DFS TEST REPORT

Applicant: **Grandstream Networks, Inc.**

Address: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA

FCC ID: **YZZGWN7605**

IC: **11964A-GWN7605**

HVIN: **GWN7605V2.1**

Product Name: **802.11ac Wave-2 2×2:2 Wi-Fi Access Point**

Standard(s): **47 CFR Part 15, Subpart E(15.407)**
RSS-247 Issue 2, February 2017
FCC KDB 905462 D02 UNII DFS Compliance
Procedures New Rules v02

The above equipment has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR230741405-00DA2**

Date Of Issue: **2023/8/15**

Reviewed By: **Calvin Chen**

Title: RF Engineer

Approved By: **Sun Zhong**

Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China
Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, 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. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

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

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CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230741405-00DA2	Original Report	2023/8/15

Note:

This is a CIIPC application of the device, the differences between the original device (FCC Grant Date: 05/28/2020, IC Grant Date: 06/08/2020) and the current are as follows:

1. Updated the PoE chip to MP8004.
2. Updated the around the PoE circuit, As the PoE chip changes, the corresponding Hardware changes.
3. Change the antenna.

DFS Test were performed to verify RF compliance.

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	802.11ac Wave-2 2×2:2 Wi-Fi Access Point
EUT Model:	GWN7605
Operation Frequency:	Band 2: 5260-5320 MHz (802.11a/n ht20/ac vht20) 5270-5310 MHz(802.11n ht40/ac vht40) 5290 MHz(802.11ac vht80) Band 3: 5500-5700 MHz (802.11a/n ht20/ac vht20) 5510-5670 MHz(802.11n ht40/ac vht40) 5530-5610 MHz(802.11ac vht80)
Maximum Average Output Power (Conducted):	18.60 dBm (5250-5350 MHz) 18.28 dBm (5470-5725 MHz)
Modulation Type:	802.11a/n/ac: OFDM-BPSK, QPSK, 16QAM, 64QAM,256QAM
Rated Input Voltage:	DC 48V From POE
Serial Number:	28GN-1
EUT Received Date:	2023/7/21
EUT Received Status:	Good

1.1.1 Antenna Information Detail▲:

Antenna Chain	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Chain 0	Dipole	50	5150~5850MHz	4.22 dBi
Chain 1	Dipole	50	5150~5850MHz	4.26 dBi

The Method of §15.203 Compliance:
☒Antenna must be permanently attached to the unit.
☐Antenna must use a unique type of connector to attach to the EUT.
☐Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

1.1.2 Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer. No beamforming mode was tested.
Equipment Modifications:	No
EUT Exercise Software:	Tfgen

The software was provided by manufacturer▲. The below mode and data rate was used when testing:

Bandwidth	Modes	Data Rate
20MHz	802.11ac vht20	MCS0
40MHz	802.11ac vht40	MCS0
80MHz	802.11ac vht80	MCS0

WLAN traffic is generated by software "Tfgen", software is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Data pakge streamed from the Access Point to the Client using the software "Tfgen". The following duty cycle was used when test.

20MHz mode Traffic Duty Cycle: 4.762*7/100.5=33.17%	
20MHz mode Without Traffic	
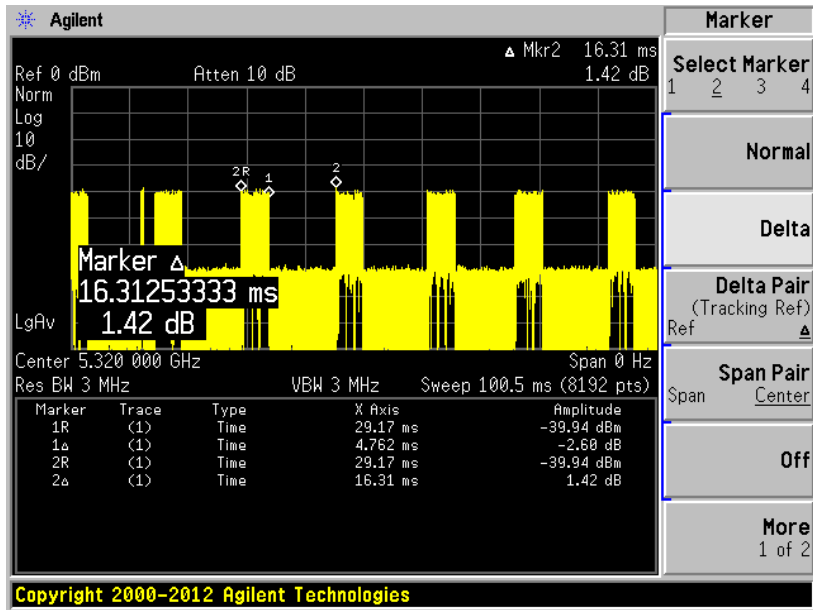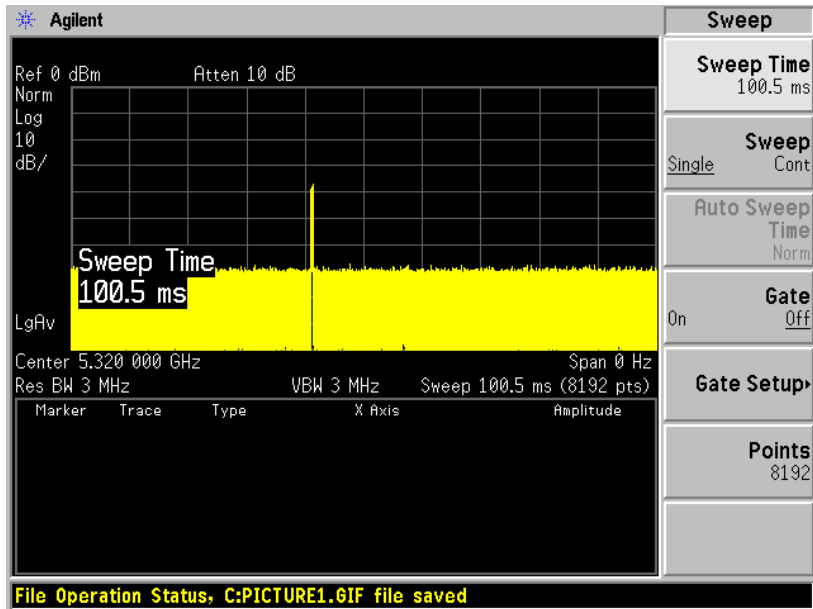
40MHz mode Traffic Duty Cycle: 5.29*6/100.5=31.58%	
40MHz mode Without Traffic	
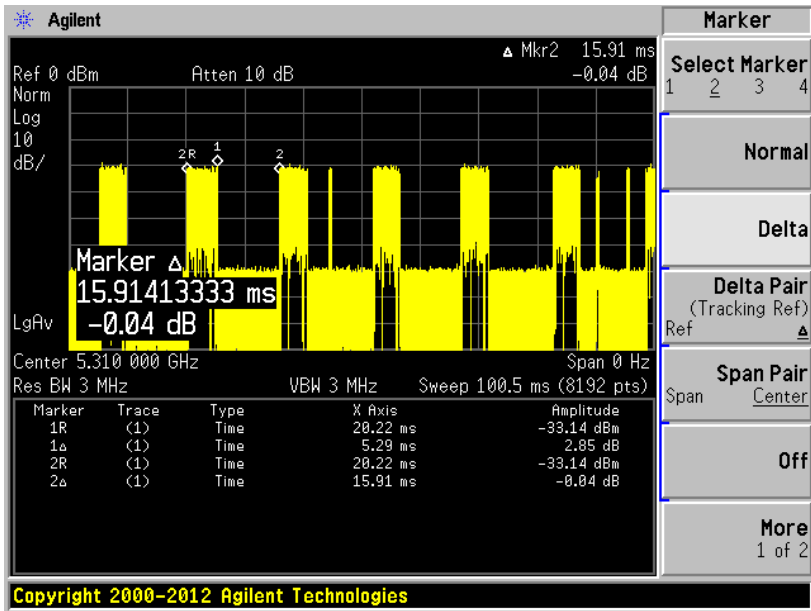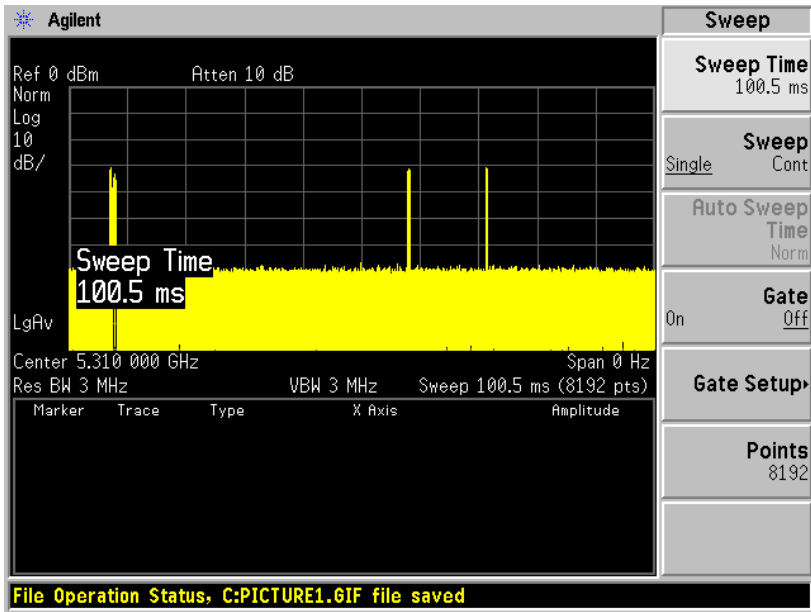
80MHz mode Traffic Duty Cycle: 5.13*7/100.5=35.73%	
80MHz mode Without Traffic	
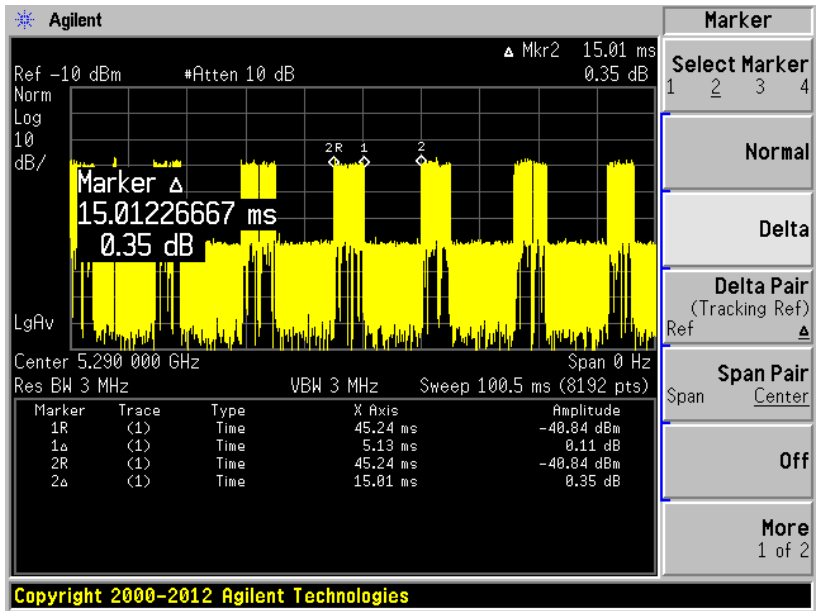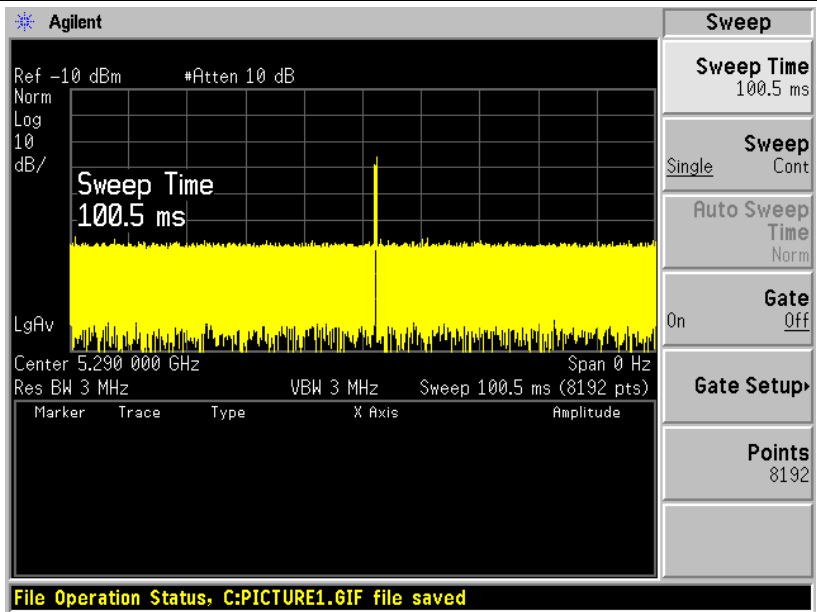
1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	T460S	60PDTEK8
I.T.E	POE	G1080-PoE48G	EMZBPA21206002
Asustek	Laptop	FX504G	J6NRCX014047232

1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	No	No	1.2	POE	AC Mains
RJ 45 Cable	No	No	3	POE	EUT
RJ 45 Cable	No	No	10	EUT	Laptop

1.2.4 Block Diagram of Test Setup
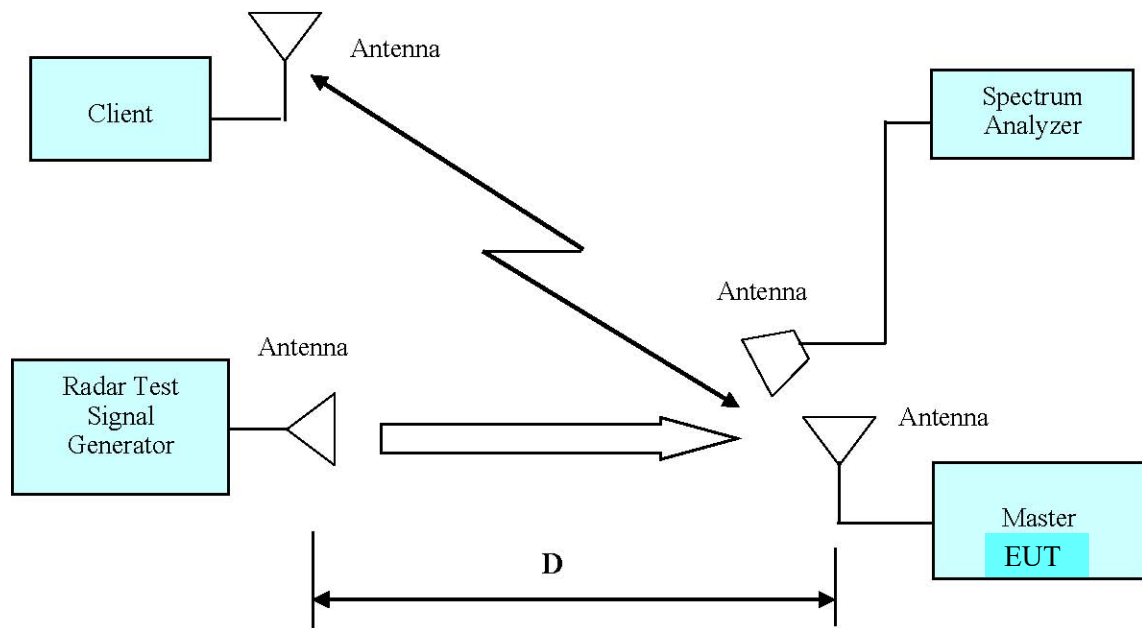
2. SUMMARY OF TEST RESULTS

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	Compliant
Performance Requirements Check	Initial Channel Availability Check Time (CAC)	Compliant
	Radar Burst at the Beginning of the CAC	Compliant
	Radar Burst at the End of the CAC	Compliant
In-Service Monitoring	Channel Move Time	Compliant
	Channel Closing Transmission Time	Compliant
	Non-Occupancy Period	Compliant
Radar Detection	Statistical Performance Check	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 DFS Requirement

CFR §47 Part 15.407(h) and 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	$\text{Roundup}\left\{ \dfrac{\left(\dfrac{1}{360}\right) \cdot \left(\dfrac{19 \cdot 10^6}{\text{PRI}_{\mu sec}}\right)}{} \right\}$	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 $\text{Roundup}\left\{ \left(\dfrac{1}{360}\right) \cdot \left(\dfrac{19 \cdot 10^6}{3066}\right) \right\} = \text{Roundup}\{17.2\} = 18$.

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

3.2 DFS Measurement System

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

3.3 System Block Diagram
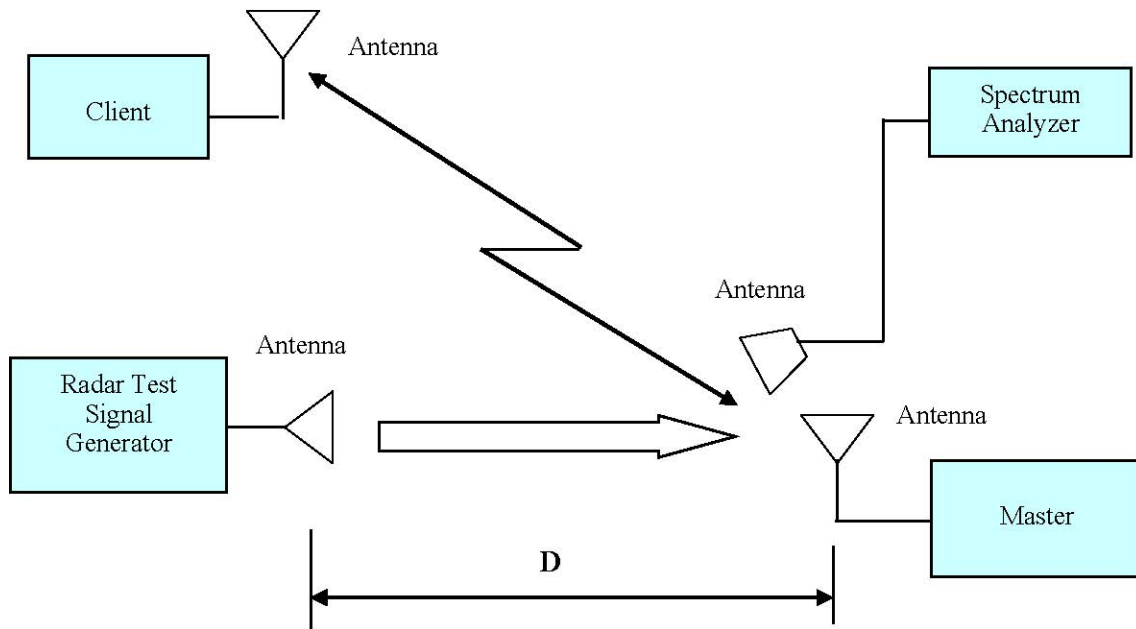
3.4 Test Procedure

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.

4. Test DATA AND RESULTS

Serial Number:	28GN-1	Test Date:	2023/8/5~2023/8/11
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ada Yan	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	23.5~26.4	Relative Humidity: (%)	42~56	ATM Pressure: (kPa)	99.7~99.9

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	2023/3/31	2024/3/30
Ditorn	Splitter/Combiner	D3C4080	SN2244	N/A	N/A
TDK RF	horn antenna	HRN-0118	130 084	2021/10/12	2024/10/12
LINDGREN	horn antenna	3115	000 527 35	2021/10/12	2024/10/12

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

4.1 Radar Waveform Calibration
5290MHz:

Radar Type 0
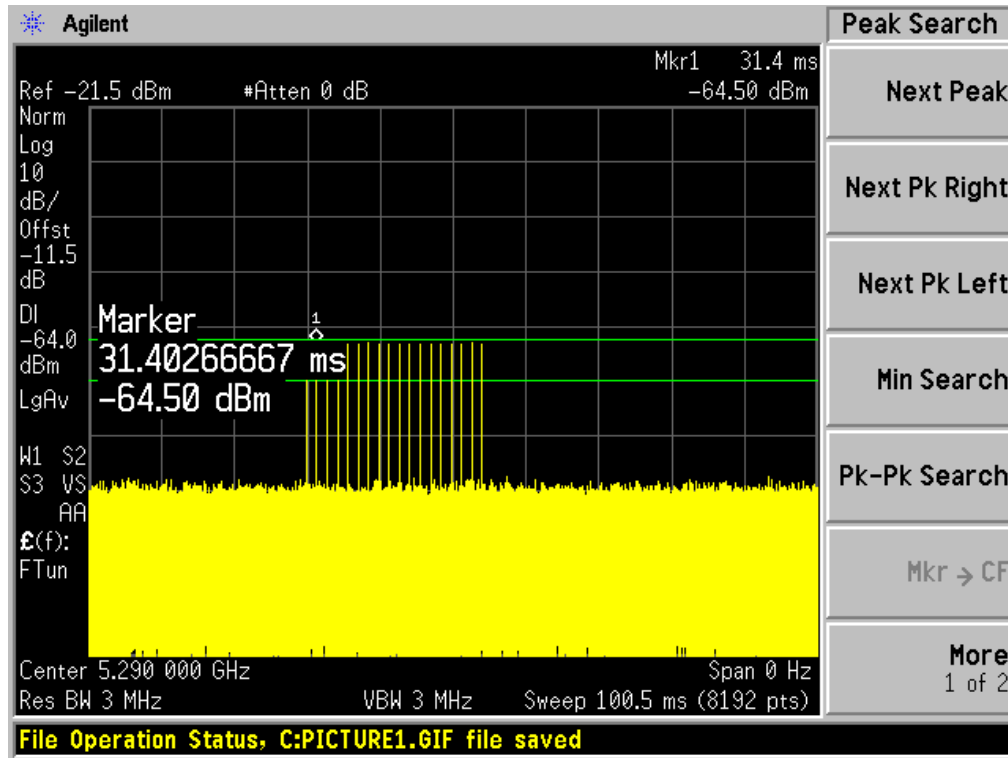
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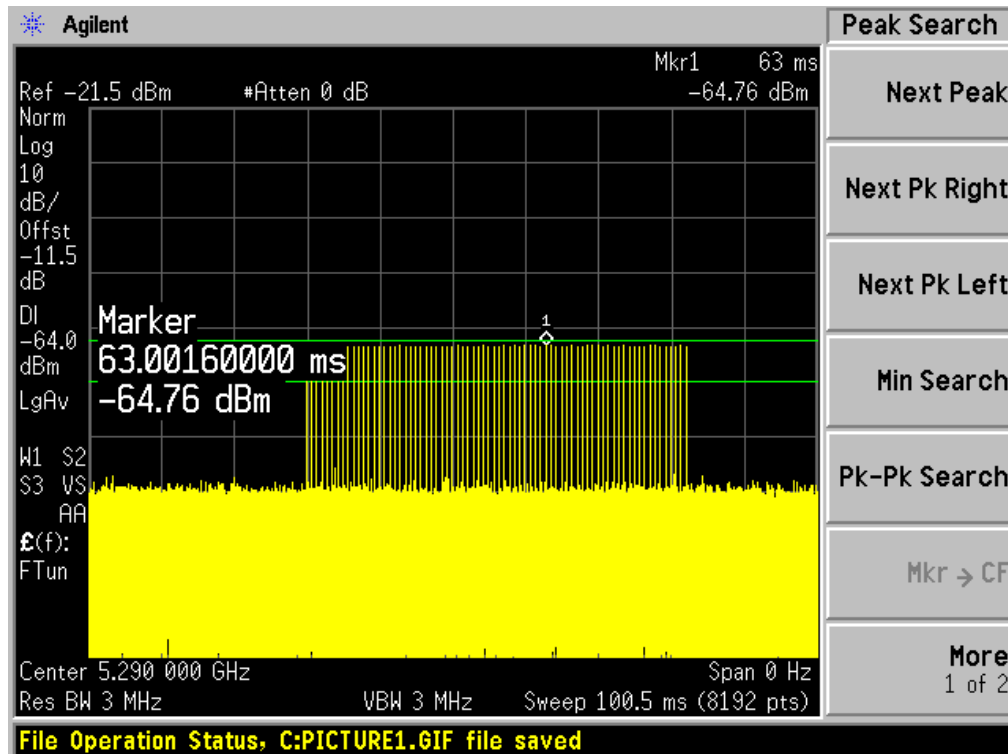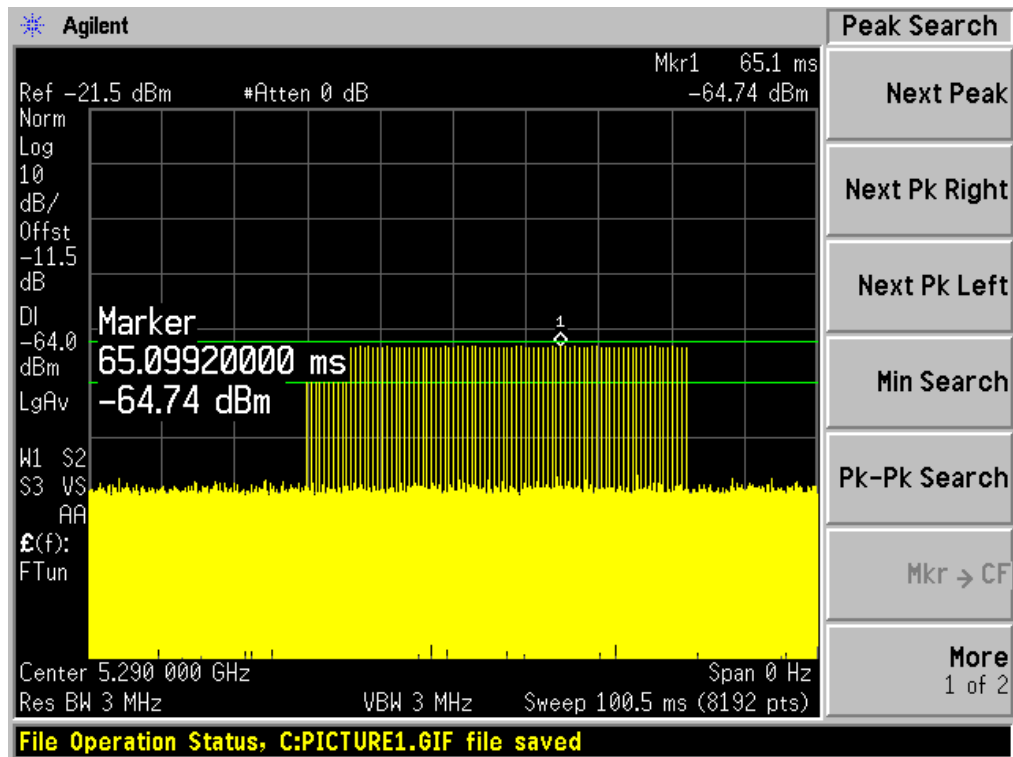
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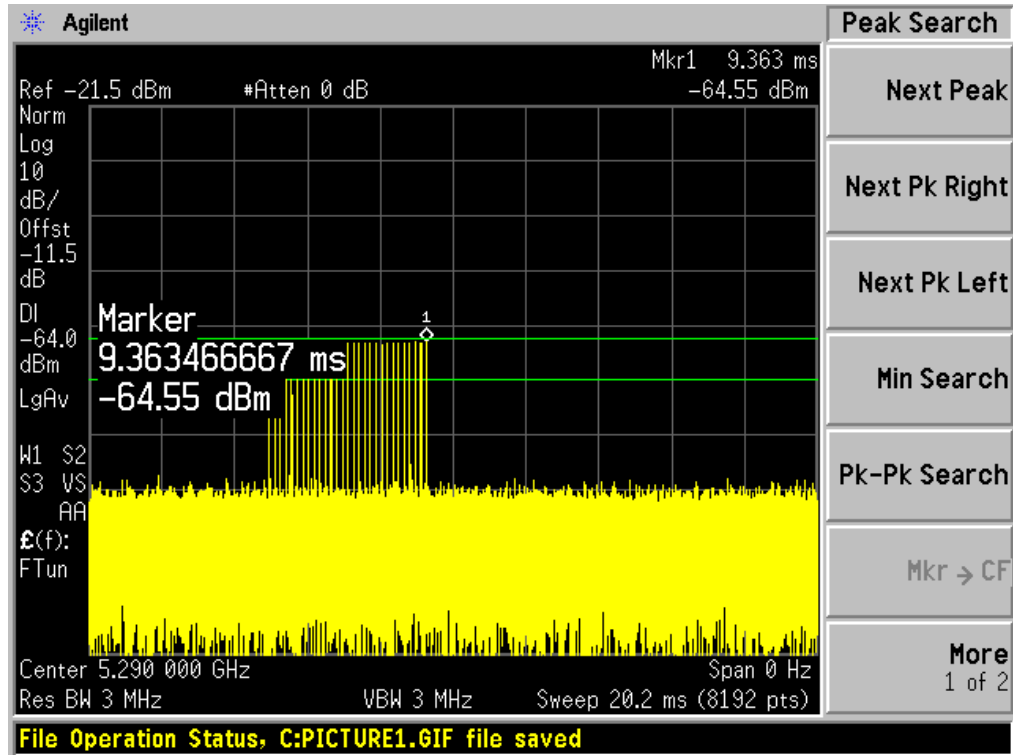
Radar Type 2
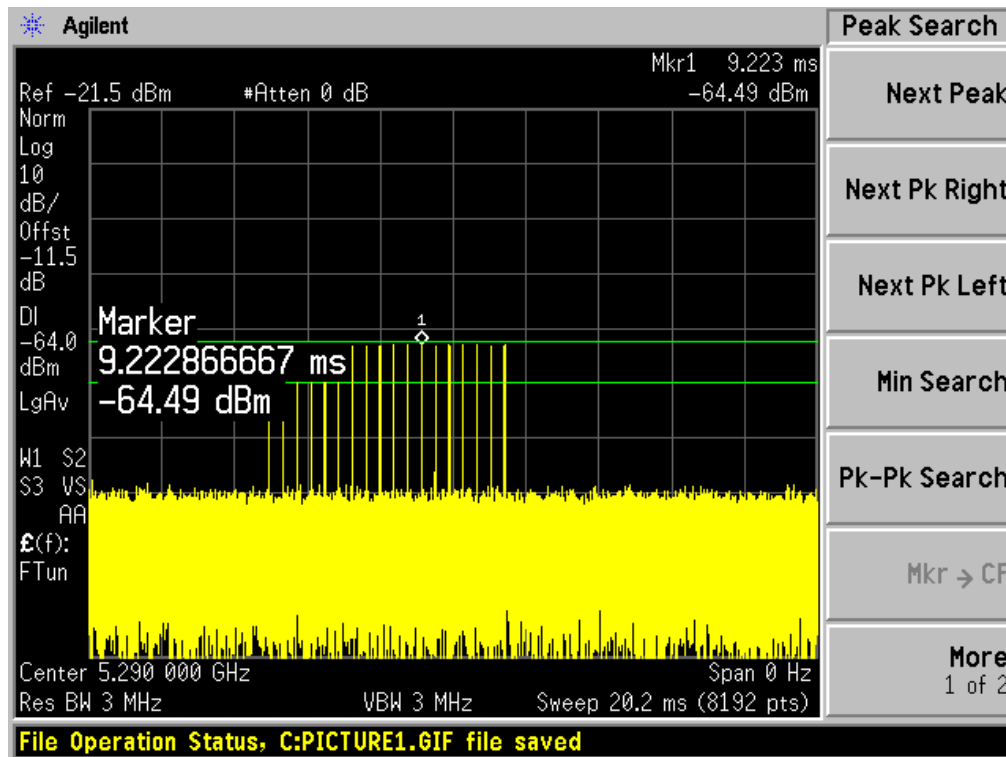
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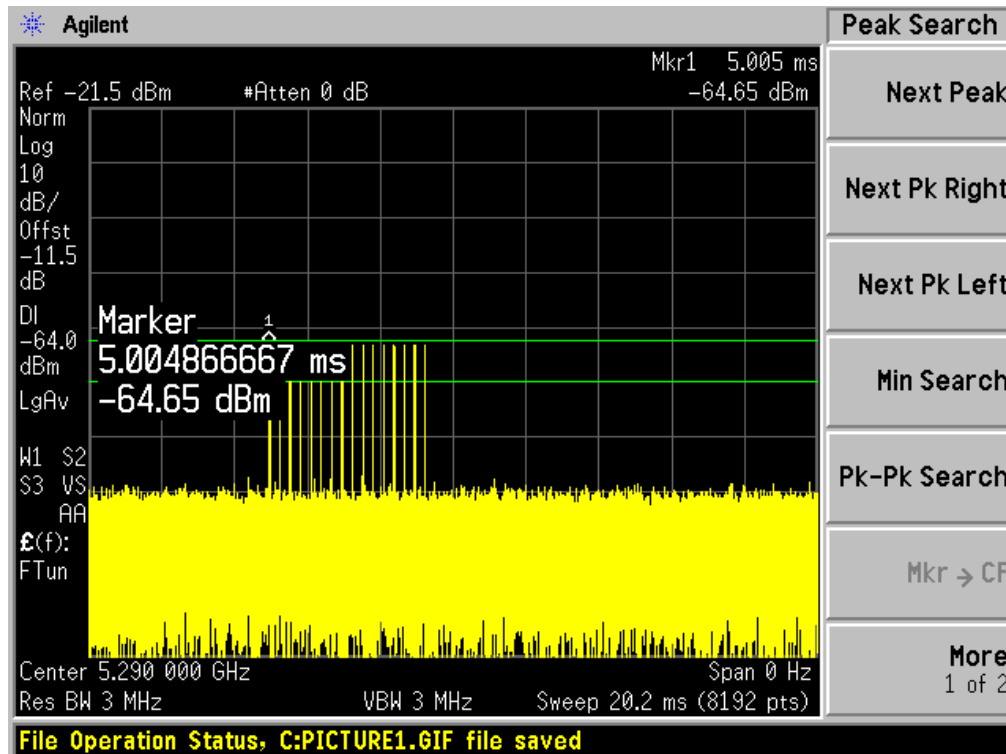
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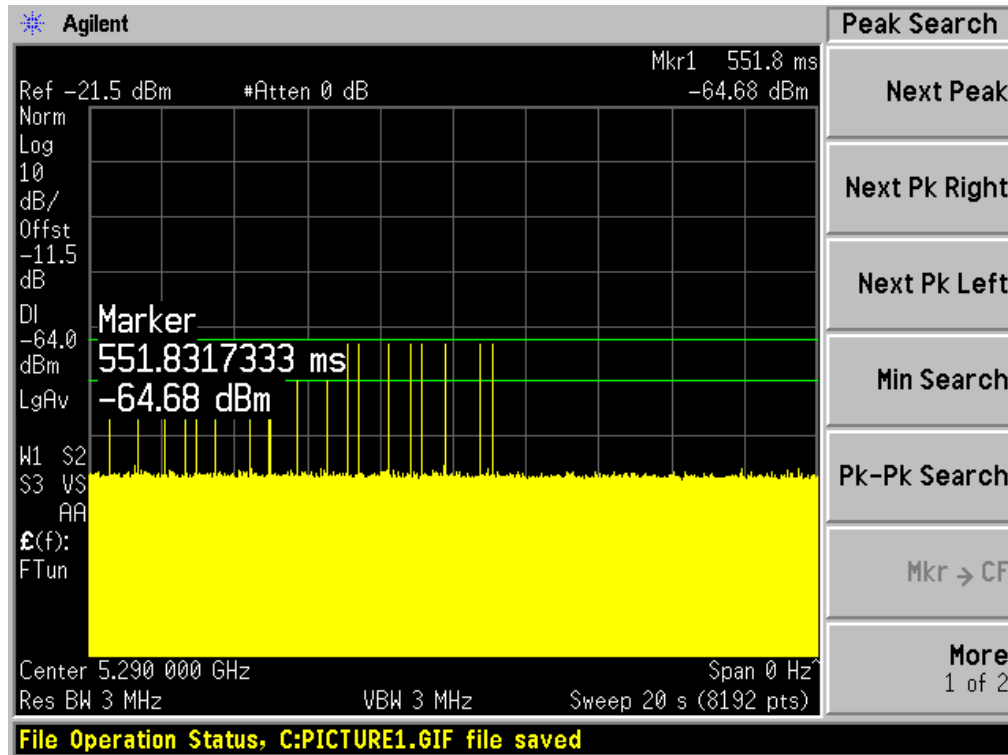
Radar Type 5 Case 1
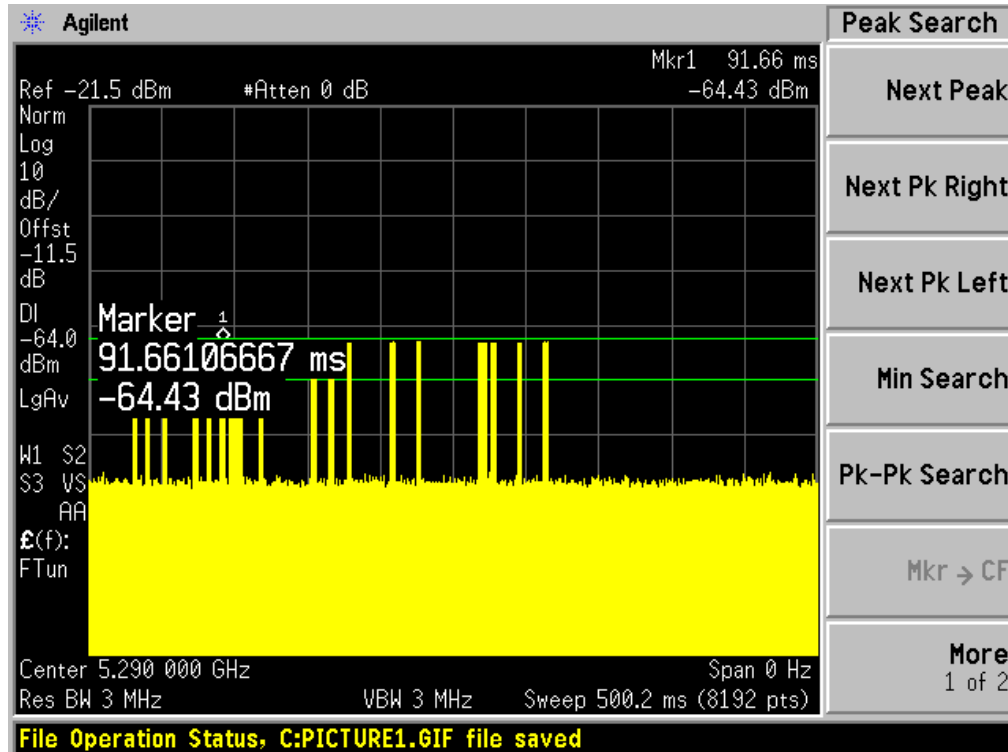
Radar Type 6

5310MHz:

Radar Type 0
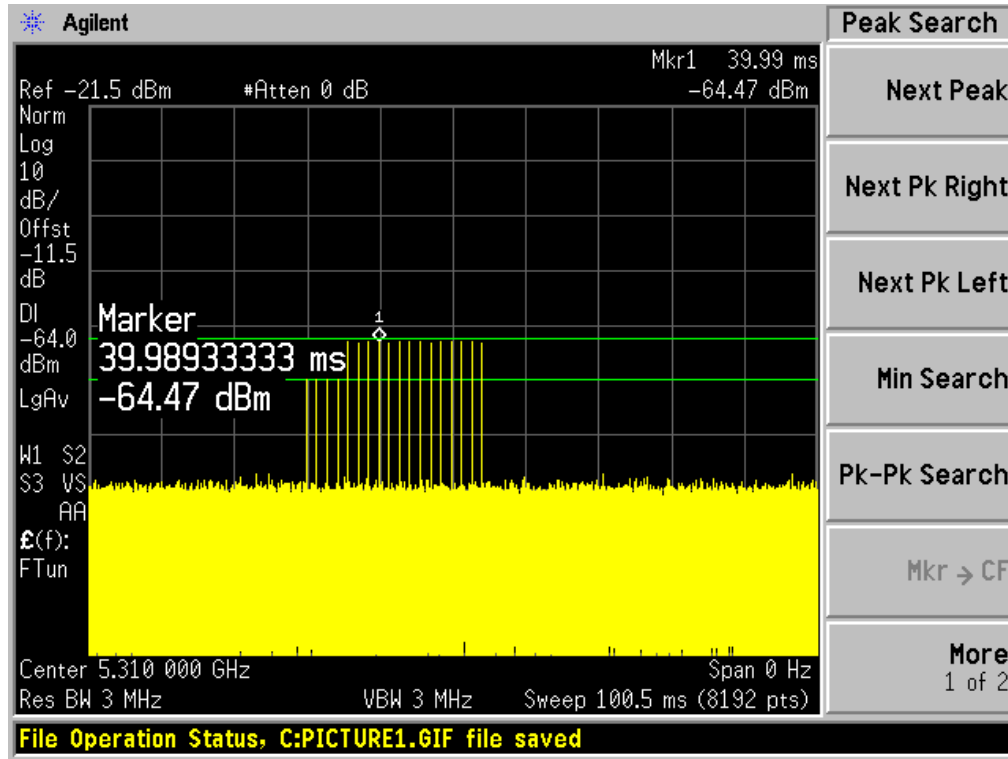
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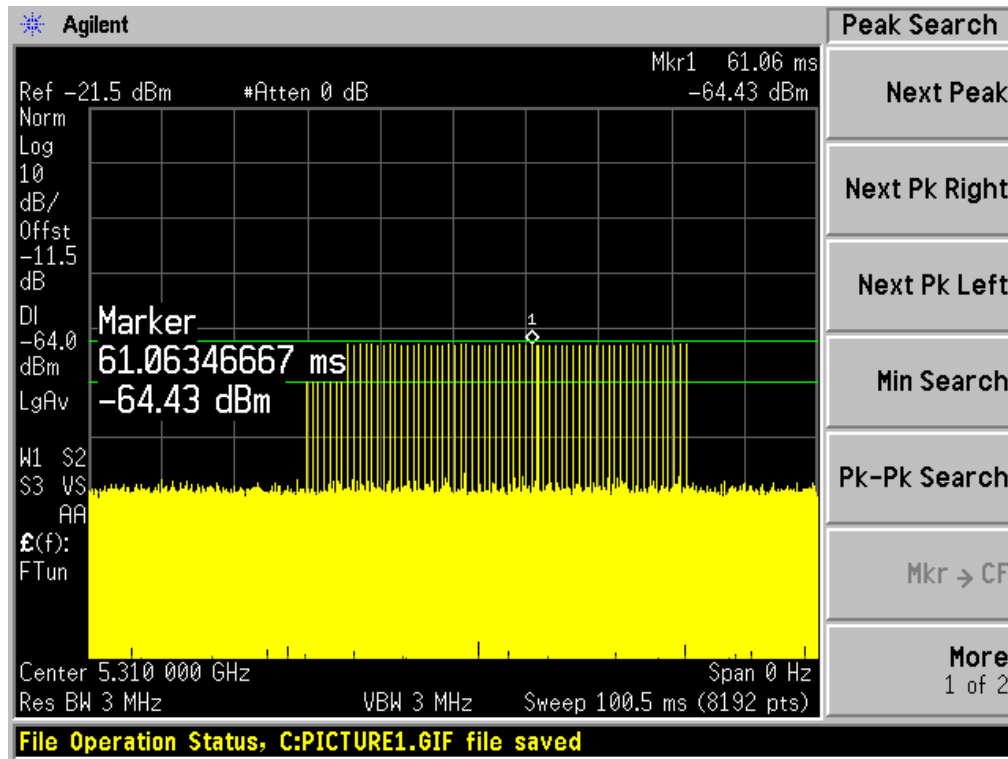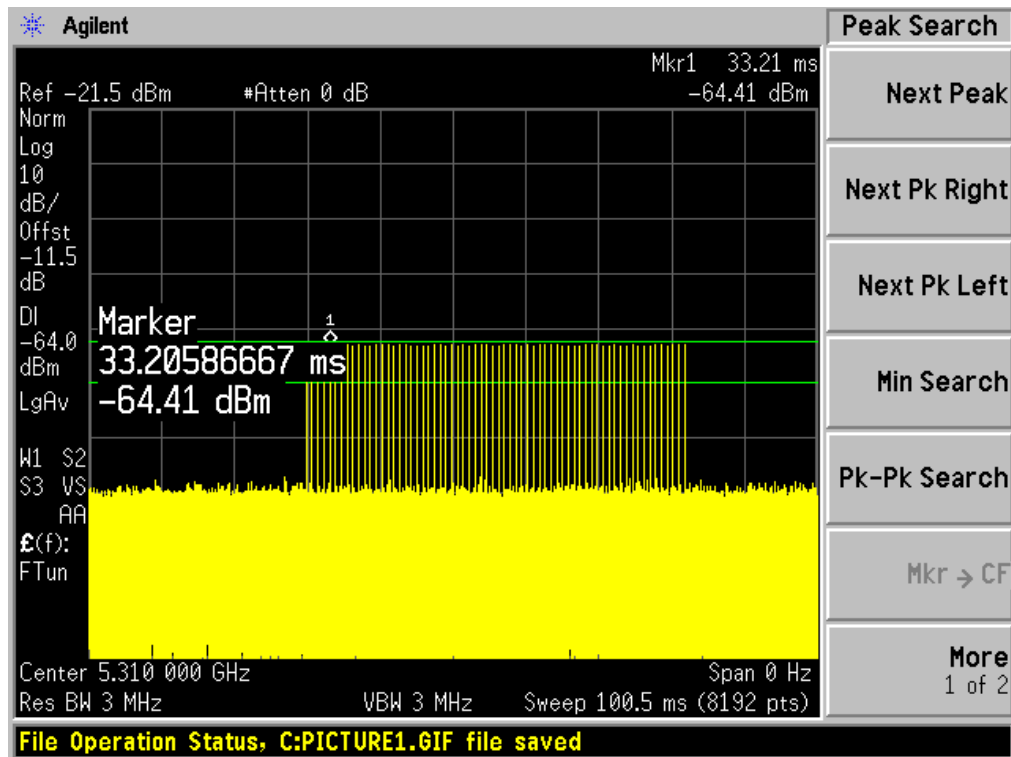
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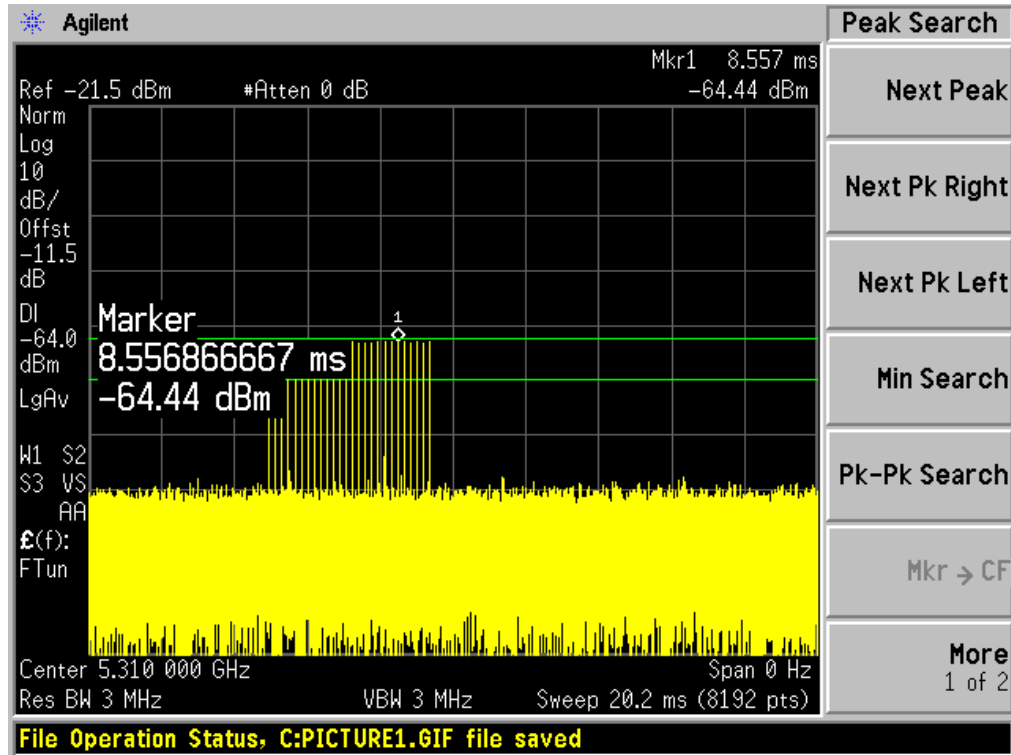
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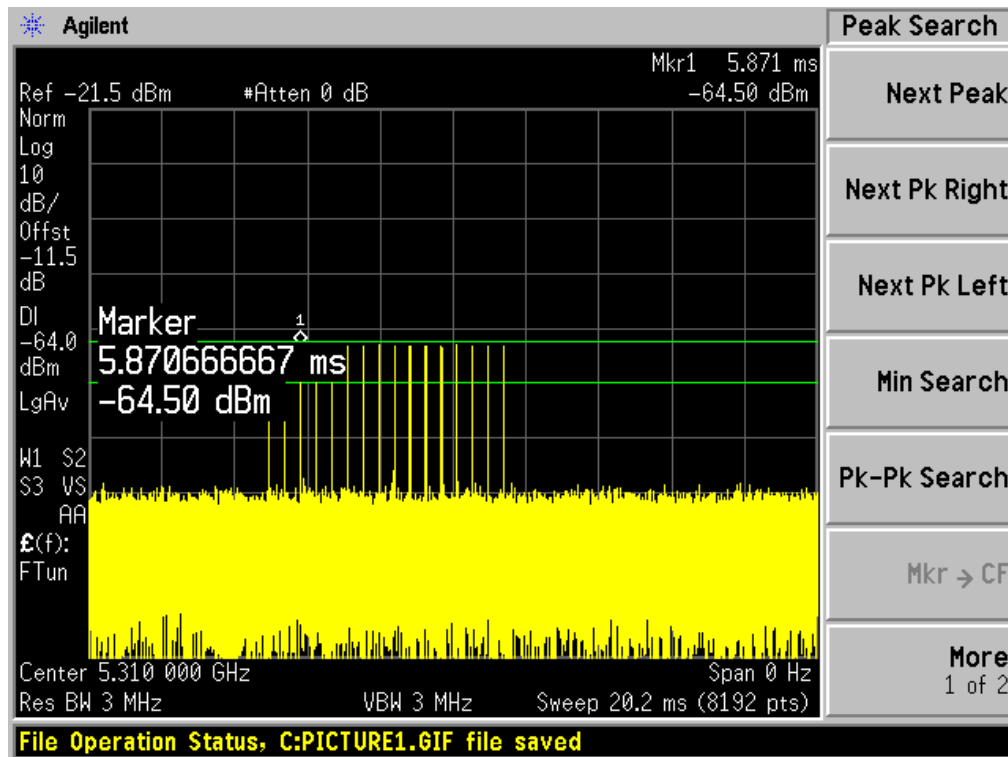
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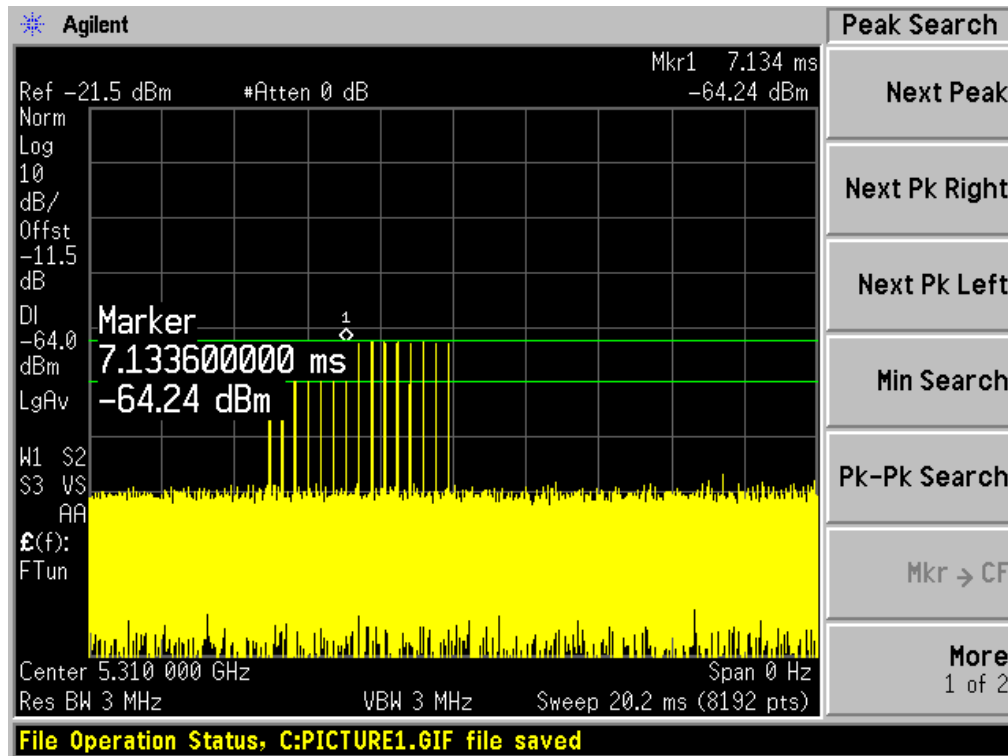
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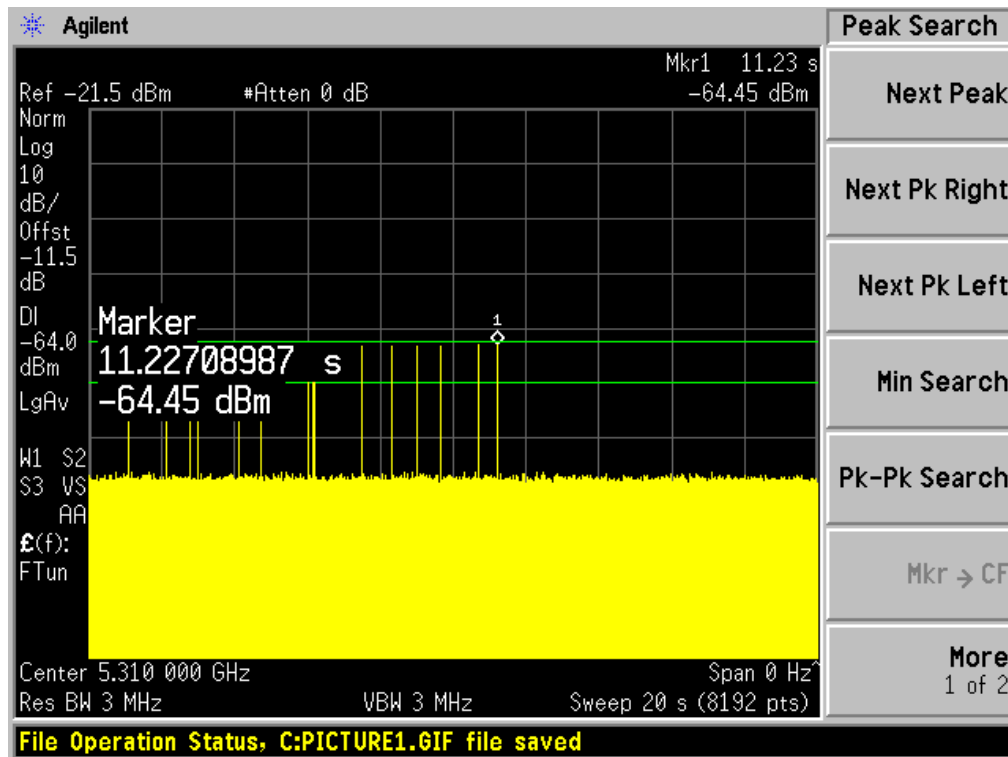
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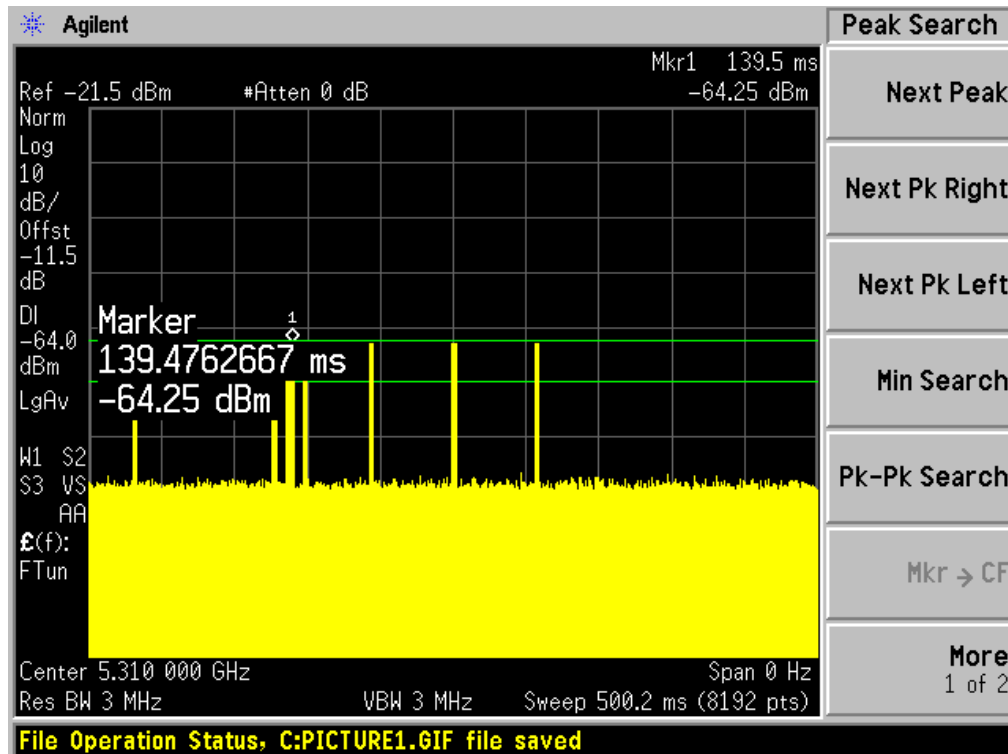
Radar Type 6

5320MHz:

Radar Type 0
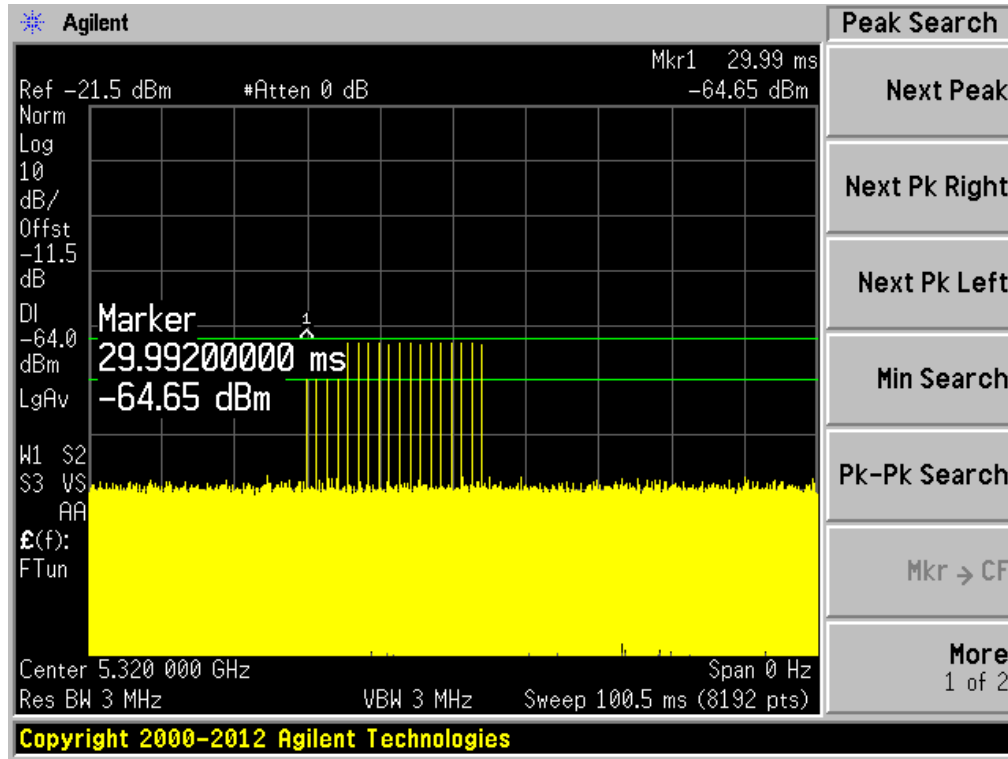
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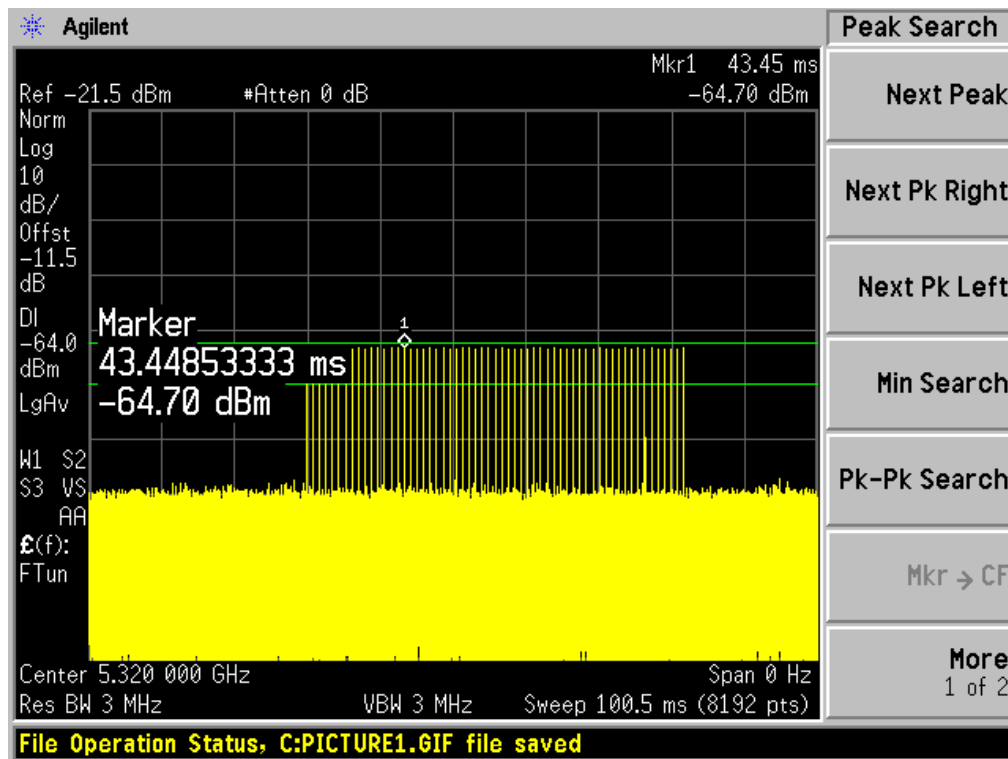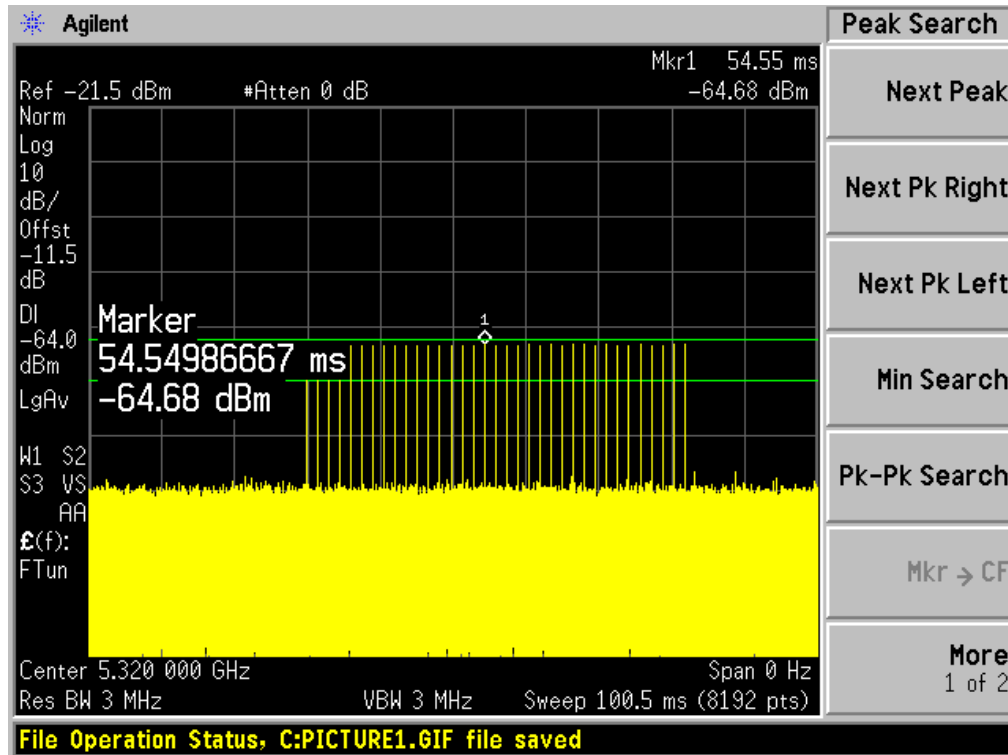
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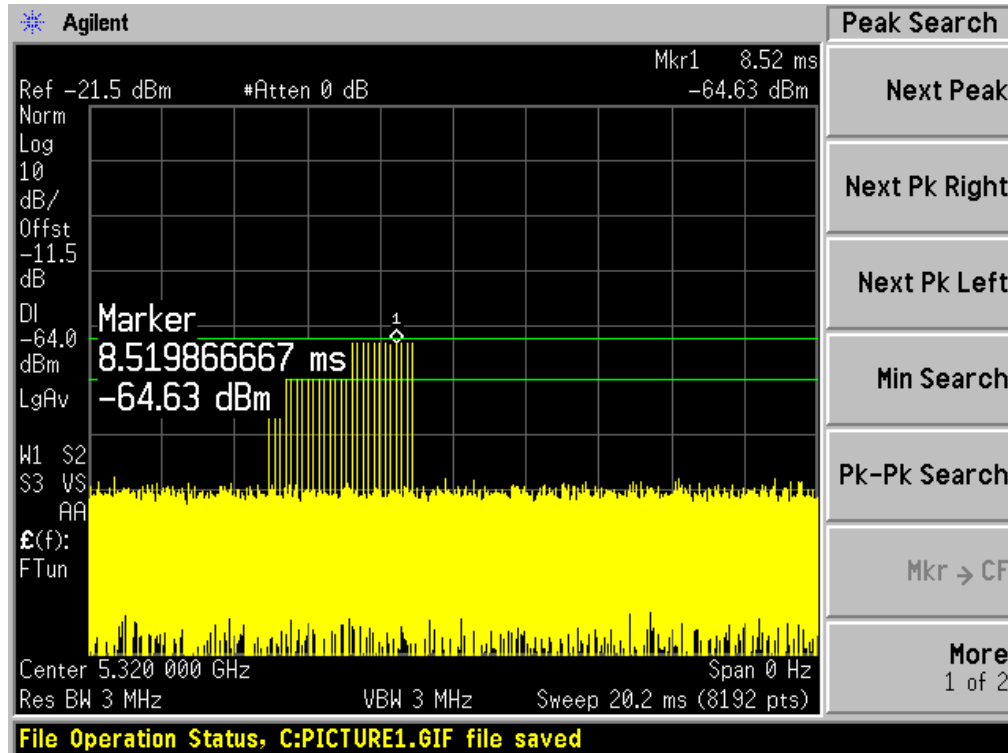
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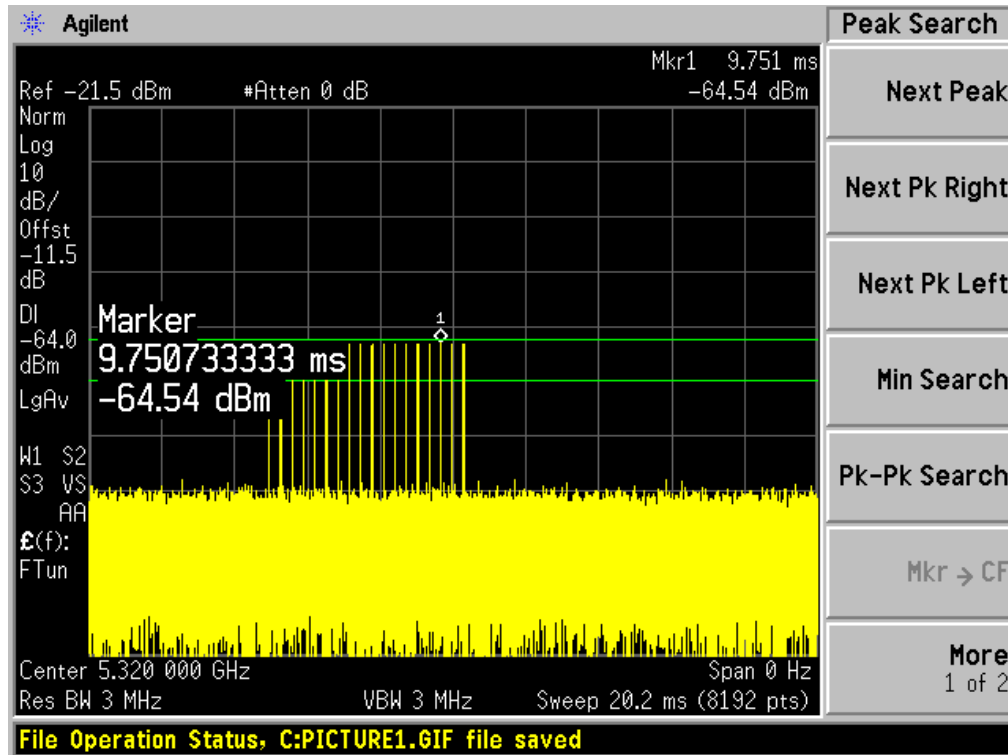
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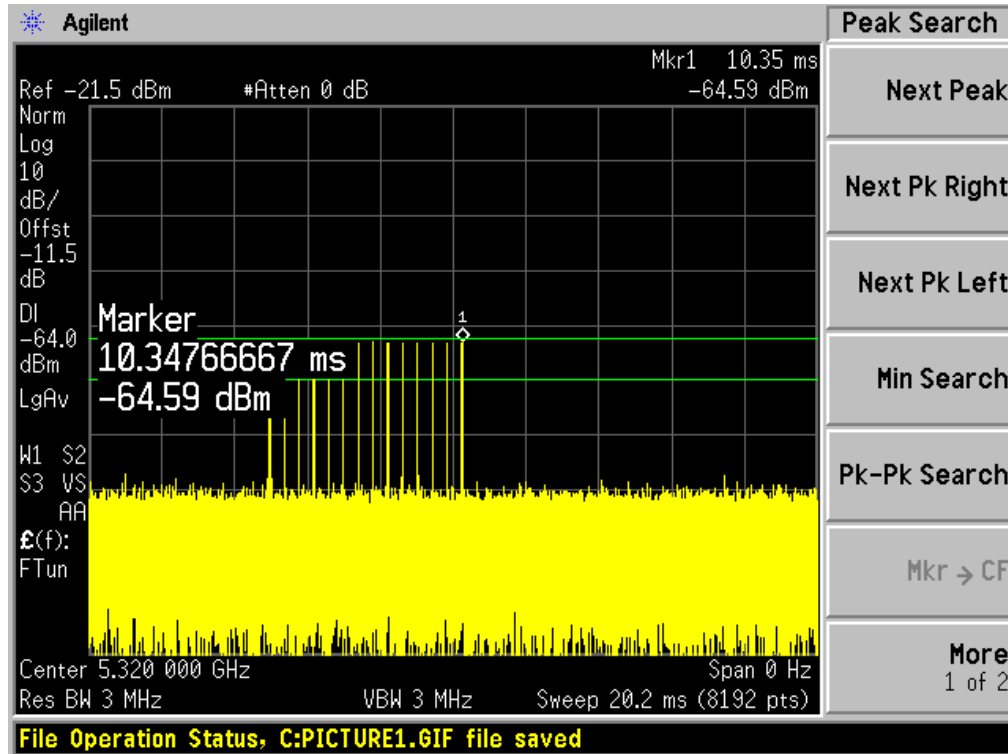
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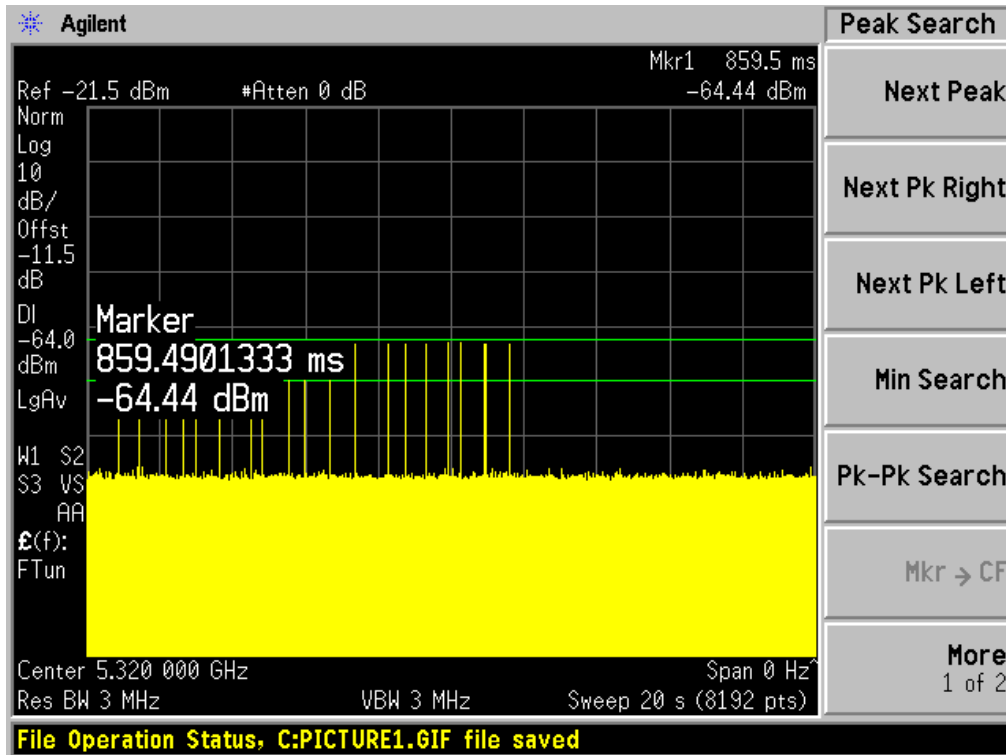
Radar Type 5 Case 1

Radar Type 5 Case 2
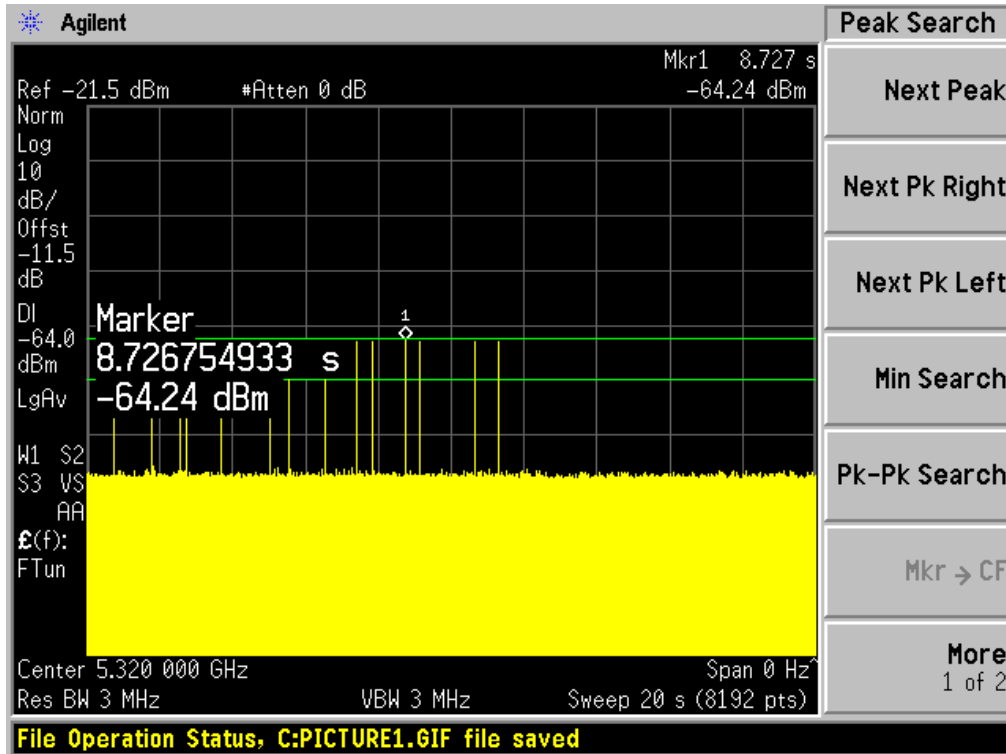
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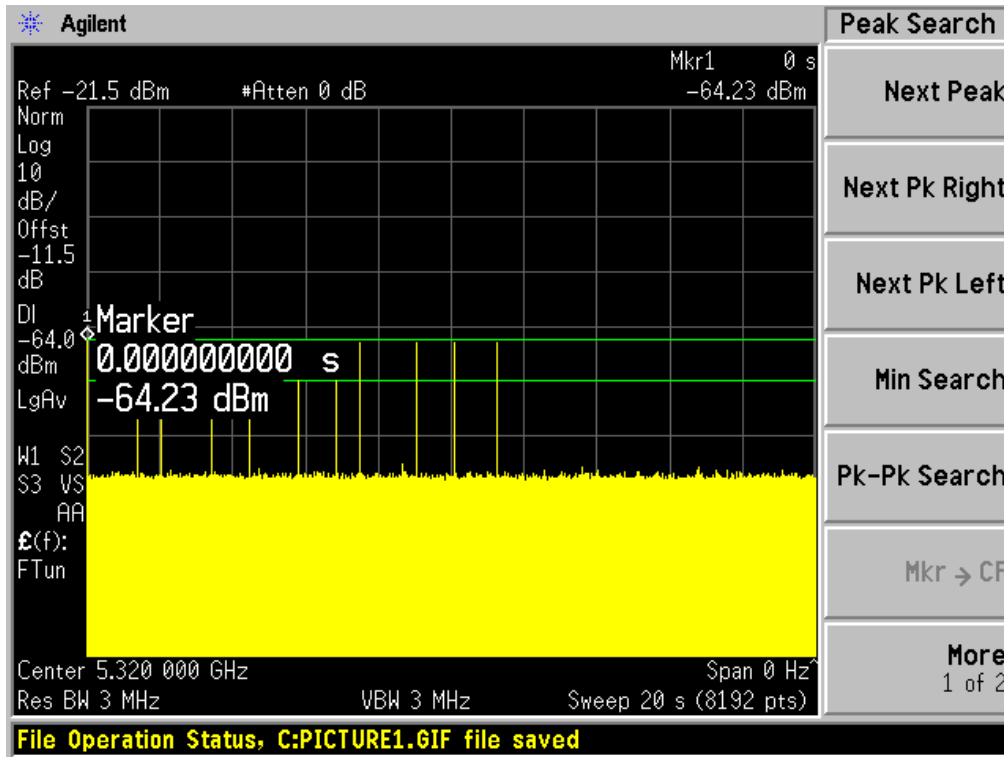
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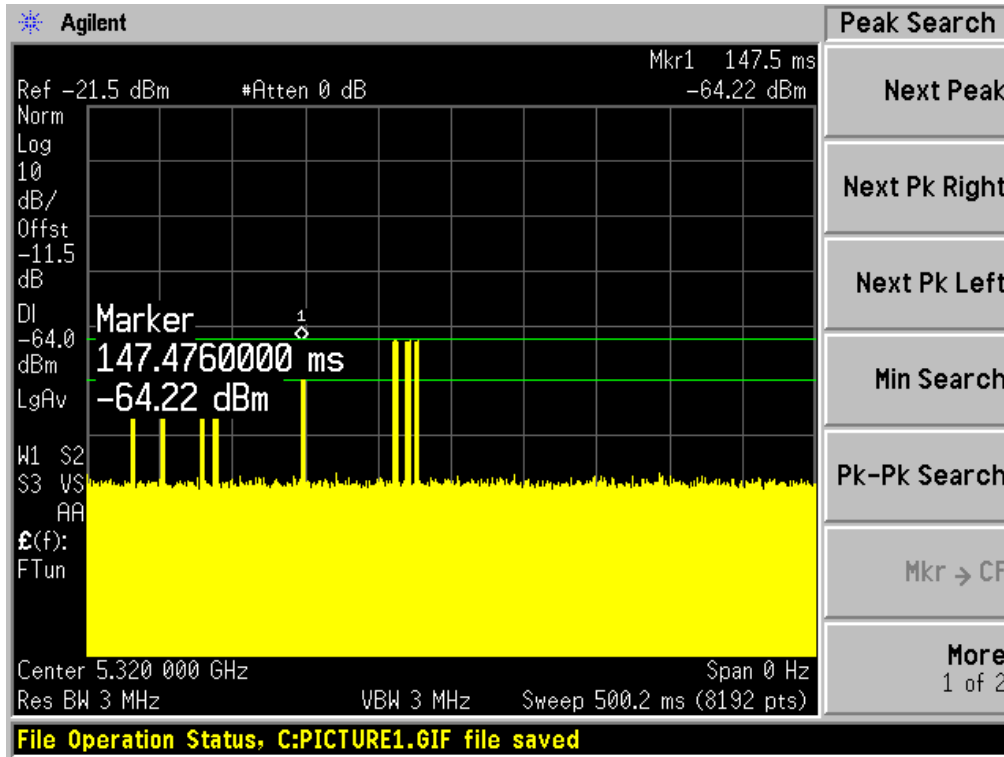
4.2 Channel Availability Check Time (CAC)

4.2.1 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.

4.2.2 EUT Initial power-up Cycle Time

Test Frequency (MHz)	EUT initial Power-up cycle (Second)
5290	85.8

4.2.3 Results:

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

Please refer to the following plots.

Plot of without Radar signal applied
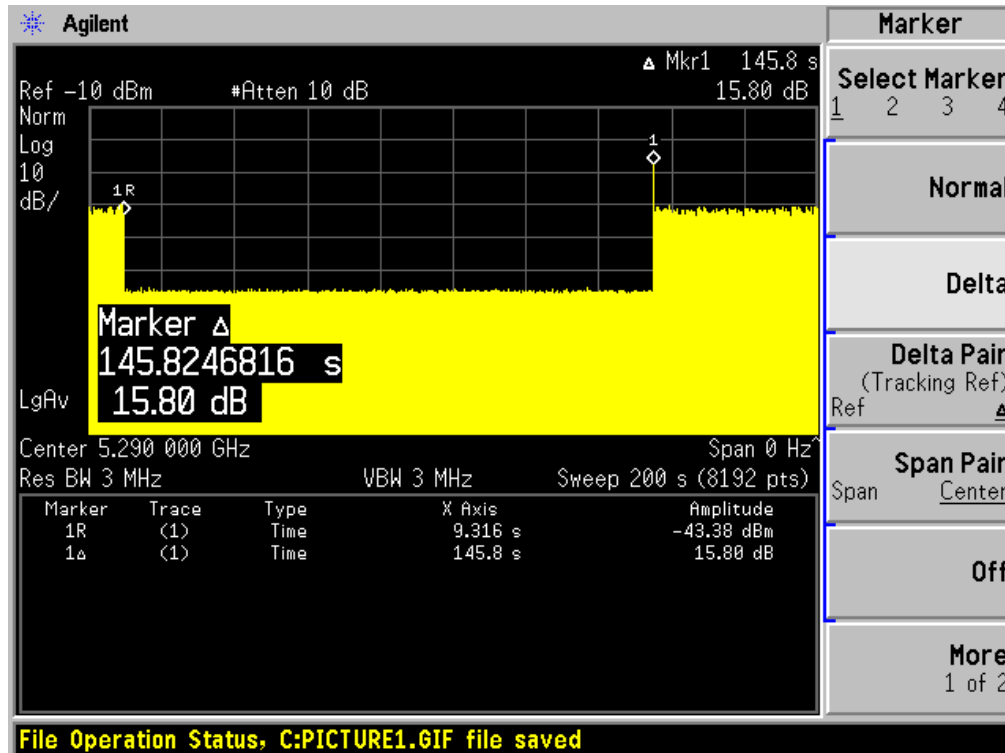
Note: The power-up cycle is 85.8 seconds.

Plot of Radar signal applied within 6 seconds of start of CAC
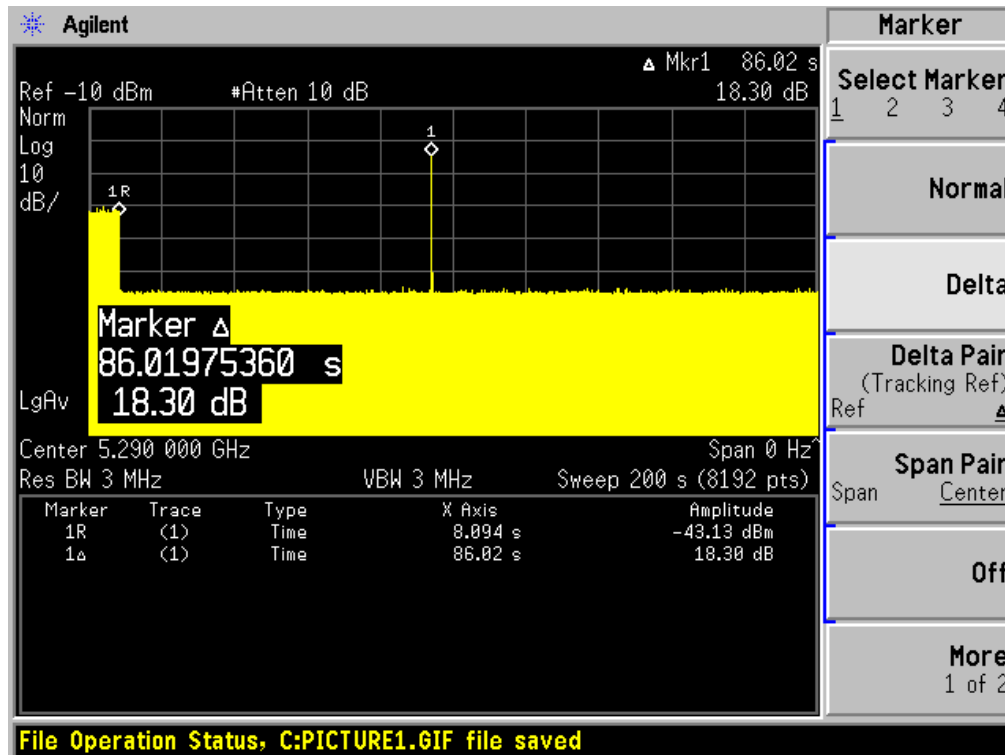
No transmissions found after radar signal applied.

Plot of Radar signal applied at the end of 6 seconds of CAC
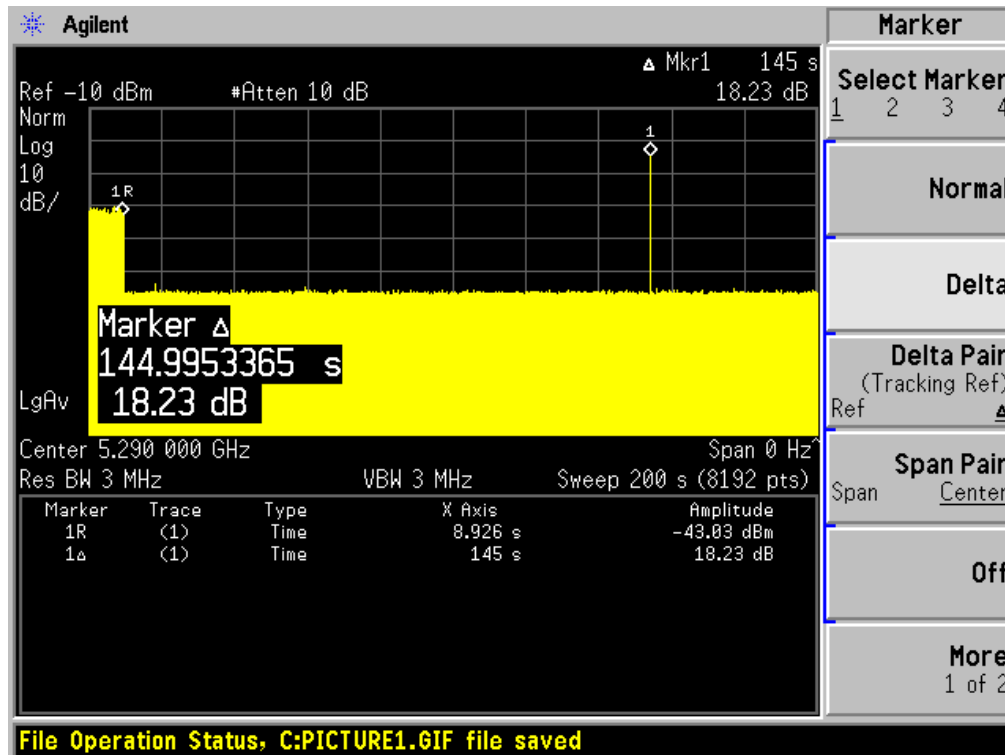
No transmissions found after radar signal applied.

4.3 Channel Move Time and Channel Closing Transmission Time

4.3.1 Test Procedure

Perform type 0 short pulse radar 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)

4.3.2 Test Results

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

Please refer to the following tables and plots.

4.3.3 Results:

Type 0 radar channel move time result:

Channel Move Time (s)	Channel Move Time Limit (s)	Result
1.001	10	Pass

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
Yes	19.53	60	Pass

Type 0 radar channel move time result:
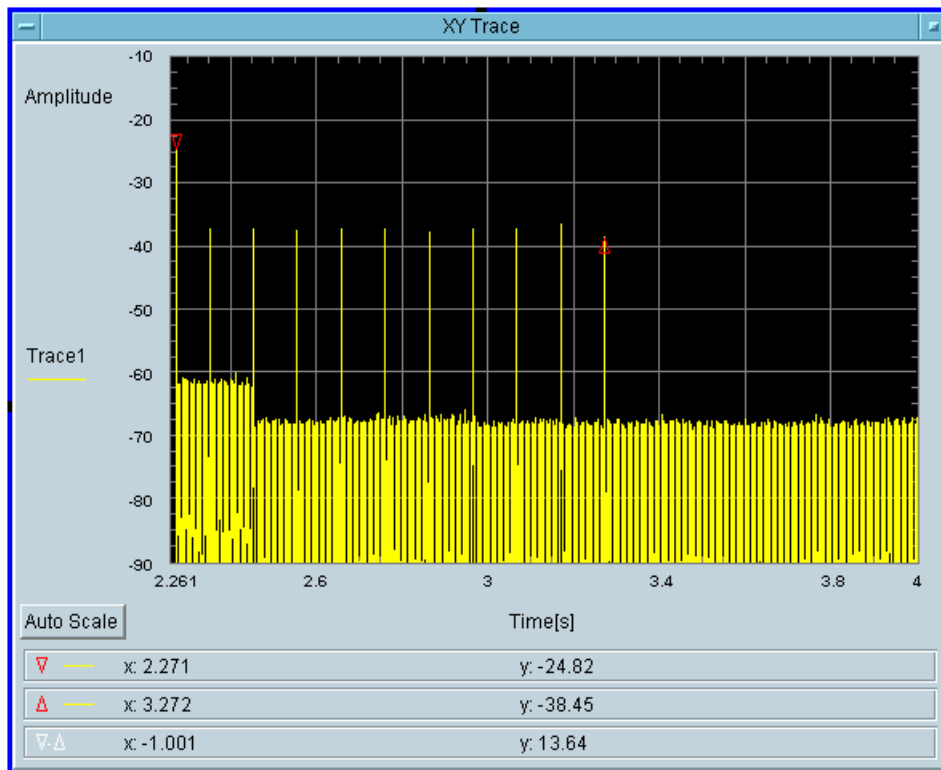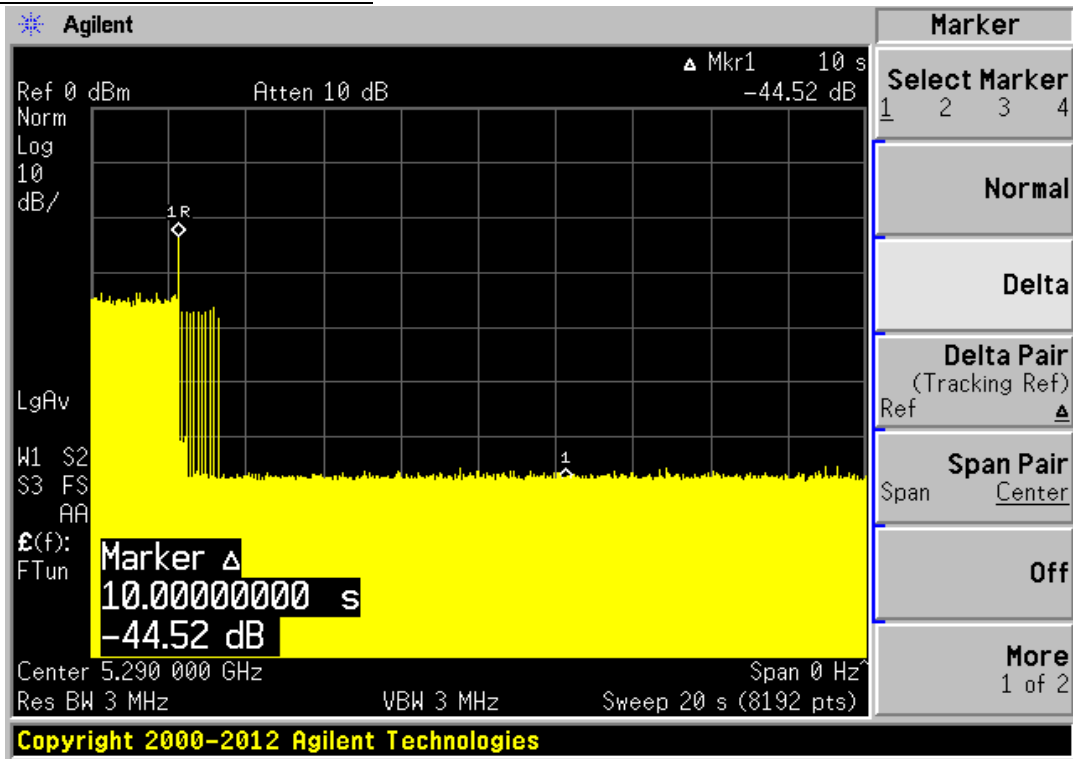
Total On Time [s]	Total On Time After Delay [s]
0.1123	19.53m

4.4 Non-occupancy Period

4.4.1 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)

4.4.2 Test Result

Test Frequency (MHz)	Bandwidth (MHz)	Spectrum Analyzer Display
5290	80	No transmission within 30 minutes

Please refer to the following plots.

5290 MHz
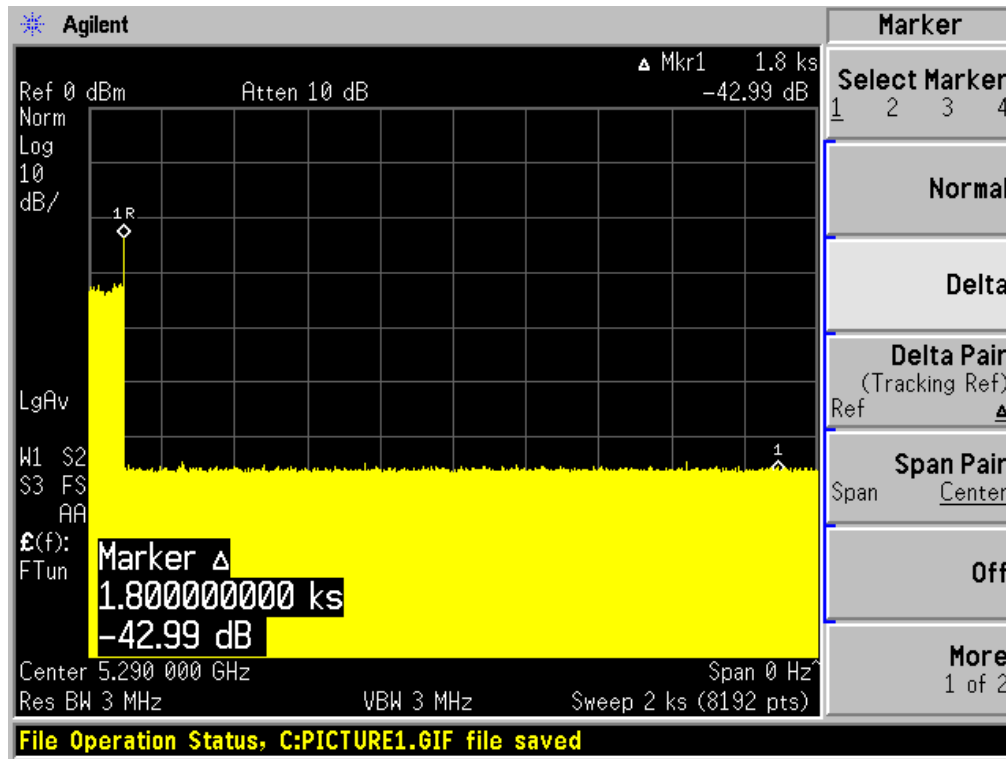
4.5 DETECTION BANDWIDTH

4.5.1 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.

4.5.2 Test Result

Frequency (MHz)	Bandwidth Systems (MHz)	F_L (MHz)	F_H (MHz)	Detection Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Minimum Limit	Result
5320	20	5309	5333	24	17.982	100%	Compliance
5310	40	5290	5340	50	36.683	100%	Compliance
5290	80	5250	5330	80	75.129	100%	Compliance

Please refer to the following tables.

Results of Detection Bandwidth:

20MHz Bandwidth, EUT Frequency = 5320MHz											
DFS Detection Trials (1 = Detected, 0 = No Detected)											
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5305	0	0	0	0	0	0	0	0	0	0	0 %
5308	0	0	0	0	0	1	0	0	0	0	10 %
5309(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5310	1	1	1	1	1	1	1	1	1	1	100 %
5315	1	1	1	1	1	1	1	1	1	1	100 %
5320	1	1	1	1	1	1	1	1	1	1	100 %
5325	1	1	1	1	1	1	1	1	1	1	100 %
5330	1	1	1	1	1	1	1	1	1	1	100 %
5331	1	1	1	1	1	1	1	1	1	1	100 %
5332	1	1	1	1	1	1	1	1	1	1	100 %
5333(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
5333	1	1	0	0	1	0	0	0	1	1	50 %
5335	0	0	0	0	0	0	0	0	0	0	0 %
Detection Bandwidth = $F_H - F_L$ = 5333-5309 = 24MHz											
EUT 99% BW = 17.982 MHz											**Result:** Pass

40MHz Bandwidth, EUT Frequency = 5310MHz										
DFS Detection Trials (1 = Detected, 0 = No Detected)										
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5285	0	0	0	0	0	0	0	0	0	0	0 %
5289	0	0	0	0	0	0	0	0	0	0	0 %
5290(F_L)	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5330	1	1	1	1	1	1	1	1	1	1	100%
5335	1	1	1	1	1	1	1	1	1	1	100%
5340(F_H)	1	1	1	1	1	1	1	1	1	1	100%
5341	0	1	0	1	1	1	0	1	0	0	50%
5345	0	0	0	0	0	0	0	0	0	0	0 %

Detection Bandwidth = $F_H - F_L$ = 5340-5290 = 50 MHz

EUT 99% BW = 36.683 MHz;   **Result:** Pass

80MHz Bandwidth, EUT Frequency = 5290 MHz										
DFS Detection Trials (1 = Detected, 0 = No Detected)										
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5250(F_L)	1	1	1	1	1	1	1	1	1	1	100 %
5255	1	1	1	1	1	1	1	1	1	1	100 %
5260	1	1	1	1	1	1	1	1	1	1	100 %
5265	1	1	1	1	1	1	1	1	1	1	100 %
5270	1	1	1	1	1	1	1	1	1	1	100 %
5275	1	1	1	1	1	1	1	1	1	1	100 %
5280	1	1	1	1	1	1	1	1	1	1	100 %
5285	1	1	1	1	1	1	1	1	1	1	100 %
5290	1	1	1	1	1	1	1	1	1	1	100 %
5295	1	1	1	1	1	1	1	1	1	1	100 %
5300	1	1	1	1	1	1	1	1	1	1	100 %
5305	1	1	1	1	1	1	1	1	1	1	100 %
5310	1	1	1	1	1	1	1	1	1	1	100 %
5315	1	1	1	1	1	1	1	1	1	1	100 %
5320	1	1	1	1	1	1	1	1	1	1	100 %
5325	1	1	1	1	1	1	1	1	1	1	100 %
5330	1	1	1	1	1	1	1	1	1	1	100 %
5335	1	1	1	1	1	1	1	1	1	1	100 %
5340	1	1	1	1	1	1	1	1	1	1	100 %
5345	1	1	1	1	1	1	1	1	1	1	100 %
5350	1	1	1	1	1	1	1	1	1	1	100 %
5351(F_H)	1	1	1	1	1	1	1	1	1	1	100 %
5352	1	0	0	0	1	0	0	0	0	0	20 %
5355	0	0	0	0	0	0	0	0	0	0	0 %

Detection Bandwidth = $F_H - F_L$ =5351-5250 = 101 MHz

EUT 99% BW =75.129 MHz;   **Result:** Pass

4.6 STATISTICAL PERFORMANCE CHECK

4.6.1 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).

4.6.2 Result:

80MHz(Radar Signal is 5290MHz)

Radar Signal Type	Waveform/Trial Number	Detection (%)	Limit (%)	Pass/Fail
Type 1A	15	93.3%	60%	pass
Type 1B	15	93.3%	60%	pass
Type 2	30	100%	60%	Pass
Type 3	30	90%	60%	Pass
Type 4	30	93.3 %	60%	Pass
Aggregate(Type1 to 4)	120	94.17 %	80%	Pass
Type 5	30	100 %	80%	Pass
Type 6	30	93.3 %	70%	Pass

Please refer to the following statistical tables:

5290MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5290	57	1	938	1
2	5290	78	1	678	1
3	5290	65	1	818	1
4	5290	74	1	718	1
5	5290	81	1	658	0
6	5290	83	1	638	1
7	5290	61	1	878	1
8	5290	68	1	778	1
9	5290	92	1	578	1
10	5290	89	1	598	1
11	5290	72	1	738	1
12	5290	99	1	538	1
13	5290	86	1	618	1
14	5290	95	1	558	1
15	5290	59	1	898	1
Detection Percentage: 93.3 % (>60%)					

Radar Type 1B Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5290	38	1	1397	1
2	5290	21	1	2559	1
3	5290	51	1	1044	1
4	5290	65	1	816	1
5	5290	68	1	787	1
6	5290	26	1	2055	0
7	5290	19	1	2851	1
8	5290	31	1	1725	1
9	5290	19	1	2891	1
10	5290	20	1	2724	1
11	5290	28	1	1905	1
12	5290	24	1	2263	1
13	5290	55	1	977	1
14	5290	20	1	2696	1
15	5290	26	1	2050	1
Detection Percentage: 93.3 % (>60%)					

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5290	27	3.0	200	1
2	5290	23	2.1	150	1
3	5290	24	3.1	163	1
4	5290	26	1.0	154	1
5	5290	23	3.3	220	1
6	5290	25	4.8	211	1
7	5290	26	1.5	185	1
8	5290	23	4.7	189	1
9	5290	24	1.4	165	1
10	5290	29	3.4	218	1
11	5290	29	2.9	201	1
12	5290	26	4.9	188	1
13	5290	25	2.8	173	1
14	5290	25	3.9	156	1
15	5290	23	3.6	163	1
16	5290	28	2.6	156	1
17	5290	25	1.8	206	1
18	5290	25	3.8	227	1
19	5290	26	2.0	217	1
20	5290	29	1.8	192	1
21	5290	28	4.4	194	1
22	5290	25	3.3	212	1
23	5290	27	3.0	183	1
24	5290	25	2.3	152	1
25	5290	28	4.6	190	1
26	5290	23	5.0	213	1
27	5290	28	1.8	170	1
28	5290	28	3.8	193	1
29	5290	27	2.8	165	1
30	5290	26	4.7	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	5290	16	9.6	373	1
2	5290	18	9.9	226	1
3	5290	16	8.6	326	0
4	5290	18	6.5	326	1
5	5290	17	7.0	298	1
6	5290	17	6.0	403	1
7	5290	18	7.1	303	1
8	5290	16	7.3	406	1
9	5290	16	8.4	374	1
10	5290	17	9.3	225	1
11	5290	17	9.1	435	1
12	5290	18	7.0	287	1
13	5290	17	8.8	225	1
14	5290	17	7.0	374	0
15	5290	16	7.9	221	1
16	5290	16	6.5	474	1
17	5290	18	9.4	365	1
18	5290	17	6.5	430	1
19	5290	17	6.0	239	1
20	5290	18	9.0	357	1
21	5290	16	6.0	447	1
22	5290	18	8.7	249	1
23	5290	18	9.7	441	1
24	5290	17	7.3	219	1
25	5290	16	6.0	381	0
26	5290	18	10	469	1
27	5290	18	8.9	339	1
28	5290	18	8.4	452	1
29	5290	16	6.8	221	1
30	5290	18	8.6	373	1
Detection Percentage: 90% (>60%)					

Radar Type 4 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5290	15	16.5	360	1
2	5290	14	19.0	438	1
3	5290	16	14.1	367	1
4	5290	13	14.7	372	1
5	5290	12	16.0	500	1
6	5290	15	11.1	218	0
7	5290	15	12.1	429	1
8	5290	16	15.3	252	1
9	5290	12	12.3	422	1
10	5290	13	15.2	299	1
11	5290	13	16.1	447	1
12	5290	16	12.2	450	1
13	5290	13	11.4	253	1
14	5290	15	12	236	1
15	5290	15	12.4	285	1
16	5290	14	13.5	446	1
17	5290	13	16.2	338	1
18	5290	15	19.6	209	1
19	5290	12	13.2	473	1
20	5290	13	17.0	477	1
21	5290	12	12.9	383	1
22	5290	14	13.4	316	1
23	5290	15	12.7	331	1
24	5290	16	18.8	389	1
25	5290	16	16.4	371	1
26	5290	16	12.5	324	1
27	5290	12	19.3	385	0
28	5290	14	13.8	412	1
29	5290	16	14.4	442	1
30	5290	16	12.1	270	1
Detection Percentage: 93.3 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5290MHz)

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	58	1267		0.665876	
1	2	8	57.7	1960		2.445923	
2	1	8	84.1			3.105776	
3	3	8	58.7	1861	1283	4.464376	
4	2	8	94.5	1503		6.472001	1
5	1	8	68.1			7.450852	
6	1	8	79.1			8.640145	
7	2	8	62.7	1137		10.1241	
8	2	8	94.4	1641		11.94768	

Statistics 2 (ChirpCenter Frequency: 5290MHz)

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	77.9	1253		0.420813	
1	2	14	83.2	1193		1.408934	
2	1	14	96.5			2.453603	
3	3	14	67	1851	1879	3.254122	
4	3	14	50.8	1668	1044	4.68322	
5	2	14	51.2	1689		5.793775	1
6	2	14	99.9	1530		6.815057	
7	1	14	63.1			7.698307	
8	2	14	80.3	1693		8.921522	
9	2	14	87.2	1188		9.512169	
10	1	14	67.2			10.69756	
11	1	14	82.7			11.3713	

Statistics 3 (ChirpCenter Frequency: 5290MHz)

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	58.4	1594	1249	0.004235	
1	3	6	96.8	1489	1040	1.209407	
2	1	6	66.6			1.822031	
3	2	6	92	1958		2.503201	
4	2	6	92.4	1674		3.175628	
5	3	6	99.1	1938	1738	4.016221	
6	2	6	56.2	1983		4.546924	
7	3	6	63.7	1098	1907	5.977609	1
8	1	6	95.8			6.433934	
9	2	6	72.4	1832		7.027003	
10	2	6	81	1577		7.995799	
11	1	6	68.1			8.278984	
12	2	6	64.4	1296		9.620448	
13	2	6	95.6	1767		10.33735	
14	3	6	94.2	1740	1559	10.65962	
15	3	6	59.7	1627	1289	11.45096	

Statistics 4 (ChirpCenter Frequency: 5290MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	93.2			0.159127	
1	2	13	80.2	1694		1.811143	
2	2	13	64.3	1008		2.584082	
3	3	13	50	1948	1014	4.775019	
4	1	13	62.5			5.09981	1
5	2	13	99.6	1575		6.954039	
6	2	13	81.1	1420		8.199498	
7	1	13	52.2			9.353816	
8	2	13	65.2	1807		10.66789	
9	3	13	96.6	1613	1735	11.45434	

Statistics 5(ChirpCenter Frequency: 5290MHz)

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	68.2	1838		0.30161	
1	2	12	79.4	1091		1.434403	
2	1	12	86.6			2.396966	
3	1	12	73.5			2.795774	
4	2	12	64.3	1645		3.722774	
5	2	12	92	1837		4.514223	
6	2	12	69.9	1661		5.562253	
7	2	12	65.7	1292		6.047897	1
8	2	12	95.5	1644		6.532594	
9	2	12	84.6	1461		7.210649	
10	1	12	83.6			8.527294	
11	2	12	90.5	1286		9.365279	
12	2	12	93.4	1388		9.952058	
13	1	12	95.8			10.81309	
14	3	12	51.6	1687	1087	11.83853	

Statistics 6 (ChirpCenter Frequency: 5290MHz)

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	99.5	1778	1664	0.724648	
1	1	13	50.8			1.418079	
2	2	13	75.6	1945		2.27892	
3	1	13	78.5			2.760467	
4	2	13	78	1072		3.475907	
5	1	13	57.1			4.557732	
6	1	13	64.2			5.471742	
7	2	13	68.2	1008		5.865645	1
8	2	13	96.3	1802		6.646022	
9	2	13	97.3	1162		7.503965	
10	1	13	53.2			8.272481	
11	2	13	62.3	1242		8.819689	
12	2	13	93	1369		9.668813	
13	3	13	91.1	1926	1799	11.12478	
14	1	13	50.4			11.47642	

Statistics 7(ChirpCenter Frequency: 5290MHz)

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	72.6	1572		0.231912	
1	1	15	64.2			2.300861	
2	3	15	61.6	1247	1863	3.59501	
3	2	15	65.8	1599		5.022046	
4	2	15	80.2	1546		6.398479	1
5	1	15	86.9			7.373955	
6	1	15	84.1			9.311801	
7	3	15	54.6	1930	1682	9.913762	
8	1	15	63.9			11.04122	

Statistics 8 (ChirpCenter Frequency: 5290MHz)

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	94.8	1044		0.449136	
1	2	15	57.5	1178		1.511526	
2	2	15	57.8	1506		2.351301	
3	2	15	70.1	1526		2.403894	
4	3	15	86	1596	1438	3.433727	
5	2	15	78.1	1983		4.567141	
6	3	15	62.3	1237	1848	5.336997	
7	2	15	88	1339		5.767162	1
8	3	15	91.1	1545	1863	7.067451	
9	2	15	70.6	1384		7.474799	
10	3	15	79.6	1056	1543	8.243956	
11	2	15	90.5	1512		9.49111	
12	2	15	62	1309		9.942429	
13	1	15	86.3			11.15847	
14	1	15	88.6			11.91865	

Statistics 9 (ChirpCenter Frequency: 5290MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	81.2			0.171162	
1	3	13	64.6	1717	1707	1.283769	
2	3	13	51.9	1674	1929	2.426938	
3	3	13	89.4	1350	1562	3.671581	
4	2	13	96.1	1293		3.791301	
5	2	13	84.6	1317		4.74503	
6	2	13	51.1	1818		6.051918	1
7	2	13	51.6	1655		6.644979	
8	1	13	67.5			7.554997	
9	1	13	67.5			8.753479	
10	2	13	70.3	1449		9.970218	
11	2	13	54.5	1577		10.80671	
12	2	13	81.4	1435		11.73586	

Statistics 10 (ChirpCenter Frequency: 5290MHz)

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	74.5	1186		0.640258	
1	2	8	54.9	1028		1.732191	
2	2	8	88.9	1587		1.955667	
3	3	8	57.8	1721	1840	3.343403	
4	2	8	51.9	1333		4.5291	
5	3	8	57.8	1308	1964	5.287571	
6	2	8	52.1	1280		6.026086	1
7	1	8	70.8			6.57062	
8	3	8	80.7	1282	1274	7.491388	
9	2	8	53	1635		8.779818	
10	1	8	95.3			9.757441	
11	1	8	87.9			10.4679	
12	1	8	64.6			11.5588	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5258 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	91.8	1193		0.072208	
1	2	19	80.7	1285		1.891961	
2	2	19	80.3	1162		3.173005	
3	3	19	76.1	1671	1139	4.09656	
4	3	19	63.2	1639	1944	4.915039	
5	2	19	73.8	1484		6.065875	1
6	2	19	71.9	1888		6.953135	
7	2	19	78.9	1686		7.663879	
8	1	19	72.1			9.336253	
9	3	19	99.3	1062	1558	9.867508	
10	1	19	93.3			11.38083	

Statistics 2 (ChirpCenter Frequency: 5254.0MHz)

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	3	10	63.3	1843	1986	0.02634	
1	1	10	81			0.888276	
2	2	10	68.3	1763		2.455513	
3	1	10	51.4			3.184789	
4	2	10	68.5	1992		3.895464	
5	1	10	73.2			4.952495	
6	1	10	80.1			5.534554	
7	2	10	84.6	1647		6.286635	1
8	2	10	75.8	1998		7.525139	
9	2	10	50	1449		8.01807	
10	2	10	54.6	1326		8.929789	
11	2	10	63.8	1072		10.27162	
12	2	10	93.2	1295		10.69203	
13	2	10	74.8	1528		11.44705	

Statistics 3 (ChirpCenter Frequency: 5254.0MHz)

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	3	9	59.2	1536	1056	0.357037	
1	3	9	57.7	1388	1183	1.035949	
2	2	9	77.9	1945		2.090008	
3	2	9	85.8	1517		2.903255	
4	2	9	85.8	1630		3.505064	
5	1	9	99.9			4.038746	
6	1	9	62.3			4.862156	
7	3	9	81.7	1440	1831	5.62817	1
8	2	9	67.6	1524		6.194862	
9	3	9	74	1412	1281	7.319778	
10	1	9	81.2			7.695709	
11	2	9	55.4	1912		8.383615	
12	2	9	81.5	1286		9.246646	
13	2	9	66.9	1078		9.867102	
14	1	9	53			10.81275	
15	2	9	76.9	1128		11.41156	

Statistics 4 (ChirpCenter Frequency: 5253.0MHz)

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	7	70.4	1689		0.345298	
1	3	7	52.9	1124	1892	0.857015	
2	2	7	68.6	1599		1.493215	
3	2	7	88.4	1851		2.28118	
4	2	7	96.5	1768		2.874679	
5	2	7	91.9	1472		3.529353	
6	3	7	73.3	1082	1001	4.62366	
7	3	7	51.1	1610	1685	4.928221	
8	2	7	69.2	1522		5.365204	1
9	2	7	79.4	1271		6.154369	
10	2	7	76.4	1801		7.328162	
11	2	7	69.4	1470		7.358272	
12	1	7	72.7			8.299352	
13	3	7	69.6	1567	1079	9.008858	
14	1	7	52.2			9.382054	
15	2	7	55.6	1773		10.18404	
16	2	7	84.6	1399		11.11823	
17	3	7	87.4	1224	1621	11.52736	

Statistics 5 (ChirpCenter Frequency: 5257.0MHz)

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	17	74.4			0.15586	
1	2	17	66.8	1599		1.188123	
2	1	17	80.2			1.518287	
3	2	17	70	1677		2.131825	
4	2	17	60.6	1354		2.794577	
5	2	17	98.6	1657		3.577011	
6	2	17	88.5	1581		4.41761	
7	1	17	76.1			5.170754	
8	3	17	89.6	1741	1996	5.987892	1
9	2	17	75.5	1628		6.393325	
10	3	17	82.2	1475	1294	7.083871	
11	1	17	56.1			7.376192	
12	2	17	65.4	1065		8.414947	
13	3	17	70.7	1305	1824	8.750558	
14	2	17	62.4	1475		9.384733	
15	1	17	67.4			10.42169	
16	2	17	74	1929		11.0029	
17	2	17	89.6	1110		11.38251	

Statistics 6 (ChirpCenter Frequency: 5257.0 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	58	1051		0.695449	
1	3	17	68.5	1771	1305	1.520427	
2	1	17	97.4			1.983987	
3	1	17	84.5			3.114553	
4	1	17	86.9			3.759239	
5	1	17	90			4.701811	
6	1	17	66.6			6.195005	1
7	2	17	94.7	1560		7.021238	
8	2	17	51.5	1454		7.720109	
9	1	17	79.5			8.553555	
10	1	17	64.4			9.907004	
11	1	17	84.8			10.5811	
12	2	17	78	1263		11.85379	

Statistics 7 (ChirpCenter Frequency: 5258.0 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	19	50.3	1578	1815	0.663819	
1	2	19	91.9	1294		1.439209	
2	1	19	82.4			2.361632	
3	1	19	92.4			3.424431	
4	1	19	81.4			4.195381	
5	2	19	72.8	1372		4.479685	
6	3	19	73.4	1465	1503	5.630455	1
7	2	19	81.6	1394		6.320028	
8	2	19	78	1419		7.102978	
9	2	19	69.1	1982		8.492239	
10	2	19	50.1	1115		9.235697	
11	2	19	83.5	1803		10.06907	
12	1	19	58.2			11.11784	
13	3	19	90.7	1216	1179	11.76908	

Statistics 8 (ChirpCenter Frequency: 5255.0 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	96.8	1392		0.004639	
1	3	6	91.8	1330	1065	0.649742	
2	3	6	88.5	1351	1105	1.421727	
3	3	6	82.4	1191	1985	2.372292	
4	3	6	51	1685	1358	2.897676	
5	2	6	76.9	1586		3.190367	
6	1	6	74.5			3.945195	
7	1	6	54.5			4.659525	
8	2	6	57.2	1177		5.231751	
9	3	6	96.1	1007	1243	5.865987	1
10	3	6	74.1	1667	1493	6.803851	
11	1	6	66.8			7.42708	
12	1	6	51.9			7.909847	
13	3	6	85.9	1970	1735	8.448514	
14	2	6	93	1219		9.092387	
15	3	6	53.8	1349	1722	9.758924	
16	3	6	57	1785	1148	10.64016	
17	3	6	62.9	1342	1050	11.16406	
18	2	6	67.7	1664		11.4959	

Statistics 9 (ChirpCenter Frequency: 5255.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	53.6			0.517616	
1	1	13	62.5			1.203071	
2	2	13	55.2	1071		2.116667	
3	2	13	72.4	1063		2.720369	
4	2	13	71.4	1606		3.746547	
5	2	13	67	1780		4.274247	
6	2	13	75.2	1021		4.923029	
7	3	13	99.1	1753	1855	6.098752	1
8	1	13	91.9			6.765032	
9	2	13	97	1554		7.952248	
10	3	13	53.5	1882	1670	8.204064	
11	2	13	77.1	1470		9.482485	
12	1	13	66.2			10.33136	
13	2	13	50.8	1024		10.61681	
14	2	13	89.3	1550		11.34254	

Statistics 10 (ChirpCenter Frequency: 5256.0 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	60.7	1198	1703	0.576644	
1	2	9	64	1518		0.980558	
2	3	9	51.3	1771	1195	2.527458	
3	3	9	50.9	1091	1754	2.875549	
4	1	9	89			3.92363	
5	3	9	71.6	1719	1854	4.925951	
6	2	9	65.8	1287		5.363673	1
7	3	9	80.2	1457	1022	6.36197	
8	2	9	59.6	1205		7.470192	
9	1	9	72			8.47382	
10	2	9	60.1	1722		9.232847	
11	3	9	85	1398	1473	9.66978	
12	3	9	64.5	1855	1913	10.83593	
13	2	9	92.2	1258		11.7551	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5324.0 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	52.2	1332		0.615895	
1	2	14	81.1	1914		0.818045	
2	2	14	80.3	1126		1.984155	
3	3	14	56	1587	1284	2.393712	
4	1	14	86.1			2.823949	
5	2	14	52.6	1396		4.14827	
6	1	14	51.8			4.605576	
7	2	14	75.6	1701		5.060259	
8	3	14	99.8	1197	1991	5.95546	1
9	2	14	53.2	1894		6.812028	
10	2	14	74.1	1446		7.135403	
11	2	14	81.3	1627		7.871999	
12	1	14	63.7			9.015716	
13	1	14	52.5			9.443622	
14	1	14	51.8			10.4035	
15	3	14	92	1792	1630	11.10086	
16	2	14	86	1684		11.71051	

Statistics 2 (ChirpCenter Frequency: 5327.0MHz)

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	7	65.4	1202		0.540692	
1	3	7	79.2	1431	1953	0.826971	
2	2	7	72	1194		1.297659	
3	1	7	98.5			2.125667	
4	1	7	53.4			2.723596	
5	3	7	80.7	1212	1709	3.543974	
6	1	7	92.2			4.190881	
7	2	7	52.4	1134		4.782153	
8	2	7	56.5	1672		5.339029	
9	3	7	75	1737	1710	6.265424	1
10	2	7	55.8	1965		6.777911	
11	1	7	95.4			7.346725	
12	2	7	96.1	1931		8.153101	
13	1	7	53.5			8.303464	
14	2	7	93.5	1124		9.099739	
15	2	7	61.2	1745		9.71569	
16	3	7	88.6	1520	1698	10.59862	
17	2	7	91	1082		11.17249	
18	1	7	74.3			11.41129	

Statistics 3 (ChirpCenter Frequency: 5325.0MHz)

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	3	12	79.3	1544	1148	0.535786	
1	1	12	74.2			1.701273	
2	2	12	69.1	1503		2.889384	
3	1	12	81.5			3.962152	
4	2	12	58.6	1642		4.615833	
5	2	12	92.5	1836		6.007886	1
6	3	12	87.1	1329	1972	7.396823	
7	2	12	78.7	1988		7.696615	
8	2	12	98.1	1259		9.780687	
9	1	12	72.7			10.80543	
10	3	12	64.2	1619	1240	11.01567	

Statistics 4 (ChirpCenter Frequency: 5328.0MHz)

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	70	1108		0.832852	
1	2	6	63.2	1530		1.982374	
2	2	6	64.3	1175		2.392902	
3	1	6	92.5			3.397492	
4	3	6	52.5	1863	1755	4.422843	
5	3	6	80.6	1012	1224	5.686091	1
6	2	6	80.9	1459		6.608859	
7	2	6	93.2	1886		8.269386	
8	2	6	89.9	1798		8.937618	
9	2	6	72.7	1968		10.35907	
10	2	6	86.6	1773		10.92105	

Statistics 5 (ChirpCenter Frequency: 5325.0MHz)

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	97.6	1632		0.495885	
1	1	12	65.2			1.491021	
2	3	12	73	1031	1134	2.142089	
3	3	12	53.6	1086	1511	2.823078	
4	1	12	97.2			3.319146	
5	1	12	83.8			4.360854	
6	3	12	81.4	1110	1329	5.446959	
7	2	12	59.8	1127		6.183265	1
8	2	12	78.3	1261		6.578583	
9	2	12	90.8	1233		7.593329	
10	2	12	77.2	1007		8.136117	
11	3	12	85.5	1229	1013	8.83935	
12	2	12	78	1609		9.791692	
13	2	12	97.3	1819		10.58885	
14	2	12	63	1408		11.22981	

Statistics 6 (ChirpCenter Frequency: 5325.0 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	72.2	1279	1562	0.414378	
1	2	13	58.2	1684		0.816172	
2	2	13	71.9	1270		1.92915	
3	2	13	96.2	1031		2.774814	
4	3	13	97.4	1423	1652	3.322633	
5	3	13	73.6	1421	1718	4.621674	
6	3	13	93.4	1511	1510	5.341484	
7	1	13	82.6			6.284885	1
8	2	13	50.9	1939		6.967856	
9	1	13	73.3			7.227656	
10	3	13	98.1	1528	1433	8.071472	
11	3	13	64.9	1705	1799	9.344335	
12	3	13	64.5	1599	1536	10.06229	
13	2	13	90.4	1891		10.68782	
14	1	13	99.9			11.62977	

Statistics 7 (ChirpCenter Frequency: 5326.0 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	11	54			0.61744	
1	2	11	73.8	1572		1.172314	
2	1	11	68.1			2.239015	
3	3	11	93.4	1326	1475	2.833327	
4	2	11	78.3	1128		3.956324	
5	2	11	51.9	1119		5.367225	
6	1	11	83			5.753701	1
7	2	11	79.7	1940		6.786413	
8	2	11	90.5	1996		7.536817	
9	2	11	93.1	1380		8.92087	
10	3	11	99.2	1946	1099	10.07059	
11	2	11	62.9	1020		10.32193	
12	2	11	70	1305		11.09675	

Statistics 8 (ChirpCenter Frequency: 5326.0 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	1823		0.934721	
1	3	9	60.2	1442	1993	1.069645	
2	3	9	87.2	1927	1795	2.268948	
3	1	9	94.8			3.576712	
4	1	9	70.4			4.283134	
5	2	9	95.6	1034		5.069857	1
6	3	9	61.5	1440	1470	6.449498	
7	1	9	87.6			7.166249	
8	1	9	58.1			8.820937	
9	3	9	89.3	1213	1867	9.803705	
10	3	9	51.5	1212	1553	10.42763	
11	2	9	50.7	1364		11.41253	

Statistics 9 (ChirpCenter Frequency: 5327.0 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	90.6	1851		0.431069	
1	2	7	94	1346		0.748483	
2	2	7	94.5	1174		1.650898	
3	2	7	50.7	1821		2.039825	
4	2	7	65	1546		2.922133	
5	2	7	92.3	1415		3.49681	
6	3	7	97.1	1567	1082	4.559974	
7	1	7	71.6			4.980893	
8	2	7	78.3	1786		5.482238	1
9	3	7	75.1	1949	1711	6.140957	
10	2	7	96.2	1845		6.711141	
11	3	7	67.6	1250	1981	7.501692	
12	1	7	83			8.630341	
13	1	7	77			9.160596	
14	2	7	91.3	1590		9.974199	
15	1	7	97.3			10.64318	
16	1	7	74.5			11.14573	
17	2	7	94.3	1780		11.46898	

Statistics 10 (ChirpCenter Frequency: 5326.0 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	66.3	1320		0.065077	
1	2	10	57.4	1566		0.807461	
2	2	10	74.1	1076		1.495168	
3	1	10	85.5			2.608456	
4	1	10	58.6			3.402137	
5	2	10	94.4	1593		3.954674	
6	3	10	75.4	1911	1475	4.392823	
7	2	10	91	1762		5.338191	
8	1	10	77.5			6.26432	1
9	2	10	72.4	1565		6.618178	
10	2	10	85	1804		7.421775	
11	1	10	90.1			8.269977	
12	1	10	83.1			9.11725	
13	2	10	97.6	1429		9.845345	
14	3	10	66.2	1506	1667	10.14256	
15	2	10	96.2	1356		11.06469	
16	3	10	71.3	1946	1254	11.83138	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5290	9	1	333	1	5626.0, 5389.0, 5485.0, 5594.0, 5709.0, 5666.0, 5707.0, 5394.0, 5678.0, 5409.0, 5535.0, 5579.0, 5515.0, 5610.0, 5585.0, 5395.0, 5258.0, 5658.0, 5461.0, 5637.0, 5494.0, 5369.0, 5688.0, 5421.0, 5309.0, 5387.0, 5388.0, 5347.0, 5533.0, 5455.0, 5361.0, 5550.0, 5393.0, 5301.0, 5556.0, 5299.0, 5661.0, 5572.0, 5701.0, 5482.0, 5647.0, 5259.0, 5297.0, 5559.0, 5489.0, 5379.0, 5261.0, 5539.0, 5418.0, 5426.0, 5256.0, 5604.0, 5670.0, 5416.0, 5265.0, 5430.0, 5682.0, 5566.0, 5599.0, 5635.0, 5450.0, 5357.0, 5373.0, 5360.0, 5704.0, 5447.0, 5507.0, 5422.0, 5289.0, 5592.0, 5425.0, 5351.0, 5356.0, 5276.0, 5662.0, 5715.0, 5574.0, 5342.0, 5601.0, 5283.0, 5589.0, 5484.0, 5503.0, 5400.0, 5354.0, 5659.0, 5453.0, 5346.0, 5376.0, 5584.0, 5457.0, 5412.0, 5526.0, 5651.0, 5501.0, 5583.0, 5590.0, 5513.0, 5553.0, 5532.0
2	5290	9	1	333	1	5620.0, 5626.0, 5315.0, 5456.0, 5665.0, 5654.0, 5423.0, 5302.0, 5494.0, 5571.0, 5291.0, 5488.0, 5493.0, 5720.0, 5527.0, 5425.0, 5295.0, 5429.0, 5310.0, 5513.0, 5336.0, 5544.0, 5681.0, 5353.0, 5580.0, 5565.0, 5396.0, 5499.0, 5674.0, 5448.0, 5366.0, 5388.0, 5305.0, 5440.0, 5723.0, 5418.0, 5599.0, 5525.0, 5661.0, 5319.0, 5585.0, 5405.0, 5694.0, 5417.0, 5375.0, 5652.0, 5659.0, 5275.0, 5392.0, 5355.0, 5267.0, 5638.0, 5365.0, 5475.0, 5301.0, 5678.0, 5689.0, 5447.0, 5416.0, 5455.0, 5687.0, 5650.0, 5587.0, 5491.0, 5625.0, 5431.0, 5609.0, 5285.0, 5515.0, 5558.0, 5717.0, 5306.0, 5663.0, 5402.0, 5566.0, 5683.0, 5596.0, 5334.0, 5386.0, 5656.0, 5265.0, 5483.0, 5551.0, 5613.0, 5685.0, 5542.0, 5598.0, 5523.0, 5707.0, 5633.0, 5669.0, 5644.0, 5284.0, 5453.0, 5548.0, 5408.0, 5288.0, 5261.0, 5509.0, 5504.0
3	5290	9	1	333	1	55317.0, 5521.0, 5268.0, 5663.0, 5579.0, 5590.0, 5332.0, 5285.0, 5315.0, 5382.0, 5436.0, 5356.0, 5715.0, 5435.0, 5714.0, 5481.0, 5279.0, 5297.0, 5710.0, 5559.0, 5528.0, 5385.0, 5501.0, 5686.0, 5518.0, 5287.0, 5603.0, 5512.0, 5633.0, 5434.0, 5482.0, 5684.0, 5673.0, 5346.0, 5722.0, 5583.0, 5688.0, 5635.0, 5628.0, 5401.0, 5427.0, 5423.0, 5600.0, 5343.0, 5483.0, 5466.0, 5573.0, 5638.0, 5405.0, 5581.0, 5720.0, 5398.0, 5608.0, 5605.0, 5554.0, 5388.0, 5340.0, 5334.0, 5530.0, 5416.0, 5409.0, 5266.0, 5399.0, 5497.0, 5366.0,

						5614.0, 5679.0, 5323.0, 5537.0, 5276.0, 5294.0, 5709.0, 5526.0, 5342.0, 5282.0, 5500.0, 5432.0, 5421.0, 5321.0, 5716.0, 5540.0, 5723.0, 5509.0, 5681.0, 5599.0, 5668.0, 5660.0, 5261.0, 5506.0, 5561.0, 5304.0, 5341.0, 5527.0, 5352.0, 5661.0, 5462.0, 5374.0, 5510.0, 5549.0, 5563.0
4	5290	9	1	333	1	5605.0, 5631.0, 5625.0, 5712.0, 5289.0, 5553.0, 5283.0, 5427.0, 5442.0, 5458.0, 5298.0, 5534.0, 5310.0, 5596.0, 5330.0, 5441.0, 5315.0, 5406.0, 5440.0, 5451.0, 5371.0, 5673.0, 5328.0, 5486.0, 5387.0, 5403.0, 5590.0, 5408.0, 5583.0, 5350.0, 5437.0, 5417.0, 5521.0, 5321.0, 5484.0, 5615.0, 5349.0, 5376.0, 5646.0, 5539.0, 5612.0, 5575.0, 5703.0, 5457.0, 5551.0, 5507.0, 5516.0, 5607.0, 5676.0, 5410.0, 5413.0, 5638.0, 5660.0, 5323.0, 5487.0, 5456.0, 5515.0, 5604.0, 5359.0, 5664.0, 5618.0, 5320.0, 5345.0, 5628.0, 5623.0, 5547.0, 5674.0, 5331.0, 5585.0, 5642.0, 5390.0, 5523.0, 5287.0, 5559.0, 5647.0, 5393.0, 5582.0, 5257.0, 5372.0, 5667.0, 5313.0, 5432.0, 5721.0, 5690.0, 5574.0, 5312.0, 5643.0, 5518.0, 5532.0, 5603.0, 5497.0, 5572.0, 5654.0, 5423.0, 5460.0, 5635.0, 5337.0, 5381.0, 5347.0, 5710.0
5	5290	9	1	333	1	5260.0, 5330.0, 5698.0, 5281.0, 5631.0, 5283.0, 5339.0, 5346.0, 5295.0, 5702.0, 5259.0, 5655.0, 5290.0, 5282.0, 5287.0, 5340.0, 5522.0, 5678.0, 5384.0, 5572.0, 5542.0, 5642.0, 5581.0, 5694.0, 5569.0, 5354.0, 5534.0, 5719.0, 5292.0, 5250.0, 5619.0, 5563.0, 5708.0, 5580.0, 5543.0, 5386.0, 5461.0, 5586.0, 5487.0, 5661.0, 5335.0, 5409.0, 5599.0, 5447.0, 5325.0, 5556.0, 5271.0, 5620.0, 5470.0, 5597.0, 5424.0, 5699.0, 5648.0, 5306.0, 5312.0, 5262.0, 5564.0, 5578.0, 5674.0, 5299.0, 5507.0, 5714.0, 5362.0, 5450.0, 5519.0, 5664.0, 5417.0, 5695.0, 5545.0, 5494.0, 5307.0, 5410.0, 5315.0, 5588.0, 5322.0, 5723.0, 5407.0, 5610.0, 5608.0, 5457.0, 5700.0, 5367.0, 5591.0, 5514.0, 5336.0, 5617.0, 5687.0, 5477.0, 5333.0, 5562.0, 5647.0, 5503.0, 5305.0, 5443.0, 5434.0, 5521.0, 5511.0, 5395.0, 5433.0, 5270.0
6	5290	9	1	333	1	5697.0, 5256.0, 5430.0, 5446.0, 5414.0, 5418.0, 5377.0, 5632.0, 5597.0, 5694.0, 5549.0, 5443.0, 5370.0, 5550.0, 5394.0, 5515.0, 5554.0, 5705.0, 5335.0, 5723.0, 5501.0, 5340.0, 5647.0, 5465.0, 5641.0, 5711.0, 5392.0, 5642.0, 5521.0, 5378.0, 5399.0, 5410.0, 5516.0, 5300.0, 5440.0, 5664.0, 5613.0, 5624.0, 5504.0, 5573.0, 5509.0, 5695.0, 5531.0, 5294.0, 5306.0, 5519.0, 5643.0, 5308.0, 5652.0, 5383.0, 5326.0, 5540.0, 5683.0, 5709.0, 5389.0, 5263.0, 5687.0, 5499.0, 5435.0, 5634.0,

						5490.0, 5487.0, 5596.0, 5381.0, 5537.0, 5588.0, 5323.0, 5312.0, 5260.0, 5470.0, 5458.0, 5467.0, 5485.0, 5541.0, 5523.0, 5581.0, 5611.0, 5451.0, 5455.0, 5693.0, 5354.0, 5486.0, 5309.0, 5445.0, 5623.0, 5471.0, 5356.0, 5576.0, 5320.0, 5380.0, 5662.0, 5518.0, 5417.0, 5459.0, 5425.0, 5450.0, 5524.0, 5684.0, 5292.0, 5544.0
7	5290	9	1	333	1	5702.0, 5306.0, 5301.0, 5614.0, 5708.0, 5363.0, 5357.0, 5523.0, 5420.0, 5678.0, 5462.0, 5662.0, 5272.0, 5482.0, 5285.0, 5314.0, 5331.0, 5418.0, 5525.0, 5397.0, 5581.0, 5487.0, 5441.0, 5534.0, 5715.0, 5694.0, 5578.0, 5320.0, 5309.0, 5297.0, 5671.0, 5368.0, 5478.0, 5429.0, 5633.0, 5656.0, 5440.0, 5467.0, 5381.0, 5447.0, 5434.0, 5624.0, 5572.0, 5628.0, 5342.0, 5503.0, 5705.0, 5716.0, 5353.0, 5346.0, 5262.0, 5691.0, 5341.0, 5375.0, 5335.0, 5254.0, 5402.0, 5587.0, 5384.0, 5501.0, 5674.0, 5675.0, 5706.0, 5322.0, 5377.0, 5664.0, 5672.0, 5506.0, 5289.0, 5319.0, 5470.0, 5370.0, 5401.0, 5603.0, 5362.0, 5680.0, 5290.0, 5443.0, 5315.0, 5652.0, 5278.0, 5426.0, 5538.0, 5648.0, 5657.0, 5609.0, 5461.0, 5280.0, 5570.0, 5431.0, 5723.0, 5364.0, 5569.0, 5612.0, 5670.0, 5625.0, 5590.0, 5686.0, 5494.0, 5361.0
8	5290	9	1	333	1	5355.0, 5586.0, 5417.0, 5311.0, 5661.0, 5387.0, 5352.0, 5485.0, 5462.0, 5314.0, 5610.0, 5500.0, 5254.0, 5573.0, 5358.0, 5669.0, 5450.0, 5530.0, 5645.0, 5303.0, 5400.0, 5552.0, 5700.0, 5283.0, 5292.0, 5633.0, 5390.0, 5591.0, 5614.0, 5487.0, 5300.0, 5643.0, 5394.0, 5632.0, 5670.0, 5646.0, 5273.0, 5714.0, 5600.0, 5349.0, 5565.0, 5540.0, 5696.0, 5304.0, 5635.0, 5535.0, 5667.0, 5327.0, 5507.0, 5648.0, 5653.0, 5547.0, 5537.0, 5516.0, 5354.0, 5309.0, 5458.0, 5509.0, 5325.0, 5436.0, 5388.0, 5536.0, 5336.0, 5568.0, 5519.0, 5716.0, 5677.0, 5625.0, 5539.0, 5290.0, 5449.0, 5384.0, 5497.0, 5313.0, 5342.0, 5385.0, 5293.0, 5504.0, 5581.0, 5440.0, 5474.0, 5324.0, 5278.0, 5468.0, 5269.0, 5328.0, 5708.0, 5642.0, 5483.0, 5262.0, 5723.0, 5452.0, 5295.0, 5524.0, 5505.0, 5617.0, 5566.0, 5681.0, 5650.0, 5679.0
9	5290	9	1	333	1	5321.0, 5646.0, 5319.0, 5311.0, 5379.0, 5572.0, 5553.0, 5598.0, 5504.0, 5432.0, 5706.0, 5445.0, 5642.0, 5265.0, 5606.0, 5576.0, 5464.0, 5340.0, 5495.0, 5616.0, 5694.0, 5539.0, 5687.0, 5381.0, 5644.0, 5409.0, 5331.0, 5543.0, 5650.0, 5488.0, 5660.0, 5384.0, 5498.0, 5267.0, 5373.0, 5667.0, 5434.0, 5605.0, 5593.0, 5257.0, 5392.0, 5666.0, 5597.0, 5436.0, 5655.0, 5664.0, 5675.0, 5566.0, 5452.0, 5288.0, 5688.0, 5458.0, 5621.0, 5683.0, 5631.0,

						5332.0, 5684.0, 5387.0, 5669.0, 5259.0, 5506.0, 5457.0, 5435.0, 5563.0, 5558.0, 5367.0, 5670.0, 5349.0, 5534.0, 5424.0, 5366.0, 5492.0, 5419.0, 5471.0, 5345.0, 5719.0, 5378.0, 5659.0, 5282.0, 5339.0, 5512.0, 5323.0, 5402.0, 5583.0, 5604.0, 5344.0, 5469.0, 5522.0, 5595.0, 5692.0, 5322.0, 5438.0, 5628.0, 5715.0, 5397.0, 5594.0, 5668.0, 5272.0, 5523.0, 5633.0
10	5290	9	1	333	1	5633.0, 5474.0, 5491.0, 5514.0, 5522.0, 5629.0, 5262.0, 5492.0, 5625.0, 5673.0, 5342.0, 5265.0, 5426.0, 5439.0, 5409.0, 5646.0, 5423.0, 5397.0, 5281.0, 5345.0, 5655.0, 5437.0, 5447.0, 5405.0, 5597.0, 5442.0, 5662.0, 5626.0, 5315.0, 5510.0, 5547.0, 5333.0, 5687.0, 5306.0, 5541.0, 5644.0, 5654.0, 5337.0, 5356.0, 5255.0, 5332.0, 5490.0, 5312.0, 5302.0, 5556.0, 5605.0, 5407.0, 5370.0, 5672.0, 5314.0, 5496.0, 5693.0, 5698.0, 5303.0, 5328.0, 5385.0, 5665.0, 5386.0, 5347.0, 5348.0, 5630.0, 5560.0, 5267.0, 5562.0, 5455.0, 5458.0, 5694.0, 5706.0, 5513.0, 5296.0, 5338.0, 5465.0, 5317.0, 5400.0, 5555.0, 5627.0, 5683.0, 5564.0, 5316.0, 5294.0, 5602.0, 5533.0, 5374.0, 5645.0, 5616.0, 5641.0, 5388.0, 5512.0, 5308.0, 5540.0, 5607.0, 5336.0, 5321.0, 5351.0, 5572.0, 5362.0, 5469.0, 5485.0, 5524.0, 5369.0
11	5290	9	1	333	1	5255.0, 5638.0, 5497.0, 5587.0, 5476.0, 5415.0, 5530.0, 5671.0, 5555.0, 5427.0, 5416.0, 5362.0, 5326.0, 5388.0, 5542.0, 5423.0, 5294.0, 5428.0, 5660.0, 5563.0, 5449.0, 5375.0, 5412.0, 5498.0, 5329.0, 5510.0, 5526.0, 5512.0, 5524.0, 5260.0, 5431.0, 5469.0, 5426.0, 5418.0, 5343.0, 5372.0, 5588.0, 5482.0, 5439.0, 5595.0, 5459.0, 5649.0, 5629.0, 5266.0, 5340.0, 5599.0, 5694.0, 5549.0, 5642.0, 5308.0, 5360.0, 5647.0, 5670.0, 5279.0, 5473.0, 5581.0, 5320.0, 5356.0, 5685.0, 5488.0, 5466.0, 5311.0, 5342.0, 5703.0, 5528.0, 5319.0, 5302.0, 5536.0, 5517.0, 5571.0, 5699.0, 5653.0, 5325.0, 5422.0, 5591.0, 5278.0, 5251.0, 5664.0, 5508.0, 5467.0, 5645.0, 5706.0, 5623.0, 5717.0, 5337.0, 5576.0, 5546.0, 5478.0, 5438.0, 5441.0, 5702.0, 5662.0, 5444.0, 5505.0, 5289.0, 5270.0, 5523.0, 5577.0, 5381.0, 5410.0
12	5290	9	1	333	1	5716.0, 5634.0, 5703.0, 5395.0, 5440.0, 5571.0, 5261.0, 5424.0, 5467.0, 5612.0, 5641.0, 5627.0, 5273.0, 5545.0, 5289.0, 5590.0, 5326.0, 5262.0, 5474.0, 5434.0, 5539.0, 5297.0, 5383.0, 5309.0, 5568.0, 5503.0, 5574.0, 5384.0, 5253.0, 5495.0, 5397.0, 5428.0, 5706.0, 5535.0, 5519.0, 5330.0, 5311.0, 5513.0, 5335.0, 5284.0, 5655.0, 5348.0, 5271.0, 5700.0, 5543.0, 5658.0, 5686.0, 5697.0, 5649.0, 5251.0,

						5713.0, 5457.0, 5521.0, 5621.0, 5376.0, 5613.0, 5380.0, 5663.0, 5270.0, 5314.0, 5708.0, 5368.0, 5538.0, 5622.0, 5459.0, 5272.0, 5268.0, 5305.0, 5436.0, 5433.0, 5438.0, 5692.0, 5292.0, 5281.0, 5333.0, 5585.0, 5516.0, 5340.0, 5446.0, 5587.0, 5466.0, 5300.0, 5644.0, 5420.0, 5372.0, 5315.0, 5259.0, 5405.0, 5267.0, 5264.0, 5295.0, 5606.0, 5301.0, 5421.0, 5275.0, 5564.0, 5406.0, 5290.0, 5367.0, 5310.0
13	5290	9	1	333	1	5607.0, 5709.0, 5418.0, 5589.0, 5680.0, 5703.0, 5266.0, 5338.0, 5585.0, 5537.0, 5272.0, 5629.0, 5425.0, 5421.0, 5320.0, 5413.0, 5717.0, 5528.0, 5639.0, 5550.0, 5582.0, 5354.0, 5474.0, 5675.0, 5623.0, 5598.0, 5663.0, 5428.0, 5682.0, 5263.0, 5568.0, 5457.0, 5261.0, 5668.0, 5678.0, 5710.0, 5651.0, 5572.0, 5328.0, 5419.0, 5454.0, 5440.0, 5704.0, 5473.0, 5538.0, 5610.0, 5269.0, 5712.0, 5697.0, 5305.0, 5721.0, 5369.0, 5707.0, 5516.0, 5555.0, 5504.0, 5673.0, 5337.0, 5452.0, 5540.0, 5482.0, 5250.0, 5361.0, 5525.0, 5574.0, 5281.0, 5669.0, 5493.0, 5650.0, 5657.0, 5399.0, 5619.0, 5455.0, 5702.0, 5510.0, 5430.0, 5375.0, 5689.0, 5426.0, 5672.0, 5530.0, 5410.0, 5259.0, 5630.0, 5486.0, 5443.0, 5606.0, 5492.0, 5439.0, 5645.0, 5602.0, 5484.0, 5562.0, 5500.0, 5469.0, 5315.0, 5312.0, 5438.0, 5366.0, 5596.0
14	5290	9	1	333	0	
15	5290	9	1	333	1	5510.0, 5361.0, 5704.0, 5262.0, 5534.0, 5651.0, 5395.0, 5646.0, 5595.0, 5505.0, 5367.0, 5323.0, 5256.0, 5608.0, 5373.0, 5436.0, 5501.0, 5707.0, 5477.0, 5472.0, 5318.0, 5258.0, 5706.0, 5290.0, 5458.0, 5621.0, 5339.0, 5527.0, 5531.0, 5594.0, 5616.0, 5515.0, 5344.0, 5336.0, 5708.0, 5306.0, 5346.0, 5586.0, 5383.0, 5582.0, 5653.0, 5571.0, 5267.0, 5523.0, 5655.0, 5403.0, 5476.0, 5487.0, 5311.0, 5428.0, 5663.0, 5484.0, 5334.0, 5449.0, 5721.0, 5673.0, 5494.0, 5664.0, 5636.0, 5269.0, 5590.0, 5268.0, 5442.0, 5342.0, 5618.0, 5314.0, 5565.0, 5441.0, 5699.0, 5427.0, 5485.0, 5723.0, 5287.0, 5627.0, 5475.0, 5374.0, 5626.0, 5545.0, 5272.0, 5546.0, 5453.0, 5647.0, 5376.0, 5435.0, 5581.0, 5273.0, 5498.0, 5400.0, 5352.0, 5410.0, 5596.0, 5610.0, 5509.0, 5483.0, 5589.0, 5641.0, 5327.0, 5606.0, 5348.0, 5593.0
16	5290	9	1	333	0	/
17	5290	9	1	333	1	5441.0, 5641.0, 5361.0, 5531.0, 5425.0, 5717.0, 5578.0, 5283.0, 5447.0, 5524.0, 5643.0, 5502.0, 5429.0, 5721.0, 5266.0, 5477.0, 5517.0, 5571.0, 5294.0, 5261.0, 5406.0, 5417.0, 5633.0, 5659.0, 5518.0, 5381.0, 5344.0, 5384.0, 5437.0, 5487.0,

						5443.0, 5607.0, 5584.0, 5635.0, 5514.0, 5647.0, 5581.0, 5310.0, 5422.0, 5484.0, 5495.0, 5597.0, 5337.0, 5691.0, 5418.0, 5576.0, 5504.0, 5257.0, 5499.0, 5466.0, 5485.0, 5345.0, 5679.0, 5488.0, 5613.0, 5530.0, 5350.0, 5520.0, 5340.0, 5276.0, 5356.0, 5544.0, 5634.0, 5567.0, 5288.0, 5515.0, 5489.0, 5540.0, 5442.0, 5671.0, 5519.0, 5512.0, 5295.0, 5612.0, 5620.0, 5609.0, 5516.0, 5426.0, 5341.0, 5624.0, 5265.0, 5252.0, 5365.0, 5631.0, 5355.0, 5588.0, 5537.0, 5511.0, 5548.0, 5593.0, 5719.0, 5444.0, 5427.0, 5678.0, 5697.0, 5270.0, 5404.0, 5286.0, 5638.0, 5363.0
18	5290	9	1	333	1	5389.0, 5486.0, 5632.0, 5392.0, 5436.0, 5566.0, 5698.0, 5473.0, 5450.0, 5662.0, 5621.0, 5601.0, 5403.0, 5556.0, 5600.0, 5686.0, 5468.0, 5405.0, 5707.0, 5421.0, 5493.0, 5532.0, 5504.0, 5593.0, 5279.0, 5423.0, 5454.0, 5354.0, 5336.0, 5588.0, 5410.0, 5285.0, 5428.0, 5464.0, 5619.0, 5365.0, 5458.0, 5318.0, 5370.0, 5640.0, 5568.0, 5565.0, 5615.0, 5657.0, 5574.0, 5431.0, 5607.0, 5526.0, 5441.0, 5489.0, 5364.0, 5477.0, 5511.0, 5630.0, 5700.0, 5658.0, 5595.0, 5371.0, 5298.0, 5603.0, 5496.0, 5525.0, 5439.0, 5258.0, 5460.0, 5319.0, 5349.0, 5338.0, 5273.0, 5378.0, 5506.0, 5253.0, 5251.0, 5461.0, 5280.0, 5391.0, 5598.0, 5342.0, 5680.0, 5351.0, 5611.0, 5335.0, 5352.0, 5303.0, 5616.0, 5347.0, 5480.0, 5407.0, 5402.0, 5267.0, 5592.0, 5713.0, 5585.0, 5412.0, 5682.0, 5685.0, 5722.0, 5558.0, 5628.0, 5518.0
19	5290	9	1	333	1	5642.0, 5397.0, 5250.0, 5610.0, 5528.0, 5571.0, 5436.0, 5552.0, 5718.0, 5531.0, 5344.0, 5678.0, 5430.0, 5454.0, 5300.0, 5682.0, 5638.0, 5285.0, 5575.0, 5691.0, 5637.0, 5595.0, 5561.0, 5578.0, 5688.0, 5594.0, 5283.0, 5669.0, 5539.0, 5357.0, 5326.0, 5420.0, 5305.0, 5679.0, 5604.0, 5524.0, 5598.0, 5719.0, 5704.0, 5452.0, 5689.0, 5653.0, 5266.0, 5538.0, 5592.0, 5376.0, 5609.0, 5627.0, 5263.0, 5558.0, 5620.0, 5404.0, 5346.0, 5367.0, 5649.0, 5586.0, 5518.0, 5554.0, 5463.0, 5527.0, 5359.0, 5262.0, 5391.0, 5685.0, 5681.0, 5715.0, 5696.0, 5417.0, 5588.0, 5636.0, 5405.0, 5386.0, 5425.0, 5717.0, 5330.0, 5469.0, 5652.0, 5556.0, 5671.0, 5288.0, 5426.0, 5429.0, 5352.0, 5486.0, 5521.0, 5655.0, 5614.0, 5319.0, 5433.0, 5560.0, 5482.0, 5351.0, 5334.0, 5698.0, 5722.0, 5587.0, 5394.0, 5269.0, 5713.0, 5440.0
20	5290	9	1	333	1	5720.0, 5593.0, 5719.0, 5498.0, 5399.0, 5379.0, 5494.0, 5541.0, 5408.0, 5356.0, 5297.0, 5485.0, 5678.0, 5386.0, 5551.0, 5679.0, 5334.0, 5397.0, 5327.0, 5625.0, 5323.0, 5596.0, 5492.0, 5644.0, 5618.0,

						5669.0, 5605.0, 5632.0, 5602.0, 5647.0, 5360.0, 5567.0, 5706.0, 5636.0, 5511.0, 5690.0, 5482.0, 5426.0, 5282.0, 5321.0, 5306.0, 5613.0, 5713.0, 5556.0, 5333.0, 5587.0, 5672.0, 5500.0, 5428.0, 5451.0, 5345.0, 5601.0, 5516.0, 5435.0, 5313.0, 5698.0, 5617.0, 5539.0, 5462.0, 5531.0, 5277.0, 5290.0, 5538.0, 5711.0, 5476.0, 5421.0, 5695.0, 5299.0, 5688.0, 5704.0, 5311.0, 5401.0, 5446.0, 5503.0, 5275.0, 5274.0, 5673.0, 5626.0, 5363.0, 5628.0, 5341.0, 5723.0, 5649.0, 5520.0, 5622.0, 5553.0, 5529.0, 5261.0, 5643.0, 5505.0, 5584.0, 5300.0, 5564.0, 5642.0, 5718.0, 5278.0, 5537.0, 5508.0, 5634.0, 5432.0
21	5290	9	1	333	1	5444.0, 5699.0, 5470.0, 5612.0, 5525.0, 5468.0, 5298.0, 5643.0, 5606.0, 5709.0, 5312.0, 5696.0, 5354.0, 5491.0, 5568.0, 5595.0, 5616.0, 5284.0, 5638.0, 5545.0, 5258.0, 5519.0, 5388.0, 5383.0, 5391.0, 5296.0, 5614.0, 5522.0, 5584.0, 5489.0, 5574.0, 5549.0, 5401.0, 5347.0, 5523.0, 5440.0, 5626.0, 5339.0, 5356.0, 5502.0, 5524.0, 5654.0, 5431.0, 5301.0, 5315.0, 5465.0, 5653.0, 5357.0, 5566.0, 5721.0, 5646.0, 5419.0, 5678.0, 5615.0, 5495.0, 5259.0, 5656.0, 5647.0, 5287.0, 5651.0, 5293.0, 5346.0, 5644.0, 5389.0, 5454.0, 5372.0, 5710.0, 5671.0, 5658.0, 5381.0, 5547.0, 5649.0, 5528.0, 5537.0, 5569.0, 5343.0, 5326.0, 5331.0, 5591.0, 5587.0, 5374.0, 5719.0, 5403.0, 5608.0, 5536.0, 5632.0, 5276.0, 5275.0, 5252.0, 5590.0, 5712.0, 5691.0, 5409.0, 5496.0, 5683.0, 5385.0, 5604.0, 5607.0, 5406.0, 5482.0
22	5290	9	1	333	1	5477.0, 5510.0, 5720.0, 5271.0, 5641.0, 5509.0, 5334.0, 5402.0, 5502.0, 5664.0, 5716.0, 5550.0, 5439.0, 5367.0, 5604.0, 5607.0, 5519.0, 5513.0, 5517.0, 5371.0, 5703.0, 5379.0, 5584.0, 5650.0, 5639.0, 5395.0, 5419.0, 5712.0, 5434.0, 5557.0, 5619.0, 5329.0, 5340.0, 5583.0, 5446.0, 5457.0, 5722.0, 5345.0, 5483.0, 5505.0, 5370.0, 5559.0, 5292.0, 5524.0, 5352.0, 5443.0, 5431.0, 5341.0, 5562.0, 5257.0, 5718.0, 5635.0, 5632.0, 5677.0, 5618.0, 5657.0, 5278.0, 5435.0, 5284.0, 5447.0, 5312.0, 5661.0, 5260.0, 5582.0, 5568.0, 5697.0, 5392.0, 5556.0, 5684.0, 5380.0, 5335.0, 5369.0, 5449.0, 5600.0, 5679.0, 5320.0, 5680.0, 5642.0, 5269.0, 5522.0, 5448.0, 5310.0, 5501.0, 5417.0, 5325.0, 5553.0, 5322.0, 5353.0, 5599.0, 5686.0, 5595.0, 5696.0, 5489.0, 5663.0, 5440.0, 5302.0, 5668.0, 5409.0, 5685.0, 5658.0
23	5290	9	1	333	1	5352.0, 5654.0, 5522.0, 5700.0, 5274.0, 5496.0, 5415.0, 5408.0, 5630.0, 5494.0, 5464.0, 5407.0, 5335.0, 5579.0, 5410.0, 5540.0, 5659.0, 5398.0, 5538.0, 5347.0,

						5507.0, 5368.0, 5378.0, 5678.0, 5636.0, 5712.0, 5292.0, 5356.0, 5594.0, 5461.0, 5458.0, 5562.0, 5491.0, 5427.0, 5330.0, 5418.0, 5361.0, 5651.0, 5387.0, 5333.0, 5430.0, 5363.0, 5552.0, 5476.0, 5649.0, 5517.0, 5353.0, 5446.0, 5561.0, 5558.0, 5698.0, 5420.0, 5294.0, 5439.0, 5529.0, 5623.0, 5666.0, 5281.0, 5604.0, 5608.0, 5620.0, 5417.0, 5394.0, 5586.0, 5269.0, 5283.0, 5694.0, 5590.0, 5306.0, 5454.0, 5251.0, 5320.0, 5542.0, 5451.0, 5433.0, 5370.0, 5411.0, 5351.0, 5450.0, 5519.0, 5645.0, 5642.0, 5409.0, 5291.0, 5660.0, 5614.0, 5569.0, 5488.0, 5264.0, 5272.0, 5675.0, 5431.0, 5414.0, 5706.0, 5631.0, 5419.0, 5671.0, 5316.0, 5556.0, 5555.0
24	5290	9	1	333	1	5327.0, 5485.0, 5534.0, 5487.0, 5293.0, 5685.0, 5405.0, 5361.0, 5275.0, 5591.0, 5608.0, 5301.0, 5497.0, 5385.0, 5609.0, 5639.0, 5724.0, 5272.0, 5262.0, 5437.0, 5302.0, 5419.0, 5507.0, 5475.0, 5445.0, 5423.0, 5651.0, 5291.0, 5313.0, 5289.0, 5380.0, 5710.0, 5434.0, 5508.0, 5350.0, 5447.0, 5550.0, 5281.0, 5505.0, 5454.0, 5337.0, 5308.0, 5587.0, 5404.0, 5616.0, 5255.0, 5484.0, 5470.0, 5547.0, 5456.0, 5500.0, 5546.0, 5391.0, 5408.0, 5465.0, 5580.0, 5520.0, 5539.0, 5410.0, 5458.0, 5652.0, 5367.0, 5464.0, 5577.0, 5460.0, 5285.0, 5618.0, 5646.0, 5596.0, 5643.0, 5549.0, 5582.0, 5401.0, 5512.0, 5615.0, 5384.0, 5514.0, 5354.0, 5351.0, 5697.0, 5568.0, 5461.0, 5538.0, 5307.0, 5667.0, 5395.0, 5560.0, 5705.0, 5656.0, 5412.0, 5287.0, 5473.0, 5536.0, 5279.0, 5675.0, 5415.0, 5257.0, 5424.0, 5335.0, 5561.0
25	5290	9	1	333	1	5510.0, 5676.0, 5664.0, 5372.0, 5511.0, 5550.0, 5614.0, 5270.0, 5543.0, 5542.0, 5260.0, 5678.0, 5720.0, 5589.0, 5535.0, 5259.0, 5600.0, 5594.0, 5277.0, 5686.0, 5400.0, 5574.0, 5457.0, 5301.0, 5449.0, 5440.0, 5292.0, 5546.0, 5262.0, 5490.0, 5294.0, 5621.0, 5350.0, 5523.0, 5411.0, 5612.0, 5430.0, 5278.0, 5580.0, 5631.0, 5702.0, 5540.0, 5379.0, 5427.0, 5491.0, 5629.0, 5532.0, 5359.0, 5311.0, 5601.0, 5382.0, 5401.0, 5386.0, 5596.0, 5269.0, 5369.0, 5374.0, 5341.0, 5521.0, 5634.0, 5577.0, 5640.0, 5383.0, 5309.0, 5476.0, 5349.0, 5360.0, 5428.0, 5642.0, 5365.0, 5666.0, 5576.0, 5367.0, 5298.0, 5317.0, 5584.0, 5645.0, 5474.0, 5366.0, 5423.0, 5285.0, 5627.0, 5439.0, 5402.0, 5625.0, 5478.0, 5471.0, 5607.0, 5554.0, 5611.0, 5710.0, 5392.0, 5377.0, 5688.0, 5273.0, 5257.0, 5482.0, 5451.0, 5670.0, 5691.0
26	5290	9	1	333	1	5488.0, 5563.0, 5343.0, 5580.0, 5562.0, 5350.0, 5504.0, 5611.0, 5708.0, 5331.0, 5493.0, 5277.0, 5624.0, 5644.0, 5423.0,

						5400.0, 5480.0, 5509.0, 5620.0, 5335.0, 5470.0, 5281.0, 5686.0, 5359.0, 5371.0, 5548.0, 5321.0, 5380.0, 5374.0, 5272.0, 5714.0, 5649.0, 5317.0, 5612.0, 5503.0, 5505.0, 5608.0, 5279.0, 5356.0, 5706.0, 5306.0, 5601.0, 5607.0, 5532.0, 5251.0, 5383.0, 5444.0, 5479.0, 5575.0, 5464.0, 5510.0, 5581.0, 5618.0, 5358.0, 5476.0, 5434.0, 5273.0, 5526.0, 5298.0, 5537.0, 5634.0, 5369.0, 5536.0, 5403.0, 5491.0, 5407.0, 5326.0, 5390.0, 5525.0, 5393.0, 5459.0, 5661.0, 5285.0, 5294.0, 5435.0, 5702.0, 5650.0, 5344.0, 5372.0, 5424.0, 5439.0, 5428.0, 5639.0, 5305.0, 5627.0, 5598.0, 5405.0, 5284.0, 5471.0, 5457.0, 5253.0, 5425.0, 5566.0, 5613.0, 5543.0, 5550.0, 5373.0, 5280.0, 5320.0, 5475.0
27	5290	9	1	333	1	5708.0, 5659.0, 5548.0, 5639.0, 5352.0, 5682.0, 5259.0, 5487.0, 5649.0, 5654.0, 5426.0, 5378.0, 5470.0, 5310.0, 5574.0, 5486.0, 5589.0, 5701.0, 5669.0, 5660.0, 5496.0, 5258.0, 5552.0, 5596.0, 5439.0, 5697.0, 5406.0, 5443.0, 5420.0, 5269.0, 5623.0, 5447.0, 5684.0, 5483.0, 5463.0, 5709.0, 5677.0, 5415.0, 5615.0, 5537.0, 5403.0, 5390.0, 5268.0, 5288.0, 5532.0, 5627.0, 5379.0, 5424.0, 5360.0, 5511.0, 5412.0, 5514.0, 5485.0, 5613.0, 5683.0, 5605.0, 5274.0, 5673.0, 5671.0, 5254.0, 5512.0, 5713.0, 5524.0, 5436.0, 5384.0, 5464.0, 5291.0, 5493.0, 5255.0, 5551.0, 5484.0, 5545.0, 5587.0, 5442.0, 5718.0, 5591.0, 5536.0, 5644.0, 5519.0, 5430.0, 5354.0, 5559.0, 5645.0, 5599.0, 5481.0, 5643.0, 5276.0, 5451.0, 5641.0, 5289.0, 5507.0, 5699.0, 5397.0, 5309.0, 5631.0, 5295.0, 5380.0, 5668.0, 5622.0, 5407.0
28	5290	9	1	333	1	5538.0, 5453.0, 5482.0, 5539.0, 5472.0, 5696.0, 5505.0, 5431.0, 5498.0, 5264.0, 5467.0, 5647.0, 5609.0, 5628.0, 5288.0, 5387.0, 5282.0, 5645.0, 5618.0, 5702.0, 5528.0, 5639.0, 5617.0, 5395.0, 5303.0, 5714.0, 5632.0, 5403.0, 5593.0, 5341.0, 5658.0, 5425.0, 5475.0, 5620.0, 5402.0, 5384.0, 5306.0, 5715.0, 5493.0, 5380.0, 5529.0, 5520.0, 5496.0, 5404.0, 5398.0, 5537.0, 5300.0, 5373.0, 5652.0, 5323.0, 5338.0, 5504.0, 5622.0, 5457.0, 5517.0, 5674.0, 5394.0, 5481.0, 5290.0, 5397.0, 5494.0, 5651.0, 5718.0, 5716.0, 5348.0, 5372.0, 5665.0, 5477.0, 5549.0, 5515.0, 5405.0, 5440.0, 5692.0, 5444.0, 5349.0, 5531.0, 5376.0, 5311.0, 5575.0, 5462.0, 5573.0, 5369.0, 5570.0, 5648.0, 5357.0, 5377.0, 5326.0, 5561.0, 5577.0, 5421.0, 5581.0, 5295.0, 5331.0, 5530.0, 5683.0, 5293.0, 5582.0, 5359.0, 5490.0, 5604.0
29	5290	9	1	333	1	5487.0, 5595.0, 5382.0, 5261.0, 5262.0, 5546.0, 5303.0, 5419.0, 5416.0, 5631.0,

						5408.0, 5562.0, 5662.0, 5391.0, 5383.0, 5457.0, 5443.0, 5525.0, 5464.0, 5532.0, 5373.0, 5466.0, 5670.0, 5701.0, 5477.0, 5583.0, 5717.0, 5506.0, 5254.0, 5401.0, 5663.0, 5571.0, 5428.0, 5567.0, 5474.0, 5573.0, 5699.0, 5399.0, 5458.0, 5613.0, 5711.0, 5323.0, 5642.0, 5282.0, 5543.0, 5578.0, 5629.0, 5273.0, 5392.0, 5557.0, 5600.0, 5422.0, 5379.0, 5623.0, 5377.0, 5691.0, 5358.0, 5435.0, 5364.0, 5686.0, 5542.0, 5309.0, 5450.0, 5374.0, 5367.0, 5439.0, 5467.0, 5494.0, 5354.0, 5317.0, 5413.0, 5582.0, 5287.0, 5509.0, 5329.0, 5507.0, 5517.0, 5334.0, 5696.0, 5705.0, 5683.0, 5665.0, 5341.0, 5271.0, 5389.0, 5388.0, 5609.0, 5441.0, 5635.0, 5395.0, 5516.0, 5363.0, 5264.0, 5513.0, 5694.0, 5284.0, 5281.0, 5263.0, 5597.0, 5644.0
30	5290	9	1	333	1	5297.0, 5467.0, 5569.0, 5455.0, 5374.0, 5605.0, 5518.0, 5441.0, 5382.0, 5688.0, 5714.0, 5379.0, 5405.0, 5544.0, 5626.0, 5718.0, 5268.0, 5529.0, 5307.0, 5474.0, 5588.0, 5355.0, 5269.0, 5257.0, 5525.0, 5716.0, 5523.0, 5250.0, 5287.0, 5615.0, 5445.0, 5706.0, 5327.0, 5436.0, 5585.0, 5274.0, 5407.0, 5376.0, 5261.0, 5348.0, 5534.0, 5401.0, 5340.0, 5661.0, 5520.0, 5558.0, 5477.0, 5321.0, 5373.0, 5252.0, 5723.0, 5353.0, 5624.0, 5308.0, 5328.0, 5548.0, 5360.0, 5266.0, 5469.0, 5265.0, 5454.0, 5702.0, 5448.0, 5699.0, 5684.0, 5424.0, 5575.0, 5673.0, 5484.0, 5434.0, 5392.0, 5364.0, 5391.0, 5703.0, 5385.0, 5301.0, 5611.0, 5570.0, 5476.0, 5480.0, 5471.0, 5512.0, 5450.0, 5313.0, 5311.0, 5346.0, 5542.0, 5657.0, 5319.0, 5318.0, 5633.0, 5576.0, 5715.0, 5625.0, 5710.0, 5359.0, 5358.0, 5574.0, 5320.0, 5439.0

40MHz

Radar SignalType	Waveform/Trial Number	Detection (%)	Limit (%)	Pass/Fail
Type 1A	15	93.3%	60%	pass
Type 1B	15	86.7%	60%	pass
Type 2	30	93.3%	60%	Pass
Type 3	30	86.67%	60%	Pass
Type 4	30	90%	60%	Pass
Aggregate(Type1 to 4)	120	90%	80%	Pass
Type 5	30	93.3 %	80%	Pass
Type 6	30	93.3 %	70%	Pass

Please refer to the following statistical tables:

5310MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5310	102	1	518	1
2	5310	59	1	898	1
3	5310	65	1	818	1
4	5310	18	1	3066	1
5	5310	68	1	778	0
6	5310	70	1	758	1
7	5310	89	1	598	1
8	5310	78	1	678	1
9	5310	63	1	838	1
10	5310	58	1	918	1
11	5310	95	1	558	1
12	5310	86	1	618	1
13	5310	76	1	698	1
14	5310	81	1	658	1
15	5310	72	1	738	1
Detection Percentage:93.3 % (>60%)					

Radar Type 1B Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5310	49	1	1090	1
2	5310	19	1	2919	1
3	5310	36	1	1506	1
4	5310	23	1	2304	1
5	5310	78	1	680	1
6	5310	41	1	1311	1
7	5310	29	1	1857	1
8	5310	35	1	1533	1
9	5310	20	1	2686	1
10	5310	77	1	694	0
11	5310	22	1	2429	1
12	5310	20	1	2727	1
13	5310	77	1	690	1
14	5310	40	1	1322	0
15	5310	100	1	531	1
Detection Percentage: 87.6 % (>60%)					

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5310	28	2.9	157	1
2	5310	29	5	194	1
3	5310	27	3.7	214	0
4	5310	24	2.8	170	1
5	5310	23	4.2	210	1
6	5310	28	2.2	185	1
7	5310	26	1.4	177	1
8	5310	29	1.2	200	1
9	5310	29	2.5	178	0
10	5310	26	3.5	201	1
11	5310	27	2.7	175	1
12	5310	28	4.1	196	1
13	5310	27	1.4	209	1
14	5310	24	3.7	222	1
15	5310	23	3.3	216	1
16	5310	23	3.6	175	1
17	5310	23	3.5	164	1
18	5310	26	2.6	161	1
19	5310	25	1.9	226	1
20	5310	28	3.1	225	1
21	5310	26	2.4	205	1
22	5310	23	2.3	170	1
23	5310	29	1.6	228	1
24	5310	23	1.6	187	1
25	5310	24	1.4	197	1
26	5310	24	4.7	224	1
27	5310	23	3	201	1
28	5310	26	1.8	167	1
29	5310	24	1.2	216	1
30	5310	26	1.2	169	1
Detection Percentage: 93.3 % (>60%)					

Radar Type 3 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5310	16	6.4	271	1
2	5310	18	8.5	278	1
3	5310	17	8.5	219	1
4	5310	17	9	420	1
5	5310	17	7	270	0
6	5310	18	9.2	312	1
7	5310	17	6.6	278	1
8	5310	18	8.2	242	0
9	5310	17	6.3	214	0
10	5310	16	7.5	361	1
11	5310	16	6.6	312	1
12	5310	18	7.8	317	1
13	5310	18	6.3	345	1
14	5310	18	7.9	224	1
15	5310	18	6.5	457	1
16	5310	18	7.7	480	1
17	5310	16	8.6	268	0
18	5310	17	6.3	237	1
19	5310	17	7.2	476	1
20	5310	18	9.4	437	1
21	5310	16	8	265	1
22	5310	16	7.9	434	1
23	5310	16	7.1	389	1
24	5310	17	6.5	217	1
25	5310	16	8.1	456	1
26	5310	18	7.5	362	1
27	5310	16	7.5	204	1
28	5310	18	7.4	490	1
29	5310	18	9.3	461	1
30	5310	17	8	357	1
Detection Percentage: 86.7% (>60%)					

Radar Type 4 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5310	15	17.4	383	1
2	5310	16	19.1	245	1
3	5310	14	18.5	310	1
4	5310	12	13.2	259	1
5	5310	12	20	385	1
6	5310	16	13.8	425	0
7	5310	13	18.2	354	1
8	5310	14	17.6	261	0
9	5310	15	12.4	274	1
10	5310	13	16.6	371	1
11	5310	15	16.4	403	1
12	5310	13	19	275	1
13	5310	12	17	332	1
14	5310	13	11.3	478	1
15	5310	14	19.8	224	1
16	5310	14	14.5	475	1
17	5310	16	12	250	1
18	5310	14	14.1	344	0
19	5310	16	15.9	228	1
20	5310	12	18.2	470	1
21	5310	16	19	331	1
22	5310	16	19.4	474	1
23	5310	14	18.1	443	1
24	5310	12	11.3	414	1
25	5310	12	11.8	476	1
26	5310	14	11.2	366	1
27	5310	15	16.4	312	1
28	5310	15	18.6	376	1
29	5310	13	11.1	486	1
30	5310	14	13.5	342	1
Detection Percentage: 90 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5310.0MHz)

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	64.7	1293		0.772679	
1	3	6	61.9	1024	1793	1.353487	
2	3	6	61.9	1605	1557	2.259176	
3	1	6	52.7			3.883662	
4	1	6	97.4			4.094624	
5	3	6	69.4	1656	1454	5.766285	1
6	2	6	93.4	1335		6.782216	
7	3	6	95.9	1406	1019	7.000532	
8	2	6	92.7	1624		8.339911	
9	2	6	64.4	1985		9.323942	
10	3	6	80.6	1714	1878	10.0931	
11	2	6	92	1477		11.30678	

Statistics 2 (ChirpCenter Frequency: 5310.0 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	64.8	1059		0.785137	
1	2	6	68.1	1774		1.599085	
2	1	6	75.1			2.859093	
3	2	6	91.6	1661		4.106308	
4	2	6	61	1653		4.393216	
5	1	6	87.4			5.706654	1
6	1	6	89.1			6.711443	
7	3	6	97.9	1360	1847	8.337642	
8	3	6	72.2	1027	1478	9.325703	
9	1	6	66			10.73208	
10	2	6	73.3	1995		11.14917	

Statistics 3 (ChirpCenter Frequency: 5310.0 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	62.8	1792		0.74835	
1	3	11	97.2	1932	1075	1.626836	
2	1	11	65.5			2.149508	
3	1	11	96.5			3.351347	
4	3	11	52.2	1189	1973	3.963836	
5	2	11	77.7	1625		4.781184	
6	3	11	79.4	1681	1780	5.794656	1
7	3	11	60.1	1282	1402	6.498259	
8	3	11	74.2	1920	1173	8.15527	
9	2	11	71.4	1375		8.611556	
10	2	11	68.3	1211		9.272562	
11	1	11	75			10.9909	
12	2	11	77.9	1473		11.41427	

Statistics 4 (ChirpCenter Frequency: 5310.0 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	76.8	1103		0.683847	
1	1	10	96.5			1.211134	
2	3	10	66.3	1776	1073	3.216025	
3	3	10	86	1006	1269	3.973206	
4	1	10	63.9			4.906476	
5	3	10	72.2	1393	1086	5.953127	1
6	2	10	83.5	1451		6.970825	
7	3	10	83.9	1101	1743	8.662865	
8	3	10	69.9	1249	1266	9.698893	
9	2	10	80.1	1822		10.68669	
10	2	10	55.5	1960		11.02473	

Statistics 5(ChirpCenter Frequency: 5310.0 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	94	1806		0.115712	
1	1	16	90.5			1.799899	
2	1	16	96			3.975314	
3	3	16	58.3	1080	1689	5.101199	
4	1	16	53.5			6.566341	1
5	3	16	72.1	1767	1858	6.768808	
6	2	16	66.2	1284		8.019266	
7	3	16	59.9	1837	1725	9.812905	
8	2	16	73.9	1054		10.85409	

Statistics 6 (ChirpCenter Frequency: 5310.0 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	60.8	1704		1.342125	
1	2	7	79.9	1528		2.728431	
2	2	7	71.8	1962		4.078429	
3	2	7	62.5	1851		5.06151	
4	1	7	91			6.045835	0
5	3	7	54.5	1815	1218	8.930636	
6	3	7	51.1	1555	1465	9.671617	
7	2	7	76.7	1108		11.79331	

Statistics 7(ChirpCenter Frequency: 5310.0 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	66.5	1511	1465	0.272973	
1	3	13	78.8	1356	1924	1.016674	
2	3	13	74.2	1019	1377	1.866408	
3	2	13	69.8	1284		2.520844	
4	1	13	85.9			3.235587	
5	2	13	63.4	1934		3.667833	
6	2	13	95.4	1065		4.075857	
7	3	13	55.9	1636	1514	4.775307	
8	2	13	96	1918		5.515177	1
9	1	13	86.4			6.426058	
10	2	13	83.9	1113		7.172558	
11	2	13	62.4	1241		7.674338	
12	3	13	54.4	1254	1909	8.635387	
13	2	13	70.3	1688		9.13254	
14	2	13	77.5	1564		9.56659	
15	1	13	98.2			10.44617	
16	3	13	72.4	1295	1269	10.7633	
17	2	13	51.4	1271		11.50149	

Statistics 8 (ChirpCenter Frequency: 5310.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	6	79.5			0.089161	
1	3	6	94.3	1129	1767	0.864633	
2	2	6	74	1905		1.710583	
3	1	6	63.5			2.002367	
4	3	6	56.1	1143	1804	3.063688	
5	1	6	98.5			3.306003	
6	1	6	89.8			4.083589	
7	3	6	67.7	1676	1044	5.008079	
8	2	6	50.2	1285		5.188431	
9	3	6	60.9	1831	1645	5.696657	1
10	3	6	51.2	1726	1517	6.38974	
11	3	6	79.8	1530	1853	7.305689	
12	3	6	77.1	1995	1474	7.995225	
13	2	6	68.7	1705		8.66425	
14	1	6	87.7			9.069292	
15	3	6	99.5	1714	1828	9.789095	
16	1	6	63.1			10.33144	
17	2	6	89	1380		11.23163	
18	3	6	61.6	1983	1639	11.92973	

Statistics 9 (ChirpCenter Frequency: 5310.0 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	52.6	1314		0.634655	
1	2	11	67.2	1423		0.980145	
2	2	11	53	1421		2.132352	
3	1	11	80.1			2.775545	
4	2	11	86.5	1967		3.869024	
5	3	11	93.5	1157	1368	4.912444	
6	3	11	66.5	1715	1475	5.405962	1
7	2	11	94.7	1189		6.050808	
8	2	11	64	1714		7.256671	
9	2	11	99	1759		8.548798	
10	2	11	77.6	1406		8.966474	
11	1	11	99.8			9.665209	
12	1	11	54.4			10.62435	
13	1	11	84.1			11.78971	

Statistics 10 (ChirpCenter Frequency: 5310.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (µS)	Pulse 1-2 spacing(µS)	Pulse 2-3 spacing(µS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	13	72			0.846024	
1	2	13	81.7	1966		1.232198	
2	3	13	90.3	1961	1336	2.529433	
3	3	13	98.1	1846	1681	3.030245	
4	2	13	76.1	1960		3.697919	
5	3	13	69	1730	1362	4.73729	
6	2	13	67.3	1540		5.789732	1
7	2	13	85.3	1466		6.927337	
8	3	13	84	1201	1115	7.636058	
9	2	13	63.4	1302		8.497517	
10	2	13	75.1	1234		9.617415	
11	1	13	90			10.63776	
12	3	13	52.7	1517	1242	11.71481	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5298.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	67.4	1813		0.351302	
1	1	19	66.8			1.483306	
2	3	19	86.2	1136	1061	2.111306	
3	1	19	81.6			3.00255	
4	1	19	93.8			3.584873	
5	2	19	92.9	1383		4.13928	
6	2	19	72.3	1296		5.137041	
7	1	19	83			6.34262	1
8	1	19	76.5			6.439457	
9	2	19	65.9	1272		7.625819	
10	1	19	85.7			8.478566	
11	2	19	89.5	1899		8.949315	
12	2	19	87	1251		10.18369	
13	2	19	59.9	1001		10.61478	
14	2	19	53.5	1805		11.78185	

Statistics 2 (ChirpCenter Frequency: 5294.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	90.4			0.327898	
1	3	9	96	1181	1517	1.4662	
2	2	9	84.1	1253		1.787926	
3	2	9	67	1044		2.917436	
4	3	9	99.1	1122	1524	3.907293	
5	3	9	52.5	1207	1335	4.326967	
6	2	9	56.4	1560		5.417427	
7	1	9	94.6			6.56197	1
8	2	9	67.5	1221		7.000155	
9	2	9	67.3	1522		8.450328	
10	3	9	78	1050	1588	9.158257	
11	3	9	52.5	1555	1508	9.620476	
12	1	9	57.9			10.74995	
13	1	9	69.8			11.1618	

Statistics 3 (ChirpCenter Frequency: 5297.0 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	88.6			0.409225	
1	3	17	80.6	1207	1732	1.41071	
2	3	17	88.5	1224	1050	1.669876	
3	1	17	65			2.760624	
4	2	17	93.2	1934		3.87283	
5	1	17	66			4.446247	
6	3	17	82.9	1232	1877	4.946763	
7	2	17	50.6	1657		6.21391	1
8	3	17	87.8	1663	1905	7.170146	
9	2	17	50.7	1144		7.246882	
10	3	17	90.3	1829	1108	8.190752	
11	3	17	76.3	1138	1303	9.506251	
12	2	17	81.3	1496		10.22166	
13	3	17	99.3	1818	1289	10.55533	
14	1	17	56.5			11.32629	

Statistics 4 (ChirpCenter Frequency: 5292.0 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	65.4	1879		1.234908	
1	3	5	55.4	1212	1407	2.743635	
2	1	5	82.6			3.749509	
3	2	5	92.9	1445		5.808627	0
4	1	5	94.7			6.647906	
5	1	5	61			8.089362	
6	1	5	56.7			10.1762	
7	2	5	87.4	1274		10.54534	

Statistics 5 (ChirpCenter Frequency: 5297.0 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	89			0.229029	
1	3	17	50.8	1871	1065	1.458302	
2	1	17	50.4			2.362436	
3	2	17	90.8	1623		2.896339	
4	2	17	61.9	1824		3.79352	
5	1	17	83.4			4.474836	
6	1	17	67.5			5.020305	
7	2	17	60.8	1900		5.910375	1
8	2	17	83.5	1068		6.841929	
9	2	17	64.3	1190		7.906989	
10	3	17	82.9	1724	1969	8.748811	
11	1	17	60.6			9.362503	
12	2	17	65.9	1972		9.764089	
13	2	17	76.4	1215		10.8464	
14	2	17	72.7	1122		11.91494	

Statistics 6 (ChirpCenter Frequency: 5293.0MHz)

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	3	7	74.6	1900	1101	0.148504	
1	2	7	51.8	1915		1.724672	
2	1	7	52.4			2.73654	
3	2	7	72.2	1010		3.339415	
4	3	7	94.1	1526	1829	4.345608	
5	3	7	69.8	1664	1435	5.808803	
6	1	7	96			6.554504	1
7	3	7	66.7	1403	1817	7.820649	
8	2	7	71.5	1446		8.229134	
9	2	7	70.5	1781		9.025077	
10	2	7	89.7	1150		10.06813	
11	2	7	56.7	1694		11.9329	

Statistics 7 (ChirpCenter Frequency: 5298.0MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(uS)	Pulse 2-3 spacing(uS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	20	99.1	1847		0.289251	
1	2	20	89.8	1615		0.924761	
2	1	20	76.4			2.153256	
3	2	20	75.3	1898		2.552635	
4	2	20	78.8	1139		3.416565	
5	2	20	80.8	1733		4.377907	
6	3	20	67.1	1039	1671	5.085965	
7	2	20	91	1604		5.507807	1
8	2	20	82.4	1038		6.474593	
9	1	20	92.7			7.166466	
10	2	20	59.4	1302		7.88531	
11	3	20	54.9	1224	1006	8.29145	
12	1	20	88.2			9.447323	
13	2	20	75.2	1987		10.35078	
14	2	20	88.7	1502		11.16044	
15	3	20	51.2	1056	1376	11.34259	

Statistics 8 (ChirpCenter Frequency: 5293.0 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	84.6	1639		0.170727	
1	2	7	88.8	1353		2.35863	
2	2	7	68	1825		3.707166	
3	2	7	52.9	1802		5.534953	
4	2	7	59.8	1349		6.679838	1
5	1	7	65.4			8.097033	
6	1	7	95			9.912519	
7	2	7	96.1	1840		11.46915	

Statistics 9 (ChirpCenter Frequency: 5297.0 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	96.5	1828		0.153113	
1	2	18	52	1534		0.859179	
2	2	18	51.8	1855		2.006208	
3	2	18	66.6	1768		3.148922	
4	3	18	62.7	1876	1905	3.575391	
5	2	18	55.7	1154		4.008643	
6	1	18	76			5.083884	
7	2	18	81.2	1206		5.616964	1
8	3	18	83.9	1228	1623	7.039597	
9	1	18	68.4			7.278628	
10	1	18	70.1			8.622761	
11	3	18	81.9	1608	1566	9.461878	
12	3	18	66	1605	1817	10.31767	
13	2	18	63	1810		11.10944	
14	3	18	68.8	1212	1149	11.43922	

Statistics 10 (ChirpCenter Frequency: 5297.0 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	53.3	1242		0.405255	
1	3	18	57.4	1038	1166	1.741204	
2	2	18	70.1	1737		2.869578	
3	2	18	97	1562		4.25285	
4	2	18	76.5	1483		5.823866	
5	2	18	93.4	1668		6.709341	1
6	2	18	95.8	1684		8.179626	
7	1	18	77.5			8.805898	
8	1	18	51.4			10.29281	
9	1	18	76.7			11.25449	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5327.0 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	76.6			0.590396	
1	2	8	62.4	1977		1.654623	
2	2	8	94.1	1282		2.633878	
3	2	8	88.4	1595		3.754532	
4	2	8	89.1	1651		5.281754	
5	1	8	68.9			5.527986	1
6	2	8	55.8	1298		6.681171	
7	2	8	83.7	1731		8.508866	
8	2	8	90.6	1470		9.165688	
9	2	8	54.7	1479		10.54928	
10	1	8	66.4			11.49583	

Statistics 2 (ChirpCenter Frequency: 5323.0 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	17	64.1	1560	1101	0.275744	
1	3	17	84.2	1014	1722	1.218994	
2	2	17	98.3	1435		1.531059	
3	2	17	63.7	1886		2.389029	
4	2	17	84.8	1299		2.953827	
5	3	17	68.6	1358	1800	3.418169	
6	2	17	66.5	1958		3.989762	
7	2	17	56.8	1846		4.681867	
8	1	17	50.5			5.119033	
9	2	17	88.7	1373		5.895993	1
10	2	17	93.2	1994		6.915738	
11	3	17	96.7	1627	1827	7.218476	
12	2	17	96.8	1095		7.600851	
13	2	17	92.9	1294		8.805816	
14	2	17	51.4	1763		9.410101	
15	1	17	58.4			10.09392	
16	2	17	53.2	1850		10.48797	
17	2	17	75.4	1117		11.24218	
18	1	17	85.7			11.63433	

Statistics 3 (ChirpCenter Frequency: 5322.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (µS)	Pulse 1-2 spacing(µS)	Pulse 2-3 spacing(µS)	Pulse Start(S)	Detection (1:yes;0:no)
0	3	19	66.1	1880	1174	0.966634	
1	2	19	55.1	1563		1.316106	
2	2	19	97.7	1991		3.445535	
3	3	19	59.8	1617	1788	3.738284	
4	2	19	86.9	1268		4.845189	
5	2	19	67.8	1621		7.078816	1
6	2	19	90.6	1731		7.492983	
7	2	19	69.6	1155		8.681617	
8	3	19	99.1	1342	1646	9.964945	
9	2	19	97.6	1646		11.6497	

Statistics 4 (ChirpCenter Frequency: 5326.0 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	56	1751		0.034336	
1	2	9	78.8	1804		1.114598	
2	2	9	88.5	1089		2.502448	
3	1	9	98.2			3.151606	
4	3	9	74.9	1756	1295	3.46362	
5	3	9	67.3	1145	1023	4.679452	
6	1	9	89.2			5.410455	1
7	2	9	96.3	1728		6.808726	
8	2	9	91.5	1673		7.263055	
9	2	9	87.4	1581		8.44907	
10	2	9	54.1	1846		9.073474	
11	2	9	83.5	1665		9.660429	
12	1	9	53.4			10.6497	
13	2	9	80.6	1192		11.39006	

Statistics 5 (ChirpCenter Frequency: 5233.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	74.5	1367		0.072911	
1	3	19	82.4	1269	1258	0.684678	
2	2	19	66.5	1186		1.410023	
3	2	19	83.9	1768		2.431902	
4	3	19	82.5	1568	1381	2.67741	
5	2	19	69.8	1044		3.172561	
6	1	19	50.7			4.047952	
7	2	19	51.4	1761		4.594975	
8	2	19	51	1387		5.587299	
9	2	19	84.1	1445		6.153584	1
10	2	19	71.7	1782		6.723644	
11	3	19	96.2	1999	1198	7.556824	
12	2	19	88.1	1948		7.900937	
13	2	19	95.7	1173		8.672458	
14	3	19	86.3	1802	1981	8.944677	
15	1	19	70.5			9.591329	
16	1	19	79.2			10.29152	
17	1	19	90.6			10.98181	
18	2	19	68.8	1286		11.78429	

Statistics 6 (ChirpCenter Frequency: 5323.0 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	55.1	1786		0.417291	
1	1	17	69.3			0.951363	
2	3	17	89.6	1477	1720	1.716422	
3	2	17	51.7	1025		2.395572	
4	2	17	71.4	1083		3.177881	
5	3	17	77.2	1024	1897	4.171591	
6	3	17	69	1244	1839	5.07621	
7	3	17	75.3	1217	1328	5.568754	
8	2	17	77.5	1073		6.4838	1
9	3	17	50.8	1328	1645	7.338314	
10	3	17	72.2	1804	1281	7.8545	
11	2	17	50.8	1016		8.74643	
12	1	17	57.2			9.063718	
13	1	17	86.4			10.45855	
14	2	17	98.6	1923		10.60038	
15	2	17	87.8	1446		11.8406	

Statistics 7 (ChirpCenter Frequency: 5326.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	86.8			0.581247	
1	2	9	68.9	1689		1.266383	
2	2	9	52.8	1322		1.777753	
3	1	9	56.8			2.272683	
4	3	9	52.5	1733	1003	3.015946	
5	2	9	71.3	1724		3.625276	
6	2	9	80.6	1970		4.293779	
7	2	9	67	1303		4.900717	
8	1	9	65.6			5.837431	1
9	3	9	77.7	1212	1244	6.261892	
10	2	9	53.6	1940		6.774131	
11	1	9	55.4			7.927401	
12	1	9	56.6			8.457552	
13	1	9	95.8			9.15496	
14	2	9	96.8	1207		9.695759	
15	2	9	52.7	1154		10.31953	
16	1	9	98.7			11.01853	
17	2	9	96.5	1445		11.66119	

Statistics 8 (ChirpCenter Frequency: 5324.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	14	90.6			0.465433	
1	3	14	98.4	1661	1091	2.123085	
2	2	14	55.9	1749		2.841725	
3	2	14	68.9	1726		3.739156	
4	2	14	86.8	1299		5.841515	1
5	2	14	84.1	1025		6.735219	
6	2	14	56.3	1199		7.801867	
7	2	14	96.3	1036		8.984803	
8	1	14	82.6			10.46419	
9	2	14	62.8	1594		10.98628	

Statistics 9 (ChirpCenter Frequency: 5327.0 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	86.1			0.588889	
1	2	7	54.8	1470		1.0484	
2	2	7	61.2	1713		1.374841	
3	3	7	76.6	1029	1491	2.283858	
4	3	7	52.6	1953	1166	2.96482	
5	2	7	56.2	1794		3.417733	
6	3	7	65.3	1662	1390	4.078126	
7	1	7	95.4			5.075502	
8	2	7	58.2	1212		5.791121	1
9	2	7	57	1880		6.446792	
10	3	7	68.6	1676	1148	6.73135	
11	1	7	58			7.796803	
12	2	7	84.5	1268		8.425875	
13	3	7	94.7	1230	1472	9.174922	
14	2	7	70.9	1645		9.360867	
15	2	7	93	1606		10.13277	
16	2	7	51.9	1508		10.86904	
17	1	7	57.2			11.37567	

Statistics 10 (ChirpCenter Frequency: 5326.0 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	85.6	1811	1968	0.539312	
1	2	9	87.4	1767		1.859218	
2	2	9	84.6	1969		2.879657	
3	2	9	98.1	1938		4.181734	
4	3	9	80.1	1847	1648	5.942929	1
5	2	9	55.4	1951		6.613181	
6	1	9	83.7			7.235947	
7	3	9	83.5	1741	1766	8.930864	
8	2	9	64.3	1688		10.1335	
9	1	9	87.9			10.97921	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5310	9	1	333	1	5343.0, 5457.0, 5322.0, 5252.0, 5262.0, 5478.0, 5652.0, 5567.0, 5418.0, 5377.0, 5636.0, 5629.0, 5630.0, 5678.0, 5319.0, 5326.0, 5274.0, 5295.0, 5387.0, 5450.0, 5719.0, 5555.0, 5358.0, 5443.0, 5718.0, 5380.0, 5541.0, 5720.0, 5395.0, 5412.0, 5417.0, 5355.0, 5385.0, 5618.0, 5558.0, 5454.0, 5530.0, 5419.0, 5484.0, 5617.0, 5458.0, 5589.0, 5346.0, 5437.0, 5286.0, 5288.0, 5665.0, 5369.0, 5404.0, 5354.0, 5289.0, 5379.0, 5595.0, 5587.0, 5708.0, 5465.0, 5423.0, 5569.0, 5638.0, 5698.0, 5694.0, 5397.0, 5275.0, 5676.0, 5410.0, 5464.0, 5714.0, 5604.0, 5514.0, 5303.0, 5641.0, 5653.0, 5566.0, 5620.0, 5592.0, 5383.0, 5650.0, 5512.0, 5511.0, 5585.0, 5279.0, 5360.0, 5675.0, 5325.0, 5637.0, 5455.0, 5540.0, 5691.0, 5657.0, 5468.0, 5487.0, 5656.0, 5588.0, 5253.0, 5376.0, 5674.0, 5353.0, 5706.0, 5394.0, 5681.0
2	5310	9	1	333	1	5664.0, 5571.0, 5382.0, 5274.0, 5421.0, 5599.0, 5277.0, 5559.0, 5640.0, 5590.0, 5651.0, 5348.0, 5610.0, 5490.0, 5476.0, 5464.0, 5418.0, 5574.0, 5615.0, 5440.0, 5536.0, 5500.0, 5523.0, 5659.0, 5637.0, 5263.0, 5621.0, 5602.0, 5407.0, 5693.0, 5530.0, 5289.0, 5518.0, 5312.0, 5321.0, 5467.0, 5380.0, 5393.0, 5654.0, 5570.0, 5566.0, 5442.0, 5323.0, 5704.0, 5611.0, 5282.0, 5656.0, 5711.0, 5482.0, 5661.0, 5690.0, 5268.0, 5439.0, 5647.0, 5470.0, 5583.0, 5625.0, 5456.0, 5309.0, 5334.0, 5434.0, 5308.0, 5718.0, 5400.0, 5665.0, 5568.0, 5398.0, 5580.0, 5648.0, 5367.0, 5510.0, 5297.0, 5342.0, 5317.0, 5345.0, 5716.0, 5303.0, 5384.0, 5350.0, 5365.0, 5389.0, 5539.0, 5318.0, 5549.0, 5332.0, 5468.0, 5537.0, 5680.0, 5474.0, 5478.0, 5489.0, 5717.0, 5558.0, 5609.0, 5465.0, 5701.0, 5502.0, 5328.0, 5517.0, 5459.0
3	5310	9	1	333	1	5268.0, 5584.0, 5530.0, 5460.0, 5405.0, 5323.0, 5329.0, 5335.0, 5252.0, 5710.0, 5588.0, 5304.0, 5525.0, 5381.0, 5438.0, 5403.0, 5689.0, 5494.0, 5265.0, 5598.0, 5548.0, 5262.0, 5579.0, 5374.0, 5315.0, 5586.0, 5623.0, 5311.0, 5611.0, 5651.0, 5447.0, 5500.0, 5316.0, 5390.0, 5368.0, 5619.0, 5513.0, 5665.0, 5491.0, 5606.0, 5657.0, 5298.0, 5435.0, 5371.0, 5603.0, 5569.0, 5459.0, 5442.0, 5259.0, 5617.0, 5280.0, 5549.0, 5350.0, 5514.0, 5537.0, 5319.0, 5276.0, 5662.0, 5376.0, 5321.0, 5702.0, 5519.0, 5382.0, 5378.0, 5529.0, 5453.0, 5402.0, 5645.0, 5430.0, 5377.0,

						5685.0, 5492.0, 5714.0, 5331.0, 5594.0, 5436.0, 5258.0, 5712.0, 5661.0, 5658.0, 5421.0, 5534.0, 5471.0, 5343.0, 5693.0, 5372.0, 5630.0, 5404.0, 5650.0, 5398.0, 5333.0, 5655.0, 5324.0, 5392.0, 5554.0, 5503.0, 5384.0, 5322.0, 5415.0, 5564.0
4	5310	9	1	333	1	5541.0, 5467.0, 5544.0, 5312.0, 5463.0, 5628.0, 5306.0, 5659.0, 5627.0, 5419.0, 5701.0, 5673.0, 5643.0, 5595.0, 5526.0, 5597.0, 5494.0, 5505.0, 5629.0, 5570.0, 5355.0, 5676.0, 5674.0, 5708.0, 5668.0, 5299.0, 5561.0, 5546.0, 5436.0, 5300.0, 5456.0, 5635.0, 5385.0, 5378.0, 5341.0, 5411.0, 5365.0, 5616.0, 5592.0, 5285.0, 5694.0, 5289.0, 5263.0, 5478.0, 5585.0, 5560.0, 5370.0, 5293.0, 5711.0, 5384.0, 5259.0, 5632.0, 5466.0, 5252.0, 5315.0, 5528.0, 5521.0, 5642.0, 5640.0, 5582.0, 5373.0, 5581.0, 5680.0, 5303.0, 5266.0, 5502.0, 5556.0, 5460.0, 5383.0, 5576.0, 5692.0, 5422.0, 5307.0, 5685.0, 5337.0, 5618.0, 5537.0, 5485.0, 5336.0, 5689.0, 5371.0, 5363.0, 5714.0, 5601.0, 5684.0, 5443.0, 5602.0, 5661.0, 5477.0, 5346.0, 5420.0, 5452.0, 5613.0, 5416.0, 5437.0, 5339.0, 5678.0, 5281.0, 5584.0, 5472.0
5	5310	9	1	333	1	5355.0, 5364.0, 5439.0, 5310.0, 5622.0, 5378.0, 5551.0, 5429.0, 5468.0, 5324.0, 5291.0, 5374.0, 5716.0, 5339.0, 5458.0, 5406.0, 5274.0, 5456.0, 5495.0, 5418.0, 5316.0, 5459.0, 5496.0, 5541.0, 5559.0, 5368.0, 5443.0, 5623.0, 5649.0, 5404.0, 5313.0, 5398.0, 5532.0, 5607.0, 5620.0, 5268.0, 5283.0, 5512.0, 5461.0, 5667.0, 5382.0, 5392.0, 5333.0, 5293.0, 5587.0, 5349.0, 5685.0, 5345.0, 5579.0, 5577.0, 5337.0, 5674.0, 5643.0, 5670.0, 5351.0, 5341.0, 5396.0, 5681.0, 5332.0, 5597.0, 5449.0, 5491.0, 5545.0, 5315.0, 5535.0, 5486.0, 5683.0, 5534.0, 5676.0, 5485.0, 5529.0, 5334.0, 5389.0, 5646.0, 5400.0, 5537.0, 5356.0, 5582.0, 5672.0, 5544.0, 5256.0, 5598.0, 5521.0, 5524.0, 5322.0, 5401.0, 5263.0, 5617.0, 5530.0, 5508.0, 5253.0, 5533.0, 5438.0, 5493.0, 5554.0, 5626.0, 5644.0, 5546.0, 5471.0, 5525.0
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10	5310	9	1	333	0	/
11	5310	9	1	333	1	5420.0, 5469.0, 5619.0, 5269.0, 5332.0, 5650.0, 5627.0, 5578.0, 5636.0, 5614.0, 5520.0, 5313.0, 5281.0, 5402.0, 5270.0, 5599.0, 5300.0, 5394.0, 5711.0, 5385.0, 5267.0, 5419.0, 5674.0, 5653.0, 5581.0, 5720.0, 5583.0, 5722.0, 5484.0, 5346.0, 5417.0, 5516.0, 5569.0, 5450.0, 5507.0, 5292.0, 5345.0, 5705.0, 5529.0, 5496.0, 5559.0, 5383.0, 5479.0, 5656.0, 5321.0, 5561.0, 5557.0, 5621.0, 5259.0, 5474.0, 5528.0, 5681.0, 5661.0, 5452.0, 5357.0, 5530.0, 5701.0, 5560.0, 5626.0, 5387.0, 5647.0, 5655.0, 5256.0, 5330.0, 5465.0, 5350.0, 5665.0, 5299.0, 5590.0, 5429.0, 5618.0, 5250.0, 5447.0, 5423.0, 5649.0, 5478.0, 5584.0, 5366.0, 5472.0, 5353.0, 5378.0, 5582.0, 5546.0, 5370.0, 5430.0, 5341.0, 5337.0, 5294.0, 5293.0, 5506.0, 5724.0, 5497.0, 5548.0, 5272.0, 5282.0, 5587.0, 5691.0, 5388.0, 5264.0, 5620.0
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13	5310	9	1	333	1	5674.0, 5682.0, 5406.0, 5408.0, 5639.0, 5684.0, 5536.0, 5326.0, 5623.0, 5722.0, 5412.0, 5568.0, 5615.0, 5515.0, 5675.0, 5396.0, 5504.0, 5341.0, 5416.0, 5443.0, 5636.0, 5608.0, 5276.0, 5627.0, 5667.0, 5648.0, 5424.0, 5473.0, 5411.0, 5526.0, 5405.0, 5564.0, 5574.0, 5325.0, 5483.0, 5461.0, 5570.0, 5702.0, 5385.0, 5719.0, 5703.0, 5315.0, 5288.0, 5275.0, 5527.0, 5481.0, 5345.0, 5363.0, 5472.0, 5545.0,

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14	5310	9	1	333	1	5380.0, 5337.0, 5297.0, 5431.0, 5692.0, 5623.0, 5661.0, 5709.0, 5330.0, 5347.0, 5640.0, 5424.0, 5340.0, 5711.0, 5429.0, 5293.0, 5546.0, 5269.0, 5542.0, 5602.0, 5554.0, 5468.0, 5718.0, 5349.0, 5503.0, 5538.0, 5432.0, 5300.0, 5375.0, 5642.0, 5311.0, 5613.0, 5529.0, 5417.0, 5510.0, 5695.0, 5593.0, 5351.0, 5425.0, 5508.0, 5253.0, 5650.0, 5561.0, 5599.0, 5295.0, 5693.0, 5583.0, 5271.0, 5612.0, 5401.0, 5442.0, 5555.0, 5549.0, 5519.0, 5502.0, 5427.0, 5454.0, 5449.0, 5646.0, 5700.0, 5420.0, 5471.0, 5505.0, 5714.0, 5647.0, 5582.0, 5399.0, 5385.0, 5603.0, 5483.0, 5677.0, 5621.0, 5611.0, 5457.0, 5637.0, 5688.0, 5662.0, 5698.0, 5292.0, 5318.0, 5485.0, 5255.0, 5438.0, 5324.0, 5484.0, 5368.0, 5649.0, 5338.0, 5397.0, 5634.0, 5256.0, 5312.0, 5272.0, 5576.0, 5480.0, 5550.0, 5319.0, 5570.0, 5394.0, 5534.0
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18	5310	9	1	333	1	5507.0, 5484.0, 5553.0, 5343.0, 5378.0, 5563.0, 5377.0, 5631.0, 5474.0, 5273.0, 5680.0, 5552.0, 5612.0, 5630.0, 5619.0, 5267.0, 5393.0, 5589.0, 5255.0, 5427.0, 5615.0, 5308.0, 5335.0, 5591.0, 5420.0, 5581.0, 5344.0, 5595.0, 5300.0, 5476.0, 5367.0, 5505.0, 5363.0, 5634.0, 5320.0, 5586.0, 5291.0, 5356.0, 5671.0, 5465.0, 5633.0, 5503.0, 5305.0, 5491.0, 5678.0, 5712.0, 5448.0, 5518.0, 5658.0, 5560.0, 5618.0, 5331.0, 5492.0, 5517.0, 5480.0, 5286.0, 5549.0, 5506.0, 5721.0, 5691.0, 5369.0, 5534.0, 5392.0, 5470.0, 5453.0, 5477.0, 5597.0, 5382.0, 5355.0, 5499.0, 5644.0, 5699.0, 5629.0, 5573.0, 5333.0, 5280.0, 5319.0, 5459.0, 5686.0, 5555.0, 5257.0, 5602.0, 5646.0, 5347.0, 5466.0, 5349.0, 5345.0, 5688.0, 5252.0, 5537.0, 5391.0, 5692.0, 5714.0, 5270.0, 5366.0, 5511.0, 5473.0, 5683.0, 5700.0, 5590.0
19	5310	9	1	333	1	5709.0, 5644.0, 5291.0, 5329.0, 5635.0, 5526.0, 5399.0, 5293.0, 5294.0, 5378.0, 5660.0, 5377.0, 5382.0, 5623.0, 5646.0, 5472.0, 5625.0, 5420.0, 5331.0, 5429.0, 5612.0, 5431.0, 5673.0, 5292.0, 5256.0, 5503.0, 5618.0, 5570.0, 5280.0, 5384.0, 5428.0, 5373.0, 5507.0, 5632.0, 5655.0, 5616.0, 5629.0, 5436.0, 5528.0, 5443.0,

						5606.0, 5511.0, 5590.0, 5470.0, 5303.0, 5723.0, 5658.0, 5317.0, 5340.0, 5679.0, 5284.0, 5584.0, 5311.0, 5631.0, 5656.0, 5355.0, 5519.0, 5309.0, 5400.0, 5416.0, 5346.0, 5501.0, 5410.0, 5383.0, 5634.0, 5298.0, 5506.0, 5707.0, 5332.0, 5554.0, 5487.0, 5621.0, 5544.0, 5687.0, 5391.0, 5663.0, 5539.0, 5322.0, 5599.0, 5684.0, 5667.0, 5483.0, 5285.0, 5509.0, 5576.0, 5480.0, 5319.0, 5724.0, 5304.0, 5698.0, 5267.0, 5324.0, 5484.0, 5652.0, 5427.0, 5490.0, 5513.0, 5671.0, 5648.0, 5571.0
20	5310	9	1	333	1	5443.0, 5324.0, 5420.0, 5295.0, 5503.0, 5683.0, 5287.0, 5685.0, 5493.0, 5634.0, 5509.0, 5479.0, 5719.0, 5639.0, 5579.0, 5499.0, 5547.0, 5706.0, 5342.0, 5266.0, 5383.0, 5538.0, 5618.0, 5714.0, 5299.0, 5294.0, 5622.0, 5623.0, 5473.0, 5323.0, 5616.0, 5442.0, 5300.0, 5362.0, 5330.0, 5467.0, 5465.0, 5453.0, 5596.0, 5394.0, 5654.0, 5304.0, 5689.0, 5590.0, 5620.0, 5393.0, 5674.0, 5255.0, 5457.0, 5701.0, 5360.0, 5265.0, 5412.0, 5353.0, 5667.0, 5318.0, 5474.0, 5258.0, 5445.0, 5699.0, 5339.0, 5641.0, 5713.0, 5427.0, 5340.0, 5684.0, 5536.0, 5303.0, 5637.0, 5723.0, 5649.0, 5257.0, 5532.0, 5432.0, 5278.0, 5643.0, 5356.0, 5694.0, 5505.0, 5368.0, 5657.0, 5535.0, 5549.0, 5395.0, 5688.0, 5470.0, 5498.0, 5517.0, 5603.0, 5354.0, 5506.0, 5403.0, 5269.0, 5447.0, 5284.0, 5593.0, 5644.0, 5272.0, 5682.0, 5650.0
21	5310	9	1	333	1	5570.0, 5533.0, 5635.0, 5600.0, 5650.0, 5514.0, 5371.0, 5703.0, 5448.0, 5427.0, 5510.0, 5377.0, 5311.0, 5645.0, 5252.0, 5421.0, 5380.0, 5281.0, 5599.0, 5418.0, 5617.0, 5388.0, 5332.0, 5417.0, 5674.0, 5398.0, 5355.0, 5415.0, 5551.0, 5525.0, 5344.0, 5608.0, 5408.0, 5387.0, 5699.0, 5631.0, 5291.0, 5693.0, 5318.0, 5675.0, 5468.0, 5475.0, 5560.0, 5479.0, 5431.0, 5384.0, 5373.0, 5705.0, 5483.0, 5386.0, 5500.0, 5447.0, 5528.0, 5662.0, 5376.0, 5277.0, 5499.0, 5290.0, 5362.0, 5641.0, 5611.0, 5315.0, 5713.0, 5720.0, 5648.0, 5697.0, 5595.0, 5637.0, 5327.0, 5357.0, 5434.0, 5523.0, 5441.0, 5284.0, 5656.0, 5706.0, 5552.0, 5394.0, 5410.0, 5535.0, 5391.0, 5438.0, 5411.0, 5250.0, 5402.0, 5267.0, 5354.0, 5414.0, 5346.0, 5286.0, 5293.0, 5251.0, 5511.0, 5623.0, 5640.0, 5695.0, 5526.0, 5671.0, 5696.0, 5711.0
22	5310	9	1	333	0	/
23	5310	9	1	333	1	5583.0, 5533.0, 5643.0, 5633.0, 5411.0, 5417.0, 5257.0, 5599.0, 5334.0, 5678.0, 5611.0, 5644.0, 5372.0, 5318.0, 5259.0, 5302.0, 5276.0, 5473.0, 5682.0, 5691.0, 5408.0, 5624.0, 5368.0, 5405.0, 5677.0, 5531.0, 5522.0, 5353.0, 5342.0, 5399.0,

						5495.0, 5628.0, 5696.0, 5627.0, 5294.0, 5715.0, 5679.0, 5476.0, 5515.0, 5252.0, 5488.0, 5360.0, 5328.0, 5692.0, 5566.0, 5668.0, 5553.0, 5398.0, 5544.0, 5577.0, 5543.0, 5587.0, 5272.0, 5516.0, 5463.0, 5321.0, 5561.0, 5349.0, 5489.0, 5340.0, 5559.0, 5354.0, 5613.0, 5290.0, 5661.0, 5485.0, 5603.0, 5588.0, 5503.0, 5285.0, 5462.0, 5456.0, 5381.0, 5363.0, 5253.0, 5480.0, 5578.0, 5710.0, 5605.0, 5598.0, 5563.0, 5722.0, 5646.0, 5351.0, 5511.0, 5581.0, 5443.0, 5307.0, 5521.0, 5527.0, 5654.0, 5383.0, 5256.0, 5550.0, 5602.0, 5358.0, 5551.0, 5333.0, 5514.0, 5449.0
24	5310	9	1	333	1	5414.0, 5277.0, 5711.0, 5355.0, 5330.0, 5610.0, 5596.0, 5470.0, 5639.0, 5481.0, 5622.0, 5561.0, 5319.0, 5408.0, 5691.0, 5592.0, 5275.0, 5400.0, 5508.0, 5574.0, 5476.0, 5681.0, 5588.0, 5427.0, 5326.0, 5324.0, 5501.0, 5489.0, 5660.0, 5675.0, 5410.0, 5392.0, 5641.0, 5632.0, 5345.0, 5627.0, 5300.0, 5664.0, 5511.0, 5552.0, 5514.0, 5649.0, 5505.0, 5571.0, 5449.0, 5623.0, 5435.0, 5466.0, 5708.0, 5260.0, 5436.0, 5405.0, 5322.0, 5334.0, 5295.0, 5621.0, 5354.0, 5416.0, 5456.0, 5615.0, 5368.0, 5548.0, 5549.0, 5673.0, 5590.0, 5282.0, 5513.0, 5418.0, 5377.0, 5358.0, 5454.0, 5473.0, 5458.0, 5587.0, 5328.0, 5702.0, 5306.0, 5582.0, 5380.0, 5709.0, 5465.0, 5693.0, 5517.0, 5364.0, 5585.0, 5701.0, 5371.0, 5658.0, 5569.0, 5259.0, 5651.0, 5421.0, 5554.0, 5581.0, 5336.0, 5605.0, 5298.0, 5314.0, 5530.0, 5419.0
25	5310	9	1	333	1	5628.0, 5258.0, 5309.0, 5570.0, 5694.0, 5612.0, 5378.0, 5584.0, 5391.0, 5262.0, 5430.0, 5498.0, 5655.0, 5265.0, 5342.0, 5620.0, 5517.0, 5618.0, 5578.0, 5338.0, 5331.0, 5302.0, 5400.0, 5558.0, 5403.0, 5410.0, 5566.0, 5475.0, 5550.0, 5452.0, 5298.0, 5275.0, 5379.0, 5393.0, 5411.0, 5567.0, 5654.0, 5537.0, 5257.0, 5643.0, 5649.0, 5426.0, 5286.0, 5465.0, 5594.0, 5330.0, 5395.0, 5375.0, 5559.0, 5419.0, 5478.0, 5539.0, 5335.0, 5581.0, 5591.0, 5659.0, 5533.0, 5621.0, 5579.0, 5586.0, 5364.0, 5704.0, 5455.0, 5685.0, 5691.0, 5466.0, 5557.0, 5677.0, 5484.0, 5382.0, 5482.0, 5398.0, 5443.0, 5565.0, 5697.0, 5583.0, 5622.0, 5325.0, 5415.0, 5671.0, 5690.0, 5674.0, 5481.0, 5416.0, 5596.0, 5536.0, 5297.0, 5341.0, 5409.0, 5549.0, 5696.0, 5523.0, 5702.0, 5315.0, 5494.0, 5380.0, 5408.0, 5602.0, 5363.0, 5553.0
26	5310	9	1	333	1	5279.0, 5287.0, 5258.0, 5635.0, 5652.0, 5574.0, 5530.0, 5614.0, 5336.0, 5376.0, 5636.0, 5355.0, 5522.0, 5395.0, 5643.0, 5632.0, 5639.0, 5464.0, 5428.0, 5413.0, 5330.0, 5677.0, 5570.0, 5716.0, 5548.0,

						5478.0, 5573.0, 5595.0, 5607.0, 5715.0, 5404.0, 5686.0, 5447.0, 5359.0, 5533.0, 5388.0, 5353.0, 5544.0, 5255.0, 5720.0, 5276.0, 5291.0, 5648.0, 5379.0, 5684.0, 5526.0, 5274.0, 5377.0, 5300.0, 5403.0, 5491.0, 5476.0, 5438.0, 5534.0, 5446.0, 5347.0, 5423.0, 5285.0, 5384.0, 5489.0, 5579.0, 5264.0, 5371.0, 5326.0, 5419.0, 5475.0, 5430.0, 5626.0, 5592.0, 5554.0, 5603.0, 5345.0, 5474.0, 5542.0, 5567.0, 5590.0, 5634.0, 5360.0, 5411.0, 5483.0, 5344.0, 5517.0, 5409.0, 5492.0, 5585.0, 5252.0, 5268.0, 5619.0, 5660.0, 5302.0, 5566.0, 5408.0, 5286.0, 5457.0, 5597.0, 5477.0, 5681.0, 5307.0, 5606.0, 5620.0
27	5310	9	1	333	1	5337.0, 5465.0, 5676.0, 5517.0, 5709.0, 5515.0, 5536.0, 5376.0, 5654.0, 5590.0, 5546.0, 5298.0, 5580.0, 5610.0, 5647.0, 5399.0, 5493.0, 5476.0, 5356.0, 5697.0, 5347.0, 5597.0, 5401.0, 5591.0, 5672.0, 5498.0, 5444.0, 5428.0, 5574.0, 5411.0, 5287.0, 5294.0, 5385.0, 5288.0, 5474.0, 5531.0, 5307.0, 5468.0, 5607.0, 5303.0, 5445.0, 5367.0, 5375.0, 5379.0, 5317.0, 5494.0, 5413.0, 5469.0, 5558.0, 5278.0, 5638.0, 5568.0, 5429.0, 5707.0, 5416.0, 5424.0, 5471.0, 5259.0, 5437.0, 5698.0, 5675.0, 5718.0, 5646.0, 5434.0, 5549.0, 5308.0, 5361.0, 5257.0, 5451.0, 5426.0, 5335.0, 5519.0, 5547.0, 5455.0, 5473.0, 5671.0, 5263.0, 5540.0, 5448.0, 5319.0, 5289.0, 5526.0, 5286.0, 5427.0, 5260.0, 5332.0, 5502.0, 5711.0, 5463.0, 5295.0, 5527.0, 5351.0, 5501.0, 5721.0, 5520.0, 5277.0, 5522.0, 5251.0, 5644.0, 5619.0
28	5310	9	1	333	1	5274.0, 5412.0, 5488.0, 5285.0, 5527.0, 5627.0, 5433.0, 5722.0, 5532.0, 5574.0, 5707.0, 5502.0, 5683.0, 5487.0, 5637.0, 5589.0, 5631.0, 5575.0, 5701.0, 5399.0, 5357.0, 5332.0, 5262.0, 5536.0, 5386.0, 5449.0, 5410.0, 5368.0, 5283.0, 5698.0, 5497.0, 5508.0, 5492.0, 5413.0, 5718.0, 5642.0, 5307.0, 5583.0, 5515.0, 5298.0, 5304.0, 5282.0, 5408.0, 5281.0, 5695.0, 5339.0, 5457.0, 5619.0, 5415.0, 5643.0, 5543.0, 5716.0, 5646.0, 5255.0, 5323.0, 5708.0, 5337.0, 5310.0, 5483.0, 5376.0, 5638.0, 5561.0, 5389.0, 5699.0, 5689.0, 5609.0, 5394.0, 5491.0, 5547.0, 5290.0, 5286.0, 5269.0, 5545.0, 5359.0, 5305.0, 5463.0, 5276.0, 5260.0, 5669.0, 5473.0, 5693.0, 5351.0, 5251.0, 5384.0, 5506.0, 5618.0, 5344.0, 5652.0, 5480.0, 5655.0, 5607.0, 5513.0, 5700.0, 5478.0, 5568.0, 5303.0, 5370.0, 5474.0, 5265.0, 5395.0
29	5310	9	1	333	1	5541.0, 5260.0, 5677.0, 5525.0, 5346.0, 5419.0, 5667.0, 5355.0, 5519.0, 5552.0, 5325.0, 5350.0, 5338.0, 5648.0, 5665.0, 5549.0, 5697.0, 5580.0, 5483.0, 5450.0,

						5353.0, 5327.0, 5572.0, 5492.0, 5663.0, 5314.0, 5597.0, 5652.0, 5586.0, 5629.0, 5403.0, 5532.0, 5486.0, 5411.0, 5696.0, 5626.0, 5699.0, 5382.0, 5318.0, 5664.0, 5709.0, 5462.0, 5524.0, 5348.0, 5496.0, 5432.0, 5298.0, 5433.0, 5610.0, 5253.0, 5459.0, 5296.0, 5287.0, 5558.0, 5516.0, 5673.0, 5641.0, 5565.0, 5377.0, 5299.0, 5635.0, 5384.0, 5497.0, 5428.0, 5487.0, 5719.0, 5521.0, 5507.0, 5340.0, 5376.0, 5479.0, 5659.0, 5444.0, 5329.0, 5639.0, 5570.0, 5407.0, 5337.0, 5683.0, 5670.0, 5257.0, 5452.0, 5485.0, 5423.0, 5573.0, 5359.0, 5511.0, 5488.0, 5391.0, 5275.0, 5650.0, 5277.0, 5698.0, 5435.0, 5265.0, 5631.0, 5286.0, 5508.0, 5364.0, 5405.0
30	5310	9	1	333	1	5329.0, 5676.0, 5442.0, 5633.0, 5527.0, 5559.0, 5620.0, 5596.0, 5587.0, 5548.0, 5631.0, 5506.0, 5715.0, 5312.0, 5576.0, 5295.0, 5457.0, 5419.0, 5536.0, 5581.0, 5688.0, 5392.0, 5296.0, 5667.0, 5702.0, 5670.0, 5592.0, 5638.0, 5558.0, 5460.0, 5668.0, 5611.0, 5534.0, 5431.0, 5634.0, 5299.0, 5320.0, 5492.0, 5455.0, 5649.0, 5549.0, 5307.0, 5547.0, 5426.0, 5472.0, 5694.0, 5362.0, 5553.0, 5409.0, 5705.0, 5701.0, 5709.0, 5436.0, 5578.0, 5594.0, 5563.0, 5597.0, 5496.0, 5370.0, 5353.0, 5326.0, 5546.0, 5489.0, 5331.0, 5282.0, 5328.0, 5585.0, 5484.0, 5610.0, 5340.0, 5424.0, 5421.0, 5526.0, 5416.0, 5343.0, 5690.0, 5564.0, 5528.0, 5344.0, 5314.0, 5660.0, 5281.0, 5679.0, 5556.0, 5673.0, 5260.0, 5570.0, 5507.0, 5542.0, 5450.0, 5529.0, 5540.0, 5318.0, 5517.0, 5357.0, 5641.0, 5707.0, 5257.0, 5449.0, 5716.0

20MHz(5320MHz)

Radar SignalType	Waveform/Trial Number	Detection (%)	Limit (%)	Pass/Fail
Type 1A	15	93.3%	60%	pass
Type 1B	15	93.3%	60%	pass
Type 2	30	96.7%	60%	Pass
Type 3	30	90%	60%	Pass
Type 4	30	90 %	60%	Pass
Aggregate(Type1 to 4)	120	92.5%	80%	Pass
Type 5	30	93.3 %	80%	Pass
Type 6	30	96.7 %	70%	Pass

Please refer to the following statistical tables:

5320MHz

Radar Type 1A Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5320	68	1	778	1
2	5320	65	1	818	1
3	5320	83	1	638	1
4	5320	74	1	718	0
5	5320	89	1	598	1
6	5320	76	1	698	1
7	5320	58	1	918	1
8	5320	70	1	758	1
9	5320	59	1	898	1
10	5320	95	1	558	1
11	5320	72	1	738	1
12	5320	18	1	3066	1
13	5320	92	1	578	1
14	5320	86	1	618	1
15	5320	63	1	838	1
Detection Percentage:93.3 % (>60%)					

Radar Type 1B Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5320	27	1	1976	1
2	5320	21	1	2590	1
3	5320	33	1	1643	1
4	5320	19	1	2924	1
5	5320	28	1	1901	1
6	5320	50	1	1056	0
7	5320	20	1	2771	1
8	5320	30	1	1819	1
9	5320	21	1	2576	1
10	5320	27	1	1971	1
11	5320	40	1	1351	1
12	5320	19	1	2813	1
13	5320	57	1	928	1
14	5320	38	1	1422	1
15	5320	28	1	1905	1
Detection Percentage: 93.3 % (>60%)					

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5320	27	4.3	229	1
2	5320	29	2.3	203	1
3	5320	27	2.8	214	1
4	5320	23	1.9	206	1
5	5320	25	3.7	192	1
6	5320	25	1.4	225	1
7	5320	27	4.1	194	1
8	5320	27	1.4	153	1
9	5320	23	4.6	164	1
10	5320	27	3.9	226	1
11	5320	29	2.8	211	1
12	5320	25	3.2	162	1
13	5320	27	1	157	1
14	5320	23	1	197	1
15	5320	29	3.7	229	1
16	5320	26	3.9	151	1
17	5320	28	4.1	181	1
18	5320	28	3.1	179	1
19	5320	27	3.4	157	1
20	5320	26	1.5	209	1
21	5320	24	5	168	1
22	5320	27	3.7	163	1
23	5320	24	1.3	206	1
24	5320	23	4	189	0
25	5320	27	1	185	1
26	5320	26	2.6	227	1
27	5320	28	4.2	220	1
28	5320	28	2.6	184	1
29	5320	26	3.6	168	1
30	5320	25	3.9	213	1
Detection Percentage: 96.7 % (>60%)					

Radar Type 3 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5320	18	6	395	1
2	5320	18	7.5	337	1
3	5320	17	8	293	1
4	5320	16	7.9	272	1
5	5320	18	6	350	1
6	5320	16	8	268	1
7	5320	17	9.5	365	0
8	5320	18	9.6	434	1
9	5320	17	6.4	348	1
10	5320	18	6.9	257	1
11	5320	16	7.1	231	1
12	5320	17	6.5	338	1
13	5320	17	9.5	345	1
14	5320	17	8.3	396	1
15	5320	17	7.2	497	0
16	5320	16	7.8	338	0
17	5320	18	9.4	240	1
18	5320	16	9.4	481	1
19	5320	16	8.3	286	1
20	5320	17	8.6	492	1
21	5320	17	6.4	363	1
22	5320	17	8	337	1
23	5320	17	8.3	306	1
24	5320	18	6.9	227	1
25	5320	17	7.2	491	1
26	5320	16	8.3	332	1
27	5320	17	8.6	330	1
28	5320	17	9.5	418	1
29	5320	17	8.5	424	1
30	5320	17	7.9	324	1
Detection Percentage: 90 % (>60%)					

Radar Type 4 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)
1	5320	15	16.4	284	1
2	5320	16	16.5	358	1
3	5320	14	15.2	432	1
4	5320	16	11	320	1
5	5320	14	11.6	288	1
6	5320	12	15.3	376	1
7	5320	13	17.5	417	0
8	5320	13	13.6	220	1
9	5320	14	15.3	420	1
10	5320	16	16.6	410	1
11	5320	12	14.6	413	1
12	5320	16	17.4	399	1
13	5320	12	14.6	258	0
14	5320	12	17.3	217	1
15	5320	12	16.2	300	1
16	5320	15	14	321	1
17	5320	12	19.2	228	0
18	5320	14	15.2	310	1
19	5320	13	13.7	285	1
20	5320	12	12.6	483	1
21	5320	14	11.6	431	1
22	5320	16	11	263	1
23	5320	16	15.9	339	1
24	5320	16	12.6	267	1
25	5320	16	17.4	385	1
26	5320	13	13.8	406	1
27	5320	12	11.5	350	1
28	5320	13	15.6	209	1
29	5320	13	19.3	274	1
30	5320	16	15.9	269	1
Detection Percentage: 90 % (>60%)					

Radar Type 5 Case 1 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5320.0MHz)

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	11	60			0.109352	
1	2	11	79.6	1125		1.241705	
2	3	11	66.5	1908	1977	1.743069	
3	1	11	68.2			2.054272	
4	1	11	68.3			2.880121	
5	1	11	94.1			3.992179	
6	2	11	76.1	1963		4.450808	
7	2	11	96.3	1130		4.745687	
8	1	11	64.4			5.881098	1
9	1	11	99.6			6.492376	
10	3	11	73.7	1202	1300	7.03666	
11	3	11	77.1	1900	1049	7.735003	
12	2	11	79.9	1753		8.517748	
13	3	11	96	1269	1198	8.838729	
14	2	11	91.9	1095		9.937617	
15	2	11	60.4	1708		10.25987	
16	2	11	93.9	1486		10.77891	
17	2	11	64.8	1257		11.48929	

Statistics 2 (ChirpCenter Frequency: 5320.0 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	53.8			0.191042	
1	3	16	62.7	1054	1948	1.218704	
2	2	16	85.4	1220		3.161581	
3	2	16	84.5	1537		3.768921	
4	1	16	59.6			5.220187	
5	2	16	74	1777		6.640451	1
6	1	16	89.1			7.430897	
7	3	16	95.6	1562	1856	8.539886	
8	2	16	60.6	1293		10.16374	
9	2	16	58	1085		10.97779	

Statistics 3 (ChirpCenter Frequency: 5320.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (µS)	Pulse 1-2 spacing(µS)	Pulse 2-3 spacing(µS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	6	63.5			0.792877	
1	3	6	61.8	1785	1678	1.550793	
2	2	6	52.2	1939		2.173997	
3	3	6	56.3	1972	1270	3.5568	
4	1	6	86.1			4.067502	
5	1	6	97.5			5.003202	
6	2	6	60.9	1892		6.127898	1
7	2	6	79.5	1852		7.347818	
8	3	6	75.5	1191	1595	7.777302	
9	1	6	80.3			8.433725	
10	2	6	90.1	1635		9.354818	
11	2	6	70.2	1295		10.82448	
12	2	6	70.1	1498		11.32471	

Statistics 4 (ChirpCenter Frequency: 5320.0 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	87.2	1569		0.929866	
1	3	12	69.3	1204	1171	1.843477	
2	2	12	96.1	1670		2.845534	
3	3	12	64.4	1164	1051	4.084261	
4	3	12	57.7	1296	1201	5.357975	
5	3	12	93.8	1586	1810	6.464466	1
6	3	12	68.5	1795	1074	7.568397	
7	1	12	77			7.893463	
8	2	12	69	1559		9.623238	
9	2	12	92.2	1882		10.26022	
10	2	12	75.6	1541		11.13518	

Statistics 5(ChirpCenter Frequency: 5320.0 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	63	1234		0.445548	
1	2	7	80.1	1786		1.478063	
2	3	7	91	1920	1468	2.200861	
3	2	7	58.3	1613		2.419695	
4	3	7	79.9	1034	1521	3.625914	
5	2	7	62.4	1945		4.389863	
6	3	7	70.9	1557	1313	4.930158	
7	2	7	90.8	1553		5.873513	
8	3	7	78.2	1147	1309	6.369989	1
9	3	7	93	1136	1650	7.081465	
10	2	7	94.9	1785		7.547555	
11	1	7	81			8.873101	
12	1	7	57.7			9.702715	
13	2	7	59.6	1726		10.14287	
14	2	7	86	1488		10.62152	
15	2	7	87.5	1955		11.56729	

Statistics 6 (ChirpCenter Frequency: 5320.0 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	70.6			1.103235	
1	2	10	59.3	1124		1.691905	
2	3	10	70.5	1094	1723	3.357217	
3	2	10	65.9	1915		3.920288	
4	2	10	57.1	1482		5.513727	1
5	2	10	74.8	1241		6.356463	
6	2	10	51.8	1346		7.268428	
7	1	10	81.5			8.972494	
8	1	10	67.1			10.57146	
9	1	10	60.7			11.87335	

Statistics 7(ChirpCenter Frequency: 5320.0 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	79.2	1878		0.717144	
1	2	8	84.2	1346		0.852853	
2	2	8	53.5	1466		1.589859	
3	1	8	99.4			2.272827	
4	2	8	63.6	1702		3.501831	
5	2	8	82	1859		4.444806	
6	3	8	93	1256	1800	4.68054	
7	1	8	87.4			5.584471	1
8	1	8	63.1			6.353046	
9	3	8	64.1	1378	1734	6.924694	
10	3	8	73.3	1689	1922	8.028308	
11	2	8	51	1481		8.701616	
12	3	8	87.4	1354	1680	9.217373	
13	2	8	83.1	1254		9.998954	
14	2	8	69.4	1014		11.14643	
15	2	8	80.8	1630		11.62121	

Statistics 8 (ChirpCenter Frequency: 5320.0 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	95.4	1580	1709	0.864174	
1	2	14	89.2	1927		1.797765	
2	2	14	95.4	1530		2.680163	
3	3	14	91.6	1470	1931	3.781543	
4	2	14	52.9	1927		5.940209	
5	2	14	81.5	1623		6.986389	1
6	3	14	57.4	1461	1774	7.559811	
7	1	14	62.6			9.558898	
8	1	14	53.5			10.64668	
9	2	14	92.4	1646		11.25349	

Statistics 9 (ChirpCenter Frequency: 5320.0 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	72.4	1518		0.828307	
1	3	16	57	1291	1471	1.509004	
2	2	16	80.6	1495		2.359547	
3	2	16	59.3	1209		2.954456	
4	2	16	62.3	1499		4.021505	
5	2	16	52.6	1710		5.137262	
6	1	16	79.7			6.076213	1
7	2	16	66	1590		7.085134	
8	2	16	93.2	1944		7.461492	
9	1	16	90.6			9.15377	
10	3	16	52.6	1528	1665	9.588833	
11	2	16	98.5	1737		10.84222	
12	2	16	66.9	1880		11.51244	

Statistics 10 (ChirpCenter Frequency: 5320.0 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	98.5	1556	1343	0.250551	
1	2	15	88.3	1693		1.070654	
2	1	15	56.6			1.899185	
3	3	15	70.3	1750	1385	2.527386	
4	2	15	92.5	1768		3.109864	
5	1	15	66			4.272098	
6	2	15	55.2	1284		4.506174	
7	3	15	63	1590	1631	5.53203	
8	2	15	62.5	1057		6.205582	1
9	1	15	80.8			6.750611	
10	2	15	60.6	1994		8.001847	
11	3	15	57.3	1129	1432	8.761205	
12	3	15	67.6	1325	1985	9.595708	
13	2	15	83.9	1416		9.90802	
14	1	15	79.4			10.92118	
15	2	15	93	1447		11.62924	

Radar Type 5 Case 2 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5318.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (µS)	Pulse 1-2 spacing(µS)	Pulse 2-3 spacing(µS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	20	65.1	1861		0.452979	
1	2	20	54.7	1490		0.999817	
2	1	20	80			1.440358	
3	2	20	97	1788		2.384337	
4	3	20	76.9	1534	1291	2.990248	
5	2	20	84.4	1459		4.117336	
6	2	20	59.8	1490		4.554348	
7	2	20	79.1	1468		5.444395	
8	2	20	69.3	1552		5.814961	1
9	1	20	81.5			7.039104	
10	1	20	96.6			7.511148	
11	3	20	61	1941	1229	8.202154	
12	3	20	87.1	1840	1902	8.800765	
13	2	20	85.6	1886		9.770868	
14	1	20	71.7			10.09645	
15	2	20	78.4	1477		10.81827	
16	1	20	81.4			11.47624	

Statistics 2 (ChirpCenter Frequency: 5315.0 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	79.7	1406		0.366512	
1	3	13	74.2	1274	1608	0.869793	
2	2	13	80.7	1015		1.843235	
3	3	13	81.6	1017	1669	2.474639	
4	2	13	61.9	1867		2.784885	
5	2	13	99.2	1828		3.92584	
6	2	13	86.8	1579		4.654925	
7	1	13	77.9			4.886242	
8	3	13	54.9	1232	1782	5.383881	1
9	1	13	87.7			6.481064	
10	1	13	81.3			7.209227	
11	2	13	93.8	1642		7.936284	
12	2	13	55.4	1276		8.035181	
13	2	13	79.3	1486		9.036858	
14	2	13	84	1229		9.575914	
15	2	13	65.3	1259		10.09148	
16	1	13	99.6			10.89406	
17	3	13	90.1	1173	1542	11.60085	

Statistics 3 (ChirpCenter Frequency: 5314.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	86.5			0.441746	
1	2	9	88.4	1853		1.448989	
2	2	9	82.3	1329		3.393399	
3	2	9	82.3	1576		4.585581	
4	1	9	93.3			6.325058	0
5	1	9	51.7			7.357589	
6	1	9	99.7			8.45719	
7	2	9	86.1	1711		10.64359	
8	2	9	97.6	1429		11.78181	

Statistics 4 (ChirpCenter Frequency: 5318.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	75.5	1555		0.576468	
1	1	19	55.1			1.359969	
2	2	19	93.9	1500		1.923989	
3	2	19	53.8	1490		2.729147	
4	2	19	63.6	1435		3.06973	
5	2	19	61.3	1964		3.620707	
6	1	19	61.6			4.555688	
7	2	19	96.2	1035		5.637022	
8	2	19	76.6	1069		6.162124	1
9	2	19	89.6	1041		6.575682	
10	3	19	67.1	1979	1749	7.353216	
11	3	19	77.9	1666	1102	7.896057	
12	2	19	75.5	1511		8.723858	
13	3	19	83	1811	1056	9.238804	
14	1	19	63.2			9.990066	
15	2	19	51.1	1279		11.09241	
16	2	19	61.1	1667		11.3154	

Statistics 5 (ChirpCenter Frequency: 5315.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	12	91.8	1603		0.942163	
1	3	12	58.5	1435	1472	1.850577	
2	2	12	61.5	1269		2.428674	
3	2	12	65.6	1165		4.068421	
4	2	12	75	1162		5.19649	
5	2	12	94	1361		5.549839	1
6	1	12	54.9			7.44716	
7	2	12	82	1351		8.291523	
8	3	12	66.5	1923	1040	9.690409	
9	2	12	79.8	1460		10.29886	
10	3	12	77.3	1794	1523	11.04444	

Statistics 6 (ChirpCenter Frequency: 5312.0MHz)

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	5	93.1	1013		0.002467	
1	2	5	62.1	1337		1.147934	
2	3	5	87.7	1113	1879	2.24124	
3	1	5	52.6			4.314362	
4	3	5	55.2	1836	1515	4.667458	
5	1	5	89.2			6.01567	1
6	3	5	89.5	1592	1596	7.297725	
7	1	5	72.2			7.754205	
8	2	5	67.3	1733		9.345102	
9	2	5	61.6	1144		10.2519	
10	3	5	90.6	1134	1740	11.68129	

Statistics 7 (ChirpCenter Frequency: 5318.0MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (µS)	Pulse 1-2 spacing(uS)	Pulse 2-3 spacing(uS)	Pulse Start(S)	Detection (1:yes;0:no)
0	2	19	94.5	1142		0.738142	
1	1	19	86.1			0.810551	
2	2	19	60	1675		1.838889	
3	3	19	63.7	1584	1132	3.110909	
4	3	19	67.7	1704	1544	3.459163	
5	1	19	96.2			4.152865	
6	2	19	59.8	1483		5.24533	
7	2	19	80.8	1109		6.075894	1
8	2	19	76.6	1576		6.882933	
9	2	19	70.2	1201		7.315034	
10	2	19	89	1065		8.673792	
11	1	19	98.6			9.307354	
12	1	19	61.4			10.25673	
13	1	19	64.6			10.72609	
14	2	19	64.7	1737		11.81597	

Statistics 8 (ChirpCenter Frequency: 5315.0 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	57.2	1516		0.737917	
1	2	13	76.8	1290		1.243891	
2	2	13	74.6	1681		2.168963	
3	2	13	66.1	1272		3.286589	
4	2	13	82.3	1365		4.068573	
5	1	13	55.9			5.925331	1
6	2	13	68.2	1313		6.198196	
7	3	13	62.5	1867	1072	7.687313	
8	3	13	97.2	1516	1440	8.777917	
9	2	13	75.5	1689		9.684017	
10	2	13	57.6	1581		10.36427	
11	2	13	66.6	1546		11.71799	

Statistics 9 (ChirpCenter Frequency: 5316.0 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	71.8	1392	1061	0.707036	
1	1	14	53.6			1.698407	
2	2	14	95.6	1253		3.029884	
3	2	14	52.9	1286		4.221586	
4	2	14	62.6	1839		4.616005	
5	3	14	85.6	1905	1272	6.114858	1
6	3	14	84.4	1952	1051	7.599011	
7	1	14	51.1			8.502119	
8	3	14	97	1057	1528	9.073646	
9	3	14	52.5	1775	1663	10.60098	

Statistics 10 (ChirpCenter Frequency: 5313.0 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	8	64.9	1122	1167	0.43072	
1	2	8	85.7	1605		1.58984	
2	2	8	50.9	1730		2.533652	
3	2	8	70	1981		3.972503	
4	1	8	93.8			5.293015	
5	1	8	55.4			5.841208	1
6	3	8	73.4	1176	1315	6.904536	
7	2	8	67.2	1955		8.176275	
8	2	8	84.9	1824		9.193679	
9	1	8	76.1			10.80544	
10	2	8	78.1	1876		11.24534	

Radar Type 5 Case 3 Statistical Performance

Statistics 1 (ChirpCenter Frequency: 5323.0 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	67.7	1982		1.412264	
1	2	17	93	1893		2.972719	
2	3	17	99.3	1993	1858	3.040197	
3	2	17	68.8	1845		4.687957	1
4	2	17	54.3	1412		6.574629	
5	2	17	96.5	1263		8.921942	
6	1	17	90			9.540005	
7	2	17	51	1017		11.66417	

Statistics 2 (ChirpCenter Frequency: 5328.0 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	62	1873	1847	0.562878	
1	1	6	62.5			1.593393	
2	1	6	94.8			2.494906	
3	3	6	73.1	1639	1273	2.85505	
4	2	6	55.6	1805		3.520866	
5	1	6	82.9			5.014385	
6	1	6	81.2			5.427452	
7	1	6	88.4			6.624315	1
8	1	6	93.3			7.67402	
9	2	6	61	1869		7.922257	
10	2	6	64.5	1404		8.583408	
11	1	6	61.9			9.481706	
12	1	6	75.2			10.34093	
13	2	6	72	1019		11.41648	

Statistics 3 (ChirpCenter Frequency: 5326.0 MHz)

Trial #	Pulse	Chirp(MHz)	Pulse Width (μS)	Pulse 1-2 spacing(μS)	Pulse 2-3 spacing(μS)	Pulse Start(S)	Detection (1:yes;0:no)
0	1	9	55			0.254392	
1	2	9	92	1684		1.280758	
2	3	9	91.9	1682	1652	2.104362	
3	1	9	66			2.207291	
4	3	9	86.1	1167	1737	3.101766	
5	1	9	77.4			3.72839	
6	2	9	91	1894		4.329398	
7	2	9	71.9	1172		5.060852	
8	3	9	72.8	1353	1560	6.132936	1
9	2	9	94.9	1948		6.948909	
10	2	9	81.8	1712		7.215122	
11	3	9	71.6	1472	1965	7.918426	
12	2	9	71.4	1038		8.707463	
13	1	9	54			9.21756	
14	2	9	98.1	1792		10.24699	
15	2	9	74.2	1560		11.10684	
16	2	9	68.5	1320		11.86686	

Statistics 4 (ChirpCenter Frequency: 5323.0 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	18	81.9			0.582507	
1	2	18	76	1553		1.612347	
2	1	18	88.9			3.063056	
3	2	18	72.6	1422		4.020772	
4	3	18	69.3	1851	1039	5.278913	
5	2	18	77.7	1311		5.543696	1
6	1	18	94.2			6.602015	
7	2	18	70.9	1337		8.07366	
8	3	18	76.8	1011	1480	8.791711	
9	3	18	81.8	1016	1555	10.47958	
10	3	18	86.2	1788	1356	11.82306	

Statistics 5 (ChirpCenter Frequency: 5326.0 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	90.4	1778	1295	0.107167	
1	3	11	59.1	1800	1620	0.850901	
2	2	11	77.8	1916		2.074279	
3	2	11	64.1	2000		2.986846	
4	1	11	67.7			3.574511	
5	2	11	56.5	1750		4.101958	
6	2	11	60.8	1758		5.525263	
7	2	11	98.5	1788		6.095266	1
8	2	11	55.8	1651		6.455755	
9	2	11	69.2	1347		7.478349	
10	2	11	60.4	1721		8.287893	
11	2	11	78.6	1565		8.902451	
12	1	11	61.1			10.09645	
13	3	11	51.1	1964	1895	10.86051	
14	2	11	54.2	1058		11.88862	

Statistics 6 (ChirpCenter Frequency: 5324.0 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	94.9	1522		0.135349	
1	2	15	66	1364		1.791335	
2	1	15	98.6			2.316552	
3	1	15	96.2			3.095266	
4	1	15	71.8			4.560189	
5	2	15	77.3	1582		4.823499	
6	2	15	96.7	1361		5.56098	1
7	2	15	94.6	1962		7.071534	
8	2	15	74.3	1854		8.107795	
9	2	15	55.2	1069		9.107281	
10	3	15	96	1129	1799	9.708587	
11	1	15	87.1			10.76015	
12	2	15	81.4	1245		11.52653	

Statistics 7 (ChirpCenter Frequency: 5327.0 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	69.9	1226	1235	0.758952	
1	1	7	96.9			1.478165	
2	2	7	60.7	1345		3.375386	
3	3	7	63.7	1081	1929	3.772088	
4	2	7	59.7	1628		4.815005	1
5	2	7	87.1	1592		6.525664	
6	2	7	85.7	1554		7.289947	
7	2	7	60.4	1687		8.680571	
8	3	7	88.1	1227	1723	9.657962	
9	3	7	73.2	1439	1951	10.83729	

Statistics 8 (ChirpCenter Frequency: 5326.0 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	73.2	1411		0.333269	
1	1	10	74.8			1.990131	
2	2	10	51.9	1136		3.158576	
3	2	10	85.1	1900		4.314375	
4	2	10	86.3	1787		6.144632	0
5	1	10	63.5			6.683977	
6	3	10	72.1	1441	1052	8.61633	
7	1	10	92.1			10.24222	
8	2	10	72.9	1117		11.90714	

Statistics 9 (ChirpCenter Frequency: 5322.0 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	84.7			0.76986	
1	3	19	81.8	1725	1432	0.883654	
2	2	19	88.1	1294		1.834257	
3	2	19	92.6	1986		2.716906	
4	2	19	99.9	1718		3.847569	
5	2	19	72.4	1571		4.045803	
6	2	19	55	1822		5.073353	
7	3	19	90.8	1886	1439	6.322158	1
8	1	19	63.8			6.568659	
9	2	19	71.3	1863		7.472384	
10	2	19	90.4	1263		8.471305	
11	2	19	62.2	1651		9.041813	
12	3	19	81.5	1344	1759	10.06649	
13	1	19	63.4			11.17828	
14	1	19	69.6			11.71282	

Statistics 10 (ChirpCenter Frequency: 5326.0 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	72.2	1316	1644	0.404824	
1	2	9	75.4	1020		1.697189	
2	3	9	81.3	1256	1407	3.255882	
3	2	9	50	1413		4.271265	
4	2	9	75.1	1065		5.922197	
5	1	9	67.7			6.159642	1
6	2	9	74.6	1786		7.278106	
7	1	9	61.1			9.438947	
8	2	9	62.7	1546		9.609472	
9	1	9	70.1			11.5404	

Radar Type 6 Statistical Performance

Trial #	Fc (MHz)	Pulse /Burst	Pulse Width (μS)	PRI (μs)	Detection (1:yes; 0:no)	Hopping Sequence (MHz)
1	5320	9	1	333	1	5514.0, 5399.0, 5500.0, 5314.0, 5653.0, 5253.0, 5339.0, 5271.0, 5368.0, 5659.0, 5475.0, 5482.0, 5369.0, 5612.0, 5370.0, 5409.0, 5291.0, 5524.0, 5719.0, 5347.0, 5548.0, 5701.0, 5528.0, 5296.0, 5520.0, 5554.0, 5322.0, 5662.0, 5580.0, 5274.0, 5421.0, 5562.0, 5533.0, 5288.0, 5680.0, 5667.0, 5658.0, 5499.0, 5390.0, 5697.0, 5337.0, 5488.0, 5649.0, 5652.0, 5551.0, 5395.0, 5456.0, 5261.0, 5582.0, 5506.0, 5453.0, 5491.0, 5583.0, 5566.0, 5329.0, 5360.0, 5538.0, 5299.0, 5579.0, 5282.0, 5413.0, 5657.0, 5256.0, 5382.0, 5404.0, 5665.0, 5627.0, 5546.0, 5632.0, 5310.0, 5606.0, 5486.0, 5331.0, 5436.0, 5312.0, 5676.0, 5504.0, 5573.0, 5317.0, 5522.0, 5664.0, 5397.0, 5543.0, 5556.0, 5498.0, 5412.0, 5387.0, 5444.0, 5637.0, 5644.0, 5352.0, 5287.0, 5276.0, 5367.0, 5687.0, 5611.0, 5408.0, 5334.0, 5607.0, 5281.0
2	5320	9	1	333	1	5422.0, 5392.0, 5718.0, 5492.0, 5701.0, 5487.0, 5283.0, 5631.0, 5361.0, 5716.0, 5311.0, 5608.0, 5620.0, 5545.0, 5647.0, 5408.0, 5711.0, 5332.0, 5399.0, 5344.0, 5425.0, 5519.0, 5467.0, 5376.0, 5663.0, 5511.0, 5293.0, 5633.0, 5542.0, 5512.0, 5686.0, 5257.0, 5336.0, 5341.0, 5644.0, 5410.0, 5551.0, 5468.0, 5611.0, 5323.0, 5578.0, 5285.0, 5416.0, 5462.0, 5477.0, 5315.0, 5541.0, 5485.0, 5386.0, 5265.0, 5355.0, 5401.0, 5393.0, 5708.0, 5612.0, 5286.0, 5317.0, 5522.0, 5684.0, 5568.0, 5429.0, 5685.0, 5312.0, 5414.0, 5660.0, 5484.0, 5724.0, 5295.0, 5388.0, 5666.0, 5263.0, 5681.0, 5723.0, 5261.0, 5343.0, 5588.0, 5592.0, 5706.0, 5302.0, 5464.0, 5338.0, 5486.0, 5278.0, 5564.0, 5433.0, 5303.0, 5535.0, 5615.0, 5381.0, 5546.0, 5563.0, 5437.0, 5680.0, 5259.0, 5472.0, 5404.0, 5654.0, 5567.0, 5423.0, 5688.0
3	5320	9	1	333	1	5543.0, 5309.0, 5385.0, 5478.0, 5588.0, 5671.0, 5420.0, 5574.0, 5550.0, 5279.0, 5561.0, 5374.0, 5699.0, 5369.0, 5605.0, 5353.0, 5318.0, 5585.0, 5569.0, 5266.0, 5461.0, 5629.0, 5327.0, 5683.0, 5672.0, 5437.0, 5600.0, 5610.0, 5530.0, 5489.0, 5469.0, 5301.0, 5389.0, 5331.0, 5477.0, 5563.0, 5270.0, 5428.0, 5277.0, 5416.0, 5408.0, 5392.0, 5590.0, 5657.0, 5334.0, 5311.0, 5666.0, 5313.0, 5637.0, 5692.0, 5721.0, 5312.0, 5511.0, 5529.0, 5498.0, 5436.0, 5380.0, 5298.0, 5674.0, 5290.0, 5533.0, 5675.0, 5423.0, 5404.0, 5686.0, 5387.0, 5393.0, 5480.0, 5344.0, 5273.0,

						5295.0, 5709.0, 5490.0, 5359.0, 5554.0, 5396.0, 5373.0, 5426.0, 5419.0, 5418.0, 5463.0, 5604.0, 5661.0, 5349.0, 5606.0, 5654.0, 5299.0, 5280.0, 5598.0, 5403.0, 5347.0, 5430.0, 5516.0, 5340.0, 5688.0, 5580.0, 5251.0, 5668.0, 5386.0, 5410.0
4	5320	9	1	333	0	/
5	5320	9	1	333	1	5626.0, 5638.0, 5613.0, 5437.0, 5662.0, 5539.0, 5616.0, 5624.0, 5516.0, 5472.0, 5500.0, 5370.0, 5491.0, 5302.0, 5378.0, 5471.0, 5554.0, 5695.0, 5430.0, 5425.0, 5704.0, 5495.0, 5492.0, 5410.0, 5505.0, 5699.0, 5535.0, 5590.0, 5653.0, 5685.0, 5394.0, 5254.0, 5523.0, 5706.0, 5580.0, 5433.0, 5368.0, 5431.0, 5315.0, 5336.0, 5458.0, 5329.0, 5633.0, 5475.0, 5568.0, 5453.0, 5488.0, 5564.0, 5494.0, 5515.0, 5659.0, 5355.0, 5322.0, 5507.0, 5622.0, 5682.0, 5527.0, 5338.0, 5661.0, 5415.0, 5262.0, 5267.0, 5480.0, 5343.0, 5693.0, 5450.0, 5294.0, 5440.0, 5520.0, 5462.0, 5675.0, 5349.0, 5403.0, 5258.0, 5277.0, 5253.0, 5676.0, 5377.0, 5521.0, 5634.0, 5652.0, 5289.0, 5373.0, 5436.0, 5696.0, 5585.0, 5279.0, 5427.0, 5283.0, 5710.0, 5304.0, 5402.0, 5477.0, 5478.0, 5332.0, 5252.0, 5356.0, 5576.0, 5511.0, 5383.0
6	5320	9	1	333	1	5412.0, 5443.0, 5268.0, 5458.0, 5384.0, 5717.0, 5350.0, 5497.0, 5713.0, 5484.0, 5311.0, 5353.0, 5493.0, 5647.0, 5369.0, 5659.0, 5455.0, 5329.0, 5269.0, 5261.0, 5681.0, 5400.0, 5719.0, 5539.0, 5289.0, 5583.0, 5449.0, 5428.0, 5360.0, 5336.0, 5594.0, 5641.0, 5622.0, 5299.0, 5349.0, 5628.0, 5256.0, 5547.0, 5673.0, 5313.0, 5521.0, 5263.0, 5397.0, 5363.0, 5515.0, 5646.0, 5373.0, 5430.0, 5577.0, 5402.0, 5680.0, 5624.0, 5475.0, 5662.0, 5714.0, 5342.0, 5460.0, 5286.0, 5285.0, 5566.0, 5426.0, 5701.0, 5697.0, 5581.0, 5579.0, 5637.0, 5494.0, 5671.0, 5621.0, 5420.0, 5322.0, 5303.0, 5301.0, 5495.0, 5298.0, 5300.0, 5343.0, 5411.0, 5478.0, 5331.0, 5457.0, 5429.0, 5407.0, 5710.0, 5469.0, 5705.0, 5603.0, 5599.0, 5432.0, 5638.0, 5264.0, 5480.0, 5377.0, 5290.0, 5479.0, 5698.0, 5319.0, 5404.0, 5366.0, 5340.0
7	5320	9	1	333	1	5625.0, 5714.0, 5281.0, 5507.0, 5609.0, 5649.0, 5618.0, 5498.0, 5631.0, 5612.0, 5531.0, 5389.0, 5682.0, 5267.0, 5673.0, 5316.0, 5515.0, 5572.0, 5569.0, 5622.0, 5611.0, 5326.0, 5509.0, 5412.0, 5706.0, 5580.0, 5418.0, 5539.0, 5262.0, 5709.0, 5668.0, 5288.0, 5606.0, 5402.0, 5323.0, 5599.0, 5476.0, 5624.0, 5342.0, 5566.0, 5520.0, 5411.0, 5287.0, 5475.0, 5303.0, 5414.0, 5332.0, 5713.0, 5657.0, 5603.0, 5369.0, 5374.0, 5380.0, 5517.0, 5547.0, 5399.0, 5496.0, 5256.0, 5513.0, 5494.0,

						5602.0, 5377.0, 5413.0, 5534.0, 5560.0, 5433.0, 5468.0, 5613.0, 5661.0, 5491.0, 5269.0, 5530.0, 5252.0, 5546.0, 5480.0, 5386.0, 5512.0, 5710.0, 5623.0, 5702.0, 5428.0, 5391.0, 5257.0, 5705.0, 5555.0, 5597.0, 5416.0, 5441.0, 5457.0, 5398.0, 5254.0, 5472.0, 5669.0, 5680.0, 5543.0, 5474.0, 5684.0, 5600.0, 5563.0, 5526.0
8	5320	9	1	333	1	5625.0, 5574.0, 5613.0, 5459.0, 5529.0, 5585.0, 5376.0, 5437.0, 5259.0, 5589.0, 5619.0, 5472.0, 5285.0, 5525.0, 5442.0, 5483.0, 5328.0, 5358.0, 5469.0, 5454.0, 5524.0, 5281.0, 5268.0, 5356.0, 5270.0, 5474.0, 5608.0, 5428.0, 5351.0, 5572.0, 5418.0, 5614.0, 5720.0, 5662.0, 5260.0, 5327.0, 5395.0, 5274.0, 5290.0, 5509.0, 5377.0, 5514.0, 5448.0, 5261.0, 5679.0, 5305.0, 5296.0, 5466.0, 5545.0, 5388.0, 5636.0, 5312.0, 5565.0, 5383.0, 5694.0, 5534.0, 5324.0, 5632.0, 5586.0, 5456.0, 5255.0, 5408.0, 5612.0, 5458.0, 5348.0, 5675.0, 5481.0, 5399.0, 5275.0, 5714.0, 5693.0, 5542.0, 5464.0, 5650.0, 5634.0, 5717.0, 5271.0, 5526.0, 5330.0, 5538.0, 5257.0, 5506.0, 5475.0, 5387.0, 5264.0, 5643.0, 5332.0, 5640.0, 5251.0, 5427.0, 5467.0, 5336.0, 5450.0, 5299.0, 5581.0, 5705.0, 5723.0, 5716.0, 5486.0, 5499.0
9	5320	9	1	333	1	5462.0, 5310.0, 5679.0, 5586.0, 5372.0, 5663.0, 5695.0, 5720.0, 5664.0, 5375.0, 5620.0, 5412.0, 5566.0, 5564.0, 5654.0, 5438.0, 5366.0, 5511.0, 5291.0, 5632.0, 5433.0, 5419.0, 5661.0, 5422.0, 5278.0, 5659.0, 5555.0, 5402.0, 5583.0, 5313.0, 5678.0, 5522.0, 5424.0, 5306.0, 5401.0, 5465.0, 5371.0, 5601.0, 5619.0, 5474.0, 5703.0, 5485.0, 5467.0, 5293.0, 5716.0, 5394.0, 5260.0, 5373.0, 5437.0, 5609.0, 5460.0, 5459.0, 5354.0, 5448.0, 5432.0, 5406.0, 5588.0, 5253.0, 5515.0, 5649.0, 5283.0, 5558.0, 5285.0, 5570.0, 5379.0, 5551.0, 5447.0, 5501.0, 5350.0, 5572.0, 5359.0, 5267.0, 5593.0, 5271.0, 5274.0, 5449.0, 5446.0, 5392.0, 5277.0, 5363.0, 5390.0, 5636.0, 5691.0, 5585.0, 5466.0, 5582.0, 5635.0, 5333.0, 5497.0, 5697.0, 5368.0, 5330.0, 5266.0, 5595.0, 5352.0, 5251.0, 5294.0, 5464.0, 5444.0, 5289.0
10	5320	9	1	333	1	5676.0, 5516.0, 5524.0, 5402.0, 5575.0, 5449.0, 5499.0, 5554.0, 5435.0, 5466.0, 5476.0, 5708.0, 5669.0, 5266.0, 5376.0, 5577.0, 5681.0, 5469.0, 5292.0, 5635.0, 5307.0, 5324.0, 5353.0, 5422.0, 5387.0, 5589.0, 5309.0, 5260.0, 5562.0, 5316.0, 5692.0, 5623.0, 5261.0, 5683.0, 5426.0, 5254.0, 5288.0, 5631.0, 5625.0, 5648.0, 5274.0, 5615.0, 5294.0, 5456.0, 5687.0, 5647.0, 5373.0, 5277.0, 5580.0, 5358.0, 5567.0, 5645.0, 5280.0, 5326.0, 5498.0,

						5340.0, 5585.0, 5397.0, 5384.0, 5612.0, 5453.0, 5450.0, 5360.0, 5480.0, 5667.0, 5703.0, 5578.0, 5527.0, 5275.0, 5400.0, 5368.0, 5630.0, 5461.0, 5710.0, 5401.0, 5688.0, 5556.0, 5347.0, 5438.0, 5564.0, 5388.0, 5488.0, 5640.0, 5285.0, 5673.0, 5478.0, 5492.0, 5418.0, 5658.0, 5363.0, 5355.0, 5576.0, 5678.0, 5467.0, 5380.0, 5512.0, 5427.0, 5344.0, 5650.0, 5311.0
11	5320	9	1	333	1	5648.0, 5362.0, 5425.0, 5587.0, 5506.0, 5383.0, 5461.0, 5387.0, 5450.0, 5403.0, 5313.0, 5663.0, 5475.0, 5508.0, 5513.0, 5626.0, 5393.0, 5585.0, 5360.0, 5618.0, 5661.0, 5484.0, 5563.0, 5293.0, 5424.0, 5621.0, 5572.0, 5257.0, 5283.0, 5675.0, 5319.0, 5465.0, 5676.0, 5408.0, 5251.0, 5547.0, 5359.0, 5349.0, 5652.0, 5541.0, 5474.0, 5571.0, 5316.0, 5682.0, 5284.0, 5600.0, 5252.0, 5602.0, 5416.0, 5482.0, 5505.0, 5328.0, 5271.0, 5655.0, 5277.0, 5522.0, 5321.0, 5435.0, 5428.0, 5532.0, 5517.0, 5548.0, 5295.0, 5298.0, 5276.0, 5258.0, 5332.0, 5567.0, 5303.0, 5691.0, 5253.0, 5431.0, 5624.0, 5327.0, 5371.0, 5498.0, 5716.0, 5538.0, 5616.0, 5285.0, 5317.0, 5296.0, 5388.0, 5719.0, 5491.0, 5678.0, 5326.0, 5698.0, 5500.0, 5601.0, 5364.0, 5404.0, 5405.0, 5689.0, 5448.0, 5594.0, 5337.0, 5534.0, 5644.0, 5718.0
12	5320	9	1	333	1	5592.0, 5415.0, 5558.0, 5277.0, 5609.0, 5497.0, 5580.0, 5656.0, 5655.0, 5583.0, 5553.0, 5707.0, 5586.0, 5267.0, 5654.0, 5442.0, 5456.0, 5418.0, 5524.0, 5370.0, 5272.0, 5719.0, 5625.0, 5537.0, 5539.0, 5392.0, 5311.0, 5484.0, 5701.0, 5621.0, 5617.0, 5338.0, 5337.0, 5691.0, 5385.0, 5555.0, 5548.0, 5660.0, 5696.0, 5380.0, 5342.0, 5590.0, 5478.0, 5652.0, 5720.0, 5283.0, 5294.0, 5606.0, 5515.0, 5663.0, 5455.0, 5360.0, 5661.0, 5624.0, 5648.0, 5373.0, 5551.0, 5607.0, 5686.0, 5552.0, 5438.0, 5402.0, 5544.0, 5341.0, 5400.0, 5389.0, 5368.0, 5377.0, 5622.0, 5432.0, 5614.0, 5307.0, 5375.0, 5535.0, 5301.0, 5424.0, 5476.0, 5563.0, 5383.0, 5292.0, 5367.0, 5667.0, 5674.0, 5628.0, 5585.0, 5464.0, 5495.0, 5693.0, 5523.0, 5426.0, 5411.0, 5273.0, 5520.0, 5323.0, 5516.0, 5600.0, 5352.0, 5394.0, 5567.0, 5322.0
13	5320	9	1	333	1	5428.0, 5384.0, 5277.0, 5322.0, 5345.0, 5352.0, 5722.0, 5290.0, 5666.0, 5349.0, 5258.0, 5287.0, 5640.0, 5429.0, 5692.0, 5380.0, 5615.0, 5462.0, 5598.0, 5698.0, 5457.0, 5332.0, 5596.0, 5576.0, 5588.0, 5673.0, 5624.0, 5304.0, 5292.0, 5333.0, 5580.0, 5350.0, 5710.0, 5552.0, 5393.0, 5372.0, 5533.0, 5403.0, 5409.0, 5654.0, 5550.0, 5449.0, 5614.0, 5671.0, 5639.0, 5647.0, 5328.0, 5363.0, 5334.0, 5665.0,

						5473.0, 5311.0, 5315.0, 5485.0, 5434.0, 5531.0, 5623.0, 5633.0, 5564.0, 5617.0, 5360.0, 5502.0, 5375.0, 5508.0, 5694.0, 5366.0, 5650.0, 5373.0, 5678.0, 5314.0, 5609.0, 5273.0, 5321.0, 5575.0, 5339.0, 5709.0, 5417.0, 5398.0, 5619.0, 5385.0, 5391.0, 5715.0, 5411.0, 5388.0, 5415.0, 5445.0, 5685.0, 5359.0, 5535.0, 5306.0, 5664.0, 5463.0, 5536.0, 5317.0, 5565.0, 5490.0, 5281.0, 5684.0, 5641.0, 5303.0
14	5320	9	1	333	1	5682.0, 5610.0, 5481.0, 5709.0, 5499.0, 5320.0, 5298.0, 5417.0, 5512.0, 5644.0, 5551.0, 5541.0, 5383.0, 5433.0, 5304.0, 5538.0, 5315.0, 5640.0, 5281.0, 5318.0, 5449.0, 5573.0, 5611.0, 5314.0, 5405.0, 5642.0, 5662.0, 5699.0, 5663.0, 5518.0, 5632.0, 5685.0, 5691.0, 5264.0, 5274.0, 5696.0, 5457.0, 5486.0, 5627.0, 5543.0, 5438.0, 5631.0, 5506.0, 5296.0, 5386.0, 5539.0, 5332.0, 5447.0, 5717.0, 5646.0, 5686.0, 5602.0, 5297.0, 5306.0, 5701.0, 5455.0, 5437.0, 5349.0, 5623.0, 5591.0, 5278.0, 5548.0, 5376.0, 5381.0, 5430.0, 5576.0, 5387.0, 5687.0, 5629.0, 5513.0, 5287.0, 5400.0, 5689.0, 5373.0, 5678.0, 5434.0, 5547.0, 5257.0, 5561.0, 5261.0, 5450.0, 5323.0, 5291.0, 5639.0, 5680.0, 5488.0, 5525.0, 5523.0, 5451.0, 5577.0, 5293.0, 5584.0, 5587.0, 5578.0, 5706.0, 5622.0, 5668.0, 5568.0, 5556.0, 5370.0
15	5320	9	1	333	1	5359.0, 5608.0, 5697.0, 5331.0, 5339.0, 5552.0, 5252.0, 5591.0, 5349.0, 5599.0, 5315.0, 5269.0, 5477.0, 5350.0, 5503.0, 5488.0, 5672.0, 5518.0, 5295.0, 5385.0, 5724.0, 5659.0, 5549.0, 5554.0, 5569.0, 5568.0, 5679.0, 5250.0, 5354.0, 5443.0, 5298.0, 5520.0, 5452.0, 5561.0, 5378.0, 5348.0, 5485.0, 5580.0, 5414.0, 5500.0, 5592.0, 5494.0, 5474.0, 5351.0, 5364.0, 5479.0, 5326.0, 5709.0, 5676.0, 5288.0, 5483.0, 5511.0, 5259.0, 5711.0, 5404.0, 5357.0, 5639.0, 5684.0, 5419.0, 5557.0, 5702.0, 5437.0, 5683.0, 5510.0, 5395.0, 5384.0, 5506.0, 5570.0, 5536.0, 5424.0, 5392.0, 5704.0, 5469.0, 5673.0, 5584.0, 5653.0, 5366.0, 5374.0, 5512.0, 5550.0, 5433.0, 5545.0, 5337.0, 5493.0, 5296.0, 5628.0, 5260.0, 5534.0, 5455.0, 5264.0, 5300.0, 5611.0, 5691.0, 5535.0, 5438.0, 5559.0, 5435.0, 5669.0, 5358.0, 5377.0
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17	5320	9	1	333	1	5334.0, 5700.0, 5451.0, 5643.0, 5709.0, 5284.0, 5264.0, 5537.0, 5593.0, 5618.0, 5622.0, 5280.0, 5605.0, 5489.0, 5511.0, 5396.0, 5719.0, 5670.0, 5250.0, 5465.0, 5565.0, 5423.0, 5354.0, 5347.0, 5576.0, 5448.0, 5305.0, 5388.0, 5607.0, 5397.0, 5267.0, 5555.0, 5583.0, 5681.0, 5294.0, 5648.0, 5584.0, 5387.0, 5694.0, 5669.0, 5572.0, 5411.0, 5309.0, 5647.0, 5632.0, 5456.0, 5512.0, 5699.0, 5363.0, 5630.0, 5651.0, 5434.0, 5297.0, 5701.0, 5470.0, 5481.0, 5364.0, 5610.0, 5407.0, 5317.0, 5586.0, 5348.0, 5692.0, 5713.0, 5262.0, 5554.0, 5393.0, 5558.0, 5389.0, 5690.0, 5372.0, 5325.0, 5628.0, 5300.0, 5521.0, 5426.0, 5340.0, 5582.0, 5295.0, 5383.0, 5409.0, 5357.0, 5398.0, 5723.0, 5273.0, 5285.0, 5257.0, 5661.0, 5650.0, 5289.0, 5569.0, 5369.0, 5503.0, 5672.0, 5468.0, 5705.0, 5272.0, 5677.0, 5544.0, 5696.0
18	5320	9	1	333	1	5380.0, 5312.0, 5531.0, 5582.0, 5346.0, 5648.0, 5528.0, 5696.0, 5689.0, 5490.0, 5473.0, 5500.0, 5658.0, 5275.0, 5350.0, 5261.0, 5506.0, 5368.0, 5421.0, 5297.0, 5262.0, 5407.0, 5325.0, 5405.0, 5484.0, 5449.0, 5334.0, 5406.0, 5266.0, 5539.0, 5604.0, 5513.0, 5359.0, 5378.0, 5395.0, 5434.0, 5666.0, 5462.0, 5415.0, 5641.0, 5366.0, 5718.0, 5714.0, 5385.0, 5417.0, 5332.0, 5510.0, 5656.0, 5460.0, 5654.0, 5268.0, 5335.0, 5572.0, 5444.0, 5263.0, 5686.0, 5632.0, 5672.0, 5353.0, 5644.0, 5420.0, 5667.0, 5633.0, 5326.0, 5511.0, 5327.0, 5710.0, 5443.0, 5296.0, 5562.0, 5668.0, 5441.0, 5274.0, 5606.0, 5622.0, 5466.0, 5721.0, 5284.0, 5481.0, 5564.0, 5598.0, 5396.0, 5617.0, 5711.0, 5536.0, 5630.0, 5680.0, 5533.0, 5291.0, 5636.0, 5392.0, 5597.0, 5560.0, 5373.0, 5452.0, 5329.0, 5634.0, 5403.0, 5252.0, 5256.0
19	5320	9	1	333	1	5580.0, 5342.0, 5284.0, 5464.0, 5353.0, 5465.0, 5565.0, 5663.0, 5292.0, 5650.0, 5612.0, 5296.0, 5452.0, 5488.0, 5521.0, 5286.0, 5674.0, 5431.0, 5334.0, 5610.0, 5280.0, 5634.0, 5505.0, 5636.0, 5493.0, 5423.0, 5381.0, 5513.0, 5496.0, 5266.0, 5318.0, 5592.0, 5547.0, 5656.0, 5529.0, 5703.0, 5517.0, 5711.0, 5458.0, 5420.0,

						5256.0, 5487.0, 5574.0, 5707.0, 5625.0, 5305.0, 5351.0, 5563.0, 5347.0, 5365.0, 5685.0, 5558.0, 5672.0, 5294.0, 5272.0, 5686.0, 5421.0, 5348.0, 5593.0, 5497.0, 5319.0, 5371.0, 5326.0, 5581.0, 5537.0, 5363.0, 5281.0, 5330.0, 5578.0, 5504.0, 5684.0, 5362.0, 5450.0, 5285.0, 5306.0, 5584.0, 5587.0, 5432.0, 5310.0, 5640.0, 5398.0, 5498.0, 5715.0, 5553.0, 5468.0, 5385.0, 5455.0, 5642.0, 5658.0, 5327.0, 5283.0, 5688.0, 5443.0, 5653.0, 5402.0, 5375.0, 5555.0, 5289.0, 5360.0, 5373.0
20	5320	9	1	333	1	5257.0, 5472.0, 5659.0, 5365.0, 5279.0, 5483.0, 5620.0, 5724.0, 5706.0, 5465.0, 5363.0, 5468.0, 5456.0, 5497.0, 5617.0, 5488.0, 5590.0, 5255.0, 5650.0, 5636.0, 5370.0, 5584.0, 5304.0, 5569.0, 5662.0, 5399.0, 5267.0, 5635.0, 5626.0, 5572.0, 5632.0, 5369.0, 5606.0, 5612.0, 5261.0, 5539.0, 5525.0, 5521.0, 5448.0, 5638.0, 5514.0, 5660.0, 5268.0, 5374.0, 5686.0, 5520.0, 5266.0, 5439.0, 5504.0, 5719.0, 5438.0, 5537.0, 5624.0, 5303.0, 5287.0, 5550.0, 5336.0, 5442.0, 5450.0, 5586.0, 5679.0, 5424.0, 5646.0, 5542.0, 5563.0, 5270.0, 5473.0, 5329.0, 5671.0, 5579.0, 5583.0, 5283.0, 5406.0, 5290.0, 5398.0, 5573.0, 5434.0, 5339.0, 5412.0, 5457.0, 5594.0, 5596.0, 5513.0, 5419.0, 5499.0, 5526.0, 5335.0, 5385.0, 5408.0, 5548.0, 5368.0, 5495.0, 5704.0, 5523.0, 5397.0, 5535.0, 5565.0, 5524.0, 5618.0, 5610.0
21	5320	9	1	333	1	5436.0, 5283.0, 5534.0, 5320.0, 5572.0, 5403.0, 5373.0, 5526.0, 5615.0, 5385.0, 5415.0, 5494.0, 5329.0, 5278.0, 5465.0, 5693.0, 5459.0, 5562.0, 5643.0, 5472.0, 5254.0, 5361.0, 5491.0, 5666.0, 5365.0, 5557.0, 5452.0, 5545.0, 5602.0, 5282.0, 5575.0, 5703.0, 5306.0, 5296.0, 5257.0, 5609.0, 5646.0, 5445.0, 5556.0, 5574.0, 5652.0, 5424.0, 5518.0, 5483.0, 5714.0, 5404.0, 5260.0, 5449.0, 5418.0, 5287.0, 5317.0, 5338.0, 5673.0, 5265.0, 5298.0, 5340.0, 5700.0, 5336.0, 5345.0, 5659.0, 5640.0, 5386.0, 5628.0, 5685.0, 5689.0, 5303.0, 5498.0, 5686.0, 5550.0, 5630.0, 5649.0, 5511.0, 5393.0, 5708.0, 5496.0, 5381.0, 5421.0, 5324.0, 5473.0, 5395.0, 5669.0, 5475.0, 5694.0, 5406.0, 5553.0, 5305.0, 5629.0, 5616.0, 5590.0, 5419.0, 5617.0, 5339.0, 5270.0, 5337.0, 5683.0, 5479.0, 5565.0, 5519.0, 5274.0, 5699.0
22	5320	9	1	333	1	5592.0, 5441.0, 5546.0, 5364.0, 5666.0, 5315.0, 5254.0, 5687.0, 5711.0, 5305.0, 5353.0, 5370.0, 5332.0, 5699.0, 5252.0, 5366.0, 5287.0, 5446.0, 5497.0, 5260.0, 5455.0, 5409.0, 5284.0, 5707.0, 5533.0, 5278.0, 5686.0, 5586.0, 5356.0, 5267.0, 5715.0, 5345.0, 5329.0, 5411.0, 5408.0,

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23	5320	9	1	333		5461.0, 5553.0, 5592.0, 5567.0, 5678.0, 5634.0, 5323.0, 5497.0, 5339.0, 5400.0, 5474.0, 5688.0, 5578.0, 5322.0, 5531.0, 5361.0, 5416.0, 5278.0, 5439.0, 5460.0, 5677.0, 5626.0, 5311.0, 5338.0, 5624.0, 5521.0, 5300.0, 5385.0, 5313.0, 5713.0, 5648.0, 5507.0, 5308.0, 5459.0, 5344.0, 5429.0, 5476.0, 5417.0, 5565.0, 5480.0, 5275.0, 5297.0, 5283.0, 5470.0, 5336.0, 5539.0, 5543.0, 5357.0, 5500.0, 5699.0, 5295.0, 5551.0, 5511.0, 5375.0, 5622.0, 5602.0, 5282.0, 5645.0, 5446.0, 5444.0, 5406.0, 5504.0, 5593.0, 5332.0, 5570.0, 5456.0, 5582.0, 5540.0, 5341.0, 5695.0, 5491.0, 5640.0, 5591.0, 5573.0, 5601.0, 5324.0, 5428.0, 5681.0, 5414.0, 5519.0, 5509.0, 5643.0, 5334.0, 5370.0, 5418.0, 5698.0, 5408.0, 5613.0, 5625.0, 5632.0, 5287.0, 5433.0, 5321.0, 5379.0, 5342.0, 5455.0, 5550.0, 5391.0, 5427.0, 5264.0
24	5320	9	1	333	1	5574.0, 5332.0, 5349.0, 5617.0, 5536.0, 5551.0, 5588.0, 5421.0, 5413.0, 5483.0, 5592.0, 5676.0, 5471.0, 5324.0, 5453.0, 5434.0, 5494.0, 5575.0, 5605.0, 5546.0, 5445.0, 5459.0, 5581.0, 5659.0, 5705.0, 5614.0, 5431.0, 5425.0, 5652.0, 5510.0, 5326.0, 5508.0, 5695.0, 5526.0, 5502.0, 5399.0, 5344.0, 5673.0, 5534.0, 5255.0, 5396.0, 5439.0, 5553.0, 5619.0, 5682.0, 5646.0, 5416.0, 5355.0, 5482.0, 5461.0, 5264.0, 5607.0, 5443.0, 5500.0, 5364.0, 5257.0, 5560.0, 5302.0, 5495.0, 5370.0, 5715.0, 5339.0, 5671.0, 5320.0, 5463.0, 5368.0, 5401.0, 5447.0, 5525.0, 5651.0, 5382.0, 5531.0, 5270.0, 5653.0, 5268.0, 5468.0, 5263.0, 5342.0, 5590.0, 5436.0, 5583.0, 5645.0, 5333.0, 5408.0, 5442.0, 5315.0, 5285.0, 5690.0, 5389.0, 5595.0, 5515.0, 5637.0, 5567.0, 5504.0, 5672.0, 5537.0, 5303.0, 5275.0, 5284.0, 5527.0
25	5320	9	1	333	1	5252.0, 5719.0, 5394.0, 5529.0, 5272.0, 5668.0, 5643.0, 5596.0, 5435.0, 5517.0, 5512.0, 5255.0, 5653.0, 5293.0, 5549.0, 5568.0, 5682.0, 5723.0, 5527.0, 5703.0, 5559.0, 5301.0, 5478.0, 5356.0, 5400.0, 5302.0, 5631.0, 5425.0, 5525.0, 5586.0,

						5629.0, 5554.0, 5305.0, 5623.0, 5526.0, 5528.0, 5357.0, 5362.0, 5341.0, 5636.0, 5330.0, 5585.0, 5604.0, 5567.0, 5533.0, 5386.0, 5610.0, 5541.0, 5638.0, 5282.0, 5431.0, 5376.0, 5724.0, 5332.0, 5504.0, 5304.0, 5718.0, 5452.0, 5669.0, 5564.0, 5635.0, 5370.0, 5674.0, 5363.0, 5429.0, 5325.0, 5308.0, 5266.0, 5651.0, 5417.0, 5601.0, 5686.0, 5430.0, 5695.0, 5577.0, 5465.0, 5355.0, 5405.0, 5462.0, 5340.0, 5384.0, 5260.0, 5667.0, 5544.0, 5712.0, 5433.0, 5411.0, 5558.0, 5292.0, 5543.0, 5677.0, 5270.0, 5471.0, 5343.0, 5502.0, 5319.0, 5642.0, 5318.0, 5295.0, 5294.0
26	5320	9	1	333	1	5383.0, 5489.0, 5478.0, 5408.0, 5448.0, 5650.0, 5603.0, 5444.0, 5306.0, 5653.0, 5460.0, 5677.0, 5470.0, 5487.0, 5431.0, 5318.0, 5396.0, 5384.0, 5640.0, 5536.0, 5589.0, 5719.0, 5720.0, 5293.0, 5588.0, 5395.0, 5416.0, 5668.0, 5676.0, 5682.0, 5678.0, 5328.0, 5646.0, 5380.0, 5669.0, 5606.0, 5635.0, 5658.0, 5499.0, 5567.0, 5314.0, 5630.0, 5511.0, 5535.0, 5542.0, 5664.0, 5297.0, 5312.0, 5405.0, 5269.0, 5667.0, 5377.0, 5717.0, 5516.0, 5342.0, 5572.0, 5332.0, 5708.0, 5361.0, 5256.0, 5411.0, 5355.0, 5526.0, 5644.0, 5623.0, 5401.0, 5492.0, 5592.0, 5340.0, 5275.0, 5379.0, 5617.0, 5479.0, 5429.0, 5619.0, 5463.0, 5547.0, 5254.0, 5661.0, 5721.0, 5697.0, 5688.0, 5607.0, 5281.0, 5330.0, 5469.0, 5679.0, 5590.0, 5626.0, 5304.0, 5675.0, 5550.0, 5270.0, 5366.0, 5407.0, 5286.0, 5374.0, 5363.0, 5563.0, 5315.0
27	5320	9	1	333	1	5517.0, 5444.0, 5429.0, 5410.0, 5315.0, 5478.0, 5511.0, 5383.0, 5678.0, 5661.0, 5442.0, 5321.0, 5298.0, 5620.0, 5313.0, 5690.0, 5713.0, 5638.0, 5468.0, 5464.0, 5577.0, 5289.0, 5615.0, 5261.0, 5518.0, 5282.0, 5266.0, 5523.0, 5554.0, 5302.0, 5256.0, 5643.0, 5667.0, 5472.0, 5663.0, 5417.0, 5609.0, 5274.0, 5352.0, 5590.0, 5358.0, 5631.0, 5569.0, 5276.0, 5353.0, 5670.0, 5589.0, 5715.0, 5318.0, 5259.0, 5688.0, 5597.0, 5465.0, 5287.0, 5291.0, 5592.0, 5579.0, 5273.0, 5386.0, 5323.0, 5606.0, 5362.0, 5685.0, 5443.0, 5436.0, 5288.0, 5355.0, 5509.0, 5427.0, 5696.0, 5537.0, 5475.0, 5448.0, 5373.0, 5349.0, 5317.0, 5496.0, 5346.0, 5416.0, 5691.0, 5649.0, 5279.0, 5343.0, 5493.0, 5544.0, 5551.0, 5637.0, 5459.0, 5530.0, 5684.0, 5702.0, 5588.0, 5605.0, 5407.0, 5639.0, 5408.0, 5556.0, 5344.0, 5547.0, 5489.0
28	5320	9	1	333	1	5508.0, 5495.0, 5590.0, 5723.0, 5492.0, 5348.0, 5482.0, 5520.0, 5270.0, 5722.0, 5328.0, 5712.0, 5315.0, 5367.0, 5402.0, 5681.0, 5428.0, 5386.0, 5662.0, 5548.0, 5394.0, 5547.0, 5374.0, 5419.0, 5525.0,

						5483.0, 5573.0, 5309.0, 5451.0, 5701.0, 5349.0, 5357.0, 5423.0, 5693.0, 5661.0, 5485.0, 5523.0, 5304.0, 5329.0, 5455.0, 5561.0, 5268.0, 5718.0, 5640.0, 5630.0, 5674.0, 5489.0, 5319.0, 5260.0, 5657.0, 5330.0, 5514.0, 5505.0, 5487.0, 5411.0, 5658.0, 5384.0, 5359.0, 5364.0, 5398.0, 5363.0, 5627.0, 5598.0, 5613.0, 5366.0, 5291.0, 5337.0, 5477.0, 5660.0, 5685.0, 5387.0, 5512.0, 5324.0, 5341.0, 5625.0, 5453.0, 5326.0, 5601.0, 5442.0, 5470.0, 5297.0, 5720.0, 5429.0, 5314.0, 5321.0, 5255.0, 5335.0, 5272.0, 5679.0, 5259.0, 5379.0, 5698.0, 5338.0, 5313.0, 5471.0, 5716.0, 5252.0, 5494.0, 5389.0, 5298.0
29	5320	9	1	333	1	5298.0, 5720.0, 5578.0, 5287.0, 5595.0, 5389.0, 5277.0, 5664.0, 5582.0, 5509.0, 5520.0, 5658.0, 5391.0, 5648.0, 5683.0, 5440.0, 5492.0, 5308.0, 5485.0, 5392.0, 5400.0, 5341.0, 5679.0, 5623.0, 5423.0, 5610.0, 5572.0, 5530.0, 5451.0, 5576.0, 5251.0, 5387.0, 5430.0, 5310.0, 5495.0, 5365.0, 5438.0, 5434.0, 5254.0, 5662.0, 5272.0, 5644.0, 5396.0, 5324.0, 5338.0, 5723.0, 5409.0, 5620.0, 5314.0, 5671.0, 5515.0, 5315.0, 5316.0, 5313.0, 5684.0, 5533.0, 5532.0, 5352.0, 5563.0, 5713.0, 5255.0, 5390.0, 5697.0, 5335.0, 5376.0, 5334.0, 5719.0, 5714.0, 5318.0, 5414.0, 5466.0, 5292.0, 5425.0, 5552.0, 5502.0, 5517.0, 5309.0, 5599.0, 5455.0, 5358.0, 5596.0, 5606.0, 5294.0, 5307.0, 5330.0, 5296.0, 5663.0, 5581.0, 5293.0, 5632.0, 5643.0, 5613.0, 5602.0, 5487.0, 5412.0, 5422.0, 5303.0, 5672.0, 5366.0, 5547.0
30	5320	9	1	333	1	5255.0, 5570.0, 5643.0, 5359.0, 5636.0, 5648.0, 5363.0, 5549.0, 5423.0, 5474.0, 5572.0, 5295.0, 5626.0, 5286.0, 5493.0, 5445.0, 5553.0, 5348.0, 5578.0, 5333.0, 5299.0, 5579.0, 5456.0, 5543.0, 5548.0, 5654.0, 5528.0, 5454.0, 5321.0, 5304.0, 5499.0, 5260.0, 5707.0, 5376.0, 5486.0, 5705.0, 5293.0, 5680.0, 5527.0, 5576.0, 5624.0, 5483.0, 5525.0, 5404.0, 5356.0, 5463.0, 5294.0, 5649.0, 5585.0, 5617.0, 5297.0, 5668.0, 5370.0, 5427.0, 5651.0, 5616.0, 5400.0, 5383.0, 5450.0, 5514.0, 5320.0, 5587.0, 5287.0, 5674.0, 5269.0, 5482.0, 5519.0, 5406.0, 5372.0, 5432.0, 5692.0, 5516.0, 5300.0, 5338.0, 5368.0, 5690.0, 5534.0, 5560.0, 5650.0, 5263.0, 5635.0, 5554.0, 5313.0, 5700.0, 5301.0, 5402.0, 5253.0, 5362.0, 5610.0, 5481.0, 5409.0, 5625.0, 5259.0, 5480.0, 5547.0, 5563.0, 5425.0, 5257.0, 5716.0, 5277.0

5. BRIDGE AND/OR MESH MODE

Test Standard:

Networks Access Points with Bridge and/or MESH modes of operation are permitted to operate in the DFS bands but must employ a DFS function. The functionality of the Bridge mode as specified in §15.403(a) must be validated in the DFS test report. Devices operating as relays where they act as master and client must also employ DFS function for the master. The method used to validate the functionality must be documented and validation data must be documented. Bridge mode can be validated by performing a test statistical performance check (Section 7.8.4) on any one of the radar types. This is an abbreviated test to verify DFS functionality. MESH mode operational methodology must be submitted in the application for certification for evaluation by the FCC.

Test Result:

Test Mode: Bridge

Compliance, please refer the below data.

5290MHz

Radar Type 2 Statistical Performance

Trial #	Fc (MHz)	Pulse/Burst	Pulse Width (µS)	PRI (µs)	Detection (1:yes; 0:no)
1	5290	28	4	153	1
2	5290	24	4.3	168	1
3	5290	24	4.1	207	1
4	5290	24	4.7	158	1
5	5290	29	3.6	166	1
6	5290	25	3	230	1
7	5290	24	4.4	195	1
8	5290	28	4.8	157	1
9	5290	29	4.1	227	1
10	5290	23	3.6	193	1
11	5290	26	1.5	202	1
12	5290	29	4.7	159	1
13	5290	25	3	161	1
14	5290	24	2.4	226	1
15	5290	27	2.3	182	1
16	5290	25	3.1	208	1
17	5290	27	1.6	163	1
18	5290	27	3.5	181	1
19	5290	27	4.2	186	1
20	5290	27	3.7	218	1
21	5290	23	5	205	1
22	5290	29	3.4	169	1
23	5290	26	3.4	162	1
24	5290	26	2.2	183	1
25	5290	28	2.9	226	1
26	5290	23	3.1	169	1
27	5290	23	1.3	219	1
28	5290	23	3	195	1
29	5290	27	4.3	194	1
30	5290	27	1.4	154	1
Detection Percentage: 100% (>60%)					

***** END OF REPORT *****