

Report No.: FZ921805-01





FCC DFS TEST REPORT

FCC ID

: 2ADZRHA020WB

Equipment

: Nokia Wi-Fi Beacon

Brand Name

: Nokia

Model Name

: HA-020W-B

Applicant

: Nokia Shanghai Bell Co. Ltd.

No. 388, Ninggiao Rd. Pilot Free Trade Zone

Shanghai, China 201206

Manufacturer

: Nokia Shanghai Bell Co. Ltd.

No. 388, Ningqiao Rd. Pilot Free Trade Zone

Shanghai, China 201206

Standard

: 47 CFR FCC Part 15.407

The product was received on Jan. 31, 2019, and testing was started from Apr. 15, 2019 and completed on Apr. 26, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-656-9065

FAX: 886-3-656-9085

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History of this test report

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Report No.	Version	Description	Issued Date
FZ921805-01	01	Initial issue of report	May 14, 2019

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Summary of Test Result

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.3	FCC KDB 905462 7.8.1	DFS: UNII Detection Bandwidth Measurement	PASS	-
3.4	FCC KDB 905462 7.8.2.1	DFS: Initial Channel Availability Check Time	PASS	-
3.4	FCC KDB 905462 7.8.2.2	DFS: Radar Burst at the Beginning of the Channel Availability Check Time	PASS	-
3.4	FCC KDB 905462 7.8.2.3	DFS: Radar Burst at the End of the Channel Availability Check Time	PASS	-
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Move Time (CMT)	PASS	-
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Closing Transmission Time (CCTT)	PASS	-
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Non-Occupancy Period (NOP)	PASS	-
3.6	FCC KDB 905462 7.8.4	DFS: Statistical Performance Check	PASS	-
3.1.4	FCC KDB 905462 8.1	User Access Restrictions	PASS	-

Note: Mesh mode, only Statistical Performance Check (Section 7.8.4) on one of the radar types is required to perform.

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen Report Producer: Wendy Pan

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General Description

Information 1.1

1.1.1 RF General Information

Specification Items	Descript	ion		
Frequency Range	5250 MHz – 5350 MHz			
	5470 MHz – 5725 MHz			
Power Type	From power adapter			
Channel Bandwidth	20/40/80 MHz operating channel bandwidth			
Operating Mode				
Operating Mode	Client with radar detection			
	Client without radar detection			
Communication Mode		☐ Frame Based		
TPC Function	With TPC	☐ Without TPC		
Weather Band (5600~5650MHz)	☑ With 5600~5650MHz	☐ Without 5600~5650MHz		
Power-on cycle	80MHz: Requires 76.187 seconds to complete its power-on cycle.			
Software / Firmware Version	3FE47863FIN00B			
 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation. VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAI modulation. EUT employ a TPC mechanism and TPC have the capability to operate at least 6 dB below highest R output power. 				

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Note: The above information was declared by manufacturer.

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TPC Power Result

Mode	Min Power	Max Power	Min EIRP	Max EIRP
	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-
5.25-5.35GHz	16.09	22.09	19.09	25.09
5.47-5.725GHz	17.01	23.01	20.01	26.01
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	16.41	22.41	19.41	25.41
5.47-5.725GHz	16.75	22.75	19.75	25.75
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	8.93	14.93	11.93	17.93
5.47-5.725GHz	17.85	23.85	20.85	26.85
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	10.99	16.99	13.99	19.99
5.47-5.725GHz	17.77	23.77	20.77	26.77
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	17.47	23.47	23.48	29.48
5.47-5.725GHz	17.80	23.80	23.81	29.81
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	10.91	16.91	16.92	22.92
5.47-5.725GHz	17.87	23.87	23.88	29.88
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	12.30	18.30	18.31	24.31
5.47-5.725GHz	17.87	23.87	23.88	29.88

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1.1.2 Antenna Information

<Main Source Antenna>

Ant.	.nt. Port Brand Model Name Antenna Type		Connector	Gain	(dBi)		
7 (11(1	lone	Brana	modol Namo	Antonia Type		2.4GHz	5GHz
1	1	Airgain	M5X30CT-G45U	Copper tube Ant.	I-PEX	-	3
2	2	Airgain	M5X30CT-B80U	Copper tube Ant.	I-PEX	-	3
3	1	Airgain	N01NSAAA-T7-PK1-B130	PCB Ant.	N/A	3	-
4	2	Airgain	N01NSAAA-T7-PK1-G85	PCB Ant.	N/A	3	-

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<Second Source Antenna>

Ant.	Port	Brand Holder	Model Name	Antenna Type	Connector	Gain	(dBi)	
			, meas name , monda iye				2.4GHz	5GHz
1	1	ShangHai Signal Plus Technology Co.,Ltd.	6011F000118	Copper tube Ant.	I-PEX	-	3	
2	2	ShangHai Signal Plus Technology Co.,Ltd.	6011F000119	Copper tube Ant.	I-PEX	-	3	
3	1	ShangHai Signal Plus Technology Co.,Ltd.	6011F000116	PCB Ant.	N/A	3	-	
4	2	ShangHai Signal Plus Technology Co.,Ltd.	6011F000117	PCB Ant.	N/A	3	-	

Note 1: The above information was declared by manufacturer.

Note 2: The EUT was only tested for Main Source Antenna.

Note 3:

<For 2.4GHz Band>

For IEEE 802.11b mode<1TX/1RX>:

Only Port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11g/n mode<2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode <2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

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1.1.3 DFS Band Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140.

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For 40MHz bandwidth systems, use Channel 54, 62, 102, 110, 118, 126, 134.

For 80MHz bandwidth systems, use Channel 58, 106, 122.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
	52	5260 MHz	60	5300 MHz
5250~5350 MHz	54	5270 MHz	62	5310 MHz
Band 2	56	5280 MHz	64	5320 MHz
	58	5290 MHz	-	-
	100	5500 MHz	124	5620 MHz
	102	5510 MHz	126	5630 MHz
	104	5520 MHz	128	5640 MHz
	106	5530 MHz	132	5660 MHz
5470~5725 MHz	108	5540 MHz	134	5670 MHz
5470~5725 MH2 Band 3	110	5550 MHz	136	5680 MHz
Dallu 3	112	5560 MHz	138	5690 MHz
	116	5580 MHz	140	5700 MHz
	118	5590 MHz	142	5710 MHz
	120	5600 MHz	144	5720 MHz
	122	5610 MHz	-	-

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1.1.4 Table for Multiple Listing

The EUT has two market sale set which are identical to each other in all aspects except for the following table:

Brand Name	Model Name	Unit	Part Number	Adapter	RJ-45 cable
Nokia	HV 030/V/ B	KIT_HA-020W-B	3FE 47855 AA	V	V
NONIA	Nokia HA-020W-B	EMA_HA-020W-B	3FE 47856 AA	-	-

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From the above table, model: HA-020W-B for unit: KIT_HA-020W-B was selected as representative model for the test and its data was recorded in this report.

1.1.5 Table for Class II Change

This product is an extension of original one reported under Sporton project number: 921805 Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Adding Band 2 and Band 3 (5250~5350 MHz, 5470~5725	All test items
MHz) for this device.	All test items.

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1.2 Accessories

	Accessories					
Equipment Name	Brand Holder	Model Name	Rating			
Adapter 1	SHENZHEN RUIDE ELECTRONICAL INDUSTRIAL CO., LTD	RD1201000-C55-26MG	Input: 100-240V~50/60Hz, 0.6A MAX Output: 12V, 1A			
Adapter 2	DONGGUAN SHILONG FUHUA ELECTRONIC CO., LTD	UES12LU-120100SPA	Input: 100-240V~50/60Hz, 0.5A Output: 12.0V, 1.0A			
	Other					
RJ-45 Cable	*1: Non-Shielded, 1m					

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1.3 Support Equipment

	Support Equipment					
No.	No. Equipment Brand Name Model Name FCC ID					
Α	Notebook	DELL	E4300	N/A		
В	Notebook	DELL	E4300	N/A		
L	WLAN Dongle	LINKSYS	AE6000	Q87-AE6000		

1.4 Testing Applied Standards

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

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

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1.5 Testing Location Information

	Testing Location								
	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)							
	TEL : 886-3-327-3456								
\boxtimes	JHUBEI	IUBEI ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.							
		TEL	:	886-3-656-906	5 FAX :	886-3-656-9085			
Tes	t Condition	Т	est	Site No.	Test Engineer	Test Environment	Test Date		
	OFS Site	DF01-CB (For others mode test)			Jay Luo	22~24°C / 50~60%	Apr. 15, 2019 ~ Apr. 17, 2019		
·	on onto	DF01-CB (For Mesh mode test)			Nyle Chang	22~24°C / 50~60%	Apr. 17, 2019 ~ Apr. 26, 2019		

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Test site Designation No. TW0006 with FCC

Test site registered number IC 4086B with Industry Canada.

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2 Test Configuration of EUT

2.1 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration					
IEEE Std.	Test Channel Freq. (MHz)				
802.11ac (VHT20)	5500 MHz				
802.11ac (VHT40)	5510 MHz				
802.11ac (VHT80)	5530 MHz				

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2.2 The Worst Case Measurement Configuration

Th	The Worst Case Mode for Following Conformance Tests							
Tests Item	Dyn	Dynamic Frequency Selection (DFS)						
Test Condition	The sett gair test	liated measurement EUT shall be configured to operate at the highest transmitter output power ing. If more than one antenna assembly is intended for this power setting, the of the antenna assembly with the lowest gain shall be used. The DFS radar signals have been aligned to the direction corresponding to the EUT's kimum antenna gain.						
Modulation Mode	802	.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80)						
Test Mode	1 Router Mode							
. ss. mode	2	2 Mesh Mode						

Note: Mesh mode, only Statistical Performance Check (Section 7.8.4) on one of the radar types is required to perform.

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3 Dynamic Frequency Selection (DFS) Test Result

3.1 General DFS Information

3.1.1 DFS Parameters

Table D.1: DFS requirement values						
Parameter	Value					
Non-occupancy period	Minimum 30 minutes					
Channel Availability Check Time	60 seconds					
Channel Move Time	10 seconds (Note 1).					
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second periods. (Notes 1 and 2).					
U-NII Detection Bandwidth	Minimum 100% of the 99% power bandwidth (Note 3).					

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- 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 Channel changes (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 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

Table D.2: Interference threshold values						
Maximum Transmit Power	Value (see note)					
EIRP≥200 mW	-64 dBm					
EIRP < 200 mW and PSD < 10dBm/MHz	-62 dBm					
EIRP < 200 mW and PSD >= 10dBm/MHz	-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 662911D01.

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3.1.2 Applicability of DFS Requirements Prior to Use of a Channel

	DFS Operational mode					
Requirement	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			

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3.1.3 Applicability of DFS Requirements during Normal Operation

	DFS Operational mode					
Requirement	Master	Client without radar detection	Client with radar detection			
DFS Detection Threshold	Yes	Not required	Yes			
Channel Closing Transmission Time	Yes	Yes	Yes			
Channel Move Time	Yes	Yes	Yes			
U-NII Detection Bandwidth	Yes	Not required	Yes			

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.

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3.1.4 User Access Restrictions

User Access Restrictions

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

3.1.5 Channel Loading/Data Streaming

	The data file (MPEG-4) has been transmitting in a streaming mode.
\boxtimes	Software to ping the client is permitted to simulate data transfer with random ping intervals.
\boxtimes	Minimum channel loading of approximately 17%.
	Unicast protocol has been used.

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3.2 Radar Test Waveform Calibration

3.2.1 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1A	1	15 unique PRI in KDB 905462 D02 Table 5a	[(1) (19×10 ⁶)]	60%	15
1B	1	15 unique PRI within 518-3066, Excluding 1A PRI	$Roundup \left\{ \left(\frac{1}{360} \right) \times \left(\frac{19 \times 10^6}{PRI} \right) \right\}$	60%	15
2	1-5	150-230	23-29	60%	30
3	3 6-10 200-500		16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggrega	ate (Radar Type	80%	120		

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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 1 through 4. If more than 30 waveforms are used for short pulse radar types 1 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.

3.2.2 Long Pulse Radar Test Waveform

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

Each waveform is defined as follows:

- The transmission period for the Long Pulse Radar test signal is 12 seconds.
- There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
- Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a transmission period will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and

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- ends at 5310 MHz.
- If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.

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• The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst Count. Each interval is of length (12,000,000 / Burst Count) microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and [(12,000,000 / Burst Count) – (Total Burst Length) + (One Random PRI Interval)] microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

3.2.3 Frequency Hopping Radar Test Waveform

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

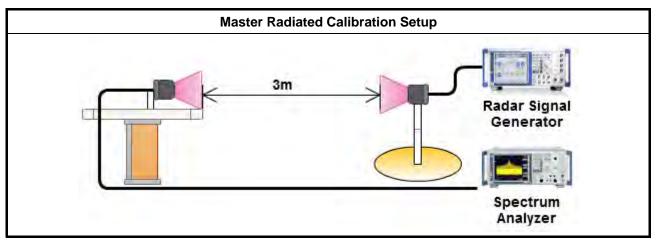
The FCC Type 6 waveform uses a static waveform with 100 bursts in the instruments ARB. In addition, the RF list mode is operated with a list containing 100 frequencies from a randomly generated list and it had be ensured that at least one of the random frequencies falls into the UNII Detection Bandwidth of the DUT. Each burst from the waveform file initiates a trigger pulse at the beginning that switches the RF list from one item to the next one.

3.2.4 DFS Threshold Level

DFS Threshold Level							
DFS Threshold level: -63 dBm	at the antenna connector						
	in front of the antenna						
The Interference Radar Detection Threshold Level is is -64 dBm + 0 [dBi] + 1 dB = -63 dBm. That had been taken into account the output power range and antenna gain.							

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3.2.5 Calibration Setup

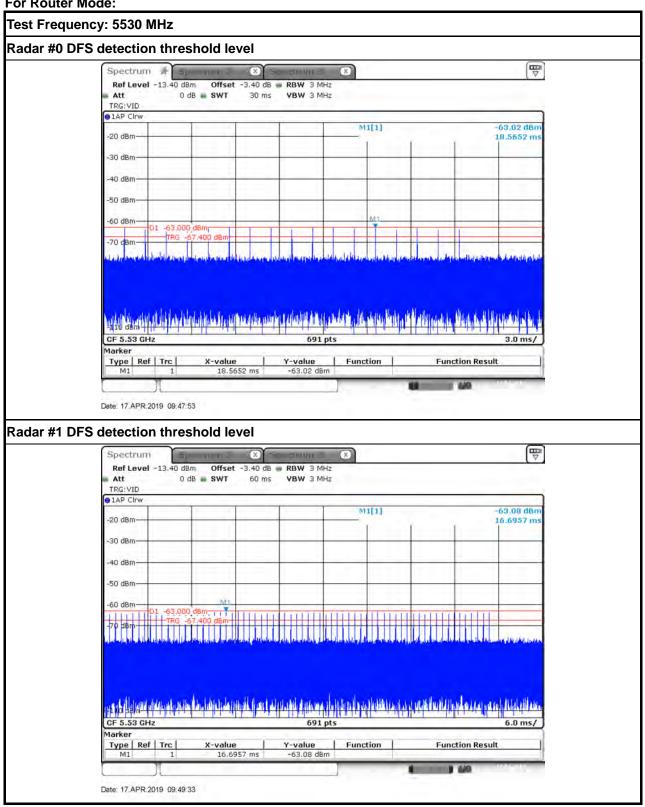


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Radar Waveform calibration Plot 3.2.6

For Router Mode:

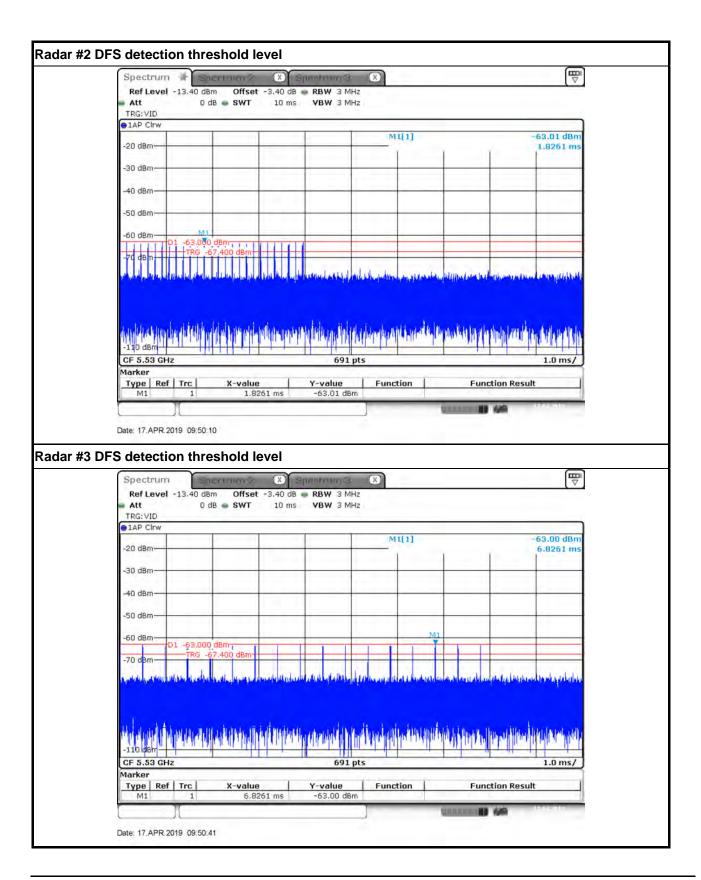


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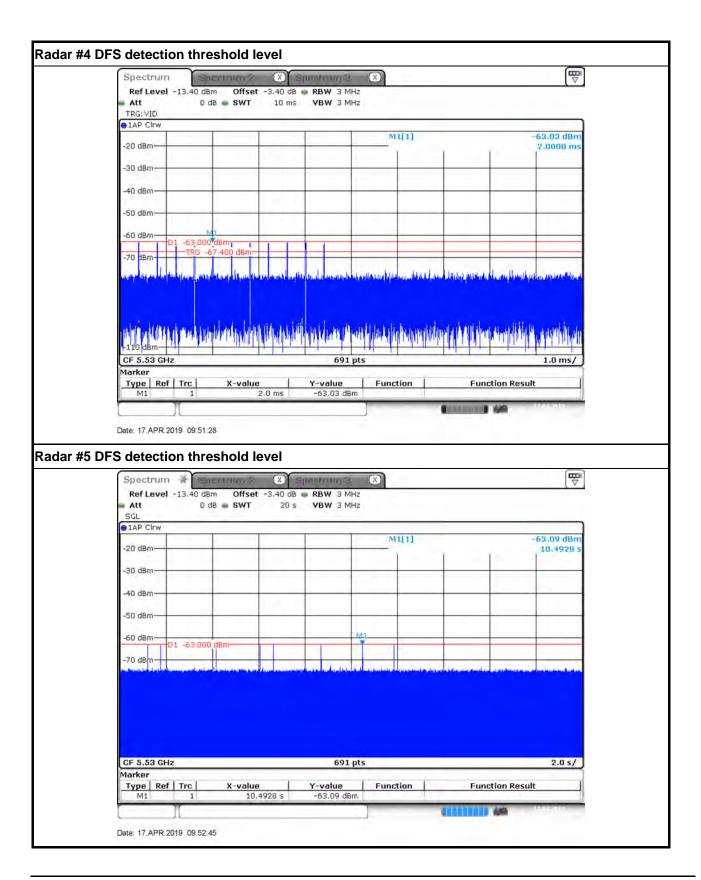
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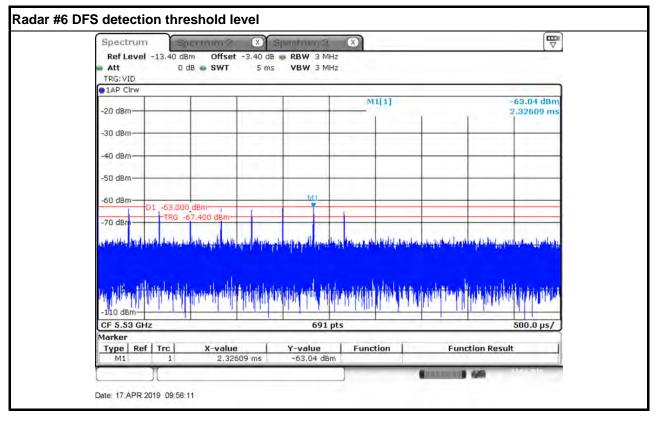
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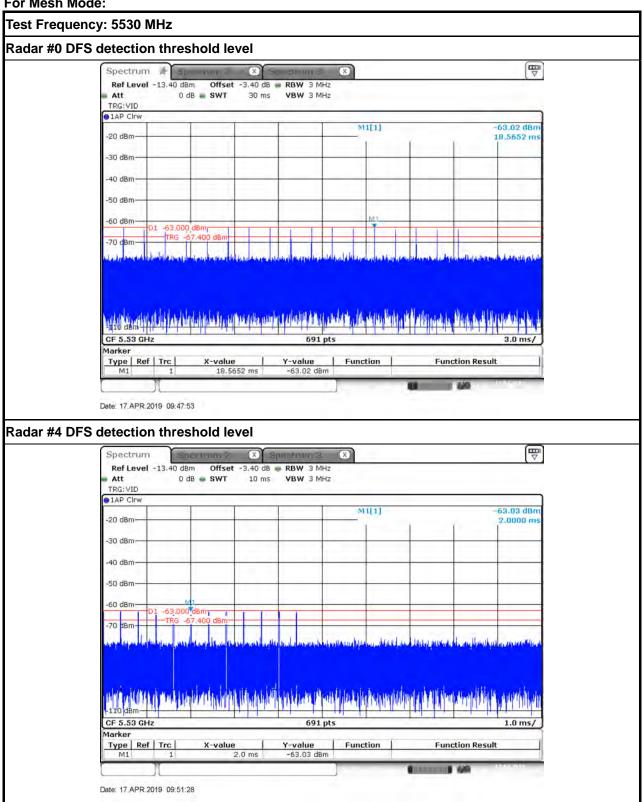
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For Mesh Mode:



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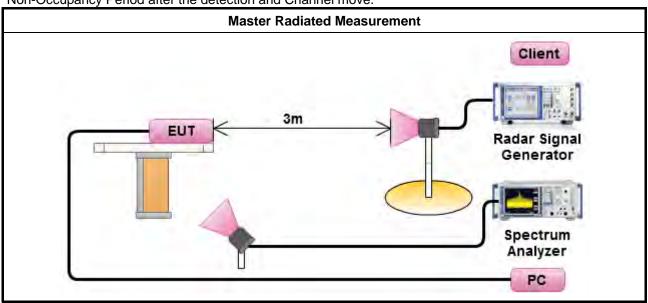
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Report Version : 01 Report Template No.: CB Ver1.0

3.2.7 Test Setup

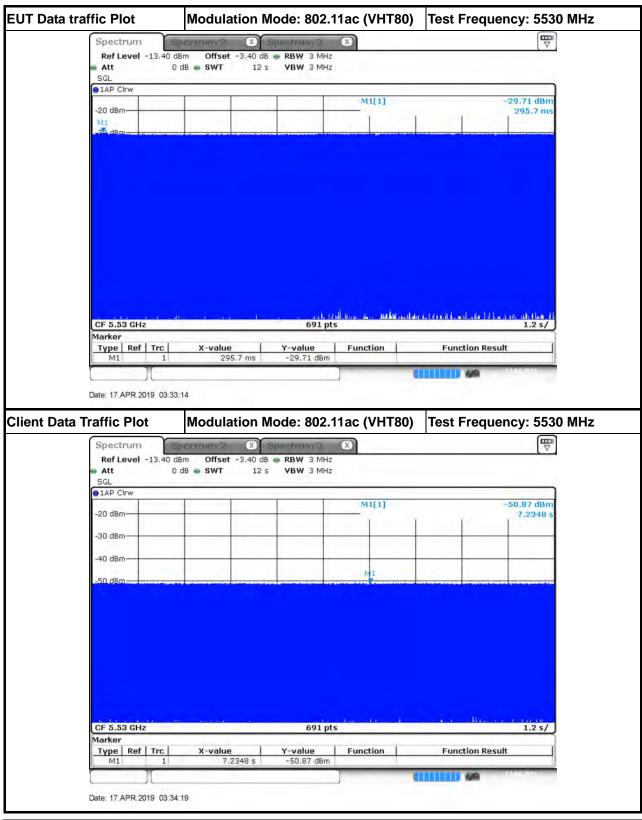
A spectrum analyzer is used as a monitor to verify that the EUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move.

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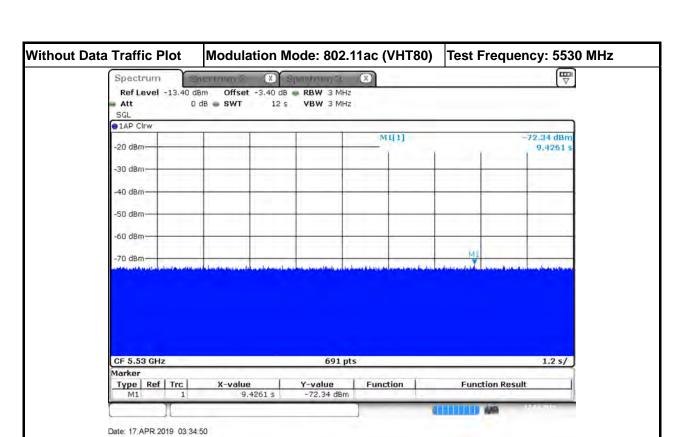
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3.2.8 Data traffic Plot



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3.3 UNII Detection Bandwidth

3.3.1 UNII Detection Bandwidth Limit

Channel Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	UNII Detection Bandwidth Min. Limit (MHz)
20	17.800	18
40	36.903	37
80	75.832	76

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UNII Detection Bandwidth is minimum 100% of the 99% power bandwidth. A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time.

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method

During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic. The EUT is set up as a standalone device (no associated Client and no traffic). The radar frequency is increased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The highest frequency at which detection is greater than or equal to 90% is denoted as F_H. The radar frequency is decreased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The lowest frequency at which detection is greater than or equal to 90% is denoted as F_L. UNII Detection Bandwidth = F_H - F_L.

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3.3.4 Test Result of UNII Detection Bandwidth

EUT Frequency=5500 MHz											
Channel Bandwidth (MHz)	20										
		DFS Detection Trials (1=Detection, 0= No Detection)						Detection)			
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490	0	0	0	0	0	0	0	0	0	0	0
5491(FL)	1	0	1	1	1	1	1	1	1	1	90
5492	1	1	1	1	1	1	1	1	1	1	100
5493	1	1	1	1	1	1	1	1	1	1	100
5494	1	1	1	1	1	1	1	1	1	1	100
5495	1	1	1	1	1	1	1	1	1	1	100
5500	1	1	1	1	1	1	1	1	1	1	100
5505	1	1	1	1	1	1	1	1	1	1	100
5506	1	1	1	1	1	1	1	1	1	1	100
5507	1	1	1	1	1	1	1	1	1	1	100
5508	1	1	1	1	1	1	1	1	1	1	100
5509(FH)	1	1	1	0	1	1	1	1	1	1	90
5510 0 0 0 0 0 0 0 0 0							0	0			
Radar Type 0-Detection Bandwidth (MHz) = (FH-FL) = (5509MHz-5491MHz)=								18			
UNII Detection Bandwidth Min. Limit (MHz) =								18			
Test Result								Complied			

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	FU	T Fre	aller	icv=F	510	MHz					
Channel Bandwidth (MHz)	40		quei	ioy-c	,010	VIII 12					
Chamier Bandwidth (Wi12)	DFS Detection Trials (1=Detection, 0= No I									Detection)	
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490	0	0	0	0	0	0	0	0	0	0	0
5491(FL)	1	1	1	1	1	0	1	1	1	1	90
5492	1	1	1	1	1	1	1	1	1	1	100
5493	1	1	1	1	1	1	1	1	1	1	100
5494	1	1	1	1	1	1	1	1	1	1	100
5495	1	1	1	1	1	1	1	1	1	1	100
5500	1	1	1	1	1	1	1	1	1	1	100
5505	1	1	1	1	1	1	1	1	1	1	100
5510	1	1	1	1	1	1	1	1	1	1	100
5515	1	1	1	1	1	1	1	1	1	1	100
5520	1	1	1	1	1	1	1	1	1	1	100
5525	1	1	1	1	1	1	1	1	1	1	100
5526	1	1	1	1	1	1	1	1	1	1	100
5527	1	1	1	1	1	1	1	1	1	1	100
5528	1	1	1	1	1	1	1	1	1	1	100
5529(FH)	1	1	1	1	1	1	1	1	1	0	90
5530 0 0 0 0 0 0 0 0 0									0		
Radar Type 0-Detection Bandwidth (MHz) = (FH-FL) = (5529MHz-5491MHz)=									38		
UNII Detection Bandwidth Min. Limit	UNII Detection Bandwidth Min. Limit (MHz) =								37		
Test Result	, ,						Complied				

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	EU	T Fre	auer	icv=5	530	MHz					
Channel Bandwidth (MHz)	80		. quo.	,		····-					
		DF	S De	tecti	on Tr	ials (1=De	tecti	on. 0	= No	Detection)
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490	0	0	0	0	0	0	0	0	0	0	0
5491(FL)	1	1	1	1	1	0	1	1	1	1	90
5492	1	1	1	1	1	1	1	1	1	1	100
5495	1	1	1	1	1	1	1	1	1	1	100
5500	1	1	1	1	1	1	1	1	1	1	100
5505	1	1	1	1	1	1	1	1	1	1	100
5510	1	1	1	1	1	1	1	1	1	1	100
5515	1	1	1	1	1	1	1	1	1	1	100
5520	1	1	1	1	1	1	1	1	1	1	100
5525	1	1	1	1	1	1	1	1	1	1	100
5530	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5567	1	1	1	1	1	1	1	1	1	1	100
5568	1	1	1	1	1	1	1	1	1	1	100
5569(FH)	1	1	1	1	1	1	1	0	1	1	90
5570 0 0 0 0 0 0 0 0 0									0		
Radar Type 0-Detection Bandwidth (I	Radar Type 0-Detection Bandwidth (MHz) = (FH-FL) = (5569MHz-5491MHz)=									78	
UNII Detection Bandwidth Min. Limit	(MHz) =									76
Test Result	\								Complied		

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3.4 Channel Availability Check (CAC)

3.4.1 Channel Availability Check Limit

Channel Availability Check Limit

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The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute (60 sec) on the intended operating frequency.

3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method

- For Initial Channel Availability Check Time. The EUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the UNII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.
- For Radar Burst at the Beginning of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the Beginning of the Channel Availability Check Time.
- For Radar Burst at the End of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the End of the Channel Availability Check Time.

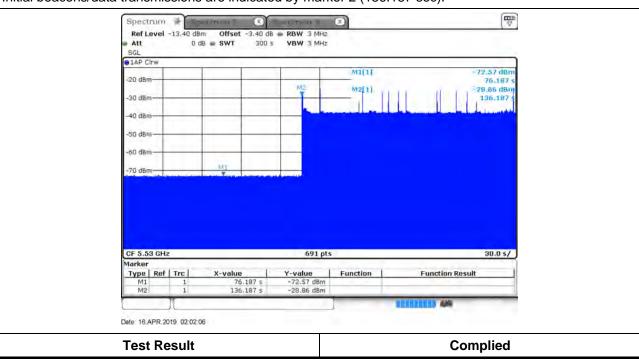
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3.4.4 Test Result of Initial Channel Availability Check Time

Modulation Mode	Freq.	Radar Test Signal
802.11ac (VHT80)	5530 MHz	N/A

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The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (76.187 sec). The initial CAC time of the EUT is indicated by marker 1 (76.187 sec). Initial beacons/data transmissions are indicated by marker 2 (136.187 sec).



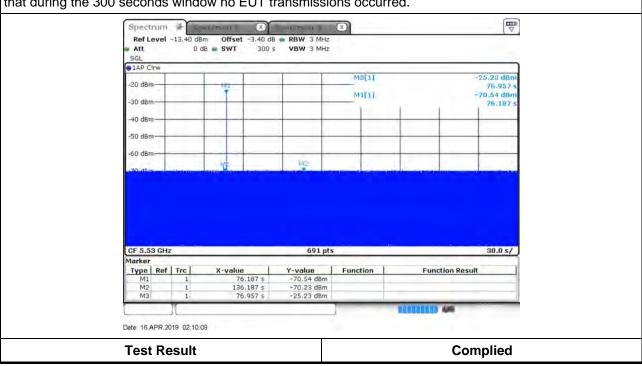
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3.4.5 Test Result of Radar Burst at the Beginning of the Channel Availability Check Time

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Modulation Mode	Freq. (MHz)	Radar Type Signal
802.11ac (VHT80)	5530 MHz	0

Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 223.043 secondsafter the radar Burst has been generated. Verify that during the 300 seconds window no EUT transmissions occurred.



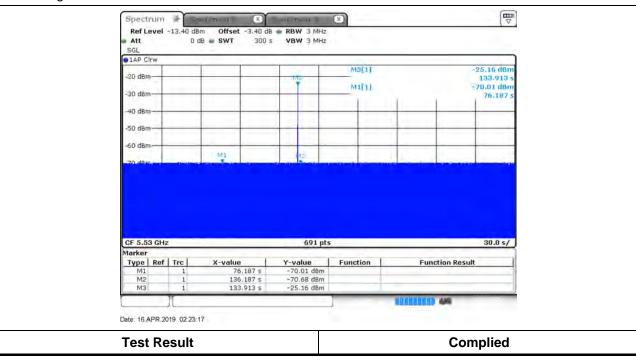
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3.4.6 Test Result of Radar Burst at the End of the Channel Availability Check Time

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Modulation Mode	Freq. (MHz)	Radar Type Signal
802.11ac (VHT80)	5530 MHz	0

Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 166.087 seconds after the radar Burst has been generated. Verify that during the 300 seconds measurement window no EUT transmissions occurred.



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3.5 In-service Monitoring

3.5.1 In-service Monitoring Limit

In-service Monitoring Limit						
Channel Move Time	10 sec					
Channel Closing Transmission Time	200 ms + an aggregate of 60 ms over remaining 10 sec periods.					
Non-occupancy period	Minimum 30 minutes					

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3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method

- ✓ Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time limits.
- ✓ Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. One 12 sec plot needs to be reported for the Short Pulse Radar Types 0 And zoom-in a 60 ms plot verified channel closing time for the aggregate transmission time starting from 200ms after the end of the radar signal to the completion of the channel move.
- ✓ Verified during In-Service Monitoring; Non-Occupancy Period. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Non-Occupancy Period). Compare the Non-Occupancy Period limits.

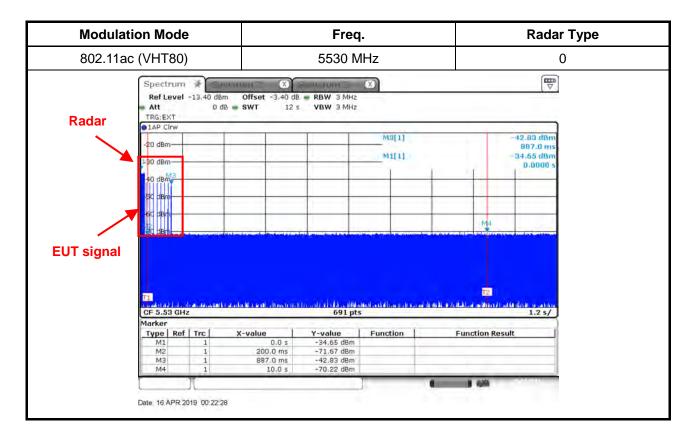
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3.5.4 Test Result of Channel Move Time

Modulation Mode: 802.11ac (VHT80)

Parameter	Test Result	Limit
Farameter	Туре 0	Lillit
Test Channel (MHz)	5530 MHz	-
Channel Move Time (sec.)	0.887	< 10s

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3.5.5 Test Result of Channel Closing Transmission Time

Modulation Mode: 802.11ac (VHT80)

Parameter	Test Result	Limit	
Farameter	Туре 0		
Test Channel (MHz)	5530 MHz	-	
Channel Closing Transmission Time (ms) (Note)	20.289	< 60ms	

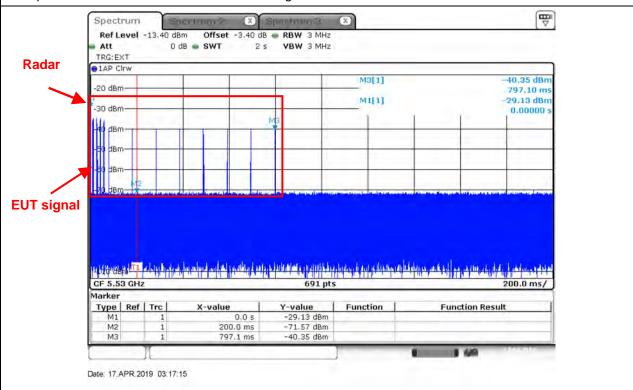
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Note: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

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Modulation Mode	Freq.	Radar Type
802.11ac (VHT80)	5530 MHz	0

Channel Closing Transmission Time is comprised of 200 ms starting at the beginning of the Channel Move Time plus 60ms additional intermittent control signals



Dwell is the dwell time per spectrum analyzer sampling bin.

S is the sweep time

B is the number of spectrum analyzer sampling bins

C is the intermittent control signals of Channel Closing Transmission Time

N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission

Dwell (2.9 ms)= S (2000 ms) / B (690)

C (20.289 ms) = N (7) X Dwell (2.9 ms)

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3.5.6 Test Result of Non-Occupancy Period

Modulation Mode: 802.11ac (VHT80)

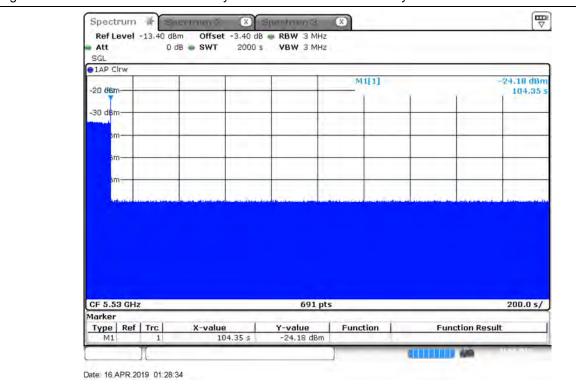
Parameter	Test Result	- Limit	
Farameter	Туре 0		
Test Channel (MHz)	5530 MHz	-	
Non-Occupancy Period (min.)	≥30	≥ 30 min	

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Modulation Mode	Freq.
802.11ac (VHT80)	5530 MHz

Non-Occupancy Period

During the 30 minutes observation time, UUT did not make any transmissions on a channel after a radar signal was detected on that channel by either the Channel Availability Check or the In-Service Monitoring.



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3.6 **Statistical Performance Check**

3.6.1 Statistical Performance Check Limit

Radar Type	Minimum Percentage of Successful Detection (Pd)	Minimum Trials
1	60%	30
2	60%	30
3	60%	30
4	60%	30
Aggregate (Radar Types 1-4)	80%	120
5	80%	30
6	70%	30

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The percentage of successful detection is calculated by:

 $\frac{TotalWaveformDetections}{-} \times 100 = Probability of Detection Radar Waveform$ TotalWaveformTrails

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

Pd1 + Pd2 + Pd3 + Pd4

3.6.2 **Measuring Instruments**

Refer a test equipment and calibration data table in this test report.

3.6.3 **Test Procedures**

Test Method

For Statistical Performance Check test. Demonstrating a minimum channel loading of approximately 17% or greater of the test. Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 1-4 and 6 to ensure detection occurs. Then 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. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.

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3.6.4 Test Result of Statistical Performance Check

Test Mode: Router Mode

Modulation Mode: 802.11ac (VHT20)

Type 1 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5507	1	1930.5	518	1
2	5508	23	326.2	3066	1
3	5508	19	1139.0	878	1
4	5495	12	1355.0	738	1
5	5507	4	1730.1	578	1
6	5498	8	1519.8	658	1
7	5491	15	1253.1	798	1
8	5493	6	1618.1	618	1
9	5507	14	1285.3	778	0
10	5503	3	1792.1	558	1
11	5497	13	1319.3	758	1
12	5504	9	1474.9	678	1
13	5507	7	1567.4	638	1
14	5508	17	1193.3	838	1
15	5500	10	1432.7	698	1
16	5504	-	1692.0	591	1
17	5499	-	328.1	3048	1
18	5494	-	373.4	2678	0
19	5505	-	574.4	1741	1
20	5500	-	1216.5	822	1
21	5506	-	801.3	1248	0
22	5497	-	488.5	2047	1
23	5493	-	956.0	1046	1
24	5491	-	517.6	1932	1
25	5497	-	1422.5	703	1
26	5501	-	542.0	1845	1
27	5494	-	741.3	1349	1
28	5500	-	881.8	1134	1
29	5502	-	427.4	2340	1
30	5507	-	628.9	1590	1
		Detection Percentage	(%)		90.000
Limit					60%
Test Res	ult				Complied

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Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5507	2.6	221	23	1
2	5508	4.6	198	27	1
3	5508	1.1	184	29	1
4	5495	4.8	203	24	1
5	5507	2.4	162	25	1
6	5498	3.4	204	28	1
7	5491	2.3	170	27	1
8	5493	3.5	184	23	1
9	5507	4.9	150	27	1
10	5503	4.6	211	29	1
11	5497	2.9	158	23	1
12	5504	2.6	226	27	1
13	5507	1.6	204	26	1
14	5508	3.9	181	25	0
15	5500	4.6	202	24	1
16	5504	4.1	194	27	1
17	5499	2.3	193	28	1
18	5494	3.9	173	29	1
19	5505	4.3	188	23	0
20	5500	1.5	215	26	1
21	5506	4.9	227	27	1
22	5497	1.1	199	23	1
23	5493	4.5	155	29	1
24	5491	4.0	190	27	1
25	5497	2.4	151	23	1
26	5501	2.5	180	28	1
27	5494	2.5	228	23	0
28	5500	2.5	203	25	1
29	5502	1.5	188	25	1
30	5507	1.9	217	24	1
Detection Percentage (%)					90.000
Limit	60%				
Test Res	est Result				

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Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection; 0=No Detection
1	5507	8.0	205	16	1
2	5508	6.7	382	18	1
3	5508	8.6	418	16	1
4	5495	9.4	351	17	0
5	5507	7.4	383	18	1
6	5498	9.8	232	16	1
7	5491	9.1	377	17	1
8	5493	9.6	457	16	1
9	5507	8.0	471	18	1
10	5503	9.0	304	18	1
11	5497	8.0	316	17	1
12	5504	9.8	325	16	1
13	5507	8.0	409	17	1
14	5508	9.9	200	17	1
15	5500	8.8	458	16	1
16	5504	8.0	232	18	1
17	5499	8.3	250	16	1
18	5494	8.7	270	16	1
19	5505	7.7	350	17	0
20	5500	7.1	230	16	1
21	5506	7.3	416	18	1
22	5497	7.6	498	18	1
23	5493	7.3	286	17	1
24	5491	7.3	287	16	1
25	5497	7.5	462	17	1
26	5501	6.2	300	17	1
27	5494	6.4	323	18	1
28	5500	7.1	420	16	1
29	5502	7.2	395	18	1
30	5507	8.4	377	16	1
Detection Percentage (%)					93.333
_imit					60%
est Res	Complied				

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Ty	pe 4	Radar	Statistical	Performance
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Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5507	18.0	242	15	1
2	5508	19.9	279	12	1
3	5508	12.9	487	14	1
4	5495	15.0	452	13	1
5	5507	16.3	230	12	1
6	5498	19.8	238	13	1
7	5491	18.2	420	16	1
8	5493	16.3	452	15	1
9	5507	14.2	495	12	1
10	5503	17.8	228	16	1
11	5497	19.1	211	16	1
12	5504	18.4	283	15	1
13	5507	11.8	411	12	1
14	5508	14.2	284	13	1
15	5500	13.9	202	12	1
16	5504	17.8	340	14	1
17	5499	15.6	290	16	1
18	5494	14.6	250	16	1
19	5505	14.4	484	15	1
20	5500	18.9	387	13	1
21	5506	11.1	348	15	0
22	5497	13.8	291	16	1
23	5493	14.3	295	12	1
24	5491	12.5	300	12	0
25	5497	12.5	322	14	1
26	5501	12.5	383	13	1
27	5494	15.7	322	16	1
28	5500	19.8	469	13	1
29	5502	18.6	406	15	1
30	5507	15.9	238	14	1
Detection Percentage (%)					93.333
Limit		60%			
Test Resi	ult	Complied			

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Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	90.000
2	90.000
3	93.333
4	93.333
Aggregate (Radar Types 1-4)	91.667
Limit	80%
Test Result	Complied

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Type 5 Radar Statistical Performance

Center Freq. (MHz)	Low Edge (MHz)	High Edge (MHz)		
5500	5491	5509	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	2	5500	1
2	20	8	5500	1
3	7	2.8	5500	1
4	8	3.2	5500	1
5	9	3.6	5500	1
6	10	4	5500	1
7	11	4.4	5500	1
8	12	4.8	5500	1
9	13	5.2	5500	1
10	14	5.6	5500	1
11	15	6	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8	5499	0
15	19	7.6	5499	1
16	18	7.2	5498	1
17	17	6.8	5498	1
18	16	6.4	5497	1
19	15	6	5497	1
20	14	5.6	5497	1
21	13	5.2	5503	1
22	12	4.8	5504	1
23	11	4.4	5504	1
24	10	4	5505	1
25	9	3.6	5505	1
26	8	3.2	5505	1
27	18	7.2	5506	1
28	19	7.6	5502	1
29	20	8	5501	0
30	5	2 otal	5501	0
	27			
	90%			
imit				80%
est Result				Complied

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Trial Number	f			1				
Number of B	ursts in Trial			8				
Chirp Center Frequency				5500				
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	1	62.1	5	-	-	1091		
2	2	56	5	1729	-	133		
3	2	91.3	5	1230	-	1057		
4	3	50.7	5	1762	1616	1442		
5	2	92.6	5	1723	-	544		
6	2	87.3	5	1302	-	1089		
7	2	59.5	5	1291	-	1374		
8	2	52.2	5 1653 - 1237					
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number			2			
Number of Bur	sts in Trial		9			
Chirp Center Frequency				55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	3	90	20	1007	1326	30
2	2	73.7	20	1785	-	979
3	1	78.1	20	-	-	683
4	2	92.4	20	1281	-	950
5	1	61.2	20	-	-	612
6	3	67.2	20	1525	1870	17
7	1	78.5	20	-	-	429
8	2	60.3	20	1931	-	936
9	3	92.9	20	1403	1476	548
Detection Chec	k (1=Detection; 0	=No Detection)				1

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Trial Number	•		3					
Number of B	ursts in Trial			10				
Chirp Center Frequency				55	00			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)		
1	3	63.4	7	1574	1607	801		
2	1	98	7	-	-	966		
3	1	58.7	7	-	-	185		
4	1	88	7	-	-	1012		
5	3	79.5	7	1562	1370	943		
6	3	57.1	7	1900	1188	686		
7	2	64.4	7	1090	-	599		
8	1	78.7	7	-	-	1089		
9	1	69.3	7	-	-	188		
10	3	55.3	7	1375	1691	933		
Detection Che	eck (1=Detection; 0	=No Detection)	•	•	•	1		

Trial Number			4			
Number of Bur	rsts in Trial		11			
Chirp Center F	requency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	2	74.3	8	1642	-	24
2	1	83.1	8	-	-	985
3	2	59.5	8	1680	-	988
4	2	59.8	8	1786	-	800
5	2	77.6	8	1617	-	339
6	2	79.9	8	1553	-	1040
7	1	56	8	-	-	544
8	3	71.4	8	1406	1927	452
9	1	97.4	8	-	•	204
10	2	98.3	8	1037	-	926
11	1	63.6	8	-	-	1052
Detection Chec	k (1=Detection; 0	=No Detection)				1

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Trial Number	•			5				
Number of B	ursts in Trial		12					
Chirp Center	Frequency			55	00			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)		
1	1	50	9	-	-	557		
2	2	62.5	9	1731	-	567		
3	2	55.4	9	1070	-	460		
4	1	65.7	9	-	-	4		
5	2	58	9	1512	-	64		
6	2	60.9	9	1230	-	650		
7	3	89.6	9	1598	1738	235		
8	3	84.4	9	1271	1617	873		
9	3	72.3	9	1498	1321	901		
10	1	58.9	9	-	-	663		
11	2	74.8	9	1584	-	919		
12	1	71.8	9	-	-	375		
Detection Che	eck (1=Detection; 0	=No Detection)	•	•	•	1		

Trial Number	rial Number			6			
Number of Bu	rsts in Trial		13				
Chirp Center F	Chirp Center Frequency			55	00		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	88.1	10	1257	-	846	
2	1	58.7	10	-	-	725	
3	2	97.1	10	1037	-	30	
4	3	83.1	10	1029	1106	490	
5	1	62.1	10	-	-	262	
6	2	71.4	10	1058	-	283	
7	2	86.3	10	1867	-	49	
8	3	77.3	10	1418	1876	634	
9	1	78.9	10	-	-	304	
10	3	79.2	10	1055	1572	564	
11	3	52	10	1582	1836	852	
12	3	56.5	10	1195	1542	525	
13	3	100	10	1638	1729	750	
Detection Chec	ck (1=Detection; 0	=No Detection)				1	

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Trial Numbe	•			7	7		
Number of B	ursts in Trial		14				
Chirp Center	Frequency			55	00		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	92.7	11	1208	-	231	
2	2	81.3	11	1144	-	804	
3	2	60.4	11	1555	-	34	
4	2	62.1	11	1320	-	427	
5	1	50	11	-	-	577	
6	3	65.9	11	1020	1365	3	
7	2	73.8	11	1308	-	51	
8	2	74.3	11	1143	-	360	
9	1	62.9	11	-	-	394	
10	2	74.8	11	1404	-	317	
11	2	69.7	11	1309	-	532	
12	2	69.8	11	1688	-	339	
13	2	77.4	11	1857	-	381	
14	1	55.1	11	-	-	426	
Detection Ch	eck (1=Detection; 0	=No Detection)				1	

Trial Number			8			
Number of Bu	rsts in Trial		15			
Chirp Center I	Frequency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	1	91.7	12	-	-	776
2	2	90	12	1196	-	187
3	3	92.3	12	1486	1853	448
4	2	66.8	12	1545	-	702
5	1	64	12	-	-	403
6	3	95.4	12	1123	1473	230
7	3	66.8	12	1867	1401	604
8	3	67.7	12	1472	1397	38
9	1	68.2	12	-	-	735
10	2	82.2	12	1297	-	610
11	1	92.1	12	-	-	618
12	2	57	12	1764	-	705
13	2	58.5	12	1310	-	22
14	3	85.5	12	1630	1447	641
15	2	82.2	12	1371	-	109
Detection Ched	ck (1=Detection; C	=No Detection)			·	1

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2

Detection Check (1=Detection; 0=No Detection)

89.7

Trial Number				Ç	9			
Number of B	ursts in Trial			16				
Chirp Center	Frequency			55	00			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Locati (MHz) Spacing (us) Spacing (us) Withi Interval					
1	2	74.4	13	1707	-	442		
2	2	63.6	13	1725	-	280		
3	2	71.3	13	1704	-	459		
4	3	77.6	13	1063	1405	197		
5	3	65.2	13	1731	1294	101		
6	3	55.1	13	1109	1549	17		
7	2	96.8	13	1034	-	131		
8	3	80.8	13	1533	1051	365		
9	1	60.4	13	-	-	222		
10	2	61.8	13	1312	-	371		
11	2	71.3	13	1657	-	33		
12	2	98.1	13	1024	-	291		
13	1	57.9	13	-	-	188		
14	1	91.8	13	-	-	163		
15	2	56.7	13	1259	-	426		

13

1690

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ial Numbeı	r			10				
ımber of B	ursts in Trial		17					
nirp Center	Frequency			5500				
			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	74.4	14	1107	-	462		
2	1	87.6	14	-	-	653		
3	2	61.7	14	1741	-	457		
4	2	57.5	14	1566	-	388		
5	2	66.1	14	1855	-	63		
6	3	70.1	14	1044	1012	136		
7	1	66.4	14	-	-	343		
8	1	59.2	14	-	-	349		
9	2	88.3	14	1240	-	362		
10	1	64.7	14	-	-	221		
11	2	73	14	1703	-	144		
12	2	81.7	14	1450	-	671		
13	3	70.1	14	1741	1278	320		
14	1	63.6	14	-	-	196		
15	1	58.7	14	-	-	413		
16	2	65.9	14	1478	-	170		

72.7

Detection Check (1=Detection; 0=No Detection)

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Detection Check (1=Detection; 0=No Detection)

Trial Number	•			1	1		
Number of B	ursts in Trial		18				
Chirp Center	hirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	

15

15

88.5

60.6

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18

19

1

Detection Check (1=Detection; 0=No Detection)

ial Numbeı	r			12				
ımber of B	ursts in Trial		19					
nirp Center	Frequency			5497				
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	90.5	16	1299	-	381		
2	2	88.4	16	1418	-	327		
3	2	53.7	16	1055	-	536		
4	1	80.5	16	-	-	285		
5	1	50.4	16	-	-	398		
6	2	61.2	16	1749	-	439		
7	2	78.8	16	1065	-	129		
8	3	75	16	1748	1820	325		
9	2	96.7	16	1254	-	440		
10	3	76.3	16	1848	1106	397		
11	1	73.3	16	-	-	232		
12	2	92.4	16	1317	-	91		
13	2	92.4	16	1854	-	256		
14	3	64.4	16	1240	1634	582		
15	2	67.3	16	1473	-	117		
16	2	84.1	16	1795	-	202		

16

16

16

1805

80.9

74.6

97.6

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396

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Detection Check (1=Detection; 0=No Detection)

Trial Number	r			1	3			
Number of P	Bursts in Trial			20				
Chirp Center	r Frequency			54	98			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	66.1	17	1417	-	388		
2	2	86.7	17	1693	-	348		
3	2	70.5	17	1263	-	215		
4	2	78	17	1446	-	28		
5	2	66	17	1185	-	585		
6	2	80.6	17	1855	-	65		
7	1	95.5	17	-	-	92		
8	1	98.8	17	-	-	68		
9	3	64.3	17	1641	1108	517		
10	1	75.1	17	-	-	121		
11	2	72.6	17	1499	-	448		
12	1	60.3	17	-	-	567		
13	2	54.9	17	1056	-	245		
14	2	98.8	17	1023	-	584		
15	2	60.9	17	1243	-	579		
16	2	62.7	17	1226	-	464		
17	1	80.1	17	-	-	89		
18	2	70.9	17	1711	-	153		
19	1	90.7	17	-	-	282		
20	1	98.9	17	-	-	71		

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Trial Number			14				
Number of Bu	Number of Bursts in Trial Chirp Center Frequency			8	3		
Chirp Center				54	.99		
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	67.5	20	1542	-	947	
2	3	83.6	20	1272	1696	124	
3	2	93.2	20	1877	-	701	
4	1	55.6	20	-	-	1123	
5	3	84.2	20	1733	1619	756	
6	3	69.1	20	1612	1071	1	
7	2	66.9	20	1905	-	7	
8	3	86.8	20 1697 1621 1082				
Detection Che	ck (1=Detection; 0	=No Detection)				0	

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Trial Number	•		15					
Number of B	Number of Bursts in Trial Chirp Center Frequency			9				
Chirp Center				54	.99			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)				
1	2	62.2	19	1571	-	949		
2	2	85	19	1669	-	189		
3	2	64.5	19	1505	-	176		
4	2	50.4	19	1325	-	538		
5	2	66.1	19	1483	-	908		
6	2	71.2	19	1110	-	1017		
7	3	53.7	19	1445	1677	492		
8	3	62.5	19 1596 1341 349					
9	3	62	19 1929 1221 1105					
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number			16				
Number of Bu	rsts in Trial			10			
Chirp Center Frequency				5498			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)	
1	2	80.5	18	1910	-	284	
2	2	64.2	18	1661	-	751	
3	2	90.1	18	1041	-	491	
4	2	69.8	18	1495	-	107	
5	1	73.1	18	-	-	490	
6	3	77.2	18	1418	1145	1155	
7	3	52.6	18	1732	1787	772	
8	2	71.4	18	1562	-	121	
9	2	89.8	18	1491	-	89	
10	2	76.4	18	1355	-	615	
Detection Ched	ck (1=Detection; 0	=No Detection)				1	

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Trial Number	Ť		17					
Number of B	ursts in Trial		11					
Chirp Center Frequency				5498				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)		
1	2	51.2	17	1236	-	740		
2	1	71.7	17	-	-	941		
3	2	74.7	17	1164	-	370		
4	2	50.9	17	1919	-	371		
5	2	65.2	17	1206	-	1033		
6	2	98	17	1182	-	346		
7	2	58.7	17	1612	-	639		
8	1	63.8	17	-	-	1056		
9	3	86.3	17	1545	1065	205		
10	1	94.4	17 - 753					
11	3	88.5	17 1699 1319 58					
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number				1	8			
Number of Bu	rsts in Trial		12					
Chirp Center Frequency				54	97			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Loca Spacing (us) Spacing (us) Interva					
1	2	88.7	16	1405	-	448		
2	3	90.2	16	1544	1235	621		
3	1	96.5	16	-	-	512		
4	2	80.5	16	1090	-	321		
5	2	63.7	16	1268	-	798		
6	1	53.4	16	-	-	809		
7	2	52.3	16	1043	•	301		
8	3	54.7	16	1701	1104	796		
9	3	75.6	16	1923	1729	669		
10	2	59.2	16	1244	-	369		
11	1	56.3	16	-	-	51		
12	2	87.8	16 1608 - 733					
Detection Chec	k (1=Detection; C	=No Detection)	·		·	1		

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Trial Number	•			19			
Number of B	ursts in Trial		13				
Chirp Center	hirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval 1				
1	2	68.2	15	1104	_	Interval (ms) 229	
2	2	58.4	15	1627	-	488	
3	3	74.7	15	1861	1015	137	
4	2	58.2	15	1593	-	520	
5	1	51.6	15	-	-	799	
6	2	94.7	15	1469	-	43	
7	2	70.7	15	1091	-	126	
8	2	82.9	15	1472	-	607	
9	3	62.7	15	1168	1453	527	
10	2	63.1	15	1529	-	143	
11	1	96.1	15	-	-	176	
12	2	57	15	1457	-	882	
13	3	95.6	15	1707	1501	214	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			20				
Number of Bu	rsts in Trial		14				
Chirp Center F	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	1	95.7	14	-	-	117	
2	1	93.1	14	-	-	720	
3	1	55.8	14	-	-	297	
4	1	76.7	14	-	-	284	
5	2	68	14	1686	-	472	
6	3	94.1	14	1796	1393	264	
7	2	53.9	14	1293	-	525	
8	1	99.3	14	-	-	155	
9	2	73.3	14	1458	-	65	
10	2	93.3	14	1196	-	451	
11	3	55.8	14	1895	1034	243	
12	1	66.4	14	-	-	228	
13	2	65.6	14	1732	-	746	
14	2	76.5	14	1187	-	522	
Detection Chec	ck (1=Detection; 0	=No Detection)				1	

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Trial Number	•			2	1		
Number of B	ursts in Trial		15				
Chirp Center Frequency				55	03		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us)			
1	1	85.1	13	-	-	565	
2	2	72.5	13	1648	-	211	
3	1	67.5	13	-	-	348	
4	2	56.1	13	1360	-	156	
5	1	71.1	13	-	-	718	
6	2	93.1	13	1391	-	400	
7	1	56.5	13	-	-	482	
8	1	63.8	13	-	-	703	
9	2	67.4	13	1727	-	780	
10	1	52.3	13	-	-	102	
11	3	62.4	13	1228	1715	304	
12	2	53.3	13	1630	-	57	
13	2	83.1	13	1205	-	768	
14	2	93.7	13	1085	-	461	
15	2	90.7	13	1297	-	746	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			22				
Number of Bui	rsts in Trial		16				
Chirp Center F	requency			55	04		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	98.8	12	1439	-	95	
2	1	54.5	12	-	-	676	
3	2	80.5	12	1360	-	8	
4	2	55.9	12	1906	-	373	
5	2	72.1	12	1623	-	254	
6	2	84.4	12	1604	-	480	
7	1	78.5	12	-	-	663	
8	1	88	12	-	-	314	
9	2	74.7	12	1157	-	596	
10	2	97.1	12	1673	-	264	
11	1	81.6	12	-	-	740	
12	1	83.6	12	-	-	163	
13	3	87.6	12	1757	1322	628	
14	2	58.5	12	1372	-	132	
15	3	91.8	12	1767	1183	106	
16	2	58.8	12	1432	-	659	
Detection Chec	k (1=Detection; 0	=No Detection)		1			

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Trial Number	•			2	3	
Number of B	ursts in Trial		17			
Chirp Center	hirp Center Frequency			55	04	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) With			Starting Location Within Interval (ms)
1	1	96	11	-	-	284
2	2	92.5	11	1241	-	488
3	2	89.5	11	1347	-	76
4	2	74.8	11	1607	-	688
5	2	60.6	11	1523	-	28
6	2	71.5	11	1659	-	383
7	2	71.1	11	1454	-	182
8	1	98.7	11	-	-	20
9	2	85.1	11	1770	-	576
10	2	89.2	11	1086	-	410
11	2	60.7	11	1101	-	458
12	2	75.2	11	1719	-	348
13	2	75.7	11	1799	-	481
14	3	56.7	11	1132	1884	587
15	2	65	11	1885	-	480
16	2	64.6	11	1910	-	195

1410

1190

396

69.9

Detection Check (1=Detection; 0=No Detection)

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3

Detection Check (1=Detection; 0=No Detection)

68.4

Trial Number	r			2	4		
Number of B	ursts in Trial		18				
Chirp Center	Frequency			55	05		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	83.8	10	1290	1021	536	
2	2	66.9	10	1112		44	
3	3	91	10	1220	1504	611	
4	2	86.1	10	1678	-	456	
5	3	65.5	10	1928	1222	330	
6	1	62.6	10	-	-	297	
7	3	68.7	10	1505	1200	351	
8	3	59.2	10	1452	1114	230	
9	1	73.9	10	-	-	222	
10	1	77.2	10	-	-	57	
11	2	96.4	10	1357	-	399	
12	2	99.9	10	1173	-	299	
13	2	99.9	10	1520	-	464	
14	1	86.7	10	-	-	294	
15	1	92.6	10	-	-	653	
16	1	77.1	10	-	-	550	
17	2	81.1	10	1664	-	566	

10

1536

1309

580

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19

Detection Check (1=Detection; 0=No Detection)

Trial Numbe	•			2	5		
Number of B	ursts in Trial		19				
Chirp Center	Frequency			55	05		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within			Starting Location Within Interval (ms)	
1	3	68.2	9	1723	1868	471	
2	3	83.7	9	1711	1405	368	
3	2	69.7	9	1781	-	425	
4	1	59.7	9	-	-	440	
5	2	96.7	9	1484	-	123	
6	2	95.8	9	1319	-	261	
7	3	71.3	9	1095	1354	332	
8	3	53.2	9	1527	1427	427	
9	2	69.5	9	1771	-	397	
10	3	63.9	9	1075	1447	67	
11	2	93.4	9	1783	-	174	
12	2	77.3	9	1564	-	17	
13	2	73.1	9	1294	-	216	
14	1	77.4	9	-	-	292	
15	3	57.2	9	1722	1886	619	
16	2	68.7	9	1629	-	233	
17	1	60.8	9	-	-	226	

9

9

1128

1224

599

433

69.7

62.2

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Detection Check (1=Detection; 0=No Detection)

Trial Numbei	r			2	6			
Number of B	ımber of Bursts in Trial			20				
Chirp Center	r Frequency			55	05			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	1	80.5	8	-	-	90		
2	3	62.6	8	1406	1343	319		
3	3	85.6	8	1190	1529	384		
4	2	83.9	8	1208	-	567		
5	2	92.4	8	1488	-	234		
6	2	54	8	1529	-	535		
7	3	81.3	8	1501	1812	325		
8	1	98.5	8	-	-	532		
9	1	85.8	8	-	-	272		
10	2	84.7	8	1593	-	182		
11	2	83.3	8	1705	-	134		
12	2	79.8	8	1567	-	286		
13	1	77.9	8	-	-	368		
14	3	98.4	8	1510	1569	290		
15	2	79.9	8	1588	-	231		
16	3	78	8	1140	1353	353		
17	3	55.2	8	1700	1327	53		
18	3	71.9	8	1081	1224	44		
19	1	62	8	-	-	298		
20	3	70.5	8	1888	1442	529		

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Trial Number			27				
Number of Bu	ırsts in Trial		8				
Chirp Center	Frequency			55	06		
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	69.1	18	1076	-	1436	
2	2	62.1	18	1688	-	22	
3	2	94.8	18	1891	-	897	
4	1	75.8	18	-	-	1186	
5	2	65.4	18	1713	-	589	
6	2	97.7	18	1292	-	614	
7	3	98.1	18	1670	1711	506	
8	2	85.4	18 1672 - 776				
Detection Che	ck (1=Detection; 0	=No Detection)				1	

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Trial Number Number of Bursts in Trial			28				
				9			
Chirp Center	Frequency			55	02		
Burst No. of Pulses Pulse Width (us)		Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	3	82	19	1233	1713	679	
2	3	87.7	19	1554	1123	473	
3	2	98.9	19	1518	-	869	
4	1	55	19	-	-	719	
5	1	93.6	19	-	-	902	
6	2	58.7	19	1641	-	1243	
7	2	88.7	19	1387	-	410	
8	1	60.3	19	-	-	1154	
9	1	97.7	19	-	-	512	

Trial Number	,		29					
Number of B	Number of Bursts in Trial			10				
Chirp Center	Frequency			55	01			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)		
1	1	69.6	20	-	-	1131		
2	1	74.5	20	-	-	290		
3	1	60.9	20	-	-	895		
4	1	74.6	20	-	-	202		
5	2	99.3	20	1501	-	139		
6	2	95.3	20	1065	-	854		
7	2	91.9	20	1722	-	219		
8	2	51	20	1285	-	57		
9	2	87.7	20	1747	-	141		
10	1	87.2	20	-	-	596		
Detection Che	eck (1=Detection; 0	=No Detection)				0		

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Detection Check (1=Detection; 0=No Detection)

Trial Number				3	0			
Number of B	Number of Bursts in Trial			11				
Chirp Center	Frequency			55	01			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within			Starting Location Within Interval (ms)		
1	3	59.9	5	1901	1196	935		
2	2	77.1	5	1590	-	1038		
3	2	62.7	5	1227	-	690		
4	1	77.1	5	-	-	547		
5	3	99.8	5	1798	1790	551		
6	2	61.5	5	1135	-	876		
7	2	77.5	5	1583	-	448		
8	2	57.3	5	1890	-	736		
9	2	53.5	5	1757	-	362		
10	1	66.6	5	-	-	836		
11	3	80.7	5	1811	1289	410		

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Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop	Pulse Width (us)	PRI (us)	1=Detection 0=No Detection
1	5500	9	1	333	1
2	5500	9	1	333	1
3	5500	9	1	333	1
4	5500	9	1	333	1
5	5500	9	1	333	1
6	5500	9	1	333	1
7	5500	9	1	333	1
8	5500	9	1	333	1
9	5500	9	1	333	1
10	5500	9	1	333	1
11	5500	9	1	333	1
12	5500	9	1	333	1
13	5500	9	1	333	1
14	5500	9	1	333	1
15	5500	9	1	333	1
16	5500	9	1	333	1
17	5500	9	1	333	1
18	5500	9	1	333	1
19	5500	9	1	333	1
20	5500	9	1	333	1
21	5500	9	1	333	1
22	5500	9	1	333	1
23	5500	9	1	333	1
24	5500	9	1	333	1
25	5500	9	1	333	1
26	5500	9	1	333	1
27	5500	9	1	333	1
28	5500	9	1	333	1
29	5500	9	1	333	1
30	5500	9	1	333	1
	100.000				
imit		etection Percenta	- 		70%
est Res	ult				Complied

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Modulation Mode: 802.11ac (VHT40)

Type 1 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5524	1	1930.5	518	1
2	5516	23	326.2	3066	1
3	5509	19	1139.0	878	1
4	5521	12	1355.0	738	1
5	5496	4	1730.1	578	1
6	5514	8	1519.8	658	1
7	5512	15	1253.1	798	1
8	5500	6	1618.1	618	1
9	5503	14	1285.3	778	1
10	5523	3	1792.1	558	1
11	5521	13	1319.3	758	1
12	5498	9	1474.9	678	1
13	5508	7	1567.4	638	1
14	5491	17	1193.3	838	1
15	5495	10	1432.7	698	1
16	5509	-	1692.0	591	1
17	5497	-	328.1	3048	0
18	5503	-	373.4	2678	1
19	5516	-	574.4	1741	1
20	5517	-	1216.5	822	1
21	5529	-	801.3	1248	0
22	5524	-	488.5	2047	1
23	5526	-	956.0	1046	1
24	5519	-	517.6	1932	1
25	5515	-	1422.5	703	1
26	5512	-	542.0	1845	1
27	5528	-	741.3	1349	1
28	5511	-	881.8	1134	1
29	5507	-	427.4	2340	1
30	5493	-	628.9	1590	1
		Detection Percentage	(%)		93.333
Limit					60%
Test Res	ult				Complied

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Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5520	2.6	221	23	1
2	5491	4.6	198	27	1
3	5494	1.1	184	29	1
4	5510	4.8	203	24	0
5	5498	2.4	162	25	1
6	5499	3.4	204	28	1
7	5529	2.3	170	27	1
8	5528	3.5	184	23	1
9	5508	4.9	150	27	1
10	5519	4.6	211	29	1
11	5499	2.9	158	23	1
12	5494	2.6	226	27	1
13	5513	1.6	204	26	1
14	5518	3.9	181	25	1
15	5499	4.6	202	24	1
16	5527	4.1	194	27	1
17	5515	2.3	193	28	0
18	5515	3.9	173	29	1
19	5506	4.3	188	23	1
20	5510	1.5	215	26	1
21	5493	4.9	227	27	1
22	5509	1.1	199	23	1
23	5508	4.5	155	29	1
24	5528	4.0	190	27	1
25	5494	2.4	151	23	1
26	5512	2.5	180	28	1
27	5495	2.5	228	23	0
28	5509	2.5	203	25	1
29	5519	1.5	188	25	1
30	5522	1.9	217	24	1
	90.000				
Detection Percentage (%) Limit					60%
Test Result					Complied

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Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5492	8.0	205	16	1
2	5510	6.7	382	18	1
3	5517	8.6	418	16	1
4	5520	9.4	351	17	0
5	5511	7.4	383	18	1
6	5499	9.8	232	16	1
7	5498	9.1	377	17	1
8	5524	9.6	457	16	1
9	5505	8.0	471	18	1
10	5516	9.0	304	18	1
11	5524	8.0	316	17	1
12	5492	9.8	325	16	1
13	5519	8.0	409	17	1
14	5507	9.9	200	17	1
15	5508	8.8	458	16	1
16	5505	8.0	232	18	0
17	5526	8.3	250	16	1
18	5514	8.7	270	16	1
19	5513	7.7	350	17	1
20	5527	7.1	230	16	1
21	5514	7.3	416	18	1
22	5495	7.6	498	18	1
23	5503	7.3	286	17	1
24	5515	7.3	287	16	1
25	5519	7.5	462	17	0
26	5515	6.2	300	17	1
27	5513	6.4	323	18	1
28	5527	7.1	420	16	1
29	5492	7.2	395	18	1
30	5517	8.4	377	16	1
		etection Percentage (9			90.000
imit	60%				
est Resi	ult				Complied

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Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5499	18.0	242	15	1
2	5497	19.9	279	12	1
3	5507	12.9	487	14	0
4	5519	15.0	452	13	1
5	5505	16.3	230	12	1
6	5510	19.8	238	13	1
7	5515	18.2	420	16	1
8	5499	16.3	452	15	1
9	5521	14.2	495	12	1
10	5517	17.8	228	16	1
11	5521	19.1	211	16	1
12	5522	18.4	283	15	0
13	5502	11.8	411	12	1
14	5495	14.2	284	13	1
15	5522	13.9	202	12	1
16	5505	17.8	340	14	1
17	5510	15.6	290	16	1
18	5518	14.6	250	16	0
19	5504	14.4	484	15	1
20	5523	18.9	387	13	1
21	5491	11.1	348	15	1
22	5515	13.8	291	16	1
23	5522	14.3	295	12	1
24	5512	12.5	300	12	1
25	5517	12.5	322	14	1
26	5505	12.5	383	13	1
27	5516	15.7	322	16	1
28	5495	19.8	469	13	1
29	5515	18.6	406	15	1
30	5522	15.9	238	14	1
'		90.000			
imit	60%				
est Resu				Complied	

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Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	93.333
2	90.000
3	90.000
4	90.000
Aggregate (Radar Types 1-4)	90.833
Limit	80%
Test Result	Complied

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Type 5 Radar Statistical Performance

enter Freq. (MHz)				
5510	5491	5529	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	2	5510	1
2	20	8	5510	1
3	7	2.8	5510	1
4	8	3.2	5510	1
5	9	3.6	5510	1
6	10	4	5510	1
7	11	4.4	5510	1
8	12	4.8	5510	1
9	13	5.2	5510	1
10	14	5.6	5510	1
11	15	6	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8	5499	1
15	19	7.6	5499	1
16	18	7.2	5498	1
17	17	6.8	5498	1
18	16	6.4	5497	1
19	15	6	5497	1
20	14	5.6	5497	1
21	13	5.2	5524	1
22	12	4.8	5524	1
23	11	4.4	5525	1
24	10	4	5525	1
25	9	3.6	5525	1
26	8	3.2	5526	1
27	18	7.2	5522	0
28	19	7.6	5521	1
29	20	8	5521	1
30	5	2	5527	1
Total				29
Detection Percentage (%)				97%
nit		J ()		80%
est Result				Complied

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Trial Number	Ī			1				
Number of B	Number of Bursts in Trial Chirp Center Frequency			8 5510				
Chirp Center								
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	1	62.1	5	-	-	1091		
2	2	56	5	1729	-	133		
3	2	91.3	5	1230	-	1057		
4	3	50.7	5	1762	1616	1442		
5	2	92.6	5	1723	-	544		
6	2	87.3	5	1302	-	1089		
7	2	59.5	5	1291	-	1374		
8	2	52.2	5 1653 - 1237					
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number			9				
Number of Bu	rsts in Trial						
Chirp Center Frequency				5510			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	3	90	20	1007	1326	30	
2	2	73.7	20	1785	-	979	
3	1	78.1	20	-	-	683	
4	2	92.4	20	1281	-	950	
5	1	61.2	20	-	-	612	
6	3	67.2	20	1525	1870	17	
7	1	78.5	20	-	-	429	
8	2	60.3	20	1931	-	936	
9	3	92.9	20	1403	1476	548	
Detection Chec	k (1=Detection; C	=No Detection)				1	

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Trial Number			3				
Number of B	ursts in Trial			10			
Chirp Center Frequency				55	10		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	3	63.4	7	1574	1607	801	
2	1	98	7	-	-	966	
3	1	58.7	7	-	-	185	
4	1	88	7	-	-	1012	
5	3	79.5	7	1562	1370	943	
6	3	57.1	7	1900	1188	686	
7	2	64.4	7	1090	-	599	
8	1	78.7	7	-	-	1089	
9	1	69.3	7	-	-	188	
10	3	55.3	7	1375	1691	933	
Detection Che	eck (1=Detection; 0	=No Detection)		•	•	1	

Trial Number			4			
Number of Bu	ırsts in Trial		11			
Chirp Center	Chirp Center Frequency			55	10	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (i			
1	2	74.3	8	1642	-	24
2	1	83.1	8	-	-	985
3	2	59.5	8	1680	-	988
4	2	59.8	8	1786	-	800
5	2	77.6	8	1617	-	339
6	2	79.9	8	1553	-	1040
7	1	56	8	-	-	544
8	3	71.4	8	1406	1927	452
9	1	97.4	8	-	-	204
10	2	98.3	8	1037	-	926
11	1	63.6	8	-	-	1052
Detection Che	ck (1=Detection; 0	=No Detection)				1

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Trial Number	•			5				
Number of B	ursts in Trial		12					
Chirp Center	Chirp Center Frequency			55	10			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)		
1	1	50	9	-	-	557		
2	2	62.5	9	1731	-	567		
3	2	55.4	9	1070	-	460		
4	1	65.7	9	-	-	4		
5	2	58	9	1512	-	64		
6	2	60.9	9	1230	-	650		
7	3	89.6	9	1598	1738	235		
8	3	84.4	9	1271	1617	873		
9	3	72.3	9	1498	1321	901		
10	1	58.9	9	-	-	663		
11	2	74.8	9	1584	-	919		
12	1	71.8	9	-	-	375		
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number			6			
Number of Bu	rsts in Trial		13			
Chirp Center Frequency				55	10	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	2	88.1	10	1257	-	846
2	1	58.7	10	-	-	725
3	2	97.1	10	1037	-	30
4	3	83.1	10	1029	1106	490
5	1	62.1	10	-	-	262
6	2	71.4	10	1058	-	283
7	2	86.3	10	1867	-	49
8	3	77.3	10	1418	1876	634
9	1	78.9	10	-	-	304
10	3	79.2	10	1055	1572	564
11	3	52	10	1582	1836	852
12	3	56.5	10	1195	1542	525
13	3	100	10	1638	1729	750
Detection Chec	ck (1=Detection; C	=No Detection)				1

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Trial Number			7				
Number of B	ursts in Trial		14				
Chirp Center Frequency				55	10		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) Wit Interva				
1	2	92.7	11	1208	-	231	
2	2	81.3	11	1144	-	804	
3	2	60.4	11	1555	-	34	
4	2	62.1	11	1320	-	427	
5	1	50	11	-	-	577	
6	3	65.9	11	1020	1365	3	
7	2	73.8	11	1308	-	51	
8	2	74.3	11	1143	-	360	
9	1	62.9	11	-	-	394	
10	2	74.8	11	1404	-	317	
11	2	69.7	11	1309	-	532	
12	2	69.8	11	1688	-	339	
13	2	77.4	11	1857	-	381	
14	1	55.1	11	-	-	426	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			8					
Number of Bur	sts in Trial		15					
Chirp Center F	requency			5510				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)				
1	1	91.7	12	-	-	776		
2	2	90	12	1196	-	187		
3	3	92.3	12	1486	1853	448		
4	2	66.8	12	1545	-	702		
5	1	64	12	-	-	403		
6	3	95.4	12	1123	1473	230		
7	3	66.8	12	1867	1401	604		
8	3	67.7	12	1472	1397	38		
9	1	68.2	12	-	-	735		
10	2	82.2	12	1297	-	610		
11	1	92.1	12	-	-	618		
12	2	57	12	1764	-	705		
13	2	58.5	12	1310	-	22		
14	3	85.5	12	1630	1447	641		
15	2	82.2	12	1371	-	109		
Detection Chec	k (1=Detection; 0	=No Detection)				1		

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Detection Check (1=Detection; 0=No Detection)

89.7

16

Trial Number	r			9				
Number of B	ursts in Trial		16 5510					
Chirp Center	Frequency							
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (
1	2	74.4	13	1707	-	442		
2	2	63.6	13	1725	-	280		
3	2	71.3	13	1704	-	459		
4	3	77.6	13	1063	1405	197		
5	3	65.2	13	1731	1294	101		
6	3	55.1	13	1109	1549	17		
7	2	96.8	13	1034	-	131		
8	3	80.8	13	1533	1051	365		
9	1	60.4	13	-	-	222		
10	2	61.8	13	1312	-	371		
11	2	71.3	13	1657	-	33		
12	2	98.1	13	1024	-	291		
13	1	57.9	13	-	-	188		
14	1	91.8	13	-	-	163		
15	2	56.7	13	1259	-	426		

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Detection Check (1=Detection; 0=No Detection)

Trial Number				1	0			
Number of Bu	ırsts in Trial		17					
Chirp Center	Frequency			5510				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (
1	2	74.4	14	1107	-	462		
2	1	87.6	14	-	-	653		
3	2	61.7	14	1741	-	457		
4	2	57.5	14	1566	-	388		
5	2	66.1	14	1855	-	63		
6	3	70.1	14	1044	1012	136		
7	1	66.4	14	-	-	343		
8	1	59.2	14	-	-	349		
9	2	88.3	14	1240	-	362		
10	1	64.7	14	-	-	221		
11	2	73	14	1703	-	144		
12	2	81.7	14	1450	-	671		
13	3	70.1	14	1741	1278	320		

63.6

58.7

65.9

72.7

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Detection Check (1=Detection; 0=No Detection)

Trial Number	•			1	1		
Number of B	ursts in Trial		18				
Chirp Center	hirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) Interva				
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	
17	1	88.5	15	-	-	419	

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60.6

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Detection Check (1=Detection; 0=No Detection)

Trial Number	•			1	2		
Number of B	ursts in Trial		19				
Chirp Center	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Locat (MHz) Spacing (us) Spacing (us) With			Starting Location Within Interval (ms)	
1	2	90.5	16	1299	-	381	
2	2	88.4	16	1418	-	327	
3	2	53.7	16	1055	-	536	
4	1	80.5	16	-	-	285	
5	1	50.4	16	-	-	398	
6	2	61.2	16	1749	-	439	
7	2	78.8	16	1065	-	129	
8	3	75	16	1748	1820	325	
9	2	96.7	16	1254	-	440	
10	3	76.3	16	1848	1106	397	
11	1	73.3	16	-	-	232	
12	2	92.4	16	1317	-	91	
13	2	92.4	16	1854	-	256	
14	3	64.4	16	1240	1634	582	
15	2	67.3	16	1473	-	117	
16	2	84.1	16	1795	-	202	
17	1	80.9	16	-	-	135	

16

16

1805

74.6

97.6

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Trial Number	•			1	3		
Number of B	ursts in Trial		20				
Chirp Center	Frequency			54	98		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	66.1	17	1417	-	388	
2	2	86.7	17	1693	-	348	
3	2	70.5	17	1263	-	215	
4	2	78	17	1446	-	28	
5	2	66	17	1185	-	585	
6	2	80.6	17	1855	-	65	
7	1	95.5	17	-	-	92	
8	1	98.8	17	-	-	68	
9	3	64.3	17	1641	1108	517	
10	1	75.1	17	-	-	121	
11	2	72.6	17	1499	-	448	
12	1	60.3	17	-	-	567	
13	2	54.9	17	1056	-	245	
14	2	98.8	17	1023	-	584	
15	2	60.9	17	1243	-	579	
16	2	62.7	17	1226	-	464	
17	1	80.1	17	-	-	89	
18	2	70.9	17	1711	-	153	
19	1	90.7	17	-	-	282	
20	1	98.9	17	-	-	71	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			14			
Number of Bu	rsts in Trial			8	3	
Chirp Center	Chirp Center Frequency			54	.99	
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
1	2	67.5	20	1542	-	947
2	3	83.6	20	1272	1696	124
3	2	93.2	20	1877	-	701
4	1	55.6	20	-	-	1123
5	3	84.2	20	1733	1619	756
6	3	69.1	20	1612	1071	1
7	2	66.9	20	1905	-	7
8	3	86.8	20	1697	1621	1082
Detection Che	ck (1=Detection; 0	=No Detection)				1

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Trial Number	r		15					
Number of B	ursts in Trial			9				
Chirp Center Frequency				54	99			
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	2	62.2	19	1571	-	949		
2	2	85	19	1669	-	189		
3	2	64.5	19	1505	-	176		
4	2	50.4	19	1325	-	538		
5	2	66.1	19	1483	-	908		
6	2	71.2	19	1110	-	1017		
7	3	53.7	19	1445	1677	492		
8	3	62.5	19	1596	1341	349		
9	3	62	19 1929 1221 1105					
Detection Che	eck (1=Detection; 0	=No Detection)	•	•		1		

Trial Number				16 10			
Number of B	ursts in Trial						
Chirp Center Frequency				54	98		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	80.5	18	1910	-	284	
2	2	64.2	18	1661	-	751	
3	2	90.1	18	1041	-	491	
4	2	69.8	18	1495	-	107	
5	1	73.1	18	-	-	490	
6	3	77.2	18	1418	1145	1155	
7	3	52.6	18	1732	1787	772	
8	2	71.4	18	1562	-	121	
9	2	89.8	18	1491	-	89	
10	2	76.4	18	1355	-	615	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

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Trial Number			17 11			
Number of B	ursts in Trial					
Chirp Center Frequency				54	98	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
1	2	51.2	17	1236	-	740
2	1	71.7	17	-	-	941
3	2	74.7	17	1164	-	370
4	2	50.9	17	1919	-	371
5	2	65.2	17	1206	-	1033
6	2	98	17	1182	-	346
7	2	58.7	17	1612	-	639
8	1	63.8	17	-	-	1056
9	3	86.3	17	1545	1065	205
10	1	94.4	17	-	-	753
11	3	88.5	17	1699	1319	58
Detection Che	ck (1=Detection; 0	=No Detection)				1

Trial Number			18				
Number of Bui	rsts in Trial			12			
Chirp Center F	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	88.7	16	1405	-	448	
2	3	90.2	16	1544	1235	621	
3	1	96.5	16	-	-	512	
4	2	80.5	16	1090	-	321	
5	2	63.7	16	1268	-	798	
6	1	53.4	16	-	-	809	
7	2	52.3	16	1043	-	301	
8	3	54.7	16	1701	1104	796	
9	3	75.6	16	1923	1729	669	
10	2	59.2	16	1244	-	369	
11	1	56.3	16	-	-	51	
12	2	87.8	16	1608	-	733	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

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Trial Numbe	Ī			19			
Number of B	ursts in Trial		13				
Chirp Center	hirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Local (MHz) Spacing (us) Spacing (us) With			Starting Location Within	
1	2	68.2	15	1104		Interval (ms)	
<u> </u>			15	1104	-	229	
2	2	58.4	15	1627	-	488	
3	3	74.7	15	1861	1015	137	
4	2	58.2	15	1593	-	520	
5	1	51.6	15	-	-	799	
6	2	94.7	15	1469	-	43	
7	2	70.7	15	1091	-	126	
8	2	82.9	15	1472	-	607	
9	3	62.7	15	1168	1453	527	
10	2	63.1	15	1529	-	143	
11	1	96.1	15	-	-	176	
12	2	57	15	1457	-	882	
13	3	95.6	15	1707	1501	214	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			20				
Number of Bu	ursts in Trial		14				
Chirp Center Frequency				54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	1	95.7	14	-	-	117	
2	1	93.1	14	-	-	720	
3	1	55.8	14	-	-	297	
4	1	76.7	14	-	-	284	
5	2	68	14	1686	-	472	
6	3	94.1	14	1796	1393	264	
7	2	53.9	14	1293	-	525	
8	1	99.3	14	-	-	155	
9	2	73.3	14	1458	-	65	
10	2	93.3	14	1196	-	451	
11	3	55.8	14	1895	1034	243	
12	1	66.4	14	-	-	228	
13	2	65.6	14	1732	-	746	
14	2	76.5	14	1187	-	522	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

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Trial Number	•		21 15				
Number of B	ursts in Trial						
Chirp Center Frequency				55	24		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) Interva				
1	1	85.1	13	-	-	565	
2	2	72.5	13	1648	-	211	
3	1	67.5	13	-	-	348	
4	2	56.1	13	1360	-	156	
5	1	71.1	13	-	-	718	
6	2	93.1	13	1391	-	400	
7	1	56.5	13	-	-	482	
8	1	63.8	13	-	-	703	
9	2	67.4	13	1727	-	780	
10	1	52.3	13	-	-	102	
11	3	62.4	13	1228	1715	304	
12	2	53.3	13	1630	-	57	
13	2	83.1	13	1205	-	768	
14	2	93.7	13	1085	-	461	
15	2	90.7	13	1297	-	746	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			22				
Number of Bui	rsts in Trial		16				
Chirp Center F	requency			55	24		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	98.8	12	1439	-	95	
2	1	54.5	12	-	-	676	
3	2	80.5	12	1360	-	8	
4	2	55.9	12	1906	-	373	
5	2	72.1	12	1623	-	254	
6	2	84.4	12	1604	-	480	
7	1	78.5	12	-	-	663	
8	1	88	12	-	-	314	
9	2	74.7	12	1157	-	596	
10	2	97.1	12	1673	-	264	
11	1	81.6	12	-	-	740	
12	1	83.6	12	-	-	163	
13	3	87.6	12	1757	1322	628	
14	2	58.5	12	1372	-	132	
15	3	91.8	12	1767	1183	106	
16	2	58.8	12	1432	-	659	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

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ial Numbe	r		23 17				
umber of B	ursts in Trial						
nirp Center Frequency				55	25		
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	1	96	11	-	-	284	
2	2	92.5	11	1241	-	488	
3	2	89.5	11	1347	-	76	
4	2	74.8	11	1607	-	688	
5	2	60.6	11	1523	-	28	
6	2	71.5	11	1659	-	383	
7	2	71.1	11	1454	-	182	
8	1	98.7	11	-	-	20	
9	2	85.1	11	1770	-	576	
10	2	89.2	11	1086	-	410	
11	2	60.7	11	1101	-	458	
12	2	75.2	11	1719	-	348	
13	2	75.7	11	1799	-	481	
14	3	56.7	11	1132	1884	587	
15	2	65	11	1885	-	480	
16	2	64.6	11	1910	-	195	
		20.0	4.4	4.440	4400	000	

1410

1190

396

1

69.9

Detection Check (1=Detection; 0=No Detection)

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3

Detection Check (1=Detection; 0=No Detection)

68.4

Trial Number	r			2	4		
Number of B	Bursts in Trial		18				
Chirp Center	Chirp Center Frequency			55	25		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) With Interval				
1	3	83.8	10	1290	1021	536	
2	2	66.9	10	1112	-	44	
3	3	91	10	1220	1504	611	
4	2	86.1	10	1678	-	456	
5	3	65.5	10	1928	1222	330	
6	1	62.6	10	-	-	297	
7	3	68.7	10	1505	1200	351	
8	3	59.2	10	1452	1114	230	
9	1	73.9	10	-	-	222	
10	1	77.2	10	-	-	57	
11	2	96.4	10	1357	-	399	
12	2	99.9	10	1173	-	299	
13	2	99.9	10	1520	-	464	
14	1	86.7	10	-	-	294	
15	1	92.6	10	-	-	653	
16	1	77.1	10	-	-	550	
17	2	81.1	10	1664	-	566	
	_						

10

1536

1309

580

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18

19

3

Detection Check (1=Detection; 0=No Detection)

Trial Number	r			2	5		
Number of B	ursts in Trial		19				
Chirp Center	Frequency			5525			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	3	68.2	9	1723	1868	471	
2	3	83.7	9	1711	1405	368	
3	2	69.7	9	1781	-	425	
4	1	59.7	9	-	-	440	
5	2	96.7	9	1484	-	123	
6	2	95.8	9	1319	-	261	
7	3	71.3	9	1095	1354	332	
8	3	53.2	9	1527	1427	427	
9	2	69.5	9	1771	-	397	
10	3	63.9	9	1075	1447	67	
11	2	93.4	9	1783	-	174	
12	2	77.3	9	1564	-	17	
13	2	73.1	9	1294	-	216	
14	1	77.4	9	-	-	292	
15	3	57.2	9	1722	1886	619	
16	2	68.7	9	1629	-	233	

9

9

9

1128

1224

60.8

69.7

62.2

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226

599

433

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Detection Check (1=Detection; 0=No Detection)

Trial Number				2	6		
Number of Bu	ursts in Trial		20				
Chirp Center	Frequency			55	26		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	1	80.5	8	-	-	90	
2	3	62.6	8	1406	1343	319	
3	3	85.6	8	1190	1529	384	
4	2	83.9	8	1208	-	567	
5	2	92.4	8	1488	-	234	
6	2	54	8	1529	-	535	
7	3	81.3	8	1501	1812	325	
8	1	98.5	8	-	-	532	
9	1	85.8	8	-	-	272	
10	2	84.7	8	1593	-	182	
11	2	83.3	8	1705	-	134	
12	2	79.8	8	1567	-	286	
13	1	77.9	8	-	-	368	
14	3	98.4	8	1510	1569	290	
15	2	79.9	8	1588	-	231	
16	3	78	8	1140	1353	353	
17	3	55.2	8	1700	1327	53	
18	3	71.9	8	1081	1224	44	
19	1	62	8	-	-	298	
20	3	70.5	8	1888	1442	529	

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Trial Number			27				
Number of Bu	Number of Bursts in Trial			8			
Chirp Center	Frequency			55	22		
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	69.1	18	1076	-	1436	
2	2	62.1	18	1688	-	22	
3	2	94.8	18	1891	-	897	
4	1	75.8	18	-	-	1186	
5	2	65.4	18	1713	-	589	
6	2	97.7	18	1292	-	614	
7	3	98.1	18	1670	1711	506	
8	2	85.4	18 1672 -			776	
Detection Che	ck (1=Detection; 0	=No Detection)	•			0	

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Trial Number	•		28				
Number of B	Number of Bursts in Trial			9			
Chirp Center	Frequency			55	21		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Locati Spacing (us) Spacing (us) Withi			Starting Location Within Interval (ms)	
1	3	82	19	1233	1713	679	
2	3	87.7	19	1554	1123	473	
3	2	98.9	19	1518	-	869	
4	1	55	19	-	-	719	
5	1	93.6	19	-	-	902	
6	2	58.7	19	1641	-	1243	
7	2	88.7	19	1387	-	410	
8	1	60.3	19	-	-	1154	
9	1	97.7	19	-	-	512	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number	Trial Number			29			
Number of Bu	Number of Bursts in Trial			10			
Chirp Center	Frequency			55	21		
Burst	NO OF PHISAS				Starting Location Within Interval (ms)		
1	1	69.6	20	-	-	1131	
2	1	74.5	20	-	-	290	
3	1	60.9	20	-	-	895	
4	1	74.6	20	-	-	202	
5	2	99.3	20	1501	-	139	
6	2	95.3	20	1065	-	854	
7	2	91.9	20	1722	-	219	
8	2	51	20	1285	-	57	
9	2	87.7	20	1747	-	141	
10	1	87.2	20	-	-	596	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

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Detection Check (1=Detection; 0=No Detection)

Trial Number			30					
Number of B	Number of Bursts in Trial			11				
Chirp Center	Frequency			55	27			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within			Starting Location Within Interval (ms)		
1	3	59.9	5	1901	1196	935		
2	2	77.1	5	1590	-	1038		
3	2	62.7	5	1227	-	690		
4	1	77.1	5	-	-	547		
5	3	99.8	5	1798	1790	551		
6	2	61.5	5	1135	-	876		
7	2	77.5	5	1583	-	448		
8	2	57.3	5	1890	-	736		
9	2	53.5	5	1757	-	362		
10	1	66.6	5	-	-	836		
11	3	80.7	5	1811	1289	410		

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Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop	Pulse Width (us)	PRI (us)	1=Detection 0=No Detection
1	5510	9	1	333	1
2	5510	9	1	333	1
3	5510	9	1	333	1
4	5510	9	1	333	1
5	5510	9	1	333	1
6	5510	9	1	333	1
7	5510	9	1	333	1
8	5510	9	1	333	1
9	5510	9	1	333	1
10	5510	9	1	333	1
11	5510	9	1	333	1
12	5510	9	1	333	1
13	5510	9	1	333	1
14	5510	9	1	333	1
15	5510	9	1	333	1
16	5510	9	1	333	1
17	5510	9	1	333	1
18	5510	9	1	333	1
19	5510	9	1	333	1
20	5510	9	1	333	1
21	5510	9	1	333	1
22	5510	9	1	333	1
23	5510	9	1	333	1
24	5510	9	1	333	1
25	5510	9	1	333	1
26	5510	9	1	333	1
27	5510	9	1	333	1
28	5510	9	1	333	1
29	5510	9	1	333	1
30	5510	9	1	333	1
'	D	etection Percenta	age (%)		100.00
_imit	70%				
Test Result					Complied

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Modulation Mode: 802.11ac (VHT80)

Type 1 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5543	1	1930.5	518	1
2	5543	23	326.2	3066	1
3	5557	19	1139.0	878	1
4	5515	12	1355.0	738	1
5	5493	4	1730.1	578	0
6	5539	8	1519.8	658	1
7	5568	15	1253.1	798	1
8	5533	6	1618.1	618	1
9	5542	14	1285.3	778	1
10	5551	3	1792.1	558	1
11	5503	13	1319.3	758	1
12	5565	9	1474.9	678	1
13	5522	7	1567.4	638	1
14	5495	17	1193.3	838	1
15	5539	10	1432.7	698	0
16	5509	-	1692.0	591	1
17	5548	-	328.1	3048	1
18	5503	-	373.4	2678	1
19	5560	-	574.4	1741	1
20	5507	-	1216.5	822	1
21	5511	-	801.3	1248	1
22	5502	-	488.5	2047	1
23	5569	-	956.0	1046	1
24	5508	-	517.6	1932	1
25	5523	-	1422.5	703	1
26	5543	-	542.0	1845	1
27	5511	-	741.3	1349	1
28	5494	-	881.8	1134	0
29	5558	-	427.4	2340	1
30	5557	-	628.9	1590	1
		Detection Percentage	(%)		90.000
Limit					60%
Test Res	ult				Complied

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Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5543	2.6	221	23	1
2	5543	4.6	198	27	1
3	5557	1.1	184	29	1
4	5515	4.8	203	24	1
5	5493	2.4	162	25	1
6	5539	3.4	204	28	1
7	5568	2.3	170	27	1
8	5533	3.5	184	23	1
9	5542	4.9	150	27	1
10	5551	4.6	211	29	1
11	5503	2.9	158	23	1
12	5565	2.6	226	27	1
13	5522	1.6	204	26	1
14	5495	3.9	181	25	0
15	5539	4.6	202	24	1
16	5509	4.1	194	27	1
17	5548	2.3	193	28	1
18	5503	3.9	173	29	0
19	5560	4.3	188	23	1
20	5507	1.5	215	26	1
21	5511	4.9	227	27	1
22	5502	1.1	199	23	0
23	5569	4.5	155	29	1
24	5508	4.0	190	27	1
25	5523	2.4	151	23	1
26	5543	2.5	180	28	1
27	5511	2.5	228	23	1
28	5494	2.5	203	25	1
29	5558	1.5	188	25	1
30	5557	1.9	217	24	1
	D	etection Percentage (9	%)		90.00
Limit					60%
Test Result					Complied

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Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5543	8.0	205	16	1
2	5543	6.7	382	18	1
3	5557	8.6	418	16	1
4	5515	9.4	351	17	1
5	5493	7.4	383	18	0
6	5539	9.8	232	16	1
7	5568	9.1	377	17	1
8	5533	9.6	457	16	1
9	5542	8.0	471	18	1
10	5551	9.0	304	18	1
11	5503	8.0	316	17	1
12	5565	9.8	325	16	0
13	5522	8.0	409	17	1
14	5495	9.9	200	17	1
15	5539	8.8	458	16	1
16	5509	8.0	232	18	1
17	5548	8.3	250	16	1
18	5503	8.7	270	16	1
19	5560	7.7	350	17	0
20	5507	7.1	230	16	1
21	5511	7.3	416	18	1
22	5502	7.6	498	18	1
23	5569	7.3	286	17	1
24	5508	7.3	287	16	1
25	5523	7.5	462	17	1
26	5543	6.2	300	17	0
27	5511	6.4	323	18	1
28	5494	7.1	420	16	1
29	5558	7.2	395	18	1
30	5557	8.4	377	16	1
	D	etection Percentage (9	%)		86.667
mit	60%				
est Res	ult				Complied

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Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5543	18.0	242	15	1
2	5543	19.9	279	12	0
3	5557	12.9	487	14	1
4	5515	15.0	452	13	1
5	5493	16.3	230	12	1
6	5539	19.8	238	13	0
7	5568	18.2	420	16	1
8	5533	16.3	452	15	1
9	5542	14.2	495	12	1
10	5551	17.8	228	16	1
11	5503	19.1	211	16	1
12	5565	18.4	283	15	1
13	5522	11.8	411	12	1
14	5495	14.2	284	13	1
15	5539	13.9	202	12	1
16	5509	17.8	340	14	1
17	5548	15.6	290	16	0
18	5503	14.6	250	16	1
19	5560	14.4	484	15	1
20	5507	18.9	387	13	1
21	5511	11.1	348	15	1
22	5502	13.8	291	16	1
23	5569	14.3	295	12	1
24	5508	12.5	300	12	1
25	5523	12.5	322	14	0
26	5543	12.5	383	13	1
27	5511	15.7	322	16	1
28	5494	19.8	469	13	1
29	5558	18.6	406	15	1
30	5557	15.9	238	14	1
		etection Percentage (%		1	86.667
imit		60%			
est Resu				Complied	

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Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	90.000
2	90.000
3	86.667
4	86.667
Aggregate (Radar Types 1-4)	88.333
Limit	80%
Test Result	Complied

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Type 5 Radar Statistical Performance

Center Freq. (MHz)	Low Edge (MHz)	High Edge (MHz)		
5530	5491	5569	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	2	5530	1
2	20	8	5530	1
3	7	2.8	5530	1
4	8	3.2	5530	1
5	9	3.6	5530	1
6	10	4	5530	1
7	11	4.4	5530	1
8	12	4.8	5530	1
9	13	5.2	5530	1
10	14	5.6	5530	1
11	15	6	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8	5499	1
15	19	7.6	5499	1
16	18	7.2	5498	1
17	17	6.8	5498	1
18	16	6.4	5497	1
19	15	6	5497	1
20	14	5.6	5497	1
21	13	5.2	5564	1
22	12	4.8	5564	1
23	11	4.4	5565	1
24	10	4	5565	1
25	9	3.6	5565	1
26	8	3.2	5566	1
27	18	7.2	5562	0
28	19	7.6	5561	0
29	20	8	5561	1
30	5	2	5567	1
		otal		28
	Detection Per			93%
₋imit		5 \ /		80%
Test Result				Complied

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Trial Number	Ī		1				
Number of B	ursts in Trial			8			
Chirp Center	Center Frequency			55	30		
Burst No. of Pulses Pulse Width (us)			Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	1	62.1	5	-	-	1091	
2	2	56	5	1729	-	133	
3	2	91.3	5	1230	-	1057	
4	3	50.7	5	1762	1616	1442	
5	2	92.6	5	1723	-	544	
6	2	87.3	5	1302	-	1089	
7	2	59.5	5 1291 - 1374				
8	2	52.2	5 1653 - 1237				
Detection Che	eck (1=Detection; 0	=No Detection)				1	

Trial Number			2				
Number of Bur	sts in Trial		9				
Chirp Center Frequency				55	30		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	90	20	1007	1326	30	
2	2	73.7	20	1785	-	979	
3	1	78.1	20	-	-	683	
4	2	92.4	20	1281	-	950	
5	1	61.2	20	-	-	612	
6	3	67.2	20	1525	1870	17	
7	1	78.5	20	-	-	429	
8	2	60.3	20	1931	-	936	
9	3	92.9	20 1403 1476 548				
Detection Chec	k (1=Detection; 0	=No Detection)				1	

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Trial Number	•		3					
Number of B	ursts in Trial			10				
Chirp Center Frequency				5530				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)		
1	3	63.4	7	1574	1607	801		
2	1	98	7	-	-	966		
3	1	58.7	7	-	-	185		
4	1	88	7	-	-	1012		
5	3	79.5	7	1562	1370	943		
6	3	57.1	7	1900	1188	686		
7	2	64.4	7	1090	-	599		
8	1	78.7	7	-	-	1089		
9	1	69.3	7	-	-	188		
10	3	55.3	7 1375 1691 933					
Detection Che	eck (1=Detection; 0	=No Detection)	•	•		1		

Trial Number			4			
Number of Bur	rsts in Trial		11			
Chirp Center F	Chirp Center Frequency			55	30	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Location Spacing (us) Within Interval (r			
1	2	74.3	8	1642	-	24
2	1	83.1	8	-	-	985
3	2	59.5	8	1680	-	988
4	2	59.8	8	1786	-	800
5	2	77.6	8	1617	-	339
6	2	79.9	8	1553	-	1040
7	1	56	8	-	-	544
8	3	71.4	8	1406	1927	452
9	1	97.4	8	-	•	204
10	2	98.3	8	1037	-	926
11	1	63.6	8	-	-	1052
Detection Chec	k (1=Detection; 0	=No Detection)				1

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Trial Number			5 12			
Number of B	ursts in Trial					
Chirp Center	Chirp Center Frequency			55	30	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Location Spacing (us) Spacing (us) Within Interval (in the control of the control			
1	1	50	9	-	-	557
2	2	62.5	9	1731	-	567
3	2	55.4	9	1070	-	460
4	1	65.7	9	-	-	4
5	2	58	9	1512	-	64
6	2	60.9	9	1230	-	650
7	3	89.6	9	1598	1738	235
8	3	84.4	9	1271	1617	873
9	3	72.3	9	1498	1321	901
10	1	58.9	9	-	-	663
11	2	74.8	9	1584	-	919
12	1	71.8	9	-	-	375
Detection Che	eck (1=Detection; 0	=No Detection)				1

Trial Number			6				
Number of Bu	rsts in Trial		13				
Chirp Center F	Chirp Center Frequency			55	30		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	88.1	10	1257	-	846	
2	1	58.7	10	-	-	725	
3	2	97.1	10	1037	-	30	
4	3	83.1	10	1029	1106	490	
5	1	62.1	10	-	-	262	
6	2	71.4	10	1058	-	283	
7	2	86.3	10	1867	-	49	
8	3	77.3	10	1418	1876	634	
9	1	78.9	10	-	-	304	
10	3	79.2	10	1055	1572	564	
11	3	52	10	1582	1836	852	
12	3	56.5	10	1195	1542	525	
13	3	100	10	1638	1729	750	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

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Trial Number				7	7			
Number of B	ursts in Trial		14					
Chirp Center	Frequency			5530				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) Interval					
1	2	92.7	11	1208	-	231		
2	2	81.3	11	1144	-	804		
3	2	60.4	11	1555	-	34		
4	2	62.1	11	1320	-	427		
5	1	50	11	-	-	577		
6	3	65.9	11	1020	1365	3		
7	2	73.8	11	1308	-	51		
8	2	74.3	11	1143	-	360		
9	1	62.9	11	-	-	394		
10	2	74.8	11	1404	-	317		
11	2	69.7	11	1309	-	532		
12	2	69.8	11	1688	-	339		
13	2	77.4	11	1857	-	381		
14	1	55.1	11	-	-	426		
Detection Che	eck (1=Detection; 0	=No Detection)				1		

Trial Number			8				
Number of Bu	rsts in Trial		15				
Chirp Center I	Chirp Center Frequency			55	30		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)				
1	1	91.7	12	-	-	776	
2	2	90	12	1196	-	187	
3	3	92.3	12	1486	1853	448	
4	2	66.8	12	1545	-	702	
5	1	64	12	-	-	403	
6	3	95.4	12	1123	1473	230	
7	3	66.8	12	1867	1401	604	
8	3	67.7	12	1472	1397	38	
9	1	68.2	12	-	-	735	
10	2	82.2	12	1297	-	610	
11	1	92.1	12	-	-	618	
12	2	57	12	1764	-	705	
13	2	58.5	12	1310	-	22	
14	3	85.5	12	1630	1447	641	
15	2	82.2	12	1371	-	109	
Detection Ched	ck (1=Detection; C	=No Detection)			·	1	

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16

2

2

Detection Check (1=Detection; 0=No Detection)

56.7

89.7

Trial Number	r			Ç	9		
Number of B	ursts in Trial		16				
Chirp Center	Frequency		5530				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (n				
1	2	74.4	13	1707	_	442	
2	2	63.6	13	1725	-	280	
3	2	71.3	13	1704	-	459	
4	3	77.6	13	1063	1405	197	
5	3	65.2	13	1731	1294	101	
6	3	55.1	13	1109	1549	17	
7	2	96.8	13	1034	-	131	
8	3	80.8	13	1533	1051	365	
9	1	60.4	13	-	-	222	
10	2	61.8	13	1312	-	371	
11	2	71.3	13	1657	-	33	
12	2	98.1	13 1024 - 291				
13	1	57.9	13	-	-	188	
14	1	91.8	13	-	-	163	

13

13

1259

1690

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426 606

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Detection Check (1=Detection; 0=No Detection)

72.7

Trial Number Number of Bursts in Trial **Chirp Center Frequency** Starting **Pulse Width Chirp Width** Pulse 1-to-2 Pulse 2-to-3 Location No. of Pulses **Burst** (us) (MHz) Spacing (us) Spacing (us) Within Interval (ms) 74.4 87.6 61.7 57.5 66.1 70.1 66.4 59.2 88.3 64.7 81.7 70.1 63.6 -58.7 65.9

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Detection Check (1=Detection; 0=No Detection)

Trial Number	•			1	1		
Number of B	ursts in Trial		18				
Chirp Center	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	
17	1	88.5	15	-	-	419	

15

60.6

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205

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19

1

Detection Check (1=Detection; 0=No Detection)

74.6

97.6

Trial Numbe	r			1	2			
Number of B	ursts in Trial		19					
Chirp Center	Frequency			5497				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) With			Starting Location Within Interval (ms)		
1	2	90.5	16	1299	-	381		
2	2	88.4	16	1418	-	327		
3	2	53.7	16	1055	-	536		
4	1	80.5	16	-	-	285		
5	1	50.4	16	-	-	398		
6	2	61.2	16	1749	-	439		
7	2	78.8	16	1065	-	129		
8	3	75	16	1748	1820	325		
9	2	96.7	16	1254	-	440		
10	3	76.3	16	1848	1106	397		
11	1	73.3	16	-	-	232		
12	2	92.4	16	1317	-	91		
13	2	92.4	16	1854	-	256		
14	3	64.4	16	1240	1634	582		
15	2	67.3	16	1473	-	117		
16	2	84.1	16	1795	-	202		
17	1	80.9	16	-	-	135		

16

16

1805

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396

615

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Detection Check (1=Detection; 0=No Detection)

Trial Number Number of Bursts in Trial Chirp Center Frequency			13 20 5498											
								Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
								1	2	66.1	17	1417	-	388
2	2	86.7	17	1693	-	348								
3	2	70.5	17	1263	-	215								
4	2	78	17	1446	-	28								
5	2	66	17	1185	-	585								
6	2	80.6	17	1855	-	65								
7	1	95.5	17	-	-	92								
8	1	98.8	17	-	-	68								
9	3	64.3	17	1641	1108	517								
10	1	75.1	17	-	-	121								
11	2	72.6	17	1499	-	448								
12	1	60.3	17	-	-	567								
13	2	54.9	17	1056	-	245								
14	2	98.8	17	1023	-	584								
15	2	60.9	17	1243	-	579								
16	2	62.7	17	1226	-	464								
17	1	80.1	17	-	-	89								
18	2	70.9	17	1711	-	153								
19	1	90.7	17	-	-	282								
20	1	98.9	17	-	-	71								

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Trial Number Number of Bursts in Trial Chirp Center Frequency			14 8 5499											
								Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
								1	2	67.5	20	1542	-	947
2	3	83.6	20	1272	1696	124								
3	2	93.2	20	1877	-	701								
4	1	55.6	20	-	-	1123								
5	3	84.2	20	1733	1619	756								
6	3	69.1	20	1612	1071	1								
7	2	66.9	20	1905	-	7								
8	3	86.8	20	1697	1621	1082								
Detection Check (1=Detection; 0=No Detection)						1								

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Trial Number Number of Bursts in Trial Chirp Center Frequency			15 9 5499											
								Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
								1	2	62.2	19	1571	-	949
2	2	85	19	1669	-	189								
3	2	64.5	19	1505	-	176								
4	2	50.4	19	1325	-	538								
5	2	66.1	19	1483	-	908								
6	2	71.2	19	1110	-	1017								
7	3	53.7	19	1445	1677	492								
8	3	62.5	19	1596	1341	349								
9	3	62	19	1929	1221	1105								
Detection Check (1=Detection; 0=No Detection)														

Trial Number Number of Bursts in Trial Chirp Center Frequency			16 10 5498											
								Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
								1	2	80.5	18	1910	-	284
2	2	64.2	18	1661	-	751								
3	2	90.1	18	1041	-	491								
4	2	69.8	18	1495	-	107								
5	1	73.1	18	-	-	490								
6	3	77.2	18	1418	1145	1155								
7	3	52.6	18	1732	1787	772								
8	2	71.4	18	1562	-	121								
9	2	89.8	18	1491	-	89								
10	2	76.4	18	1355	-	615								
Detection Check (1=Detection; 0=No Detection)						1								

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Trial Number	r		17				
Number of B	ursts in Trial			11			
Chirp Center Frequency			5498				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Loc Spacing (us) Spacing (us) Winter			Starting Location Within Interval (ms)	
1	2	51.2	17	1236	-	740	
2	1	71.7	17	-	-	941	
3	2	74.7	17	1164	-	370	
4	2	50.9	17	1919	-	371	
5	2	65.2	17	1206	-	1033	
6	2	98	17	1182	-	346	
7	2	58.7	17	1612	-	639	
8	1	63.8	17	-	-	1056	
9	3	86.3	17	1545	1065	205	
10	1	94.4	17 - 7				
11	3	88.5	17	1699	1319	58	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

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Trial Number				1	8		
Number of Bu	ırsts in Trial		12				
Chirp Center Frequency				5497			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Spacing (us) Spacing (us) Start Local Spacing (us) With Interval				
1	2	88.7	16	1405	-	448	
2	3	90.2	16	1544	1235	621	
3	1	96.5	16	-	-	512	
4	2	80.5	16	1090	-	321	
5	2	63.7	16	1268	-	798	
6	1	53.4	16	-	-	809	
7	2	52.3	16	1043	-	301	
8	3	54.7	16	1701	1104	796	
9	3	75.6	16	1923	1729	669	
10	2	59.2	16	1244	-	369	
11	1	56.3	16	-	-	51	
12	2	87.8	16	1608	-	733	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

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Trial Number	•			1	9		
Number of B	ursts in Trial		13				
Chirp Center	Frequency			5497			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Locat (MHz) Spacing (us) Spacing (us) With Interval				
1	2	68.2	15	1104	_	229	
2	2	58.4	15	1627	-	488	
3	3	74.7	15	1861	1015	137	
4	2	58.2	15	1593	-	520	
5	1	51.6	15	-	-	799	
6	2	94.7	15	1469	-	43	
7	2	70.7	15	1091	-	126	
8	2	82.9	15	1472	-	607	
9	3	62.7	15	1168	1453	527	
10	2	63.1	15	1529	-	143	
11	1	96.1	15	-	-	176	
12	2	57	15	1457	-	882	
13	3	95.6	15	1707	1501	214	
Detection Che	eck (1=Detection; C	=No Detection)				1	

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Trial Number			20					
Number of Bu	rsts in Trial			14 5497				
Chirp Center F	requency							
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)				
1	1	95.7	14	-	-	117		
2	1	93.1	14	-	-	720		
3	1	55.8	14	-	-	297		
4	1	76.7	14	-	-	284		
5	2	68	14	1686	-	472		
6	3	94.1	14	1796	1393	264		
7	2	53.9	14	1293	-	525		
8	1	99.3	14	-	-	155		
9	2	73.3	14	1458	-	65		
10	2	93.3	14	1196	-	451		
11	3	55.8	14	1895	1034	243		
12	1	66.4	14	-	-	228		
13	2	65.6	14	1732	-	746		
14	2	76.5	14	1187	-	522		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

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Trial Numbe	•			2	:1		
Number of B	ursts in Trial		15				
Chirp Center	hirp Center Frequency			5564			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)	
1	1	85.1	13	-	-	565	
2	2	72.5	13	1648	-	211	
3	1	67.5	13	-	-	348	
4	2	56.1	13	1360	-	156	
5	1	71.1	13	-	-	718	
6	2	93.1	13	1391	-	400	
7	1	56.5	13	-	-	482	
8	1	63.8	13	-	-	703	
9	2	67.4	13	1727	-	780	
10	1	52.3	13	-	-	102	
11	3	62.4	13	1228	1715	304	
12	2	53.3	13	1630	-	57	
13	2	83.1	13	1205	-	768	
14	2	93.7	13	1085	-	461	
15	2	90.7	13	1297	-	746	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

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Trial Number			22					
Number of Bu	ırsts in Trial		16					
Chirp Center	Frequency			5564				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	98.8	12	1439	-	95		
2	1	54.5	12	-	-	676		
3	2	80.5	12	1360	-	8		
4	2	55.9	12	1906	-	373		
5	2	72.1	12	1623	-	254		
6	2	84.4	12	1604	-	480		
7	1	78.5	12	-	-	663		
8	1	88	12	-	-	314		
9	2	74.7	12	1157	-	596		
10	2	97.1	12	1673	-	264		
11	1	81.6	12	-	-	740		
12	1	83.6	12	-	-	163		
13	3	87.6	12	1757	1322	628		
14	2	58.5	12	1372	-	132		
15	3	91.8	12	1767	1183	106		
16	2	58.8	12	1432	-	659		
Detection Che	ck (1=Detection; C	=No Detection)				1		

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ial Numbe	r			2	3		
umber of B	ursts in Trial		17				
nirp Center	Frequency			5565			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loca (MHz) Spacing (us) Spacing (us) Interva				
1	1	96	11	-	-	284	
2	2	92.5	11	1241	-	488	
3	2	89.5	11	1347	-	76	
4	2	74.8	11	1607	-	688	
5	2	60.6	11	1523	-	28	
6	2	71.5	11	1659	-	383	
7	2	71.1	11	1454	-	182	
8	1	98.7	11	-	-	20	
9	2	85.1	11	1770	-	576	
10	2	89.2	11	1086	-	410	
11	2	60.7	11	1101	-	458	
12	2	75.2	11	1719	-	348	
13	2	75.7	11	1799	-	481	
14	3	56.7	11	1132	1884	587	
15	2	65	11	1885	-	480	
16	2	64.6	11	1910	-	195	
		20.0		4.440	4400	000	

11

1410

1190

396

1

69.9

Detection Check (1=Detection; 0=No Detection)

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17

18

2

Detection Check (1=Detection; 0=No Detection)

81.1

68.4

Trial Number	ſ			2	4		
Number of B	ursts in Trial		18				
Chirp Center	nirp Center Frequency			5565			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loc Spacing (us) Wi			Starting Location Within Interval (ms)	
1	3	83.8	10	1290	1021	536	
2	2	66.9	10	1112	-	44	
3	3	91	10	1220	1504	611	
4	2	86.1	10	1678	-	456	
5	3	65.5	10	1928	1222	330	
6	1	62.6	10	-	-	297	
7	3	68.7	10	1505	1200	351	
8	3	59.2	10	1452	1114	230	
9	1	73.9	10	-	-	222	
10	1	77.2	10	-	-	57	
11	2	96.4	10	1357	-	399	
12	2	99.9	10	1173	-	299	
13	2	99.9	10	1520	-	464	
14	1	86.7	10	-	-	294	
15	1	92.6	10	-	-	653	
16	1	77.1	10	-	-	550	

10

10

1664

1536

1309

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566

580

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18

19

Detection Check (1=Detection; 0=No Detection)

Trial Number	•			2	5			
Number of B	ursts in Trial		19					
Chirp Center	Frequency			5565				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Local Spacing (us) Spacing (us) Willinterv					
1	3	68.2	9	1723	1868	471		
2	3	83.7	9	1711	1405	368		
3	2	69.7	9	1781	-	425		
4	1	59.7	9	-	-	440		
5	2	96.7	9	1484	-	123		
6	2	95.8	9	1319	-	261		
7	3	71.3	9	1095	1354	332		
8	3	53.2	9	1527	1427	427		
9	2	69.5	9	1771	-	397		
10	3	63.9	9	1075	1447	67		
11	2	93.4	9	1783	-	174		
12	2	77.3	9	1564	-	17		
13	2	73.1	9	1294	-	216		
14	1	77.4	9	-	-	292		
15	3	57.2	9	1722	1886	619		
16	2	68.7	9	1629	-	233		
17	1	60.8	9	-	-	226		

9

9

1128

1224

599

433

69.7

62.2

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Detection Check (1=Detection; 0=No Detection)

Trial Number	•		26 20				
Number of B	ursts in Trial						
Chirp Center	Frequency			55	66		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	1	80.5	8	-	-	90	
2	3	62.6	8	1406	1343	319	
3	3	85.6	8	1190	1529	384	
4	2	83.9	8	1208	-	567	
5	2	92.4	8	1488	-	234	
6	2	54	8	1529	-	535	
7	3	81.3	8	1501	1812	325	
8	1	98.5	8	-	-	532	
9	1	85.8	8	-	-	272	
10	2	84.7	8	1593	-	182	
11	2	83.3	8	1705	-	134	
12	2	79.8	8	1567	-	286	
13	1	77.9	8	-	-	368	
14	3	98.4	8	1510	1569	290	
15	2	79.9	8	1588	-	231	
16	3	78	8	1140	1353	353	
17	3	55.2	8	1700	1327	53	
18	3	71.9	8	1081	1224	44	
19	1	62	8	-	-	298	
20	3	70.5	8	1888	1442	529	

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Trial Number			27				
Number of Bu	rsts in Trial			8			
Chirp Center Frequency				55	62		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)	
1	2	69.1	18	1076	-	1436	
2	2	62.1	18	1688	-	22	
3	2	94.8	18	1891	-	897	
4	1	75.8	18	-	-	1186	
5	2	65.4	18	1713	-	589	
6	2	97.7	18	1292	-	614	
7	3	98.1	18	1670	1711	506	
8	2	85.4	18 1672 - 776				
Detection Ched	ck (1=Detection; 0	=No Detection)				0	

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Trial Number	•		28					
Number of B	ursts in Trial		9					
Chirp Center Frequency				5561				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 I (MHz) Spacing (us) Spacing (us)			Starting Location Within Interval (ms)		
1	3	82	19	1233	1713	679		
2	3	87.7	19	1554	1123	473		
3	2	98.9	19	1518	-	869		
4	1	55	19	-	-	719		
5	1	93.6	19	-	-	902		
6	2	58.7	19	1641	-	1243		
7	2	88.7	19	1387	-	410		
8	1	60.3	19	-	-	1154		
9	1	97.7	19 - 512					

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Trial Number Number of Bursts in Trial Chirp Center Frequency			29					
			10					
			5561					
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	1	69.6	20	-	-	1131		
2	1	74.5	20	-	-	290		
3	1	60.9	20	-	-	895		
4	1	74.6	20	-	-	202		
5	2	99.3	20	1501	-	139		
6	2	95.3	20	1065	-	854		
7	2	91.9	20	1722	-	219		
8	2	51	20	1285	-	57		
9	2	87.7	20	1747	-	141		
10	1	87.2	20	-	-	596		
Detection Check (1=Detection; 0=No Detection)								

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Detection Check (1=Detection; 0=No Detection)

Trial Number			30					
Number of Bursts in Trial			11					
Chirp Center Frequency			5567					
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	3	59.9	5	1901	1196	935		
2	2	77.1	5	1590	-	1038		
3	2	62.7	5	1227	-	690		
4	1	77.1	5	-	-	547		
5	3	99.8	5	1798	1790	551		
6	2	61.5	5	1135	-	876		
7	2	77.5	5	1583	-	448		
8	2	57.3	5	1890	-	736		
9	2	53.5	5	1757	-	362		
10	1	66.6	5	-	-	836		
11	3	80.7	5	1811	1289	410		

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Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop Pulse Width (us)		PRI (us)	1=Detection 0=No Detection
1	5530	9	1	333	1
2	5530	9	1	333	1
3	5530	9	1	333	1
4	5530	9	1	333	1
5	5530	9	1	333	1
6	5530	9	1	333	1
7	5530	9	1	333	1
8	5530	9	1	333	1
9	5530	9	1	333	1
10	5530	9	1	333	1
11	5530	9	1	333	1
12	5530	9	1	333	1
13	5530	9	1	333	1
14	5530	9	1	333	1
15	5530	9	1	333	1
16	5530	9	1	333	1
17	5530	9	1	333	1
18	5530	9	1	333	1
19	5530	9	1	333	1
20	5530	9	1	333	1
21	5530	9	1	333	1
22	5530	9	1	333	1
23	5530	9	1	333	1
24	5530	9	1	333	1
25	5530	9	1	333	1
26	5530	9	1	333	1
27	5530	9	1	333	1
28	5530	9	1	333	1
29	5530	9	1	333	1
30	5530	9	1	333	1
L	100.000				
imit		etection Percenta	- \ /		70%
est Resi	ult				Complied

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Test Mode: Mesh Mode

Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5521	18.0	242	15	1
2	5514	19.9	279	12	1
3	5517	12.9	487	14	1
4	5542	15.0	452	13	1
5	5563	16.3	230	12	1
6	5522	19.8	238	13	0
7	5567	18.2	420	16	1
8	5557	16.3	452	15	1
9	5527	14.2	495	12	1
10	5507	17.8	228	16	1
11	5492	19.1	211	16	1
12	5527	18.4	283	15	1
13	5520	11.8	411	12	0
14	5515	14.2	284	13	1
15	5522	13.9	202	12	1
16	5525	17.8	340	14	1
17	5520	15.6	290	16	1
18	5534	14.6	250	16	1
19	5518	14.4	484	15	0
20	5533	18.9	387	13	1
21	5518	11.1	348	15	1
22	5495	13.8	291	16	1
23	5566	14.3	295	12	1
24	5552	12.5	300	12	1
25	5503	12.5	322	14	1
26	5511	12.5	383	13	1
27	5523	15.7	322	16	1
28	5492	19.8	469	13	0
29	5523	18.6	406	15	1
30	5505	15.9	238	14	1
	86.667				
imit		etection Percentage (9	•		60%
est Resu	ılt				Complied

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4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101026	9kHz~40GHz	Sep. 28, 2018	Sep. 27, 2019	Radiated (DF01-CB)
Vector Signal generator	R&S	SMU200A	102782	100kHz-6GHz	Jan. 16, 2019	Jan. 15, 2020	Radiated (DF01-CB)
Horn Antenna	COM-POWER	AH-118	071187	1GHz – 18GHz	Jun. 29, 2018	Jun. 28, 2019	Radiated (DF01-CB)
Horn Antenna	COM-POWER	AH-118	071042	1GHz – 18GHz	Dec. 24, 2018	Dec. 23, 2019	Radiated (DF01-CB)
RF Power Divider	ANAREN	2 Way	DFS-01-DV-02	1GHz ~ 6GHz	Oct. 08, 2018	Oct. 07, 2019	Radiated (DF01-CB)
RF Power Divider	MTJ	2 Way	DFS-01-DV-03	1GHz ~ 6GHz	Oct. 08, 2018	Oct. 07, 2019	Radiated (DF01-CB)
RF Power Divider	ANAREN	4 Way	DFS-01-DV-01	1GHz ~ 6GHz	Oct. 08, 2018	Oct. 07, 2019	Radiated (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-57	1 GHz –18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiated (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-58	1 GHz –18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiated (DF01-CB)

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Note: Calibration Interval of instruments listed above is one year.

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5 Measurement Uncertainty

Test Items	Uncertainty	Remark
Radiated Emission	2.9 dB	Confidence levels of 95%

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