7.508914	
9	1	15	80.1			8.886008	
10	1	15	83.4			9.318953	
11	2	15	81.5	1450		10.461533	
12	2	15	72.9	1781		11.694518	

Statistics 8 (ChirpCenter Frequency: 5540.0 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	85.7	1932		0.238855	1
1	1	13	55.4			1.469875	
2	2	13	67.1	1488		1.993923	
3	1	13	60.4			2.626213	
4	3	13	95.8	1619	1373	3.964789	
5	1	13	72.4			4.981824	
6	2	13	93.7	1903		5.873088	
7	2	13	90.3	1679		6.12118	
8	2	13	73.6	1475		7.22119	
9	2	13	97.6	1206		8.315152	
10	3	13	57	1670	1891	8.866105	
11	2	13	64.1	1774		9.971403	
12	2	13	89	1238		10.606866	
13	2	13	58.2	1686		11.345636	

Statistics 9 (ChirpCenter Frequency: 5540.0 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	69.4	1567		0.41373	1
1	2	11	78.2	1746		1.434423	
2	3	11	50.1	1977	1649	3.983961	
3	2	11	87.8	1190		5.032495	
4	3	11	83.9	1133	1573	5.637177	
5	3	11	89.1	1231	1596	6.994185	
6	1	11	76.9			8.413943	
7	2	11	54.6	1301		10.09274	
8	2	11	92.5	1914		11.525013	

Statistics 10 (ChirpCenter Frequency: 5540.0 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	12	53.8			0.248004	1
1	2	12	84.7	1103		1.019271	
2	3	12	54.1	1554	1359	1.288974	
3	3	12	81.9	1965	1590	1.907962	
4	3	12	71.9	1576	1657	2.706766	
5	1	12	83.9			3.234073	
6	3	12	79.4	1636	1855	3.656379	
7	1	12	51.4			4.307185	
8	2	12	89	1453		5.23486	
9	2	12	97.3	1004		5.549401	
10	2	12	69.7	1971		6.094133	
11	2	12	76.6	1573		6.654789	
12	2	12	57	1014		7.649637	
13	1	12	60.6			7.89862	
14	3	12	54.2	1351	1792	8.63946	
15	3	12	82.1	1740	1540	9.437945	
16	2	12	73.5	1676		10.115438	
17	3	12	95.8	1773	1666	10.414701	
18	2	12	63	1278		10.819672	
19	3	12	87.3	1379	1449	11.59354	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5533.0 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	8	75.6			0.475952	1
1	1	8	88.8			1.833115	
2	1	8	53.4			3.241707	
3	2	8	71.3	1809		4.790489	
4	2	8	59.7	1292		5.800183	
5	1	8	86.3			7.124512	
6	3	8	61	1192	1386	7.725752	
7	1	8	75.2			9.415781	
8	1	8	66.8			10.256877	

Statistics 2 (ChirpCenter Frequency: 5536.0 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	90.2	1482		0.794946	1
1	2	15	99.3	1854		1.576378	
2	1	15	67.6			2.889682	
3	2	15	76.3	1254		4.055547	
4	2	15	66.7	1515		4.445693	
5	2	15	66.4	1603		6.303746	
6	2	15	71.7	1206		7.534725	
7	2	15	94.3	1429		8.48731	
8	2	15	83.5	1957		9.762869	
9	2	15	60	1416		9.895119	
10	2	15	84.3	1550		11.810814	

Statistics 3 (ChirpCenter Frequency: 5533.0 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	90.5	1537		0.440907	1
1	2	8	75.2	1983		1.217501	
2	3	8	57.6	1483	1580	1.9796	
3	3	8	57.9	1302	1685	2.521704	
4	3	8	85.9	1652	1551	3.327043	
5	2	8	81.9	1431		4.215902	
6	1	8	94.8			4.68893	
7	3	8	94.7	1468	1608	5.988702	
8	1	8	88.4			6.364873	
9	1	8	70.2			6.879879	
10	3	8	75.5	1200	1288	8.2178	
11	2	8	86.6	1876		8.730163	
12	2	8	89.2	1480		9.41593	
13	2	8	80	1017		10.336151	
14	2	8	61.3	1794		11.121767	
15	1	8	84.3			11.937675	

Statistics 4 (ChirpCenter Frequency: 5537.0 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	88.9	1156		0.34879	1
1	2	18	55.9	1475		1.490373	
2	2	18	80.9	1471		2.060951	
3	2	18	64.2	1238		3.04036	
4	2	18	58.7	1086		3.794559	
5	2	18	61.3	1156		4.960574	
6	1	18	75.5			5.636918	
7	3	18	90.7	1360	1413	6.45513	
8	2	18	85.9	1416		7.159421	
9	3	18	90.9	1951	1338	8.371595	
10	2	18	70.6	1639		9.179914	
11	3	18	81.1	1549	1350	9.950053	
12	2	18	77.6	1863		10.931103	
13	2	18	57.4	1288		11.786614	

Statistics 5 (ChirpCenter Frequency: 5536.0 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	75.7	1453	1650	0.01075	1
1	2	14	85.5	1844		1.142917	
2	2	14	69.5	1868		1.906509	
3	2	14	55.3	1619		2.480188	
4	2	14	84.2	1999		3.614621	
5	2	14	71.4	1396		4.095675	
6	2	14	70	1221		5.338181	
7	3	14	76.1	1683	1582	6.232676	
8	3	14	63.4	1892	1106	6.865574	
9	2	14	91.6	1116		7.518197	
10	2	14	61.5	1725		8.07631	
11	1	14	55.2			9.539326	
12	2	14	53.8	1160		10.135076	
13	1	14	76.1			10.958975	
14	2	14	98.5	1366		11.235313	

Statistics 6 (ChirpCenter Frequency: 5536.0 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	91.6			0.627648	1
1	3	16	88.4	1485	1517	0.804522	
2	1	16	98.6			1.651919	
3	2	16	66.6	1452		2.188425	
4	2	16	72.5	1259		2.788334	
5	1	16	61.1			3.547111	
6	1	16	86.9			4.607357	
7	2	16	98.3	1251		5.21772	
8	3	16	73.9	1087	1896	5.510537	
9	1	16	98.8			6.008577	
10	2	16	52.9	1246		6.731237	
11	1	16	69.1			7.382867	
12	2	16	64.8	1531		8.176036	
13	2	16	94.7	1738		9.31319	
14	1	16	67.6			9.729445	
15	2	16	85.4	1901		10.124136	
16	2	16	90.7	1053		11.205146	
17	3	16	98.4	1681	1129	11.718842	

Statistics 7 (ChirpCenter Frequency: 5538.0 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	1	19	62.2			0.564534	1
1	2	19	71.2	1384		1.037102	
2	3	19	81.7	1827	1252	2.286549	
3	2	19	50.2	1654		2.668061	
4	2	19	59	1084		3.600363	
5	2	19	93.7	1685		4.365095	
6	3	19	74.7	1047	1685	5.647715	
7	1	19	75.9			6.500015	
8	2	19	79.1	1390		7.060937	
9	2	19	52.7	1684		7.977354	
10	1	19	90.9			9.137834	
11	1	19	68.7			9.867396	
12	1	19	91.3			10.916041	
13	2	19	88	1867		11.145037	

Statistics 8 (ChirpCenter Frequency: 5534.0 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	11	93.1			0.317797	1
1	3	11	90	1692	1024	0.757679	
2	1	11	70.2			1.369337	
3	2	11	80	1711		2.489342	
4	1	11	59.9			2.628105	
5	2	11	79.7	1648		3.4313	
6	3	11	95.6	1791	1620	4.200806	
7	2	11	75.9	1693		4.469406	
8	3	11	57.7	1881	1641	5.0564	
9	2	11	64.4	1081		5.777484	
10	2	11	85.8	1378		6.714093	
11	3	11	75.9	1079	1738	6.97648	
12	3	11	52.3	1979	1326	7.699629	
13	2	11	54.4	1337		8.237988	
14	3	11	57.3	1395	1246	8.958062	
15	2	11	68.2	1238		9.729706	
16	2	11	66.5	1145		10.198334	
17	2	11	82.1	1143		10.80949	
18	2	11	55.1	1188		11.823	

Statistics 9 (ChirpCenter Frequency: 5534.0 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	65.1	1476		0.019672	1
1	2	9	76.2	1045		2.461355	
2	1	9	55.8			3.167236	
3	1	9	90.4			4.518456	
4	1	9	78.9			5.888166	
5	1	9	79.2			6.897853	
6	1	9	59.4			8.679645	
7	3	9	53.4	1488	1136	9.822743	
8	2	9	99.5	1606		11.890034	

Statistics 10 (ChirpCenter Frequency: 5532.0 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	56.2	1727		0.065641	
1	1	6	65.2			1.295999	
2	2	6	83.8	1076		2.86123	
3	2	6	88	1867		4.062225	
4	1	6	64.4			4.654612	
5	2	6	75.3	1010		6.169631	1
6	1	6	80.2			7.310641	
7	3	6	55.9	1820	1748	8.026273	
8	2	6	51.7	1973		9.472911	
9	3	6	87.9	1543	1257	10.29924	
10	2	6	87.4	1542		10.964926	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5546.0 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	10	74.9	1070	1996	0.254375	1
1	2	10	96.5	1949		2.413824	
2	3	10	94.6	1275	1706	3.317995	
3	2	10	90.8	1906		5.223957	
4	2	10	94	1682		6.210848	
5	2	10	91.9	1413		6.989946	
6	1	10	97.2			9.109878	
7	3	10	55.6	1996	1170	10.055332	
8	2	10	70.1	1715		11.094011	

Statistics 2 (ChirpCenter Frequency: 5544.0 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	99.3	1436		0.310152	1
1	2	16	72.5	1069		1.18383	
2	1	16	92.6			2.146036	
3	2	16	67.4	1721		3.215625	
4	2	16	57.5	1082		3.758374	
5	1	16	91.9			5.316139	
6	2	16	71.8	1269		6.104597	
7	1	16	97			6.594433	
8	2	16	91.2	1751		7.739093	
9	2	16	85	1766		8.919797	
10	1	16	77.8			9.389953	
11	2	16	84.7	1643		10.601006	
12	2	16	87.2	1279		11.160475	

Statistics 3 (ChirpCenter Frequency: 5544.0 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	92.4	1470		0.343713	1
1	1	16	68.7			0.854377	
2	2	16	61.4	1354		1.514958	
3	1	16	80.8			2.433438	
4	2	16	76	1029		3.065709	
5	3	16	79.4	1987	1620	3.379535	
6	2	16	72.3	1481		4.190264	
7	1	16	65.7			5.144722	
8	2	16	70.9	1380		5.537866	
9	2	16	76.6	1845		6.539239	
10	3	16	57.9	1870	1349	6.732078	
11	3	16	79.9	1728	1700	7.605321	
12	2	16	53.2	1030		8.162044	
13	3	16	57.7	1596	1687	8.893469	
14	3	16	99.3	1036	1806	9.561822	
15	3	16	81.6	1476	1910	10.404867	
16	1	16	76.3			10.702025	
17	2	16	84.2	1460		11.356729	

Statistics 4 (ChirpCenter Frequency: 5547.0 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	96	1642		0.506198	1
1	2	8	92	1564		1.461607	
2	2	8	54	1181		3.42643	
3	3	8	81.8	1494	1223	5.127801	
4	1	8	88.8			5.503187	
5	2	8	82.1	1480		6.931643	
6	1	8	83.7			9.161185	
7	1	8	50.4			9.790002	
8	2	8	70	1446		10.739824	

Statistics 5 (ChirpCenter Frequency: 5542.0 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	78.2			0.126305	1
1	2	19	71.3	1045		1.602591	
2	2	19	81.4	1877		2.734331	
3	1	19	80.3			3.399144	
4	3	19	60.8	1888	1771	3.742043	
5	1	19	86.7			4.99121	
6	1	19	53.1			6.404604	
7	3	19	99.9	1634	1639	6.927875	
8	3	19	98	1553	1213	7.845305	
9	2	19	71.8	1473		8.988185	
10	3	19	76.9	1791	1799	10.103461	
11	2	19	80.4	1287		10.772259	
12	2	19	55.7	1289		11.267756	

Statistics 6 (ChirpCenter Frequency: 5546.0 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	94.9	1158		0.334095	1
1	2	10	95	1209		2.042377	
2	1	10	63.9			2.394111	
3	3	10	82.7	1551	1028	4.108811	
4	2	10	60.6	1560		5.307721	
5	2	10	91.7	1360		5.943364	
6	2	10	58.2	1111		6.815272	
7	3	10	67.5	1029	1793	8.009542	
8	3	10	90.2	1168	1644	9.023891	
9	2	10	100	1063		10.674636	
10	2	10	74.1	1635		10.916028	

Statistics 7 (ChirpCenter Frequency: 5544.0 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	73.9	1688		0.002705	1
1	1	16	69.2			1.550644	
2	2	16	63.2	1497		2.515959	
3	2	16	55.1	1454		3.806114	
4	2	16	98.7	1785		4.81663	
5	2	16	51.7	1040		5.902076	
6	2	16	63.1	1306		6.328002	
7	2	16	78.9	1777		7.592213	
8	2	16	52.2	1031		8.135603	
9	2	16	69.4	1853		9.115438	
10	1	16	53.3			10.687267	
11	2	16	55.4	1334		11.622668	

Statistics 8 (ChirpCenter Frequency: 5543.0 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	17	75.9			0.440994	1
1	3	17	98.2	1779	1687	0.948521	
2	2	17	81.6	1861		2.507536	
3	1	17	52.4			3.014608	
4	2	17	95.1	1914		3.846453	
5	2	17	60.2	1919		5.095765	
6	3	17	81.9	1514	1669	5.89405	
7	1	17	53.5			6.27396	
8	1	17	65.3			7.514316	
9	3	17	78.5	1443	1301	8.429784	
10	2	17	56.4	1689		9.085251	
11	2	17	79.5	1527		10.262165	
12	3	17	71.7	1854	1487	10.338151	
13	2	17	99.4	1044		11.259788	

Statistics 9 (ChirpCenter Frequency: 5543.0 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	17	94.6	1337		0.60891	1
1	2	17	93.4	1422		1.588073	
2	1	17	61.3			2.828075	
3	3	17	57.5	1411	1867	4.990624	
4	2	17	86.7	1496		6.35815	
5	2	17	81.8	1795		7.201575	
6	1	17	51			9.223557	
7	1	17	61.3			10.472918	
8	2	17	71.9	1832		11.149294	

Statistics 10 (ChirpCenter Frequency: 5544.0 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	15	71.3	1997	1764	0.037069	1
1	2	15	63.5	1787		1.322664	
2	2	15	53.6	1681		2.799375	
3	3	15	70.9	1440	1735	3.789583	
4	2	15	65.5	1664		4.808546	
5	2	15	51.3	1272		5.117929	
6	2	15	56.5	1243		6.940752	
7	2	15	90.3	1949		7.516711	
8	2	15	91.2	1144		8.603434	
9	1	15	56.8			9.519115	
10	3	15	50.2	1322	1343	10.68913	
11	2	15	96.9	1411		11.76569	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5540	9	1	333	1	5544.0, 5635.0, 5692.0, 5344.0, 5679.0, 5686.0, 5625.0, 5328.0, 5441.0, 5268.0, 5424.0, 5448.0, 5606.0, 5639.0, 5620.0, 5522.0, 5455.0, 5390.0, 5574.0, 5613.0, 5444.0, 5614.0, 5427.0, 5512.0, 5398.0, 5338.0, 5283.0, 5518.0, 5496.0, 5263.0, 5628.0, 5471.0, 5588.0, 5650.0, 5524.0, 5597.0, 5395.0, 5295.0, 5662.0, 5306.0, 5275.0, 5703.0, 5610.0, 5599.0, 5480.0, 5525.0, 5642.0, 5476.0, 5646.0, 5374.0, 5700.0, 5459.0, 5282.0, 5324.0, 5486.0, 5437.0, 5509.0, 5361.0, 5562.0, 5447.0, 5404.0, 5428.0, 5537.0, 5664.0, 5684.0, 5520.0, 5379.0, 5378.0, 5450.0, 5627.0, 5711.0, 5550.0, 5511.0, 5622.0, 5308.0, 5266.0, 5293.0, 5587.0, 5405.0, 5543.0, 5551.0, 5666.0, 5563.0, 5413.0, 5438.0, 5571.0, 5468.0, 5502.0, 5491.0, 5515.0, 5259.0, 5386.0, 5557.0, 5672.0, 5500.0, 5463.0, 5303.0, 5421.0, 5507.0, 5641.0
2	5540	9	1	333	1	5387.0, 5607.0, 5552.0, 5356.0, 5513.0, 5481.0, 5582.0, 5634.0, 5702.0, 5319.0, 5255.0, 5721.0, 5325.0, 5289.0, 5415.0, 5389.0, 5419.0, 5368.0, 5603.0, 5272.0, 5546.0, 5589.0, 5397.0, 5639.0, 5384.0, 5349.0, 5408.0, 5561.0, 5652.0, 5647.0, 5418.0, 5539.0, 5333.0, 5650.0, 5351.0, 5447.0, 5538.0, 5477.0, 5479.0, 5452.0, 5332.0, 5580.0, 5704.0, 5344.0, 5557.0, 5699.0, 5276.0, 5524.0, 5363.0, 5443.0, 5711.0, 5498.0, 5507.0, 5514.0, 5386.0, 5545.0, 5421.0, 5362.0, 5331.0, 5303.0, 5429.0, 5432.0, 5622.0, 5496.0, 5288.0, 5471.0, 5274.0, 5416.0, 5446.0, 5378.0, 5682.0, 5493.0, 5420.0, 5608.0, 5265.0, 5434.0, 5692.0, 5706.0, 5606.0, 5629.0, 5260.0, 5465.0, 5509.0, 5540.0, 5423.0, 5653.0, 5700.0, 5482.0, 5573.0, 5483.0, 5619.0, 5620.0, 5712.0, 5263.0, 5343.0, 5585.0, 5277.0, 5402.0, 5271.0, 5480.0
3	5540	9	1	333	1	5620.0, 5723.0, 5468.0, 5504.0, 5254.0, 5705.0, 5673.0, 5721.0, 5521.0, 5283.0, 5271.0, 5647.0, 5402.0, 5289.0, 5492.0, 5442.0, 5401.0, 5520.0, 5313.0, 5717.0, 5406.0, 5614.0, 5581.0, 5506.0, 5709.0, 5702.0, 5640.0, 5394.0, 5712.0, 5663.0, 5351.0, 5518.0, 5287.0, 5251.0, 5320.0, 5441.0, 5436.0, 5529.0, 5316.0, 5635.0, 5698.0, 5616.0, 5301.0, 5615.0, 5337.0, 5395.0, 5674.0, 5314.0, 5451.0, 5387.0, 5644.0, 5491.0, 5376.0, 5258.0, 5561.0, 5300.0, 5370.0, 5679.0, 5336.0, 5277.0, 5598.0, 5398.0, 5559.0, 5363.0, 5290.0,

						5421.0, 5269.0, 5680.0, 5454.0, 5361.0, 5450.0, 5722.0, 5356.0, 5514.0, 5538.0, 5706.0, 5562.0, 5683.0, 5276.0, 5493.0, 5405.0, 5257.0, 5418.0, 5424.0, 5389.0, 5469.0, 5427.0, 5288.0, 5252.0, 5380.0, 5595.0, 5403.0, 5577.0, 5660.0, 5434.0, 5601.0, 5415.0, 5460.0, 5632.0, 5494.0
4	5540	9	1	333	1	5350.0, 5431.0, 5570.0, 5461.0, 5540.0, 5313.0, 5274.0, 5548.0, 5424.0, 5390.0, 5584.0, 5415.0, 5261.0, 5690.0, 5327.0, 5294.0, 5301.0, 5393.0, 5621.0, 5611.0, 5493.0, 5509.0, 5543.0, 5604.0, 5650.0, 5653.0, 5331.0, 5491.0, 5538.0, 5660.0, 5262.0, 5343.0, 5695.0, 5688.0, 5288.0, 5421.0, 5437.0, 5603.0, 5697.0, 5524.0, 5675.0, 5544.0, 5314.0, 5605.0, 5291.0, 5323.0, 5286.0, 5360.0, 5702.0, 5368.0, 5663.0, 5687.0, 5277.0, 5283.0, 5699.0, 5445.0, 5692.0, 5578.0, 5405.0, 5562.0, 5275.0, 5643.0, 5476.0, 5495.0, 5280.0, 5537.0, 5477.0, 5475.0, 5340.0, 5719.0, 5436.0, 5322.0, 5299.0, 5590.0, 5511.0, 5364.0, 5658.0, 5669.0, 5722.0, 5608.0, 5531.0, 5693.0, 5434.0, 5285.0, 5486.0, 5287.0, 5303.0, 5258.0, 5617.0, 5500.0, 5634.0, 5417.0, 5642.0, 5450.0, 5441.0, 5341.0, 5668.0, 5300.0, 5279.0, 5420.0
5	5540	9	1	333	1	5277.0, 5490.0, 5572.0, 5592.0, 5575.0, 5626.0, 5570.0, 5697.0, 5392.0, 5685.0, 5369.0, 5472.0, 5678.0, 5548.0, 5453.0, 5710.0, 5419.0, 5283.0, 5276.0, 5524.0, 5340.0, 5376.0, 5517.0, 5413.0, 5499.0, 5310.0, 5483.0, 5719.0, 5271.0, 5493.0, 5708.0, 5269.0, 5571.0, 5343.0, 5594.0, 5688.0, 5313.0, 5516.0, 5470.0, 5494.0, 5552.0, 5659.0, 5407.0, 5574.0, 5268.0, 5257.0, 5717.0, 5287.0, 5346.0, 5361.0, 5667.0, 5683.0, 5560.0, 5272.0, 5507.0, 5703.0, 5318.0, 5326.0, 5485.0, 5446.0, 5541.0, 5288.0, 5412.0, 5500.0, 5702.0, 5555.0, 5686.0, 5565.0, 5460.0, 5442.0, 5467.0, 5415.0, 5261.0, 5427.0, 5404.0, 5720.0, 5482.0, 5329.0, 5491.0, 5367.0, 5633.0, 5319.0, 5558.0, 5409.0, 5722.0, 5599.0, 5566.0, 5654.0, 5645.0, 5585.0, 5462.0, 5406.0, 5670.0, 5613.0, 5255.0, 5264.0, 5534.0, 5331.0, 5578.0, 5428.0
6	5540	9	1	333	1	5593.0, 5614.0, 5688.0, 5528.0, 5313.0, 5399.0, 5568.0, 5560.0, 5328.0, 5631.0, 5481.0, 5290.0, 5618.0, 5686.0, 5567.0, 5456.0, 5615.0, 5632.0, 5561.0, 5583.0, 5674.0, 5488.0, 5307.0, 5476.0, 5499.0, 5650.0, 5543.0, 5461.0, 5588.0, 5357.0, 5602.0, 5497.0, 5545.0, 5444.0, 5451.0, 5308.0, 5515.0, 5273.0, 5279.0, 5658.0, 5415.0, 5501.0, 5527.0, 5291.0, 5607.0, 5327.0, 5716.0, 5517.0, 5669.0, 5598.0, 5549.0, 5300.0, 5689.0, 5310.0, 5496.0, 5397.0, 5356.0, 5408.0, 5443.0, 5305.0, 5712.0, 5634.0, 5384.0, 5649.0, 5277.0,

						5575.0, 5675.0, 5681.0, 5718.0, 5425.0, 5441.0, 5493.0, 5478.0, 5382.0, 5594.0, 5529.0, 5265.0, 5694.0, 5703.0, 5341.0, 5709.0, 5416.0, 5676.0, 5251.0, 5336.0, 5616.0, 5668.0, 5434.0, 5429.0, 5334.0, 5541.0, 5436.0, 5683.0, 5483.0, 5438.0, 5432.0, 5700.0, 5595.0, 5492.0, 5623.0
7	5540	9	1	333	1	5711.0, 5272.0, 5452.0, 5698.0, 5666.0, 5530.0, 5460.0, 5260.0, 5563.0, 5499.0, 5708.0, 5492.0, 5494.0, 5348.0, 5516.0, 5445.0, 5639.0, 5555.0, 5442.0, 5436.0, 5618.0, 5592.0, 5658.0, 5391.0, 5704.0, 5369.0, 5663.0, 5375.0, 5412.0, 5570.0, 5676.0, 5354.0, 5451.0, 5518.0, 5406.0, 5545.0, 5604.0, 5541.0, 5374.0, 5550.0, 5602.0, 5514.0, 5291.0, 5489.0, 5444.0, 5633.0, 5294.0, 5585.0, 5277.0, 5548.0, 5432.0, 5572.0, 5547.0, 5645.0, 5487.0, 5453.0, 5355.0, 5685.0, 5350.0, 5626.0, 5283.0, 5402.0, 5498.0, 5525.0, 5418.0, 5543.0, 5301.0, 5408.0, 5304.0, 5371.0, 5651.0, 5636.0, 5650.0, 5428.0, 5534.0, 5637.0, 5361.0, 5263.0, 5366.0, 5566.0, 5605.0, 5539.0, 5404.0, 5319.0, 5464.0, 5438.0, 5468.0, 5343.0, 5684.0, 5289.0, 5416.0, 5533.0, 5508.0, 5284.0, 5281.0, 5721.0, 5638.0, 5311.0, 5421.0, 5660.0
8	5540	9	1	333	1	5450.0, 5679.0, 5721.0, 5303.0, 5690.0, 5476.0, 5489.0, 5686.0, 5406.0, 5638.0, 5673.0, 5307.0, 5600.0, 5264.0, 5451.0, 5399.0, 5252.0, 5557.0, 5545.0, 5693.0, 5626.0, 5468.0, 5502.0, 5578.0, 5553.0, 5438.0, 5513.0, 5683.0, 5632.0, 5344.0, 5556.0, 5583.0, 5298.0, 5312.0, 5322.0, 5409.0, 5472.0, 5565.0, 5497.0, 5719.0, 5491.0, 5684.0, 5656.0, 5637.0, 5630.0, 5689.0, 5705.0, 5329.0, 5494.0, 5624.0, 5509.0, 5549.0, 5432.0, 5541.0, 5573.0, 5562.0, 5311.0, 5448.0, 5714.0, 5261.0, 5560.0, 5425.0, 5547.0, 5390.0, 5642.0, 5486.0, 5574.0, 5435.0, 5493.0, 5474.0, 5318.0, 5462.0, 5354.0, 5308.0, 5402.0, 5363.0, 5646.0, 5259.0, 5380.0, 5384.0, 5423.0, 5260.0, 5465.0, 5694.0, 5548.0, 5257.0, 5592.0, 5407.0, 5599.0, 5351.0, 5566.0, 5416.0, 5507.0, 5349.0, 5447.0, 5516.0, 5394.0, 5299.0, 5526.0, 5500.0
9	5540	9	1	333	1	5691.0, 5545.0, 5362.0, 5508.0, 5521.0, 5409.0, 5266.0, 5625.0, 5544.0, 5485.0, 5292.0, 5336.0, 5451.0, 5601.0, 5475.0, 5703.0, 5529.0, 5535.0, 5345.0, 5462.0, 5259.0, 5353.0, 5701.0, 5669.0, 5634.0, 5393.0, 5681.0, 5538.0, 5338.0, 5546.0, 5596.0, 5660.0, 5552.0, 5542.0, 5633.0, 5296.0, 5335.0, 5290.0, 5650.0, 5297.0, 5310.0, 5369.0, 5474.0, 5447.0, 5420.0, 5287.0, 5576.0, 5334.0, 5672.0, 5385.0, 5274.0, 5722.0, 5526.0, 5571.0, 5278.0, 5613.0, 5377.0, 5370.0, 5360.0, 5467.0, 5350.0, 5620.0, 5572.0, 5697.0, 5632.0,

						5411.0, 5584.0, 5520.0, 5316.0, 5481.0, 5609.0, 5368.0, 5299.0, 5578.0, 5322.0, 5311.0, 5347.0, 5355.0, 5410.0, 5658.0, 5668.0, 5637.0, 5491.0, 5320.0, 5429.0, 5464.0, 5434.0, 5592.0, 5321.0, 5323.0, 5717.0, 5539.0, 5372.0, 5676.0, 5533.0, 5716.0, 5486.0, 5721.0, 5252.0, 5284.0
10	5540	9	1	333	1	5568.0, 5590.0, 5401.0, 5308.0, 5420.0, 5374.0, 5371.0, 5609.0, 5551.0, 5505.0, 5411.0, 5329.0, 5480.0, 5427.0, 5326.0, 5264.0, 5509.0, 5267.0, 5349.0, 5289.0, 5660.0, 5541.0, 5487.0, 5506.0, 5409.0, 5398.0, 5373.0, 5439.0, 5259.0, 5652.0, 5540.0, 5531.0, 5642.0, 5662.0, 5661.0, 5520.0, 5360.0, 5450.0, 5386.0, 5462.0, 5576.0, 5481.0, 5257.0, 5490.0, 5676.0, 5288.0, 5651.0, 5367.0, 5392.0, 5610.0, 5465.0, 5554.0, 5558.0, 5266.0, 5645.0, 5592.0, 5696.0, 5463.0, 5638.0, 5468.0, 5299.0, 5384.0, 5624.0, 5452.0, 5253.0, 5268.0, 5418.0, 5562.0, 5581.0, 5453.0, 5466.0, 5274.0, 5689.0, 5347.0, 5309.0, 5410.0, 5252.0, 5672.0, 5644.0, 5692.0, 5549.0, 5414.0, 5715.0, 5475.0, 5666.0, 5375.0, 5542.0, 5501.0, 5461.0, 5515.0, 5286.0, 5511.0, 5627.0, 5403.0, 5601.0, 5270.0, 5717.0, 5573.0, 5402.0, 5413.0
11	5540	9	1	333	1	5445.0, 5652.0, 5565.0, 5551.0, 5270.0, 5433.0, 5676.0, 5712.0, 5642.0, 5498.0, 5588.0, 5315.0, 5659.0, 5640.0, 5700.0, 5524.0, 5488.0, 5431.0, 5693.0, 5579.0, 5367.0, 5491.0, 5510.0, 5421.0, 5550.0, 5549.0, 5677.0, 5701.0, 5266.0, 5493.0, 5698.0, 5633.0, 5468.0, 5351.0, 5288.0, 5598.0, 5467.0, 5483.0, 5628.0, 5717.0, 5508.0, 5572.0, 5359.0, 5515.0, 5320.0, 5474.0, 5543.0, 5696.0, 5656.0, 5711.0, 5363.0, 5577.0, 5342.0, 5349.0, 5674.0, 5500.0, 5535.0, 5333.0, 5374.0, 5723.0, 5308.0, 5629.0, 5511.0, 5653.0, 5371.0, 5545.0, 5702.0, 5426.0, 5357.0, 5506.0, 5356.0, 5287.0, 5403.0, 5304.0, 5692.0, 5336.0, 5519.0, 5397.0, 5533.0, 5457.0, 5541.0, 5391.0, 5327.0, 5430.0, 5335.0, 5386.0, 5444.0, 5516.0, 5464.0, 5660.0, 5534.0, 5432.0, 5595.0, 5258.0, 5639.0, 5636.0, 5586.0, 5547.0, 5291.0, 5280.0
12	5540	9	1	333	1	5296.0, 5544.0, 5377.0, 5707.0, 5562.0, 5552.0, 5347.0, 5524.0, 5695.0, 5422.0, 5710.0, 5570.0, 5380.0, 5551.0, 5364.0, 5353.0, 5579.0, 5693.0, 5403.0, 5495.0, 5718.0, 5259.0, 5278.0, 5295.0, 5429.0, 5405.0, 5279.0, 5321.0, 5290.0, 5493.0, 5478.0, 5341.0, 5391.0, 5580.0, 5484.0, 5531.0, 5550.0, 5481.0, 5703.0, 5568.0, 5304.0, 5301.0, 5639.0, 5394.0, 5425.0, 5607.0, 5475.0, 5637.0, 5497.0, 5563.0, 5437.0, 5370.0, 5716.0, 5466.0, 5317.0, 5680.0, 5253.0, 5612.0, 5624.0, 5373.0, 5319.0, 5337.0, 5528.0, 5328.0, 5257.0,

						5613.0, 5369.0, 5505.0, 5434.0, 5264.0, 5704.0, 5581.0, 5565.0, 5650.0, 5567.0, 5712.0, 5395.0, 5440.0, 5463.0, 5397.0, 5681.0, 5674.0, 5300.0, 5291.0, 5357.0, 5474.0, 5262.0, 5649.0, 5435.0, 5269.0, 5545.0, 5354.0, 5265.0, 5456.0, 5507.0, 5623.0, 5691.0, 5398.0, 5699.0, 5555.0
13	5540	9	1	333	1	5551.0, 5659.0, 5418.0, 5297.0, 5717.0, 5318.0, 5593.0, 5479.0, 5610.0, 5314.0, 5629.0, 5327.0, 5699.0, 5624.0, 5515.0, 5267.0, 5459.0, 5484.0, 5583.0, 5499.0, 5545.0, 5453.0, 5641.0, 5379.0, 5721.0, 5329.0, 5354.0, 5573.0, 5285.0, 5473.0, 5670.0, 5553.0, 5370.0, 5466.0, 5358.0, 5608.0, 5481.0, 5356.0, 5400.0, 5402.0, 5305.0, 5275.0, 5607.0, 5582.0, 5471.0, 5468.0, 5704.0, 5619.0, 5406.0, 5317.0, 5449.0, 5334.0, 5568.0, 5628.0, 5490.0, 5333.0, 5578.0, 5676.0, 5581.0, 5403.0, 5336.0, 5588.0, 5364.0, 5340.0, 5290.0, 5362.0, 5391.0, 5259.0, 5447.0, 5435.0, 5428.0, 5387.0, 5571.0, 5690.0, 5350.0, 5512.0, 5456.0, 5417.0, 5298.0, 5368.0, 5635.0, 5682.0, 5674.0, 5500.0, 5483.0, 5509.0, 5701.0, 5660.0, 5436.0, 5427.0, 5710.0, 5383.0, 5705.0, 5274.0, 5467.0, 5557.0, 5381.0, 5517.0, 5709.0, 5460.0
14	5540	9	1	333	1	5604.0, 5565.0, 5602.0, 5366.0, 5433.0, 5347.0, 5620.0, 5418.0, 5329.0, 5382.0, 5493.0, 5477.0, 5494.0, 5428.0, 5465.0, 5697.0, 5598.0, 5283.0, 5700.0, 5623.0, 5443.0, 5624.0, 5425.0, 5516.0, 5502.0, 5580.0, 5415.0, 5534.0, 5445.0, 5480.0, 5364.0, 5451.0, 5303.0, 5414.0, 5663.0, 5337.0, 5590.0, 5577.0, 5674.0, 5523.0, 5362.0, 5621.0, 5714.0, 5335.0, 5454.0, 5616.0, 5693.0, 5374.0, 5501.0, 5681.0, 5442.0, 5611.0, 5645.0, 5537.0, 5360.0, 5497.0, 5527.0, 5504.0, 5403.0, 5438.0, 5658.0, 5628.0, 5485.0, 5687.0, 5572.0, 5296.0, 5694.0, 5479.0, 5589.0, 5707.0, 5253.0, 5510.0, 5591.0, 5263.0, 5549.0, 5668.0, 5603.0, 5634.0, 5473.0, 5530.0, 5467.0, 5356.0, 5400.0, 5548.0, 5498.0, 5474.0, 5288.0, 5588.0, 5679.0, 5488.0, 5688.0, 5713.0, 5608.0, 5657.0, 5316.0, 5669.0, 5640.0, 5307.0, 5702.0, 5272.0
15	5540	9	1	333	1	5553.0, 5513.0, 5600.0, 5387.0, 5440.0, 5615.0, 5524.0, 5437.0, 5704.0, 5421.0, 5352.0, 5500.0, 5263.0, 5384.0, 5642.0, 5576.0, 5311.0, 5459.0, 5558.0, 5284.0, 5690.0, 5359.0, 5277.0, 5435.0, 5326.0, 5256.0, 5261.0, 5625.0, 5251.0, 5612.0, 5449.0, 5659.0, 5414.0, 5302.0, 5517.0, 5306.0, 5673.0, 5349.0, 5549.0, 5540.0, 5592.0, 5409.0, 5671.0, 5564.0, 5640.0, 5538.0, 5619.0, 5270.0, 5425.0, 5636.0, 5417.0, 5694.0, 5575.0, 5723.0, 5383.0, 5422.0, 5596.0, 5510.0, 5473.0, 5559.0, 5402.0, 5408.0, 5315.0, 5485.0, 5531.0,

						5434.0, 5712.0, 5663.0, 5458.0, 5365.0, 5376.0, 5296.0, 5381.0, 5533.0, 5537.0, 5645.0, 5441.0, 5477.0, 5438.0, 5346.0, 5462.0, 5602.0, 5400.0, 5633.0, 5339.0, 5368.0, 5420.0, 5701.0, 5677.0, 5490.0, 5666.0, 5322.0, 5304.0, 5260.0, 5313.0, 5299.0, 5454.0, 5616.0, 5535.0, 5453.0
16	5540	9	1	333	1	5610.0, 5691.0, 5486.0, 5684.0, 5720.0, 5377.0, 5526.0, 5438.0, 5484.0, 5385.0, 5260.0, 5354.0, 5529.0, 5480.0, 5591.0, 5559.0, 5575.0, 5294.0, 5372.0, 5602.0, 5606.0, 5561.0, 5301.0, 5690.0, 5416.0, 5264.0, 5386.0, 5454.0, 5697.0, 5281.0, 5632.0, 5291.0, 5629.0, 5452.0, 5424.0, 5705.0, 5716.0, 5257.0, 5471.0, 5423.0, 5481.0, 5641.0, 5351.0, 5722.0, 5688.0, 5313.0, 5645.0, 5478.0, 5520.0, 5694.0, 5451.0, 5483.0, 5587.0, 5318.0, 5569.0, 5653.0, 5298.0, 5420.0, 5687.0, 5696.0, 5261.0, 5269.0, 5444.0, 5378.0, 5266.0, 5554.0, 5381.0, 5542.0, 5359.0, 5315.0, 5695.0, 5391.0, 5712.0, 5679.0, 5442.0, 5470.0, 5605.0, 5595.0, 5553.0, 5256.0, 5347.0, 5417.0, 5686.0, 5550.0, 5441.0, 5648.0, 5552.0, 5353.0, 5434.0, 5655.0, 5710.0, 5306.0, 5703.0, 5345.0, 5588.0, 5650.0, 5459.0, 5630.0, 5525.0, 5305.0
17	5540	9	1	333	1	5648.0, 5619.0, 5686.0, 5552.0, 5284.0, 5352.0, 5716.0, 5526.0, 5302.0, 5501.0, 5615.0, 5633.0, 5646.0, 5606.0, 5262.0, 5722.0, 5398.0, 5565.0, 5422.0, 5273.0, 5465.0, 5539.0, 5433.0, 5708.0, 5251.0, 5358.0, 5604.0, 5281.0, 5675.0, 5390.0, 5468.0, 5373.0, 5659.0, 5537.0, 5467.0, 5505.0, 5551.0, 5690.0, 5611.0, 5462.0, 5693.0, 5259.0, 5421.0, 5709.0, 5385.0, 5308.0, 5425.0, 5638.0, 5536.0, 5310.0, 5511.0, 5379.0, 5272.0, 5519.0, 5336.0, 5674.0, 5623.0, 5405.0, 5254.0, 5703.0, 5677.0, 5692.0, 5409.0, 5627.0, 5617.0, 5683.0, 5486.0, 5402.0, 5544.0, 5668.0, 5439.0, 5366.0, 5608.0, 5724.0, 5701.0, 5634.0, 5434.0, 5408.0, 5680.0, 5655.0, 5464.0, 5456.0, 5473.0, 5715.0, 5256.0, 5401.0, 5556.0, 5339.0, 5631.0, 5543.0, 5618.0, 5355.0, 5546.0, 5438.0, 5442.0, 5570.0, 5278.0, 5479.0, 5316.0, 5695.0
18	5540	9	1	333	1	5283.0, 5515.0, 5462.0, 5468.0, 5658.0, 5259.0, 5631.0, 5695.0, 5630.0, 5700.0, 5478.0, 5340.0, 5464.0, 5356.0, 5676.0, 5604.0, 5270.0, 5421.0, 5387.0, 5349.0, 5538.0, 5564.0, 5265.0, 5424.0, 5413.0, 5268.0, 5699.0, 5543.0, 5412.0, 5378.0, 5716.0, 5355.0, 5325.0, 5296.0, 5710.0, 5705.0, 5427.0, 5444.0, 5380.0, 5361.0, 5402.0, 5496.0, 5547.0, 5536.0, 5562.0, 5306.0, 5343.0, 5649.0, 5425.0, 5659.0, 5596.0, 5493.0, 5367.0, 5537.0, 5528.0, 5610.0, 5609.0, 5328.0, 5309.0, 5545.0, 5492.0, 5446.0, 5563.0, 5593.0, 5297.0,

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