DFS MEASUREMENT REPORT

FCC ID:	UIDW61
Applicant:	ARRIS
Product:	Wireless Router
Model No.:	W61
FCC Classification:	Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s):	Part 15 Subpart E (Section 15.407)
Result:	Complies
Test Date:	2022-06-24 ~ 2022-06-29

Reviewed By: Vincent Yu

Approved By: Robin Wu

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 905462. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2205SRU031-U3	Rev. 01	Initial Report	2022-07-30	Valid

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1. General Information

1.1. Applicant

ARRIS

3871 LAKEFIELD DR, SUWANEE GA 30024, UNITED STATES

1.2. Manufacturer

ARRIS

3871 LAKEFIELD DR, SUWANEE GA 30024, UNITED STATES

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China **Laboratory Location (Suzhou - SIP)** 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☐	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: L3261-190725				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	Wireless Router
Model No.	W61
EUT Serial No.	23M54B111190092, 23M54B111190096
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Antenna Information	Refer to Clause 1.7
Power Supply	AC/DC Adapter
Accessories	
Adapter 1#	Model: WA-30P12FU Input:100-120V ~ 50/60Hz 0.9A Max Output: 12V 2.5A
Adapter 2#	Model: F30L10-120250SPAU Input:100-120V ~ 50/60Hz 0.9A Max Output: 12V 2.5A, 30.0W
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5260~5320MHz, 5500~5720MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5270~5310MHz, 5510~5710MHz For 802.11ac-VHT80/ax-HE80: 5290MHz, 5530MHz, 5610 MHz, 5690MHz
Type of Modulation	802.11a/n/ac: OFDM 802.11ax: OFDMA
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps 802.11ax: up to 1201Mbps
Power-on cycle	Requires 189.3 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

1.6. Working Frequencies

802.11a/n-HT20/ac-VHT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260 MHz	56	5280 MHz	60	5300 MHz
64	5320 MHz	100	5500 MHz	104	5520 MHz
108	5540 MHz	112	5560 MHz	116	5580 MHz
120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz
144	5720 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz	102	5510 MHz
110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	142	5710 MHz	--	--

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	122	5610 MHz
138	5690 MHz	--	--	--	--

1.7. Antenna Details

Antenna Type	Frequency Band	T_X Paths	N_{SS}	Antenna Gain (dBi)				Max. Gain (dBi)	BF DG (dBi)	CDD DG (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3			Power	PSD
Dipole	2.4GHz	2	1	4.5	4.8	--	--	4.8	7.81	4.8	7.81
	5GHz	2	1	4.9	4.4	--	--	4.9	7.91	4.9	7.91
	6GHz	4	1	5.7	5.2	5.8	5.8	5.8	11.82	5.8	11.82

Remark:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,
     Array Gain = 10 log (N_{ANT}/ N_{SS}) dB;
   - For power measurements on IEEE 802.11 devices,
     Array Gain = 0 dB for $N_{ANT} \leqslant 4$;
2. The EUT also supports beamforming mode, and the beamforming support 802.11n/ac/ax only, not include 802.11a/b/g. BF Directional Gain = Max. Gain + 10 log (N_{ANT} / N_{SS}).
   For beamforming operation, manufacturer automatically backs power down based on a 10log (N_{ANT}) factor based on CDD power.

2. Test Configuration

2.1. Test Mode

Mode 1: Operating under AP mode
Mode 2: Operating under Bridge mode

2.2. Test Channel

Test Mode	Test Channel	Test Frequency
802.11ax-HE20	100	5500 MHz
802.11ax-HE40	102	5510 MHz
802.11ax-HE80	106	5530 MHz

2.3. Applied Standards

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

- FCC Part 15.407Section (h)(2)
- KDB 905462 D02v02
- KDB 905462 D04v01

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~ 75%RH

3. DFS Detection Thresholds and Radar Test Waveforms

3.1. Applicability

The following table from FCC KDB 905462 D02 NII DFS Compliance Procedures New Rules v02 lists the applicable requirements for the DFS testing.

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

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

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

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

3.2. DFS Devices Requirements

Per FCC KDB 905462 D02 NII DFS Compliance Procedures New Rules v02 the following are the requirements for Master Devices:

(a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands. DFS is not required in the 5150 ~ 5250 MHz or 5725 ~ 5825 MHz bands.

(b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.

(c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.

(d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).

(e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.

(f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.

(g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

Channel Move Time and Channel Closing Transmission Time requirements are listed in the following table.

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

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

The DFS detection thresholds are defined for Master devices and Client Devices with In-service monitoring.

These detection thresholds are listed in the following table.

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

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

3.4. Parameters of DFS Test Signals

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.6	858
19	1139	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

Table 3-6: Pulse Repetition Intervals Values for Test A

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type waveforms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

The FCC KDB 905462 D02 NII DFS Compliance Procedures New Rules v02 describes a radiated test setup and a conducted test setup. The conducted test setup was used for this testing. Figure 3-1 shows the typical test setup.

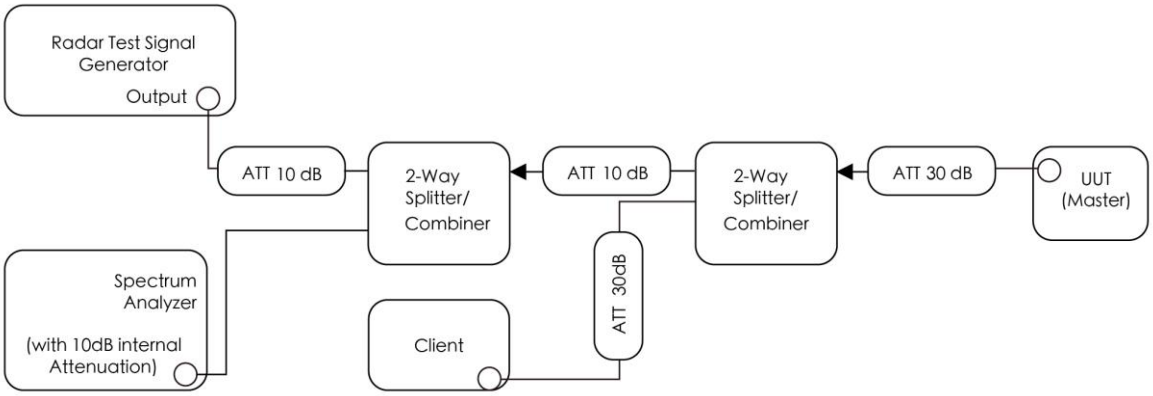


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2023-04-06	WZ-SR4
Thermohygrometer	testo	608-H1	MRTSUE06222	1 year	2022-10-10	WZ-SR4
Signal Generator	R&S	SMBV100A	MRTSUE06279	1 year	2023-04-06	WZ-SR4
Shielding Room	HUAMING	WZ-SR4	MRTSUE06441	N/A	N/A	WZ-SR4
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2023-06-01	WZ-SR4
Frequency extender for EXG or MXG	Keysight	N5182BX07	MRTSUE06984	1 year	2023-03-03	WZ-SR4
Signal Analyzer	R&S	FSV40	MRTSUE06990	1 year	2022-10-12	WZ-SR4
Signal Generator	Keysight	N5182B	MRTSUE06993	1 year	2022-09-10	WZ-SR4
Attenuator	MVE	MVE2213	MRTSUE11091	1 year	2023-06-09	WZ-SR4
Attenuator	MVE	MVE2213	MRTSUE11074	1 year	2023-06-09	WZ-SR4
Attenuator	MVE	MVE2213	MRTSUE11095	1 year	2023-06-09	WZ-SR4
Power Divider	MVE	MVE8576	MRTSUE06943	1 year	2023-05-17	WZ-SR4
Power Divider	MVE	MVE8247	MRTSUE06324	1 year	2022-10-28	WZ-SR4
Power Divider	Weinschel	6179	MRTSUE06569	1 year	2022-10-28	WZ-SR4
Power Divider	MVE	MVE8577	MRTSUE06268	1 year	2022-10-28	WZ-SR4

Client Information

Instrument	Manufacturer	Type No.	Certification Number
Wi-Fi Module	Intel	AX200NGW	FCC ID: PD9AX200NG

Software	Version	Manufacturer	Function
DFS Tool	V 6.9.2	Agilent	DFS Test Software
Pulse Sequencer	V 2.0	R&S	DFS Test Software
Signal Studio	V2.2.0.0	Keysight	DFS Test Software

5. Test Result

5.1. Summary

Parameter	Verdict	Reference
NII Detection Bandwidth Measurement	Pass	Section 5.3
Initial Channel Availability Check Time	Pass	Section 5.4
Radar Burst at the Beginning of the Channel Availability Check Time	Pass	Section 5.5
Radar Burst at the End of the Channel Availability Check Time	Pass	Section 5.6
In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time	Pass	Section 5.7
Non-Occupancy Period	Pass	Section 5.7
Statistical Performance Check	Pass	Section 5.8

5.2. Radar Waveform Calibration Measurement

5.2.1. Calibration Setup

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

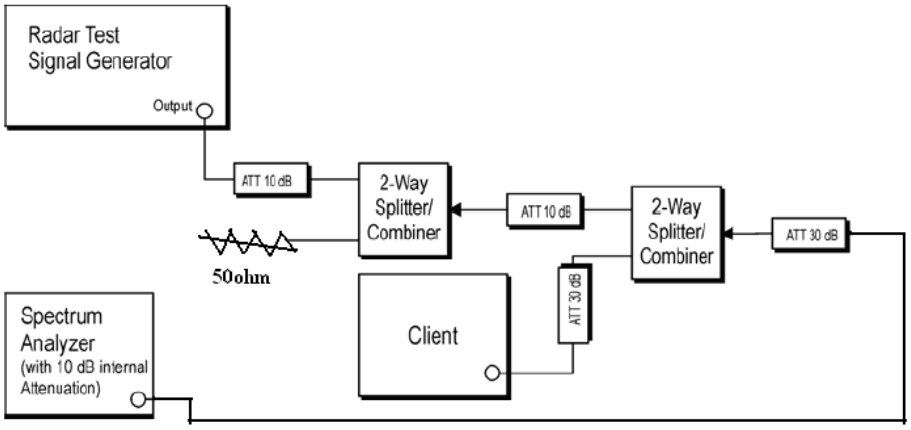


Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

The Interference Radar Detection Threshold Level is (-64dBm) + (0) [dBi]+ 1 dB= -63 dBm that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for each radar type. During this process there were replace 50ohm terminal form Master and Client device and no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to at least 3MHz. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was(-64dBm) + (0)[dBi]+ 1 dB= -63dBm. Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

5.2.3. Calibration& Channel Loading Result

Refer to Appendix A.1 & A.2.

5.3. NII Detection Bandwidth Measurement

5.3.1. Test Limit

Minimum 100% of the NII 99% transmission power bandwidth. During the U-NII Detection Bandwidth detection test, each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

5.3.2. Test Procedure

1. Adjust the equipment to produce a single Burst of any one of the Short Pulse Radar Types 0-4 in Table 3-5 at the center frequency of the EUT Operating Channel at the specified DFS Detection Threshold level.
2. The generating equipment is configured as shown in the Conducted Test Setup above section 3.5.
3. The EUT is set up as a stand-alone device (no associated Client or Master, as appropriate) and no traffic. Frame based systems will be set to a talk/listen ratio reflecting the worst case (maximum) that is user configurable during this test.
4. Generate a single radar Burst, and note the response of the EUT. Repeat for a minimum of 10 trials. The EUT must detect the Radar Waveform using the specified U-NII Detection Bandwidth criterion shown in Table 3-5. In cases where the channel bandwidth may exceed past the DFS band edge on specific channels (i.e., 802.11ac or wideband frame based systems) select a channel that has the entire emission bandwidth within the DFS band. If this is not possible, test the detection BW to the DFS band edge.
5. Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 3-3. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as FH) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance.
6. Starting at the center frequency of the EUT operating Channel, decrease the radar frequency in 1 MHz steps, repeating the above item 4 test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.
7. The U-NII Detection Bandwidth is calculated as follows: U-NII Detection Bandwidth = FH – FL

8. The U-NII Detection Bandwidth must be at least 100% of the EUT transmitter 99% power, otherwise, the EUT does not comply with DFS requirements.

5.3.3. Test Result

Refer to Appendix A.3.

5.4. Initial Channel Availability Check Time Measurement

5.4.1. TestLimit

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

5.4.2. Test Procedure

1. The U-NII devices will be powered on and be instructed to operate on the appropriate U-NII Channel that must incorporate DFS functions. At the same time the EUT is powered on, the spectrum analyzer will be set to zero span mode with a 3 MHz RBW and 3 MHz VBW on the Channel occupied by the radar (Chr) with a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.
2. The EUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.
3. Confirm that the EUT initiates transmission on the channel. Measurement system showing its nominal noise floor is marker1.

5.4.3. Test Result

Refer to Appendix A.4.

5.5. Radar Burst at the Beginning of the Channel Availability Check Time Measurement

5.5.1. Test Limit

In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.5.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is in completion power-up cycle (from T0 to T1). T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

5.5.3. Test Result

Refer to Appendix A.5.

5.6. Radar Burst at the End of the Channel Availability Check Time Measurement

5.6.1. Test Limit

In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is powered on at T0. T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner thanT1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1+ 54 seconds.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

5.6.3. Test Result

Refer to Appendix A.6.

5.7. In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Measurement

5.7.1. Test Limit

The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. The total duration of Channel Closing Transmission Time is 260ms, consisting of data signals and the aggregate of control signals, by a U-NII device during the Channel Move Time. The Non-Occupancy Period time is 30minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel.

5.7.2. Test Procedure

1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (1.5ms) = S (12 sec) / B (8000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C = N X Dwell; where C is the Closing Time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and Dwell is the dwell time per bin.
5. Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

5.7.3. Test Result

Refer to Appendix A.7.

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

The minimum percentage of successful detection requirements found in below table when a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device (In- Service Monitoring).

Radar Type	Minimum Number of Trails	Detection Probability
0	30	Pd ≥ 60%
1	30(15 of test A and 15 of test B)	Pd ≥ 60%
2	30	Pd ≥ 60%
3	30	Pd ≥ 60%
4	30	Pd ≥ 60%
Aggregate (Radar Types 1-4)	120	Pd ≥ 80%
5	30	Pd ≥ 80%
6	30	Pd ≥ 70%
Note: The percentage of successful detection is calculated by: (Total Waveform Detections/ Total Waveform Trails) * 100 = Probability of Detection Radar Waveform In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows: (Pd1 + Pd2 + Pd3 + Pd4) / 4.		

5.8.2. Test Procedure

1. Stream the MPEG test file from the Master Device to the Client Device on the test Channel for the entire period of the test.
2. At time T0 the Radar Waveform generator sends the individual waveform for each of the Radar Types 1-6, at levels equal to the DFS Detection Threshold + 1dB, on the Operating Channel.
3. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 0 to ensure detection occurs.
4. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.
5. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.
6. The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in below table

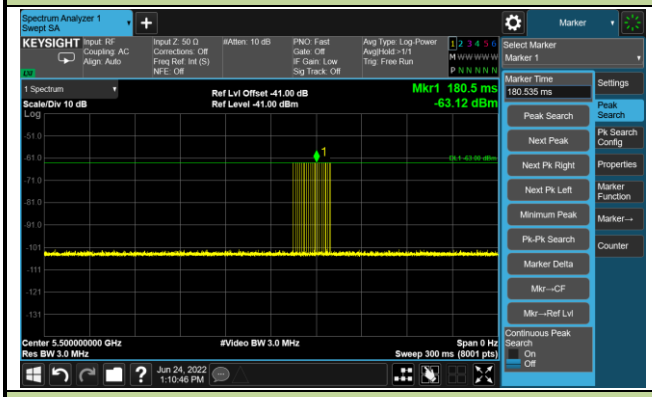
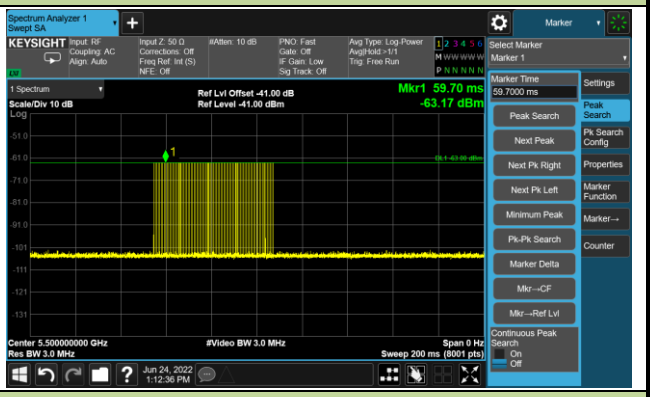
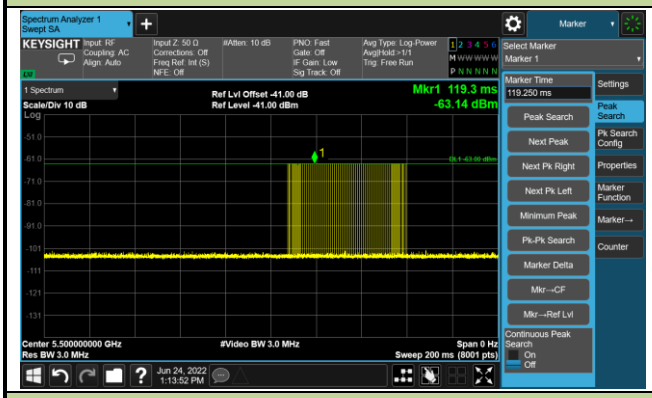
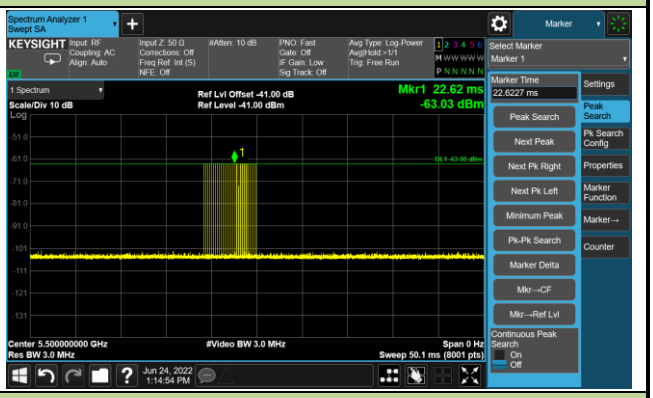
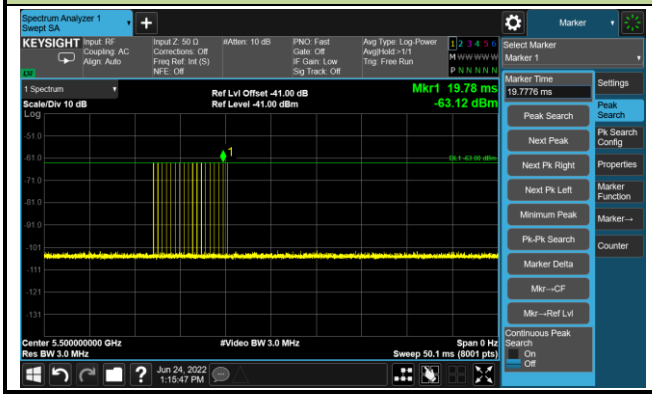
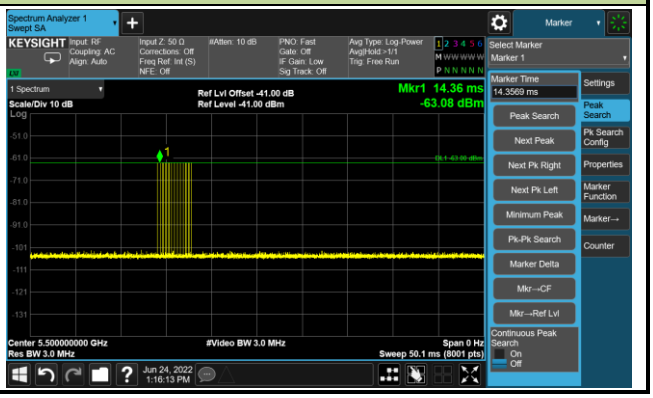
5.8.3. Test Result

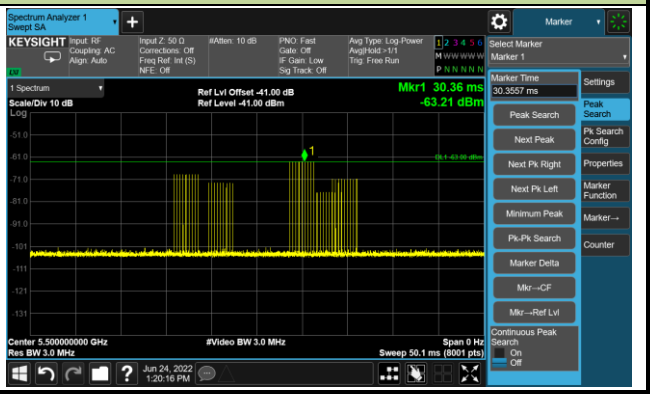
Refer to Appendix A.8.

Appendix A – Test Result

A.1 Calibration Test Result

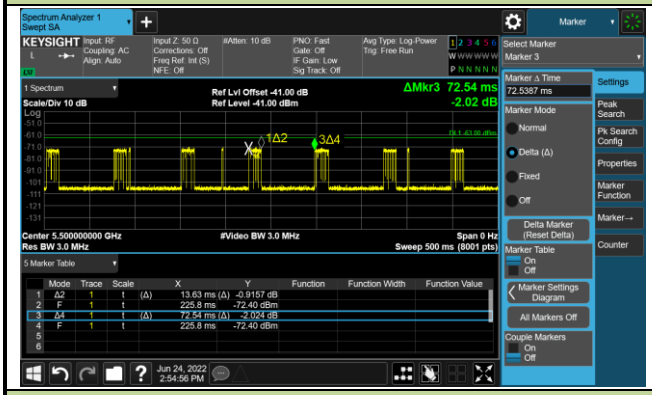
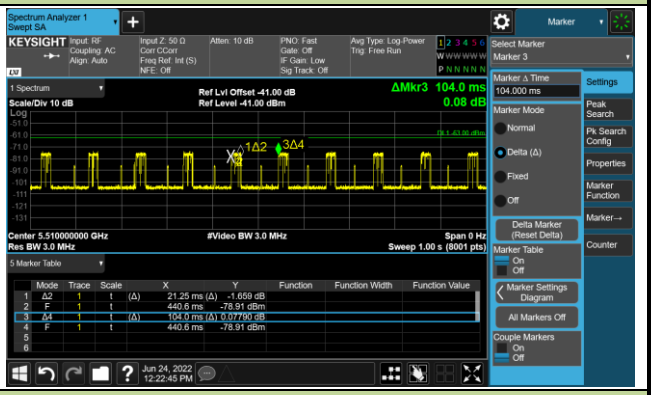
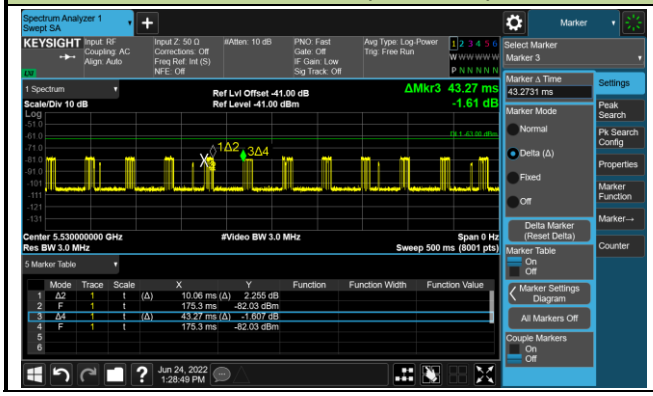
Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24	Test Item	Radar Waveform Calibration

Radar Waveform Calibration	
Radar #0	Radar #1 (Test A) PRI = 658us and the number of pulses = 81
	
Radar #1 (Test B) PRI = 858us and the number of pulses = 62	Radar #2
	
Radar #3	Radar #4
	

Radar #5	Radar #6
	

A.2 Channel Loading Test Result

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24	Test Item	Channel Loading

802.11ax-HE20 (5500MHz)	802.11ax-HE40 (5510MHz)
	
802.11ax-HE80 (5530MHz)	
	

Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11ax-HE20	5500 MHz	18.79%	≥ 17%	Pass
802.11ax-HE40	5510 MHz	20.43%	≥ 17%	Pass
802.11ax-HE80	5530 MHz	23.25%	≥ 17%	Pass
Note: System testing was performed with the designated iperf test file. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On/ (Time On + Off Time).				

A.3 NII Detection Bandwidth Test Result

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24		
Test Item	Detection Bandwidth (802.11ax-HE20 mode - 5500MHz) - Mode 1		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate
5490 FL	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 FH	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 18.89MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5510MHz – 5490MHz = 20MHz

Note 3: NII Detection Bandwidth Min. Limit (MHz): 18.89MHz x 100% = 18.89MHz.

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-29		
Test Item	Detection Bandwidth (802.11ax-HE20 mode - 5500MHz) - Mode 2		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate
5490	0	0	0	0	0	0	0	0	0	0	0%
5490.4 FL	1	1	1	1	1	1	1	1	1	1	100%
5491	1	1	1	1	1	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509	1	1	1	1	1	1	1	1	1	1	100%
5509.6 FH	1	1	1	1	1	1	1	1	1	1	100%
5510	0	0	0	0	0	0	0	0	0	0	0%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 18.89MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509.6MHz – 5490.4MHz = 19.2MHz

Note 3: NII Detection Bandwidth Min. Limit (MHz): 18.89MHz x 100% = 18.89MHz.

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-27		
Test Item	Detection Bandwidth (802.11ax-HE40 mode - 5510MHz) - Mode 1		

Radar Frequency	DFS Detection Trials (1=Detection, 0= No Detection)										
(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	1	1	1	1	1	100%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	1	1	1	1	1	1	100%
5529 FH	1	1	1	1	1	1	1	1	1	1	100%
5530	0	0	0	0	0	0	0	0	0	0	0%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 37.73MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529MHz - 5491MHz = 38MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 37.73MHz x 100% = 37.73MHz.

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-27		
Test Item	Detection Bandwidth (802.11ax-HE80 mode - 5530MHz) - Mode 1		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate
5490 FL	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5570 FH	1	1	1	1	1	1	1	1	1	1	100%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 77.12MHz. (See the 99% BW section of the RF report for further measurement details).

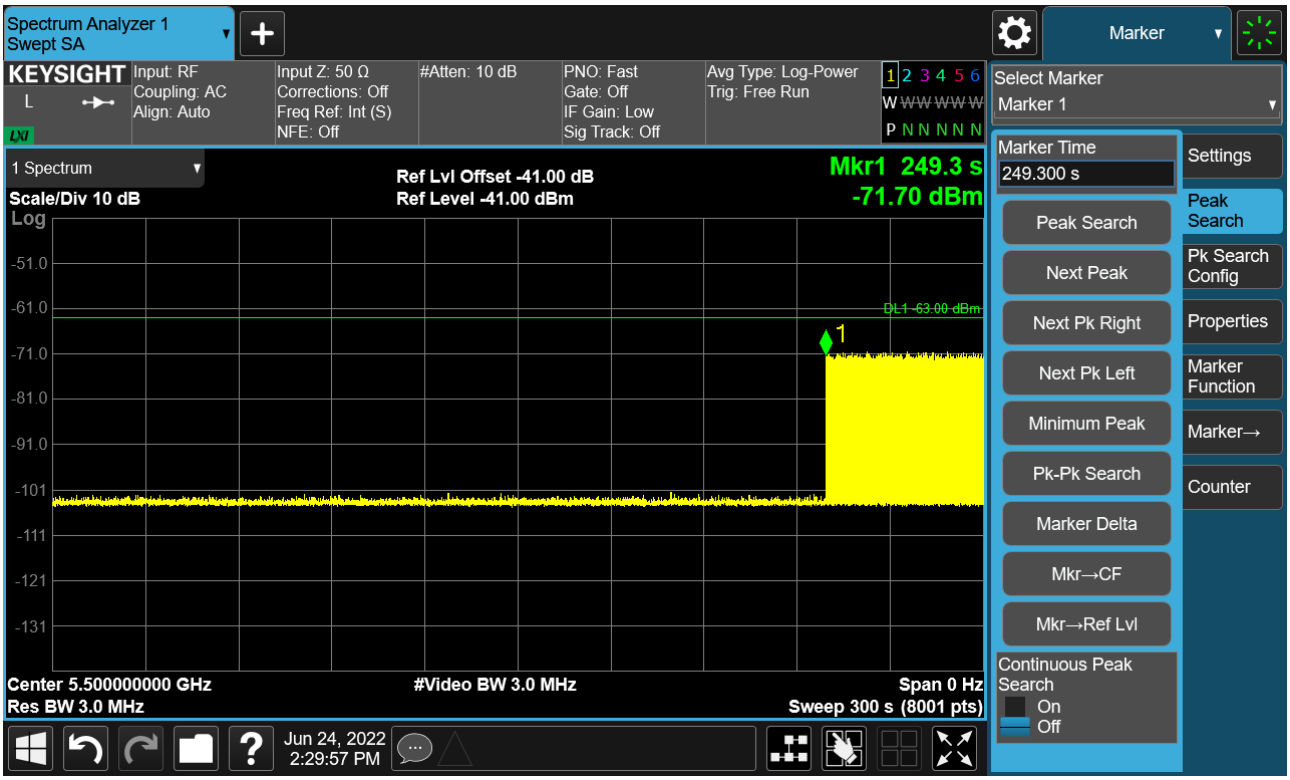
Note 2: Detection Bandwidth = FH - FL = 5570MHz - 5490MHz = 80MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 77.12MHz x 100% = 77.12MHz.

A.4 Initial Channel Availability Check Time Test Result

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24		
Test Item	Initial Channel Availability Check Time (802.11ax-HE20- 5500MHz) - Mode 1		

Initial Channel Availability Check Time

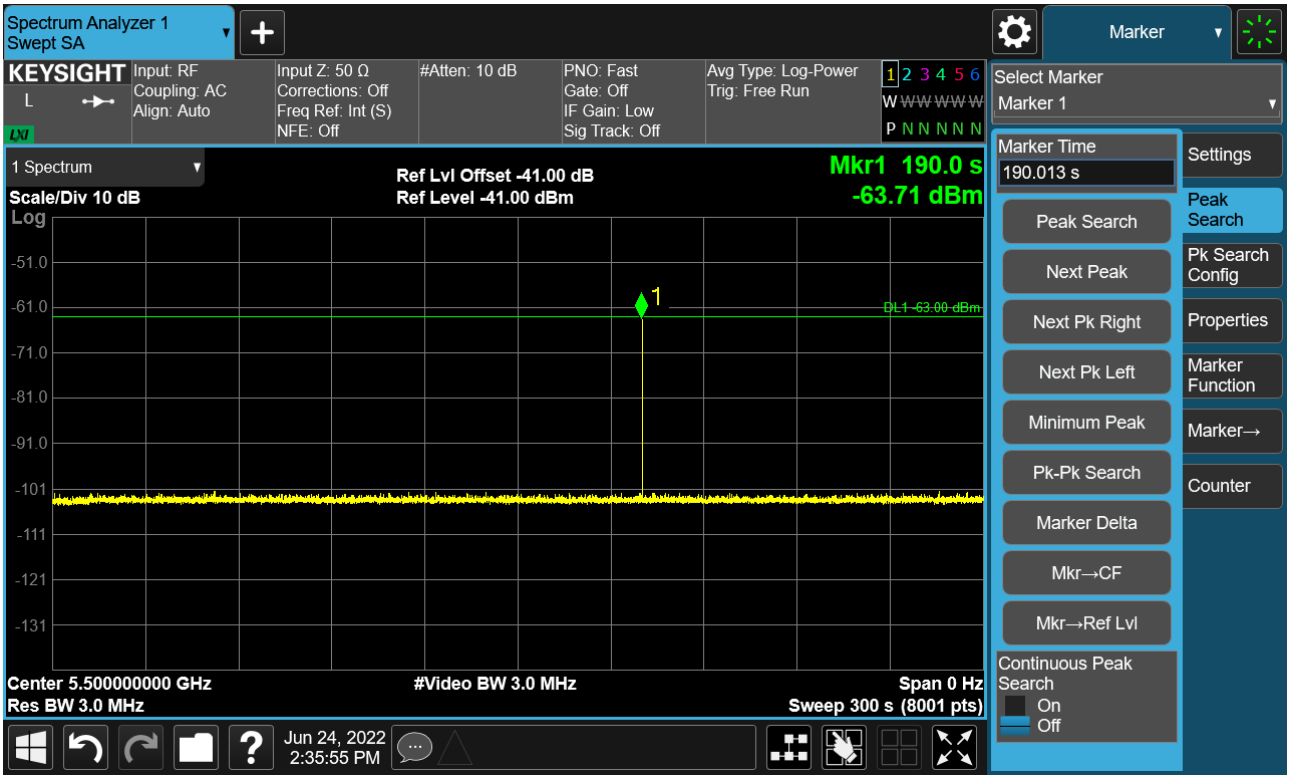


Note: The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (189.3sec). Initial beacons/data transmissions are indicated by marker 1 (249.3sec).

A.5 Radar Burst at the Beginning of the Channel Availability Check Time Test Result

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24		
Test Item	Beginning of the Channel Availability Check Time (802.11ax-HE20 - 5500MHz) - Mode 1		

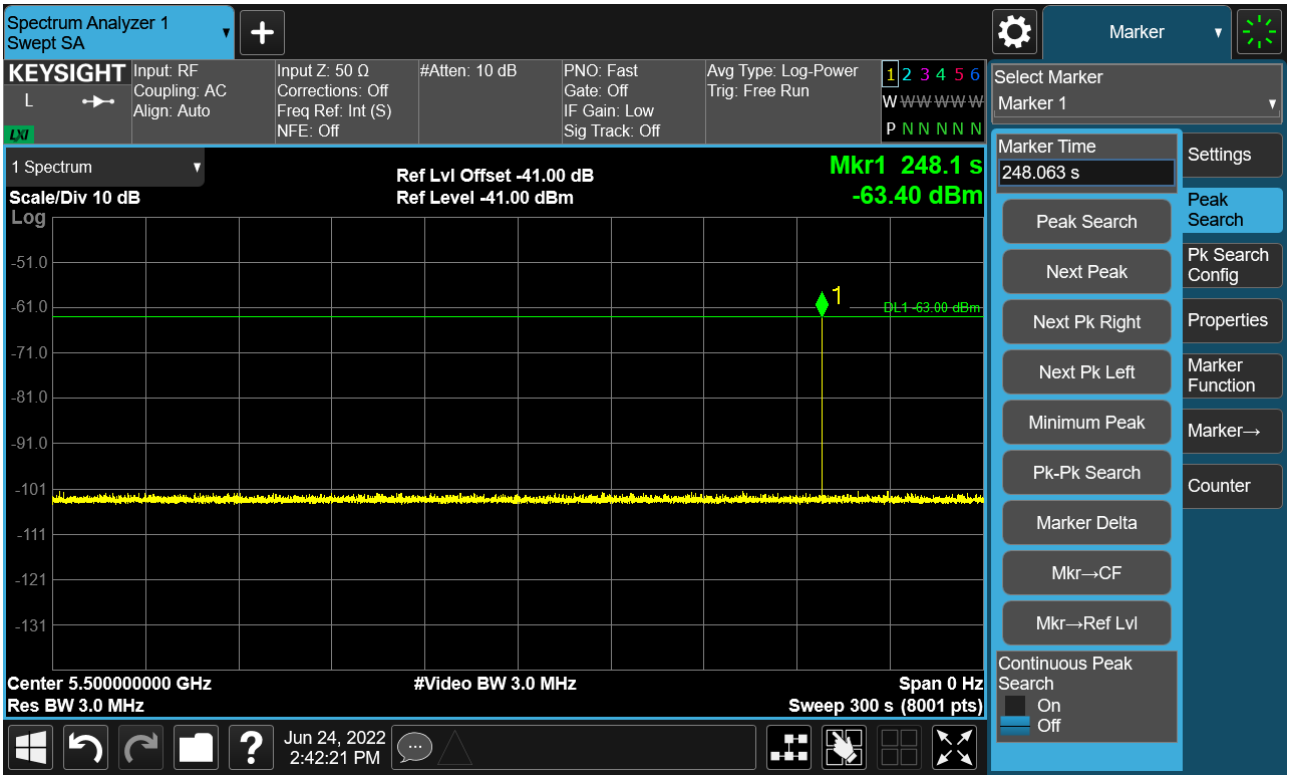
Beginning of the Channel Availability Check Time



A.6 Radar Burst at the End of the Channel Availability Check Time Test Result

Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24		
Test Item	End of the Channel Availability Check Time (802.11ax-HE20 - 5500MHz) - Mode 1		

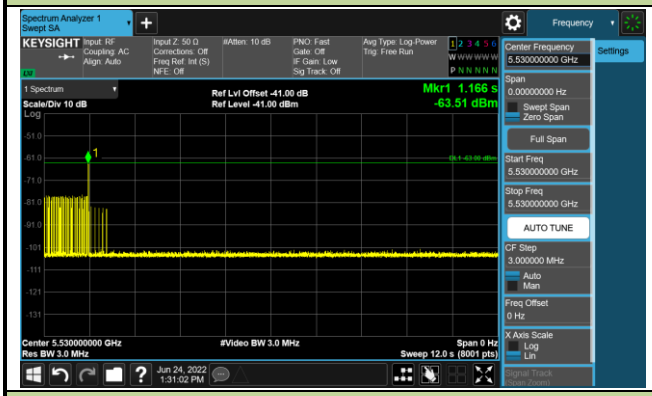
End of the Channel Availability Check Time

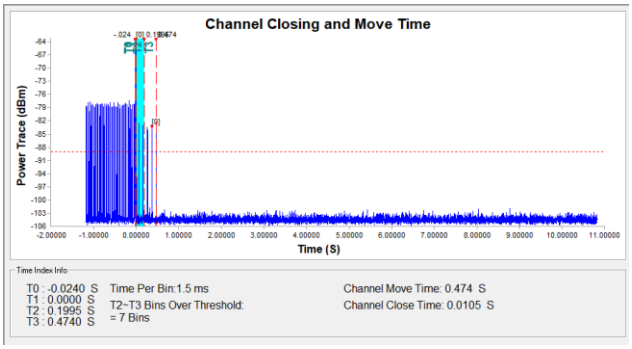


A.7 In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Test Result

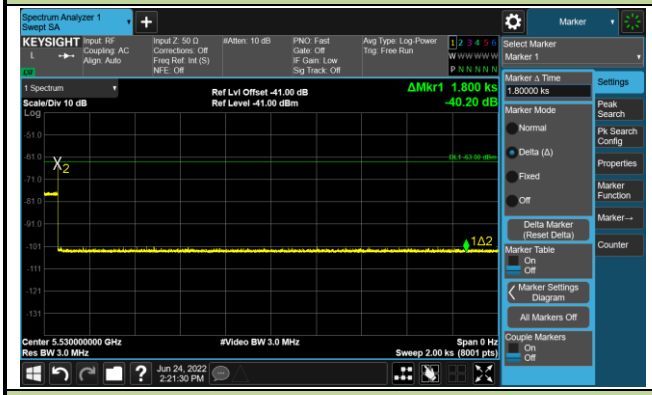
Test Site	WZ-SR4	Test Engineer	Jake Lan
Test Date	2022-06-24		
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ax-HE80 - 5530MHz)-mode 1		

Channel Move Time and Channel Closing Transmission Time





Non-Occupancy Period



Parameter	Test Result	Limit
Channel Move Time (s)	0.474s	<10s
Channel Closing Transmission Time (ms) (Note)	10.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

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.

A.8 Statistical Performance Check

Product	Wireless Router	Temperature	27°C
Test Engineer	Jake Lan	Relative Humidity	65%
Test Site	WZ-SR4	Test Date	2022-06-24
Test Item	Radar Statistical Performance Check (802.11ax-HE20– 5500MHz) - Mode 1		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5503	1	658	81	1
2	5496	1	618	86	1
3	5501	1	518	102	1
4	5505	1	578	92	1
5	5508	1	578	92	1
6	5495	1	598	89	1
7	5500	1	798	67	1
8	5508	1	618	86	1
9	5505	1	718	74	0
10	5493	1	658	81	1
11	5504	1	878	61	1
12	5505	1	798	67	1
13	5498	1	778	68	1
14	5509	1	578	92	0
15	5493	1	578	92	1
16	5508	1	738	72	1
17	5490	1	678	78	1
18	5503	1	918	58	1
19	5499	1	878	61	1
20	5506	1	858	62	1
21	5492	1	738	72	1
22	5510	1	898	59	1
23	5499	1	938	57	1
24	5502	1	638	83	1
25	5498	1	3066	18	1
26	5495	1	858	62	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5496	1	518	102	1
28	5507	1	878	61	1
29	5491	1	518	102	0
30	5501	1	658	81	1
Detection Percentage (%)					90%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5497	4.2	214	28	1
2	5510	1.5	165	25	1
3	5504	3.8	195	25	0
4	5491	2.6	225	25	1
5	5503	2.9	150	29	1
6	5504	3.9	218	25	1
7	5496	3.4	165	26	1
8	5508	4.1	221	25	0
9	5507	3.6	206	25	1
10	5509	3.4	174	27	1
11	5499	4.6	157	24	1
12	5495	3.5	206	29	1
13	5498	2.6	207	25	1
14	5494	2.9	202	28	1
15	5500	3.2	204	26	1
16	5505	3.6	167	25	1
17	5491	4.2	168	29	0
18	5506	4.1	156	26	1
19	5493	2.2	164	28	0
20	5507	2.6	197	26	1
21	5498	1.9	172	25	1
22	5493	1.6	193	23	1
23	5504	1.2	164	26	1
24	5490	4.0	230	24	1
25	5505	3.1	183	26	1
26	5492	3.3	211	24	1
27	5501	4.4	183	27	1
28	5507	3.1	176	28	1
29	5502	4.1	185	29	0
30	5508	4.6	189	26	1
Detection Percentage (%)					**83.3%**

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	9.0	481	18	1
2	5505	8.4	488	17	1
3	5500	10.0	350	17	1
4	5495	8.8	222	17	1
5	5501	7.0	340	18	1
6	5490	6.9	200	17	0
7	5505	7.3	417	17	0
8	5495	9.4	269	17	1
9	5510	9.9	394	18	0
10	5504	8.7	359	17	1
11	5509	8.8	327	17	1
12	5494	9.3	284	16	1
13	5495	6.3	406	17	1
14	5493	8.7	266	18	0
15	5506	8.5	337	17	1
16	5495	6.1	321	16	1
17	5508	8.0	367	18	1
18	5498	9.4	448	18	1
19	5500	7.0	308	16	1
20	5503	7.3	373	17	0
21	5498	6.5	315	17	1
22	5500	8.6	288	17	1
23	5505	6.4	245	17	1
24	5490	6.6	396	18	0
25	5501	6.2	446	17	1
26	5496	10.0	360	17	0
27	5505	6.6	299	17	1
28	5497	6.1	469	18	1
29	5507	6.6	478	17	1
30	5495	7.5	408	16	1
Detection Percentage (%)					**76.7%**

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5494	16.3	317	13	0
2	5505	16.6	425	14	1
3	5510	14.7	465	15	0
4	5503	16.5	249	16	1
5	5497	16.0	299	15	1
6	5493	19.2	268	12	0
7	5492	15.8	250	13	0
8	5498	14.0	495	14	1
9	5490	17.8	499	12	1
10	5508	16.7	215	14	1
11	5506	12.8	401	15	0
12	5495	19.9	368	16	1
13	5493	18.0	473	15	1
14	5501	14.2	500	13	1
15	5496	18.2	320	12	1
16	5492	19.7	221	13	1
17	5502	15.1	212	14	1
18	5494	11.0	480	16	1
19	5490	13.8	292	15	1
20	5497	17.1	408	14	0
21	5503	13.8	248	16	1
22	5500	11.7	200	14	1
23	5506	17.0	337	16	1
24	5508	12.2	228	12	1
25	5490	15.7	238	15	1
26	5501	17.7	232	16	0
27	5491	15.0	233	12	1
28	5492	12.9	209	16	1
29	5504	14.5	430	15	1
30	5495	18.3	277	13	1
Detection Percentage (%)					**76.7%**

Note: In addition, an average minimum percentage of successful detection across all four short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (90.0%+83.3%+76.7%+76.7%)/4 = 81.7% (≥ 80%)

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5500	1	16	5492.4	1
2	5500	1	17	5492.4	1
3	5500	1	18	5496.8	1
4	5500	1	19	5497.6	0
5	5500	1	20	5494	1
6	5500	1	21	5507.6	1
7	5500	1	22	5503.2	1
8	5500	1	23	5502.4	1
9	5500	1	24	5502	1
10	5500	1	25	5506	1
11	5493.2	1	26	5504.8	1
12	5496.4	1	27	5504	1
13	5496.4	1	28	5506	1
14	5495.6	0	29	5504	1
15	5494	1	30	5506.8	1
Detection Percentage (%)					**93.3%**

Type 5 Radar Waveform_1

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	66.2	9	1434	1313	472.485
2	3	74.2	9	1851	1508	151.35
3	1	96	9			34.542
4	2	62.6	9	1632		267.343
5	1	55.4	9			261.504
6	3	85.4	9	1826	1893	299.175
7	2	58.4	9	1375		427.396
8	2	100	9	1819		317.607
9	3	53.4	9	1838	1302	262.058
10	3	80.8	9	1202	1444	590.919
11	3	66.5	9	1330	1942	420.631
12	2	98.8	9	1005		402.272
13	3	92.3	9	1214	1931	390.563
14	3	52	9	1952	1905	47.494
15	3	98.5	9	1693	1413	410.605
16	2	52.5	9	1702		571.216
17	1	77.6	9			589.137
18	3	58.5	9	1468	1024	516.558
19	3	57.8	9	1570	1957	184.379

Type 5 Radar Waveform_2

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	90.6	7			498.918
2	2	88.6	7	1435		247.197
3	3	75.4	7	1471	1062	1004.563
4	3	51.8	7	1916	1809	1201.56
5	3	79.1	7	1360	1091	915.967
6	2	62.8	7	1056		548.573
7	2	63.7	7	1524		444.53
8	3	93.4	7	1084	1580	102.807
9	1	51.2	7			320.133

Type 5 Radar Waveform_3

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	80.8	13	1917		653.244
2	2	86.7	13	1657		193.249
3	3	91.8	13	1470	1318	250.38
4	1	87.4	13			163.81
5	1	91.4	13			576.92
6	2	74.9	13	1981		620.15
7	2	57	13	1625		723.58
8	2	86.5	13	1751		148.48
9	1	73.7	13			166.17
10	1	61.5	13			434.11
11	2	53.3	13	1889		170.87
12	2	70.4	13	1576		153.65
13	3	89.9	13	1677	1361	326.6
14	2	86.8	13	1140		569.7
15	1	61.5	13			639.1
16	1	70.1	13			116.2

Type 5 Radar Waveform_4

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	54.3	14	1074	1876	726.303
2	2	77	14	1812		545.86
3	3	99.8	14	1008	1877	51.87
4	1	52	14			496.15
5	3	69.4	14	1002	1413	270.37
6	1	81.7	14			95.51
7	2	95	14	1428		155.68
8	2	77.3	14	1560		684.29
9	2	90.2	14	1129		688.76
10	2	95.7	14	1159		90.87
11	3	76.1	14	1337	1370	14.2
12	2	83.4	14	1856		548.33
13	3	87.8	14	1008	1110	98.59
14	3	88.6	14	1513	1384	418.5
15	3	54.4	14	1696	1598	140.2
16	2	77	14	1841		214.8

Type 5 Radar Waveform_5

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	73.2	20	1731	1433	37.207
2	1	76.2	20			353.948
3	1	50.1	20			689.175
4	3	69.4	20	1143	1363	367.653
5	1	86.9	20			90.681
6	3	63.6	20	1020	1673	586.138
7	1	90.1	20			481.286
8	3	98.8	20	1667	1897	654.944
9	2	58.5	20	1533		670.861
10	2	53.9	20	1623		413.259
11	2	61.9	20	1495		26.176
12	2	70.7	20	1266		512.084
13	2	58.2	20	1129		530.262
14	2	51.5	20	1715		195.429
15	2	95.3	20	1889		226.947
16	2	89.1	20	1559		52.765
17	2	54.2	20	1738		246.582

Type 5 Radar Waveform_6

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	93.5	16	1306		1326.48
2	2	52.5	16	1154		1027.24
3	2	63	16	1667		1319.96
4	2	51.5	16	1387		512.05
5	1	71.5	16			93.66
6	3	75.5	16	1937	1973	200.06
7	3	63.7	16	1652	1137	709.03
8	1	61.4	16			293.1

Type 5 Radar Waveform_7

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	59.6	8			309.55
2	2	67.9	8	1615		422.847
3	1	59.5	8			293.354
4	3	72.8	8	1834	1243	518.621
5	2	73.9	8	1173		673.889
6	2	90.1	8	1723		459.266
7	1	87.9	8			497.723
8	3	55.9	8	1494	1540	179.3
9	3	77.2	8	1031	1674	387.897
10	1	94	8			378.444
11	1	89.5	8			496.741
12	3	59	8	1387	1173	515.039
13	2	82.8	8	1801		288.586
14	1	77.9	8			529.343

Type 5 Radar Waveform_8

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (μ sec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	53.4	6	1340		635.41
2	3	77.1	6	1758	1747	178.245
3	1	93.6	6			458.81
4	2	97	6	1152		663.78
5	3	52.8	6	1989	1953	435.47
6	3	88.5	6	1458	1768	685.7
7	2	84.2	6	1937		601.9
8	1	97.2	6			332.83
9	1	80.3	6			601.53
10	1	89.2	6			546.74
11	3	85.3	6	1544	1913	169.55
12	3	60	6	1106	1421	784.85
13	3	73.1	6	1945	1052	489.1
14	2	69.5	6	1150		763.9
15	1	86.5	6			181.8

Type 5 Radar Waveform_9

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	97.9	17	1347		458.137
2	2	94.3	17	1295		240.386
3	2	89.8	17	1150		80.365
4	1	85.9	17			493.183
5	1	80.3	17			59.791
6	3	67.4	17	1462	1298	95.778
7	3	87.8	17	1793	1283	560.336
8	2	63	17	1202		464.744
9	1	76.6	17			692.041
10	2	70.4	17	1613		450.409
11	2	66.3	17	1740		338.006
12	2	83.1	17	1913		19.644
13	1	96.3	17			471.842
14	1	68.6	17			363.889
15	2	58.6	17	1782		154.047
16	2	95.9	17	1042		159.665
17	1	59.4	17			589.482

Type 5 Radar Waveform_10

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	51.9	18	1334		1026.68
2	2	58	18	1111		1142.44
3	2	60.8	18	1382		1112.05
4	3	97.6	18	1240	1619	563.69
5	2	76.2	18	1965		233.38
6	2	70.1	18	1698		839.08
7	2	97.4	18	1832		1179.19
8	2	76.3	18	1784		482.59
9	2	96.3	18	1567		755.5
10	2	55.9	18	1237		1108

Type 5 Radar Waveform_11

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	99.7	8			672.638
2	2	66.5	8	1862		223.266
3	2	75.9	8	1391		326.755
4	2	84.5	8	1840		581.993
5	3	84.5	8	1678	1881	672.851
6	3	99.6	8	1687	1819	313.438
7	2	63.5	8	1594		223.296
8	3	65.2	8	1746	1627	594.214
9	1	53.6	8			675.261
10	3	57.4	8	1613	1569	227.649
11	3	82.5	8	1558	1106	607.146
12	2	79	8	1891		609.104
13	2	94	8	1969		186.592
14	2	89	8	1725		487.389
15	3	67.2	8	1247	1465	264.847
16	3	99.9	8	1124	1114	157.665
17	2	69	8	1337		505.182

Type 5 Radar Waveform_12

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	61.6	16	1452	1746	305.286
2	1	56.5	16			278.97
3	1	61.8	16			150.29
4	2	68.4	16	1901		85.11
5	2	70	16	1114		69.86
6	1	97.5	16			438.48
7	3	50.2	16	1959	1935	358.22
8	2	62.6	16	1038		238.86
9	2	96.5	16	1463		534.65
10	2	93.7	16	1148		697.7
11	2	62.8	16	1910		423.67
12	2	61.7	16	1048		549.29
13	1	88.7	16			305.4
14	3	73.4	16	1517	1716	142.79
15	1	74.1	16			18.8
16	1	95.8	16			65.1

Type 5 Radar Waveform_13

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	65.6	16	1964		16.534
2	2	65.6	16	1742		52.842
3	1	97.5	16			236.777
4	2	86.3	16	1984		111.09
5	2	81.6	16	1581		570.923
6	2	99.8	16	1097		422.907
7	2	74.6	16	1598		162.26
8	2	64.9	16	1315		606.853
9	2	98.8	16	1783		419.417
10	2	87.6	16	1623		273.94
11	3	80.8	16	1329	1660	459.573
12	1	70.9	16			78.457
13	1	72.2	16			116.18
14	2	86.5	16	1049		36.133
15	2	75.5	16	1050		352.807
16	3	68.8	16	1404	1072	215.8
17	1	63.2	16			565.933
18	2	59.5	16	1552		103.767

Type 5 Radar Waveform_14

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	73.4	14	1650		115.001
2	2	63	14	1547		548.263
3	1	60.8	14			169.397
4	2	91.7	14	1560		450.09
5	2	53.9	14	1198		321.783
6	2	69.7	14	1576		449.967
7	1	96.8	14			356.8
8	3	86.7	14	1547	1867	583.483
9	2	50.6	14	1409		323.047
10	2	56.6	14	1620		387.91
11	2	92.9	14	1670		375.053
12	3	52.1	14	1869	1149	103.977
13	3	72.9	14	1262	1593	591.68
14	1	92.3	14			588.783
15	2	95.2	14	1025		133.797
16	2	91.2	14	1699		353
17	2	56.4	14	1912		352.533
18	1	90.1	14			41.167

Type 5 Radar Waveform_15

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	62.8	10			134.473
2	2	98.2	10	1553		828.537
3	2	89.9	10	1854		180.034
4	2	70.8	10	1245		375.441
5	2	59.4	10	1707		84.619
6	2	65.9	10	1640		724.586
7	2	97.3	10	1770		604.043
8	1	57.5	10			795.71
9	3	70.7	10	1885	1527	97.007
10	1	54.1	10			641.324
11	3	95.6	10	1684	1774	133.911
12	2	66.1	10	1126		230.079
13	3	80.2	10	1312	1515	132.986
14	1	53.4	10			613.543

Type 5 Radar Waveform_16

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	96.4	6	1058	1465	449.353
2	1	53.5	6			201.77
3	2	79.2	6	1265		317.35
4	1	85.4	6			846.4
5	2	50.4	6	1138		557.92
6	2	54.5	6	1894		420.63
7	2	87.7	6	1174		904.19
8	2	73.6	6	1116		384.98
9	3	54.2	6	1003	1296	659.27
10	1	87	6			508.29
11	2	55.2	6	1389		721
12	2	68.2	6	1681		467

Type 5 Radar Waveform_17

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	99.8	6	1671		522.59
2	2	65.8	6	1308		605.443
3	2	52.1	6	1805		247.776
4	2	67.8	6	1962		305.089
5	2	52.1	6	1472		38.562
6	2	55.1	6	1627		734.315
7	2	86.8	6	1884		422.818
8	3	83.8	6	1705	1798	192.872
9	3	75.5	6	1980	1613	913.235
10	1	99	6			712.288
11	2	89.4	6	1080		838.231
12	3	95.9	6	1718	1256	8.254
13	2	60.3	6	1660		244.577

Type 5 Radar Waveform_18

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	98.3	17	1871		350.51
2	2	53.6	17	1966		490.227
3	2	65.6	17	1018		709.434
4	1	97.9	17			264.861
5	2	97.1	17	1358		214.209
6	2	62.5	17	1650		715.086
7	2	62.3	17	1951		529.233
8	1	92.9	17			245.85
9	2	59.9	17	1182		384.997
10	1	55.2	17			267.704
11	2	64.9	17	1091		466.671
12	3	62.1	17	1845	1226	254.209
13	1	50.1	17			129.386
14	1	79.4	17			513.243

Type 5 Radar Waveform_19

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	68.6	19	1107	1295	292.188
2	3	54.6	19	1862	1085	818.533
3	2	91.1	19	1822		534.606
4	3	53.9	19	1358	1637	807.169
5	2	89.6	19	1795		849.972
6	3	79.1	19	1147	1259	746.805
7	3	55.5	19	1706	1073	906.748
8	3	99.5	19	1669	1055	168.532
9	2	70.4	19	1158		503.765
10	3	59.2	19	1761	1144	10.148
11	3	71	19	1138	1300	238.101
12	1	59.1	19			790.754
13	1	60.1	19			1.677

Type 5 Radar Waveform_20

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	78.6	10	1289		335.635
2	2	85.8	10	1243		658.658
3	1	81.9	10			92.415
4	2	88.3	10	1687		460.293
5	2	93.1	10	1107		351.781
6	2	88.6	10	1464		19.678
7	1	84.8	10			46.866
8	3	79.6	10	1708	1775	556.584
9	3	73.3	10	1353	1391	586.161
10	2	53.9	10	1169		294.049
11	3	98.8	10	1779	1791	51.796
12	3	62.7	10	1580	1470	346.274
13	2	69.8	10	1507		122.442
14	2	90.2	10	1980		453.269
15	2	60.8	10	1899		375.147
16	3	100	10	1208	1744	489.465
17	2	65.8	10	1531		149.182

Type 5 Radar Waveform_21

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	59.9	6	1160		835.837
2	1	71.6	6			10.94
3	2	89.1	6	1845		232.35
4	1	83	6			787.78
5	3	63.2	6	1527	1877	601.06
6	2	92.9	6	1642		366.64
7	2	80.7	6	1168		290.1
8	3	65.8	6	1022	1513	59.9

Type 5 Radar Waveform_22

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	84.9	17			549.399
2	2	52.5	17	1447		473.72
3	2	92.9	17	1422		920.76
4	2	78.7	17	1923		463.44
5	2	75.5	17	1143		552.29
6	2	98.8	17	1560		989.43
7	1	82.8	17			387.26
8	2	99.5	17	1159		869.53
9	2	85.3	17	1774		933.2
10	2	78.8	17	1428		356.1

Type 5 Radar Waveform_23

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	93.8	19	1361	1081	1048.65
2	2	100	19	1782		165.991
3	2	63.3	19	1285		84.712
4	3	95	19	1209	1360	178.443
5	2	56.9	19	1581		289.944
6	3	86.3	19	1943	1505	565.175
7	1	55.7	19			487.625
8	1	71.8	19			647.696
9	3	91.4	19	1831	1374	236.167
10	3	50.3	19	1522	1177	1048.818
11	3	85.2	19	1265	1608	1073.909

Type 5 Radar Waveform_24

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	88.7	20	1790		1172.44
2	3	83.8	20	1871	1498	742.04
3	3	68.2	20	1141	1891	826.85
4	3	88.1	20	1149	1606	1151.18
5	2	52.6	20	1291		1109.53
6	2	95.3	20	1832		896.79
7	2	78	20	1409		366.58
8	2	82.7	20	1939		178.66
9	2	82.2	20	1879		524.4
10	1	56.1	20			953.3

Type 5 Radar Waveform_25

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	55.5	10	1595	1870	696.913
2	3	65	10	1704	1605	323.14
3	2	53.5	10	1208		67.29
4	3	51.7	10	1526	1549	180.17
5	3	72.5	10	1890	1143	646.99
6	2	88.7	10	1847		732.66
7	1	69.9	10			494.88
8	2	75.7	10	1542		520.01
9	2	66.6	10	1060		665.08
10	3	54.8	10	1232	1606	465.46
11	3	61.5	10	1952	1878	594.96
12	2	99.2	10	1461		200.96
13	2	62.8	10	1593		684.08
14	3	58.5	10	1564	1013	106.9
15	1	95.3	10			248.5
16	3	93	10	1348	1818	14.9

Type 5 Radar Waveform_26

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	56.4	13	1258	1682	379.665
2	2	90.7	13	1390		574.783
3	3	78.5	13	1428	1240	351.217
4	2	63.8	13	1978		399.53
5	1	63.3	13			244.983
6	1	83	13			603.067
7	2	71.6	13	1385		80.54
8	2	93.1	13	1244		110.013
9	2	86.4	13	1835		219.017
10	1	66.4	13			3.74
11	3	71.7	13	1878	1927	59.413
12	3	54	13	1811	1582	455.607
13	1	97.8	13			253.76
14	1	94.5	13			302.543
15	1	59.7	13			654.807
16	2	56.4	13	1376		223.9
17	2	76.7	13	1134		164.533
18	3	82.8	13	1492	1148	466.067

Type 5 Radar Waveform_27

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	73	15			5.051
2	2	91.1	15	1418		768.063
3	3	63.6	15	1069	1244	913.946
4	3	61.3	15	1647	1675	191.429
5	2	95.8	15	1693		484.922
6	2	95.2	15	1332		382.005
7	3	93.8	15	1839	1584	245.448
8	3	78.4	15	1341	1347	348.902
9	2	73.6	15	1345		371.085
10	3	58.2	15	1669	1132	176.158
11	2	97.1	15	1885		282.101
12	1	56.9	15			30.554
13	2	86	15	1888		321.177

Type 5 Radar Waveform_28

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	92.5	10	1981	1137	575.874
2	3	59.1	10	1891	1769	776.08
3	3	95.6	10	1665	1757	420.49
4	1	59.5	10			988.96
5	2	61.1	10	1136		815.39
6	2	98.9	10	1762		912.21
7	2	85.7	10	1357		283.73
8	3	59.7	10	1299	1933	431.72
9	2	69.2	10	1241		247.1
10	3	88.4	10	1990	1225	719.99
11	1	70	10			63.4
12	1	71	10			744.2

Type 5 Radar Waveform_29

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	96.6	15			177.466
2	3	93.7	15	1167	1627	346.79
3	3	67.5	15	1749	1311	331.53
4	1	62.8	15			570.21
5	2	84.7	15	1940		125.44
6	2	63	15	1504		30.9
7	1	70.5	15			310.46
8	3	64.2	15	1772	1596	100.45
9	1	76.2	15			662.6
10	2	89.6	15	1772		407.26
11	2	99	15	1537		279.55
12	1	58.8	15			477.72
13	1	54.3	15			350.95
14	1	64	15			9.5
15	3	58.9	15	1751	1308	703.9
16	3	86.9	15	1070	1392	629.7

Type 5 Radar Waveform_30

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	50.6	8	1331	1383	590.085
2	2	55.5	8	1335		889.163
3	1	96.3	8			411.856
4	1	56.5	8			761.259
5	1	95.1	8			235.762
6	3	82.5	8	1651	1796	529.845
7	3	67.3	8	1694	1456	699.128
8	2	94.7	8	1552		657.662
9	3	77	8	1731	1550	454.265
10	2	80.7	8	1699		206.058
11	3	86.3	8	1007	1316	276.161
12	3	85.7	8	1479	1152	462.154
13	2	53.5	8	1479		190.177

Radar Type 6 - Radar Statistical Performance

Trail #	1=Detection 0=No Detection	Trail #	1=Detection 0=No Detection
1	1	16	1
2	1	17	1
3	1	18	1
4	1	19	1
5	1	20	1
6	1	21	1
7	1	22	1
8	1	23	1
9	1	24	1
10	1	25	1
11	1	26	1
12	1	27	1
13	1	28	1
14	1	29	1
15	1	30	1
Detection Percentage (%)			100.0%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
34	5498	102	6	5510	18
47	5499	141	14	5505	42
70	5509	210	35	5502	105
71	5491	213	38	5508	114
--	--	--	60	5496	180
--	--	--	67	5501	201
--	--	--	83	5494	249
--	--	--	98	5497	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
72	5491	216	12	5497	36
84	5492	252	71	5503	213
--	--	--	77	5499	231
--	--	--	83	5494	249

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5510	9	5	5494	15
53	5506	159	44	5502	132
57	5491	171	59	5498	177

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5508	45	16	5509	48
36	5507	108	53	5501	159
50	5503	150	83	5499	249
97	5490	291	--	--	--
98	5509	294	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
35	5493	105	24	5494	72
37	5500	111	27	5500	81
48	5509	144	28	5505	84
54	5503	162	65	5493	195
82	5502	246	77	5498	231

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
5	5505	15	20	5510	60
15	5491	45	30	5504	90
20	5496	60	36	5498	108
21	5507	63	53	5490	159
56	5508	168	77	5500	231
64	5510	192	78	5509	234
94	5500	282	80	5506	240
--	--	--	82	5505	246
--	--	--	97	5503	291

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
41	5506	123	17	5505	51
44	5496	132	19	5508	57
55	5491	165	45	5501	135
82	5510	246	86	5491	258

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
38	5493	114	12	5499	36
39	5506	117	17	5494	51
50	5491	150	18	5510	54
52	5508	156	26	5502	78
92	5497	276	63	5490	189
--	--	--	75	5492	225
--	--	--	84	5503	252

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5507	21	25	5503	75
34	5492	102	35	5490	105
36	5509	108	62	5497	186
67	5493	201	74	5492	222
95	5495	285	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
24	5490	72	1	5495	3
31	5505	93	16	5507	48
68	5501	204	65	5491	195
79	5503	237	80	5493	240
--	--	--	82	5500	246
--	--	--	85	5504	255
--	--	--	97	5503	291

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5497	12	17	5496	51
21	5510	63	36	5498	108
23	5498	69	60	5509	180
24	5492	72	75	5495	225
27	5502	81	78	5503	234
33	5501	99	90	5492	270
42	5496	126	--	--	--
71	5506	213	--	--	--
88	5491	264	--	--	--
92	5503	276	--	--	--
100	5508	300	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5500	6	4	5500	12
21	5505	63	19	5497	57
53	5495	159	47	5490	141
75	5509	225	94	5503	282

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5495	3	20	5496	60
78	5497	234	74	5505	222
92	5502	276	78	5500	234
95	5509	285	85	5502	255

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
50	5499	150	26	5499	78
72	5496	216	82	5493	246
76	5502	228	90	5495	270

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5496	39	25	5493	75
42	5492	126	48	5502	144
--	--	--	50	5495	150
--	--	--	53	5498	159
--	--	--	54	5505	162

Product	Wireless Router	Temperature	27°C
Test Engineer	Jake Lan	Relative Humidity	65%
Test Site	WZ-SR4	Test Date	2022-06-29
Test Item	Radar Statistical Performance Check (802.11ax-HE20– 5500MHz)-mode 2		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5509	1	538	98	1
2	5504	1	798	67	1
3	5508	1	538	98	1
4	5509	1	818	65	1
5	5503	1	598	89	1
6	5492	1	778	68	1
7	5499	1	838	63	1
8	5509.6	1	658	81	0
9	5507	1	838	63	1
10	5493	1	598	89	1
11	5499	1	698	76	1
12	5494	1	858	62	1
13	5490.4	1	558	95	0
14	5506	1	598	89	1
15	5493	1	738	72	1
16	5507	1	678	78	1
17	5500	1	578	92	1
18	5495	1	918	58	1
19	5501	1	838	63	1
20	5507	1	698	76	1
21	5494	1	638	83	1
22	5508	1	538	98	1
23	5500	1	898	59	1
24	5505	1	658	81	1
25	5502	1	738	72	1
26	5491	1	878	61	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5506	1	558	95	1
28	5493	1	638	83	1
29	5494	1	818	65	1
30	5501	1	918	58	1
Detection Percentage (%)					**93.3%**

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5509	4.2	230	27	1
2	5494	2.1	154	26	1
3	5490.4	4.8	214	25	1
4	5505	2.4	194	24	0
5	5495	3.2	205	25	0
6	5507	3.6	171	24	1
7	5506	2.8	201	26	1
8	5497	4.6	193	29	0
9	5504	3.1	217	24	1
10	5499	2.8	180	25	1
11	5500	5.0	210	29	1
12	5497	2.3	175	27	1
13	5495	1.1	227	27	0
14	5500	2.0	179	25	1
15	5497	2.8	190	23	0
16	5498	4.6	194	25	1
17	5508	1.5	212	27	1
18	5505	3.7	176	25	1
19	5495	1.6	160	24	1
20	5494	3.6	177	27	1
21	5509.6	2.9	174	26	0
22	5492	1.7	179	27	1
23	5494	4.8	198	29	1
24	5504	4.3	180	25	1
25	5496	3.6	155	28	0
26	5503	1.6	169	28	1
27	5498	2.9	217	28	0
28	5503	1.9	218	26	1
29	5496	3.0	211	26	1
30	5497	1.4	163	25	1
Detection Percentage (%)					**73.3%**

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	8.8	485	17	1
2	5500	7.8	403	17	1
3	5503	7.4	308	17	0
4	5499	6.2	407	17	1
5	5505	6.1	465	17	1
6	5507	9.6	405	17	1
7	5490.4	8.8	324	17	0
8	5508	10.0	398	17	1
9	5495	8.5	378	16	1
10	5504	6.9	245	16	1
11	5494	6.6	490	18	0
12	5503	8.1	227	18	0
13	5504	6.4	327	18	1
14	5497	6.6	404	16	1
15	5492	8.7	326	17	1
16	5501	9.1	388	17	0
17	5497	6.6	302	17	1
18	5495	6.1	315	17	1
19	5499	7.7	470	18	0
20	5507	7.7	232	17	1
21	5505	7.6	215	16	0
22	5495	9.0	278	16	0
23	5494	8.4	460	16	1
24	5504	8.1	278	17	1
25	5493	7.3	479	18	0
26	5509.6	6.7	253	18	1
27	5494	10.0	401	17	1
28	5503	8.8	200	18	1
29	5501	8.7	415	17	1
30	5507	8.1	450	17	1
Detection Percentage (%)					**70.0%**

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5509.6	17.5	447	15	1
2	5508	14.4	391	13	0
3	5507	18.9	463	12	1
4	5502	19.4	272	13	1
5	5491	14.7	462	16	1
6	5499	15.6	340	14	1
7	5509	14.0	395	14	1
8	5505	19.1	216	13	0
9	5491	20.0	374	14	1
10	5492	15.1	497	14	1
11	5501	17.4	249	14	1
12	5494	13.8	216	14	1
13	5498	14.5	390	12	1
14	5499	19.1	429	14	0
15	5493	18.4	432	12	1
16	5497	18.2	428	14	1
17	5508	15.5	324	13	0
18	5497	12.0	329	16	1
19	5505	19.8	256	15	1
20	5509	19.4	445	16	1
21	5497	17.9	418	16	1
22	5501	18.9	311	14	1
23	5492	14.6	492	13	1
24	5498	18.5	268	15	1
25	5490.4	19.2	337	13	1
26	5505	15.6	383	14	1
27	5506	12.6	226	16	1
28	5508	19.9	317	15	1
29	5503	13.4	385	15	1
30	5492	17.3	401	15	0
Detection Percentage (%)					**83.3%**

Note: In addition, an average minimum percentage of successful detection across all four short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (93.3%+73.3%+70%+83.3%)/4 = 80% (≥ 80%)

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5500	1	16	5496	1
2	5500	1	17	5495.6	1
3	5500	1	18	5492.4	1
4	5500	1	19	5496.8	1
5	5500	1	20	5494	1
6	5500	1	21	5505.2	0
7	5500	1	22	5507.2	1
8	5500	1	23	5504	1
9	5500	1	24	5504.8	1
10	5500	1	25	5504	0
11	5497.2	0	26	5502.8	1
12	5495.2	1	27	5507.6	1
13	5497.2	0	28	5505.2	1
14	5498.4	1	29	5503.6	1
15	5496	1	30	5504.4	1
Detection Percentage (%)					**86.7%**

Type 5 Radar Waveform_1

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	75.4	19	1037	1069	707.181
2	3	76.2	19	1576	1127	278.087
3	2	52.2	19	1091		346.504
4	2	51.6	19	1470		565.931
5	2	71.6	19	1662		445.009
6	1	93	19			247.756
7	3	86.1	19	1017	1799	145.063
8	1	96.4	19			423.76
9	2	71	19	1247		211.757
10	3	70.7	19	1788	1956	13.154
11	3	64.6	19	1243	1189	589.651
12	3	55.2	19	1390	1072	683.229
13	2	55.2	19	1038		242.886
14	2	65.4	19	1171		360.243

Type 5 Radar Waveform_2

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	74.3	6	1510		602.848
2	1	54.8	6			793.59
3	2	75.9	6	1925		241.48
4	1	92.4	6			145.76
5	2	56	6	1513		686.02
6	2	65	6	1668		463.63
7	1	75.7	6			50.67
8	3	90.9	6	1372	1164	71.47
9	3	89.6	6	1903	1192	540.82
10	3	79.4	6	1663	1796	315.6
11	1	89.8	6			650.42
12	3	64.2	6	1987	1173	367.68
13	2	78.4	6	1327		66.17
14	3	78.6	6	1623	1780	522.5
15	3	70.4	6	1156	1324	513.7

Type 5 Radar Waveform_3

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	72.8	16	1314		189.404
2	3	85.9	16	1796	1712	23.437
3	1	64.6	16			58.982
4	3	55.6	16	1806	1950	259.443
5	3	72.2	16	1919	1161	448.234
6	1	67.5	16			10.035
7	3	78.2	16	1907	1573	437.496
8	2	93.2	16	1327		104.997
9	2	94.3	16	1989		400.528
10	3	87	16	1916	1507	20.929
11	1	66.2	16			291.931
12	1	77.8	16			90.132
13	2	55.5	16	1042		405.033
14	2	51.9	16	1896		377.794
15	2	99.4	16	1579		461.155
16	1	91.2	16			596.116
17	2	82.5	16	1356		9.637
18	3	68.3	16	1819	1667	326.958
19	2	60.9	16	1145		482.879

Type 5 Radar Waveform_4

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	74.6	6	1319		653.339
2	3	56.1	6	1941	1831	95.079
3	1	86.9	6			157.64
4	2	79.7	6	1048		312.44
5	2	95	6	1162		784.17
6	1	96.8	6			511.05
7	1	98.4	6			7.03
8	2	75.1	6	1766		218.74
9	1	53.5	6			223.41
10	3	88.2	6	1736	1730	667.54
11	1	80.4	6			511.11
12	2	74.8	6	1418		58.88
13	2	70.5	6	1013		423.5
14	3	70.9	6	1859	1823	365.3
15	1	61.8	6			654.5

Type 5 Radar Waveform_5

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	67.5	8			609.878
2	1	83	8			549.04
3	1	98.7	8			641.08
4	2	78.4	8	1744		124.04
5	2	56.8	8	1140		185.44
6	1	55.6	8			674.22
7	3	51.8	8	1382	1189	691.33
8	2	99.1	8	1062		104.77
9	2	50.4	8	1360		847.02
10	2	51.4	8	1489		452.54
11	3	70.6	8	1179	1574	966.1
12	3	85.8	8	1130	1668	849.2

Type 5 Radar Waveform_6

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	97.7	7	1957		154.709
2	2	56.9	7	1591		635.073
3	2	92.8	7	1116		274.837
4	1	94.6	7			106.04
5	3	73.3	7	1269	1441	191.023
6	1	78.6	7			484.207
7	2	61	7	1081		31.05
8	2	99.8	7	1472		522.343
9	2	51.5	7	1827		414.067
10	3	68	7	1328	1800	605.02
11	2	78.1	7	1278		299.443
12	3	66.1	7	1499	1124	329.927
13	2	62.5	7	1891		433.34
14	1	87.8	7			297.153
15	2	99.4	7	1171		137.327
16	1	67.2	7			312.6
17	2	91.9	7	1074		77.933
18	2	62.5	7	1573		553.667

Type 5 Radar Waveform_7

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	59	7	1284	1205	505.007
2	2	87.1	7	1724		467.978
3	1	93	7			654.495
4	2	80.5	7	1509		251.953
5	2	54.2	7	1952		602.411
6	2	81.2	7	1737		369.658
7	3	64	7	1426	1434	406.196
8	2	76.2	7	1939		406.014
9	1	91.4	7			229.401
10	3	94.4	7	1813	1733	97.539
11	1	87.4	7			395.566
12	2	56.5	7	1726		626.934
13	1	51.9	7			254.312
14	2	73.1	7	1155		211.359
15	1	92.1	7			103.187
16	2	93.8	7	1454		613.365
17	3	63.4	7	1366	1920	481.782

Type 5 Radar Waveform_8

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (μ sec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	60.6	16	1010	1884	539.794
2	2	84.8	16	1997		179.605
3	1	54.5	16			504.747
4	2	72	16	1776		248.54
5	1	77.7	16			37.533
6	3	65.5	16	1672	1354	385.307
7	3	84.1	16	1241	1681	174.42
8	2	60.7	16	1774		424.833
9	2	55.1	16	1055		317.407
10	2	57.5	16	1648		247.07
11	2	86.7	16	1591		440.863
12	2	66	16	1367		264.707
13	2	88.1	16	1587		580.5
14	2	99.8	16	1484		272.863
15	1	73.5	16			100.627
16	2	65.5	16	1142		576.6
17	2	97.1	16	1138		631.533
18	2	73.3	16	1383		383.967

Type 5 Radar Waveform_9

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	66	5	1786		427.187
2	1	57.7	5			642.487
3	2	72.6	5	1289		340.314
4	2	93.2	5	1567		30.971
5	2	61.8	5	1317		569.179
6	2	73.6	5	1174		229.186
7	1	95.1	5			276.263
8	2	94.5	5	1119		369.45
9	3	67	5	1549	1728	456.567
10	1	81.4	5			551.724
11	2	74.9	5	1522		568.641
12	2	69.9	5	1712		431.159
13	2	73.8	5	1558		95.586
14	3	66	5	1908	1261	226.543

Type 5 Radar Waveform_10

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	63.8	19	1615	1652	220.653
2	1	62.4	19			501.333
3	1	74	19			615.106
4	3	91.1	19	1637	1145	191.369
5	2	98.1	19	1261		874.622
6	2	63.2	19	1063		622.805
7	3	69.5	19	1540	1686	545.878
8	1	63.4	19			799.802
9	1	97.2	19			614.015
10	2	58.2	19	1598		129.148
11	2	72	19	1945		209.001
12	1	67.2	19			786.854
13	1	98.9	19			238.177

Type 5 Radar Waveform_11

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	99.5	17	1717		261.397
2	2	91.4	17	1177		591.877
3	1	76	17			228.343
4	1	86.5	17			1276.37
5	2	82.4	17	1735		723.197
6	1	53.4	17			1077.563
7	1	66.5	17			1143.47
8	3	64.2	17	1480	1197	1250.167
9	2	57.3	17	1993		1018.433

Type 5 Radar Waveform_12

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	74.9	12			140.239
2	1	70.2	12			115.164
3	2	64	12	1219		23.035
4	2	98.6	12	1898		442.003
5	2	79.9	12	1611		695.501
6	2	52.9	12	1958		266.418
7	1	78.5	12			83.606
8	2	94.5	12	1921		199.774
9	2	50.4	12	1596		588.411
10	3	71.2	12	1598	1544	594.109
11	1	66	12			413.546
12	2	80.5	12	1119		472.894
13	2	59	12	1696		458.652
14	3	61.9	12	1213	1731	297.509
15	2	78.1	12	1392		376.447
16	1	62.7	12			684.865
17	3	58.3	12	1397	1920	4.882

Type 5 Radar Waveform_13

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	95.3	17	1665	1946	538.56
2	1	89.8	17			363.74
3	3	60.1	17	1246	1356	267.89
4	3	62.5	17	1432	1832	751.11
5	3	89.3	17	1012	1643	749.4
6	2	90.3	17	1823		91.1
7	2	73	17	1060		587.42
8	2	72.4	17	1110		555.69
9	2	83.4	17	1747		505.58
10	3	91.9	17	1506	1998	776.7
11	1	97.6	17			108.74
12	1	66.3	17			517.81
13	2	67.6	17	1439		113.29
14	2	88.5	17	1869		489.1
15	3	77.4	17	1659	1918	373.4

Type 5 Radar Waveform_14

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	80.9	20	1146		905.8
2	1	97.4	20			311.66
3	3	57.7	20	1056	1022	669.16
4	1	84.9	20			978.16
5	2	55.2	20	1246		147.5
6	1	96.7	20			145.73
7	1	73	20			319.68
8	2	87	20	1744		441.92
9	3	67.1	20	1478	1443	527.4
10	3	90.5	20	1545	1240	771.4

Type 5 Radar Waveform_15						
Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	56.5	14	1345		898.68
2	1	74.7	14			456.747
3	1	58.3	14			146.543
4	1	88.4	14			936.75
5	2	90.1	14	1493		815.137
6	2	92.4	14	1618		17.663
7	2	70.1	14	1668		470.08
8	2	82.6	14	1672		236.447
9	2	90.8	14	1206		32.733

Type 5 Radar Waveform_16						
Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	63.4	14	1579		607.638
2	2	70.3	14	1253		960.35
3	2	79.6	14	1664		257.29
4	2	55.5	14	1013		430.27
5	2	86.1	14	1229		529.23
6	2	51.1	14	1000		96.04
7	1	91.7	14			702.27
8	3	88	14	1131	1266	266.5
9	1	99.3	14			222.63
10	1	64.9	14			600.3

Type 5 Radar Waveform_17

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	71.8	13	1311	1508	613.962
2	3	89.5	13	1916	1780	25.215
3	1	56.8	13			333.41
4	3	89.1	13	1512	1935	177.32
5	1	93.4	13			677.52
6	2	98.3	13	1032		644.87
7	2	83.6	13	1358		349.86
8	1	71.7	13			612.82
9	2	68.3	13	1408		250.94
10	2	93.6	13	1487		528.47
11	3	99.4	13	1524	1870	158.69
12	2	73.5	13	1038		314.36
13	3	65.4	13	1512	1071	257.86
14	1	100	13			530.7
15	1	61.1	13			355.7

Type 5 Radar Waveform_18

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	50.1	5	1976		227.805
2	2	71.5	5	1713		266.249
3	2	73.3	5	1304		276.227
4	3	72	5	1700	1038	224.44
5	2	77	5	1641		297.843
6	2	97.3	5	1863		426.347
7	2	50	5	1025		330.52
8	2	62.9	5	1064		92.803
9	2	81.4	5	1747		566.247
10	1	77.7	5			650.69
11	3	58.7	5	1305	1245	624.283
12	2	63.3	5	1857		617.937
13	2	60.9	5	1295		648.27
14	2	78.1	5	1646		214.553
15	2	55.4	5	1211		405.927
16	2	86.8	5	1511		392.2
17	1	93.3	5			597.933
18	2	84.2	5	1930		61.367

Type 5 Radar Waveform_19

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	66.3	16	1416	1087	783.8
2	3	99	16	1738	1629	55.52
3	3	61.4	16	1561	1702	626.1
4	3	90.8	16	1455	1455	361.31
5	3	72.2	16	1946	1049	48.6
6	1	55	16			84.57
7	2	90.3	16	1705		65.43
8	2	76.7	16	1083		1054.53
9	1	97.7	16			10.27
10	1	71.5	16			543.8

Type 5 Radar Waveform_20

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	86.3	9	1072		409.616
2	2	65.1	9	1820		644.481
3	2	67.9	9	1264		788.342
4	2	94.9	9	1883		242.673
5	2	85.1	9	1934		887.324
6	2	50.9	9	1414		370.575
7	1	74.2	9			863.395
8	2	80.9	9	1129		108.536
9	3	50.8	9	1989	1764	1077.197
10	1	90.8	9			201.918
11	2	51.8	9	1328		714.009

Type 5 Radar Waveform_21

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	82.1	11	1517		471.488
2	2	78.9	11	1474		386.651
3	1	72.3	11			395.372
4	1	66.4	11			469.343
5	2	91.9	11	1305		285.614
6	2	85.9	11	1519		608.315
7	1	62.5	11			249.856
8	3	83.1	11	1000	1500	344.297
9	2	53.2	11	1719		333.058
10	2	56.5	11	1767		160.029
11	3	52.2	11	1539	1538	518.491
12	3	72.1	11	1366	1082	256.692
13	3	56.8	11	1722	1893	91.543
14	2	59	11	1976		486.104
15	1	55	11			591.705
16	3	59.3	11	1668	1004	292.746
17	3	72.4	11	1961	1339	345.337
18	1	86.9	11			220.258
19	2	70.9	11	1196		254.479

Type 5 Radar Waveform_22

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	91.7	6			139.943
2	2	72.4	6	1663		908.291
3	3	53.6	6	1605	1057	682.292
4	2	88.9	6	1284		168.093
5	2	53.5	6	1073		712.424
6	1	81.2	6			980.725
7	2	86.2	6	1979		809.945
8	2	95.5	6	1084		223.186
9	2	93.4	6	1312		418.707
10	3	77	6	1960	1667	792.118
11	2	73.7	6	1254		631.709

Type 5 Radar Waveform_23

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	70.8	14	1296	1962	450.89
2	2	100	14	1016		150.687
3	3	55.8	14	1479	1296	689.514
4	1	93.6	14			756.431
5	3	87.2	14	1619	1850	689.899
6	1	76.1	14			148.616
7	2	97.6	14	1543		259.683
8	1	88.3	14			298.84
9	2	82.3	14	1878		93.687
10	2	78.3	14	1414		758.124
11	2	55	14	1130		190.491
12	2	76.6	14	1509		498.669
13	1	55.5	14			139.586
14	3	83.7	14	1302	1078	28.243

Type 5 Radar Waveform_24

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	57.6	12	1432		696.605
2	3	92.1	12	1957	1999	1374.4
3	2	81.3	12	1126		380.87
4	1	63.3	12			583.57
5	1	70.1	12			754.25
6	2	97.4	12	1520		622.61
7	3	85.9	12	1446	1250	738.88
8	3	63.4	12	1806	1487	1184.9

Type 5 Radar Waveform_25

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	76	14	1791		526.895
2	3	95.1	14	1774	1469	321.417
3	2	72	14	1059		396.93
4	1	66.5	14			532.2
5	1	98.2	14			402.17
6	2	97.5	14	1748		4.8
7	2	62.9	14	1060		426.21
8	1	79.1	14			0.1
9	2	65.5	14	1668		199.81
10	2	95	14	1754		202.9
11	1	86.9	14			89
12	1	57.6	14			471.84
13	2	92.8	14	1343		309.65
14	1	81.4	14			473.68
15	2	77.3	14	1284		281.36
16	3	95.2	14	1574	1131	293.52
17	2	68.6	14	1256		325.66
18	2	81.4	14	1191		64.6
19	1	81.6	14			304.2
20	1	60	14			169.7

Type 5 Radar Waveform_26

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	88.7	17	1222		779.489
2	1	58.6	17			0.151
3	2	90.8	17	1156		282.92
4	2	86	17	1188		396.8
5	2	75.3	17	1363		71.82
6	1	81.4	17			16.23
7	2	81.1	17	1683		618.57
8	2	61	17	1842		11.01
9	2	81.3	17	1019		9.24
10	1	78.2	17			292.64
11	2	85.4	17	1563		362.67
12	3	70.9	17	1406	1315	190.59
13	2	98.3	17	1578		144.05
14	2	95	17	1995		263.1
15	1	66.7	17			169.3

Type 5 Radar Waveform_27

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	62.6	5	1185	1306	725.989
2	2	55.8	5	1854		414.03
3	3	73.9	5	1333	1577	17.65
4	2	70.3	5	1143		444.09
5	2	50.2	5	1301		489.32
6	2	77.5	5	1199		420.26
7	1	75.6	5			134.65
8	2	84.9	5	1883		369.97
9	1	50	5			251.9
10	2	69.2	5	1077		258.19
11	1	100	5			703.97
12	2	91.5	5	1403		393.38
13	1	69.4	5			676.6
14	3	59.5	5	1133	1920	143.2
15	1	65.5	5			587.8

Type 5 Radar Waveform_28

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	65.4	11	1582		635.052
2	3	54.9	11	1959	1648	611.173
3	3	52	11	1785	1386	38.017
4	1	56.4	11			481.83
5	2	53.9	11	1640		514.303
6	2	58.1	11	1071		200.197
7	1	57	11			130.08
8	2	75.4	11	1817		375.423
9	3	65.7	11	1570	1757	623.907
10	1	75	11			207.84
11	3	62.6	11	1035	1307	13.613
12	1	86	11			435.787
13	2	96.8	11	1451		625.27
14	2	61.9	11	1806		399.703
15	3	73.7	11	1483	1441	272.647
16	1	89.5	11			310.7
17	2	91.5	11	1438		212.033
18	1	77.8	11			156.967

Type 5 Radar Waveform_29

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	77.2	15	1283	1267	333.696
2	3	52.2	15	1636	1436	903.63
3	3	96.9	15	1114	1773	378.22
4	1	74.2	15			123.18
5	2	70.1	15	1985		803.82
6	2	74.5	15	1344		262.24
7	2	81.9	15	1666		38.81
8	3	63.8	15	1552	1193	972.68
9	1	84.9	15			409.16
10	2	78.4	15	1256		276.96
11	2	78.4	15	1517		778.1
12	1	76.4	15			695.3

Type 5 Radar Waveform_30

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	92.3	13			430.087
2	3	92.5	13	1090	1003	252.665
3	2	76.4	13	1064		481.685
4	1	82.2	13			74.413
5	2	53.1	13	1546		147.781
6	1	62.3	13			359.678
7	2	78.1	13	1541		247.316
8	2	56.5	13	1877		514.254
9	1	64.1	13			312.711
10	3	59.7	13	1473	1542	190.109
11	2	69.2	13	1872		290.486
12	2	85.8	13	1491		1.194
13	2	75.4	13	1572		334.722
14	3	79.6	13	1274	1120	588.919
15	2	85.2	13	1838		88.097
16	1	66.3	13			424.765
17	2	66.2	13	1947		319.582

Radar Type 6 - Radar Statistical Performance

Trail #	1=Detection 0=No Detection	Trail #	1=Detection 0=No Detection
1	1	16	1
2	1	17	1
3	1	18	1
4	1	19	1
5	1	20	1
6	1	21	1
7	1	22	1
8	1	23	1
9	1	24	1
10	1	25	1
11	1	26	1
12	1	27	1
13	1	28	1
14	1	29	1
15	1	30	1
Detection Percentage (%)			100.0%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5492	15	4	5492	12
17	5494	51	31	5493	93
33	5493	99	37	5496	111
36	5506	108	50	5499	150
59	5491	177	76	5507	228
--	--	--	97	5491	291

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5503	57	20	5496	60
46	5507	138	53	5498	159
60	5497	180	63	5495	189
67	5492	201	83	5508	249
73	5493	219	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5495	57	7	5496	21
20	5496	60	40	5491	120
26	5491	78	47	5501	141
75	5500	225	--	--	--
97	5504	291	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
39	5494	117	6	5498	18
40	5509	120	18	5496	54
50	5499	150	20	5502	60
52	5504	156	58	5506	174
68	5505	204	80	5508	240
--	--	--	90	5509	270

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5508	27	28	5493	84
35	5509	105	52	5508	156
65	5497	195	79	5491	237
85	5501	255	86	5502	258
--	--	--	88	5494	264
--	--	--	91	5496	273

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
3	5494	9	13	5497	39
22	5498	66	49	5509	147
28	5500	84	85	5501	255
37	5491	111	--	--	--
81	5509	243	--	--	--
85	5492	255	--	--	--
88	5506	264	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5491	57	33	5507	99
27	5509	81	46	5509	138
41	5503	123	99	5497	297
56	5502	168	--	--	--
89	5508	267	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
54	5508	162	7	5509	21
59	5497	177	24	5501	72
66	5491	198	84	5508	252
95	5505	285	95	5502	285

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5493	15	14	5507	42
8	5499	24	89	5501	267
36	5501	108	99	5503	297
37	5508	111	--	--	--
46	5491	138	--	--	--
55	5502	165	--	--	--
81	5497	243	--	--	--
85	5509	255	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5498	30	35	5493	105
27	5492	81	46	5497	138
30	5491	90	48	5509	144
60	5503	180	64	5504	192
--	--	--	69	5491	207
--	--	--	97	5500	291

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5501	21	8	5506	24
62	5504	186	34	5509	102
97	5493	291	50	5490	150
--	--	--	58	5494	174
--	--	--	73	5508	219
--	--	--	85	5499	255
--	--	--	90	5493	270

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5505	51	21	5493	63
35	5509	105	24	5491	72
65	5496	195	63	5500	189
86	5492	258	94	5505	282
94	5503	282	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5496	24	47	5491	141
17	5502	51	58	5506	174
67	5494	201	--	--	--
73	5499	219	--	--	--
80	5493	240	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5509	33	11	5504	33
47	5492	141	29	5492	87
55	5508	165	34	5509	102
71	5491	213	81	5506	243

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5506	12	3	5509	9
73	5508	219	4	5498	12
--	--	--	33	5493	99
--	--	--	37	5509	111
--	--	--	42	5501	126
--	--	--	80	5504	240
--	--	--	81	5497	243

Product	Wireless Router	Temperature	27°C
Test Engineer	Jake Lan	Relative Humidity	65%
Test Site	WZ-SR4	Test Date	2022-06-27
Test Item	Radar Statistical Performance Check (802.11ax-HE40– 5510MHz)-mode 1		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5519	1	798	67	1
2	5511	1	918	58	1
3	5505	1	858	62	1
4	5526	1	738	72	1
5	5507	1	838	63	1
6	5529	1	618	86	1
7	5507	1	678	78	1
8	5508	1	678	78	1
9	5491	1	898	59	0
10	5512	1	3066	18	1
11	5514	1	858	62	1
12	5516	1	778	68	1
13	5496	1	738	72	1
14	5506	1	578	92	1
15	5529	1	618	86	1
16	5500	1	898	59	1
17	5527	1	898	59	1
18	5494	1	518	102	1
19	5505	1	698	76	1
20	5510	1	598	89	1
21	5529	1	638	83	1
22	5522	1	658	81	1
23	5518	1	678	78	1
24	5499	1	738	72	1
25	5517	1	918	58	1
26	5507	1	778	68	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5495	1	798	67	1
28	5523	1	678	78	1
29	5527	1	598	89	1
30	5504	1	798	67	1
Detection Percentage (%)					**96.7%**

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5498	4.6	183	27	1
2	5509	2.3	188	26	1
3	5518	1.3	221	28	1
4	5507	3.7	156	29	1
5	5512	3.8	206	25	1
6	5506	3.2	218	27	1
7	5505	4.2	199	25	1
8	5491	4.0	175	26	1
9	5512	4.7	227	28	1
10	5504	1.4	201	25	1
11	5521	1.2	157	29	1
12	5518	2.9	200	24	0
13	5528	2.3	223	24	0
14	5501	1.3	191	27	1
15	5526	4.3	156	24	1
16	5527	1.6	174	28	1
17	5510	1.6	160	29	0
18	5507	2.8	171	24	1
19	5526	3.5	225	28	1
20	5527	3.4	159	25	0
21	5517	3.7	230	25	1
22	5497	1.8	228	27	1
23	5512	2.8	220	25	1
24	5503	3.8	177	28	1
25	5509	2.2	211	26	0
26	5495	3.8	154	24	0
27	5493	2.4	191	27	0
28	5519	3.0	211	28	0
29	5505	3.9	186	23	1
30	5529	2.7	211	26	1
Detection Percentage (%)					**73.3%**

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5505	9.5	368	16	1
2	5494	6.5	243	17	1
3	5526	8.0	235	17	1
4	5511	8.2	487	17	1
5	5515	7.5	345	16	0
6	5491	8.2	445	16	0
7	5497	9.3	273	17	1
8	5522	7.1	210	17	1
9	5517	9.9	454	18	1
10	5513	7.3	293	18	1
11	5500	6.8	345	16	1
12	5528	6.4	476	17	0
13	5497	9.1	492	17	0
14	5507	6.2	328	17	1
15	5503	7.0	391	17	1
16	5510	8.9	382	16	1
17	5508	6.3	447	18	1
18	5510	6.7	367	17	0
19	5529	6.1	247	17	1
20	5506	8.1	361	16	1
21	5500	8.0	247	18	0
22	5503	6.9	355	16	1
23	5508	7.0	339	16	1
24	5524	8.3	359	16	1
25	5510	6.3	372	17	0
26	5528	8.1	238	18	1
27	5519	9.1	486	17	1
28	5494	7.6	228	18	1
29	5491	9.6	493	18	0
30	5503	7.0	463	16	1
Detection Percentage (%)					**73.3%**

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5514	18.3	465	16	1
2	5507	16.3	273	15	1
3	5519	19.6	477	14	1
4	5529	14.9	206	14	1
5	5496	19.9	302	14	0
6	5514	18.2	252	13	1
7	5499	11.3	223	13	1
8	5491	11.5	245	14	1
9	5527	18.6	337	15	1
10	5497	18.8	492	14	1
11	5503	16.2	490	14	1
12	5514	19.0	491	16	1
13	5512	16.0	313	14	0
14	5503	13.8	375	13	1
15	5521	14.1	346	16	1
16	5512	18.6	457	12	1
17	5510	16.0	398	16	1
18	5527	11.4	360	15	1
19	5516	16.9	460	14	0
20	5523	16.2	246	14	1
21	5524	19.2	332	13	1
22	5493	13.6	221	15	1
23	5494	15.0	307	15	1
24	5528	16.8	259	15	1
25	5523	13.8	245	14	1
26	5505	14.2	450	13	1
27	5508	17.6	346	14	1
28	5528	15.6	476	15	1
29	5515	11.4	281	13	0
30	5514	14.2	490	14	1
Detection Percentage (%)					**86.7%**

Note: In addition an average minimum percentage of successful detection across all four short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (96.7%+73.3%+73.3%+86.7%)/4 = 82.5% (≥ 80%)

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5510	1	16	5493.8	1
2	5510	1	17	5493	1
3	5510	1	18	5496.6	1
4	5510	1	19	5495.4	1
5	5510	1	20	5498.6	1
6	5510	1	21	5526.2	1
7	5510	1	22	5523.8	1
8	5510	1	23	5526.6	1
9	5510	1	24	5521	1
10	5510	1	25	5523.8	1
11	5495.4	1	26	5523.4	1
12	5495	1	27	5521.4	1
13	5499	1	28	5526.6	1
14	5496.2	1	29	5522.6	1
15	5493.8	1	30	5521.8	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	88.9	10			1261.81
2	1	61.6	10			640.937
3	2	79.4	10	1856		281.443
4	2	57.7	10	1347		623.41
5	3	72.2	10	1601	1462	562.197
6	2	95.4	10	1621		797.843
7	1	97.5	10			624.51
8	2	68.2	10	1136		120.487
9	2	62.4	10	1213		416.033

Type 5 Radar Waveform_2

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	87.4	19	1504		469.608
2	3	61.1	19	1746	1959	242.733
3	2	55.8	19	1623		768.126
4	3	96.8	19	1103	1350	703.979
5	2	97.1	19	1695		186.442
6	1	76.7	19			252.275
7	2	69	19	1479		546.808
8	3	52.2	19	1740	1787	270.662
9	1	66.4	19			721.505
10	1	62.9	19			178.488
11	1	68.3	19			912.731
12	1	67.3	19			811.154
13	2	88.6	19	1217		634.577

Type 5 Radar Waveform_3

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	86.8	14	1920	1392	292.15
2	2	52.7	14	1803		504.217
3	2	83	14	1804		750.434
4	3	73.3	14	1117	1720	208.441
5	1	59.3	14			356.989
6	2	71	14	1676		413.416
7	2	64.2	14	1771		235.253
8	2	52.8	14	1130		781.41
9	2	62.4	14	1082		613.147
10	2	72	14	1513		745.314
11	1	84.2	14			793.731
12	3	63.7	14	1556	1585	468.949
13	3	64.4	14	1952	1688	32.386
14	1	95.2	14			362.043

Type 5 Radar Waveform_4

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	85.3	15			646.61
2	2	76.9	15	1302		1064.141
3	2	64.5	15	1776		776.252
4	3	92	15	1414	1090	495.733
5	1	52.9	15			703.224
6	2	80.3	15	1314		1053.305
7	3	53.7	15	1945	1528	788.265
8	1	86.7	15			430.896
9	2	72.1	15	1781		906.657
10	3	68.6	15	1273	1732	903.018
11	2	93.3	15	1113		786.009

Type 5 Radar Waveform_5

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	82.2	16	1545		823.619
2	2	71.2	16	1391		236.58
3	3	58.7	16	1117	1023	1107.05
4	2	65.8	16	1147		493.75
5	2	80.5	16	1429		213.19
6	3	93	16	1033	1465	79.46
7	3	88.1	16	1837	1039	283.12
8	1	96.9	16			206.57
9	2	87.4	16	1781		210.84
10	1	66	16			757.1

Type 5 Radar Waveform_6

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	90.9	19	1958	1833	583.004
2	2	81.1	19	1003		2.205
3	2	91.8	19	1913		265.705
4	2	63.5	19	1385		67.673
5	2	70.1	19	1902		269.871
6	1	50.9	19			668.898
7	2	76.7	19	1048		427.346
8	2	91	19	1916		258.694
9	3	55.9	19	1161	1339	593.471
10	3	83.6	19	1602	1871	680.419
11	2	89.6	19	1111		390.416
12	1	93.3	19			91.874
13	2	66.4	19	1427		599.652
14	2	65.3	19	1634		505.559
15	2	79.7	19	1192		95.847
16	1	51	19			347.265
17	1	64.8	19			72.182

Type 5 Radar Waveform_7

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	55.4	18	1797		253.013
2	3	90.2	18	1399	1262	615.288
3	1	88.7	18			11.685
4	3	80	18	1883	1078	364.243
5	2	96.7	18	1885		303.961
6	2	83.6	18	1093		204.818
7	3	56	18	1605	1190	550.196
8	2	76.5	18	1008		413.954
9	3	76.1	18	1780	1118	119.541
10	2	73.9	18	1618		279.109
11	1	70.6	18			648.596
12	2	53.4	18	1889		410.734
13	3	62.8	18	1823	1339	594.452
14	3	55.9	18	1652	1734	36.229
15	1	58.2	18			159.547
16	1	61.4	18			169.065
17	1	63.9	18			404.482

Type 5 Radar Waveform_8

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (μ sec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	60.9	6	1608		509.909
2	3	59.2	6	1324	1103	71.731
3	1	95.1	6			261.71
4	2	56	6	1512		538.49
5	3	92.4	6	1550	1571	758.86
6	2	69.5	6	1068		683.92
7	2	97.8	6	1852		81.32
8	3	95.3	6	1113	1430	742.22
9	1	81.6	6			324.51
10	2	70.8	6	1612		479.97
11	1	69.7	6			530.18
12	3	66.3	6	1191	1740	741.22
13	2	81.8	6	1850		69.64
14	1	89.7	6			395.2
15	1	50.4	6			201.3

Type 5 Radar Waveform_9

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	56.1	13	1472		349.661
2	2	74.8	13	1336		604.417
3	1	51	13			436.864
4	2	60.9	13	1275		809.591
5	1	68.7	13			81.169
6	1	68.4	13			332.006
7	2	86.4	13	1510		830.133
8	2	52.4	13	1752		132.63
9	2	76.7	13	1847		512.687
10	2	66.5	13	1127		850.934
11	2	80.8	13	1128		140.891
12	3	90.4	13	1176	1890	195.539
13	2	56.3	13	1298		302.186
14	2	65.2	13	1325		94.543

Type 5 Radar Waveform_10

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	83.5	20	1818	1736	55.014
2	2	99.3	20	1261		36.488
3	2	81	20	1431		496.042
4	2	97.3	20	1101		527.933
5	2	54.6	20	1609		604.774
6	1	97.1	20			571.795
7	2	58.4	20	1734		405.616
8	1	50.5	20			475.537
9	1	92.9	20			448.838
10	3	98.9	20	1221	1910	596.889
11	3	70.5	20	1994	1731	580.721
12	2	71.8	20	1999		477.182
13	2	58.9	20	1483		432.443
14	1	56.4	20			100.144
15	2	56.2	20	1434		297.965
16	3	75.6	20	1210	1544	369.766
17	2	84.1	20	1486		427.137
18	3	88.8	20	1683	1329	57.358
19	1	77.5	20			474.779

Type 5 Radar Waveform_11

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	77	11	1145	1060	326.471
2	1	85.6	11			9.915
3	2	63.3	11	1583		167.787
4	2	70.1	11	1883		23.04
5	1	86	11			13.263
6	1	92.8	11			303.507
7	2	76.1	11	1215		428.41
8	2	77.3	11	1748		236.333
9	1	97	11			429.387
10	2	66.4	11	1958		625.81
11	1	90.2	11			477.953
12	2	68.6	11	1341		212.967
13	3	53.9	11	1609	1406	449.44
14	2	98.8	11	1418		78.923
15	1	93.8	11			385.927
16	2	79.3	11	1713		89.6
17	2	87.4	11	1348		157.733
18	3	63.6	11	1599	1333	464.867

Type 5 Radar Waveform_12

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	52.8	10	1152		904.177
2	1	71.6	10			989.26
3	3	60.9	10	1325	1787	827.26
4	2	65.6	10	1708		605.51
5	2	73.1	10	1634		297.28
6	1	70.7	10			321.84
7	3	86.4	10	1980	1862	710.95
8	3	59.6	10	1655	1410	771.25
9	3	82.6	10	1132	1381	330.9
10	2	97.7	10	1048		798.98
11	2	98.9	10	1347		844.4
12	3	94.9	10	1086	1137	447.9

Type 5 Radar Waveform_13

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	80	20			447.146
2	3	54.8	20	1160	1284	508.001
3	2	72.1	20	1390		152.622
4	3	85.7	20	1953	1726	404.913
5	1	68.8	20			67.074
6	2	97.4	20	1632		355.665
7	3	86.4	20	1294	1484	266.896
8	1	85.6	20			183.167
9	2	89.1	20	1262		456.128
10	2	69.4	20	1129		433.369
11	3	99.1	20	1361	1370	310.111
12	2	57.4	20	1504		428.582
13	2	92.6	20	1601		124.753
14	2	82.9	20	1895		480.344
15	3	64.6	20	1703	1398	443.495
16	2	75.3	20	1718		564.816
17	1	58.9	20			495.137
18	2	63.7	20	1231		373.958
19	1	88	20			542.479

Type 5 Radar Waveform_14

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	55.1	13	1811		162.717
2	1	72.6	13			743.771
3	1	55.6	13			917.972
4	1	73	13			220.943
5	2	82.6	13	1487		1074.314
6	1	99.6	13			525.305
7	2	59	13	1653		773.865
8	2	78	13	1759		458.516
9	3	79.2	13	1693	1024	560.757
10	2	59.5	13	1393		188.818
11	1	92.5	13			762.809

Type 5 Radar Waveform_15

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	57.5	7			195.583
2	2	51.1	7	1358		377.76
3	3	83.2	7	1654	1049	408.24
4	2	73.2	7	1403		79.16
5	2	93.4	7	1611		27.68
6	3	62.7	7	1334	1455	157.13
7	1	79.1	7			458.72
8	2	92.7	7	1249		600.08
9	3	99.6	7	1170	1172	296.45
10	2	96.8	7	1494		464.32
11	2	57.1	7	1834		104.18
12	1	99.9	7			701.4
13	3	69	7	1709	1706	608.79
14	2	53.8	7	1841		681.1
15	3	90.1	7	1906	1372	710.3
16	3	97.2	7	1726	1929	149.9

Type 5 Radar Waveform_16

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	71.1	7	1086		216.998
2	1	65.3	7			32.45
3	2	98.4	7	1113		343.48
4	3	89.3	7	1438	1479	526.7
5	3	94.5	7	1709	1868	266.66
6	1	90.7	7			304.48
7	2	68.9	7	1398		682.7
8	1	52.2	7			399.47
9	3	88.7	7	1215	1399	77.83
10	2	73.6	7	1245		429.53
11	2	67.9	7	1788		333.7
12	2	88.2	7	1166		561.5

Type 5 Radar Waveform_17

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	83.2	5	1957	1042	923.406
2	2	71.6	5	1753		305.13
3	2	77	5	1315		351.64
4	1	88.5	5			964.55
5	3	75.8	5	1790	1883	81.56
6	1	80.1	5			938.63
7	2	60	5	1351		867.15
8	3	52.9	5	1702	1139	896.73
9	2	80.6	5	1594		283.14
10	1	77.4	5			11.77
11	2	95.3	5	1296		523.3
12	3	66.3	5	1617	1347	341.8

Type 5 Radar Waveform_18

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	84.2	14	1582	1743	577.304
2	1	65.2	14			74.754
3	3	76.3	14	1774	1001	610.42
4	3	70.5	14	1079	1797	393.25
5	3	83	14	1392	1583	243.5
6	3	92.3	14	1149	1004	454.85
7	3	64.9	14	1170	1223	447.5
8	2	99.9	14	1704		359.96
9	3	60.7	14	1272	1507	453.63
10	2	77.1	14	1591		111.65
11	3	63	14	1587	1815	314.7
12	2	75.2	14	1486		553.85
13	1	72.3	14			502.18
14	2	76.3	14	1963		643.5
15	1	71.9	14			76.5
16	1	83.8	14			430.9

Type 5 Radar Waveform_19

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	66.4	11	1005		591.214
2	1	74.5	11			96.546
3	2	57	11	1883		45.202
4	2	58.8	11	1410		386.953
5	3	54.3	11	1351	1831	456.384
6	3	71	11	1200	1921	593.325
7	2	75.6	11	1740		551.756
8	3	59.2	11	1754	1392	32.347
9	1	54.2	11			244.368
10	2	66.3	11	1838		478.079
11	1	53.5	11			554.061
12	3	93.9	11	1417	1313	417.922
13	2	85.8	11	1936		207.403
14	2	94.6	11	1428		492.344
15	3	51.3	11	1133	1030	122.555
16	2	83.6	11	1988		419.466
17	3	68.5	11	1544	1206	84.337
18	1	64.5	11			449.958
19	3	89.4	11	1702	1514	549.579

Type 5 Radar Waveform_20

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	62.3	19	1029	1724	250.754
2	3	90.1	19	1431	1906	189.518
3	2	98.8	19	1068		544.15
4	2	75.7	19	1860		231.59
5	1	72	19			32.76
6	2	92.1	19	1152		733.26
7	3	91.2	19	1701	1925	496.26
8	1	77.8	19			474.56
9	1	89.3	19			591.62
10	2	54.7	19	1381		505.96
11	3	97.9	19	1863	1865	314.74
12	3	62.7	19	1812	1469	87.92
13	2	75.8	19	1999		101.88
14	3	58.2	19	1627	1116	704.9
15	2	67.7	19	1166		735.8
16	3	85.7	19	1322	1906	51.9

Type 5 Radar Waveform_21

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	84.1	7	1325	1553	634.848
2	2	52.5	7	1909		166.683
3	2	82.4	7	1541		160.917
4	3	73	7	1173	1045	24.21
5	1	79.7	7			39.473
6	1	95.7	7			106.407
7	3	50.1	7	1246	1864	656.61
8	2	76.1	7	1257		154.543
9	2	71.6	7	1697		624.027
10	2	53.8	7	1937		366.97
11	2	72.3	7	1568		569.573
12	2	77.4	7	1872		242.567
13	1	95.6	7			496.14
14	1	84.8	7			136.613
15	1	54	7			279.757
16	2	87.7	7	1539		568.6
17	1	96.8	7			119.633
18	2	59.2	7	1224		196.967

Type 5 Radar Waveform_22

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	62.7	13	1721		417.119
2	2	90	13	1334		916.55
3	1	63.6	13			148.98
4	2	84.5	13	1297		381.52
5	2	52.8	13	1254		956.04
6	2	71.8	13	1618		702.44
7	1	73.8	13			135.15
8	2	65.4	13	1198		643.11
9	2	54.8	13	1946		715.51
10	2	69.5	13	1026		505.84
11	3	50.5	13	1869	1425	262.1
12	1	76.5	13			735.5

Type 5 Radar Waveform_23

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	72.8	6			488.382
2	2	71	6	1792		136.764
3	2	77.8	6	1623		427.36
4	2	58	6	1747		564.74
5	2	99	6	1922		210.02
6	1	64.2	6			567.36
7	2	94.9	6	1862		282.53
8	1	69.3	6			31.89
9	2	99.7	6	1978		349.96
10	2	86.6	6	1527		509.21
11	2	88.9	6	1693		331.95
12	3	78.3	6	1685	1542	631.85
13	1	71.7	6			47.16
14	1	73.5	6			165.59
15	1	66.6	6			100.1
16	1	64.2	6			709.6

Type 5 Radar Waveform_24

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	95	20	1786		480.812
2	3	90.2	20	1237	1001	573.771
3	3	56.4	20	1182	1222	309.012
4	2	65.3	20	1385		107.153
5	3	92.8	20	1800	1530	570.394
6	1	62.3	20			555.355
7	2	87.4	20	1369		421.786
8	1	60.4	20			564.377
9	1	88.1	20			120.858
10	2	76.1	20	1213		298.669
11	1	74	20			91.861
12	2	50.9	20	1370		514.152
13	2	76.9	20	1255		282.453
14	2	83.8	20	1326		614.654
15	3	93.4	20	1515	1949	565.265
16	1	51.3	20			71.646
17	2	63	20	1575		21.637
18	2	89.3	20	1734		451.358
19	3	92.3	20	1747	1477	114.179

Type 5 Radar Waveform_25

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	75.9	13	1903	1621	497.147
2	3	74.4	13	1121	1943	623.681
3	2	66.2	13	1275		208.992
4	2	92.6	13	1442		503.013
5	1	78.5	13			429.494
6	3	81.1	13	1978	1018	497.875
7	2	89.8	13	1956		202.136
8	3	70.4	13	1123	1436	464.067
9	2	89.5	13	1954		615.618
10	1	70.7	13			292.079
11	2	93.4	13	1458		109.181
12	2	68	13	1845		305.862
13	2	81	13	1410		452.103
14	2	92.8	13	1186		570.394
15	2	100	13	1181		525.905
16	1	62.1	13			351.046
17	2	76.8	13	1074		252.237
18	3	85.9	13	1210	1249	365.258
19	2	66	13	1996		345.479

Type 5 Radar Waveform_26

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	62.9	14	1151		422.042
2	1	82.3	14			254.07
3	2	85	14	1479		87.437
4	2	67.3	14	1238		110.25
5	1	86.3	14			131.643
6	1	80.3	14			359.097
7	3	59	14	1258	1480	27.28
8	2	88.7	14	1003		620.533
9	3	63.2	14	1759	1114	217.467
10	2	59.3	14	1258		45.76
11	2	51.2	14	1795		35.683
12	2	96.6	14	1244		157.267
13	1	82	14			321.74
14	2	69.1	14	1024		632.433
15	2	88.6	14	1345		72.617
16	2	92.5	14	1812		123.5
17	2	97.1	14	1660		551.233
18	3	75.5	14	1620	1102	432.467

Type 5 Radar Waveform_27

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	68.6	19	1411	1349	237.672
2	1	98.9	19			270.14
3	3	98.5	19	1491	1310	134.19
4	3	69.1	19	1205	1489	47.07
5	1	89.2	19			1380.91
6	2	84.4	19	1610		240.54
7	2	55.3	19	1110		105.15
8	2	91.3	19	1347		1319

Type 5 Radar Waveform_28

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	79.5	6	1815		414.867
2	2	83.7	6	1032		185.471
3	2	57.3	6	1797		276.342
4	2	67.5	6	1868		265.763
5	2	61.1	6	1501		642.394
6	2	52.5	6	1459		682.495
7	3	71.1	6	1034	1582	531.745
8	1	69.1	6			319.116
9	1	51.6	6			910.727
10	1	91.1	6			599.318
11	3	82.6	6	1057	1456	199.409

Type 5 Radar Waveform_29

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	92.9	16	1491		354.848
2	1	56.7	16			720.51
3	3	58.9	16	1975	1457	89.38
4	2	60.9	16	1584		724.72
5	2	94.8	16	1970		579.4
6	1	94.6	16			984.9
7	2	95.9	16	1159		707.86
8	2	64.1	16	1466		194.95
9	2	72.1	16	1639		573.5
10	2	67	16	1316		988.49
11	3	70.2	16	1367	1233	218.9
12	1	83	16			703.1

Type 5 Radar Waveform_30

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	70.7	18	1668	1601	642.715
2	2	92.4	18	1873		419.998
3	2	78.2	18	1858		584.965
4	3	53	18	1442	1404	225.203
5	2	82.7	18	1583		423.671
6	1	66.7	18			517.658
7	2	99.7	18	1317		671.226
8	2	65.8	18	1488		17.294
9	2	74.5	18	1474		549.031
10	1	73.5	18			679.789
11	2	93.7	18	1136		601.696
12	3	69.5	18	1472	1589	272.404
13	2	54.9	18	1158		282.242
14	2	53	18	1880		300.189
15	2	62.9	18	1376		376.047
16	2	71.2	18	1857		71.565
17	2	76.6	18	2000		623.882

Radar Type 6 - Radar Statistical Performance

Trail #	1=Detection 0=No Detection	Trail #	1=Detection 0=No Detection
1	1	16	1
2	1	17	1
3	1	18	1
4	1	19	1
5	1	20	1
6	1	21	1
7	1	22	1
8	0	23	1
9	1	24	1
10	1	25	1
11	1	26	1
12	1	27	1
13	1	28	1
14	1	29	1
15	1	30	1
Detection Percentage (%)			**96.7%**

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5504	12	14	5490	42
50	5501	150	20	5507	60
63	5497	189	28	5521	84
73	5508	219	55	5524	165
74	5528	222	79	5512	237
96	5503	288	80	5502	240
98	5527	294	93	5500	279

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5503	45	15	5500	45
42	5496	126	26	5515	78
46	5521	138	38	5517	114
74	5522	222	54	5528	162
--	--	--	68	5510	204
--	--	--	70	5530	210
--	--	--	90	5521	270
--	--	--	94	5497	282
--	--	--	95	5502	285

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5518	12	11	5490	33
48	5504	144	57	5504	171
55	5525	165	65	5494	195
74	5517	222	68	5515	204
96	5529	288	82	5521	246
99	5494	297	87	5517	261
--	--	--	90	5506	270
--	--	--	92	5501	276

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
21	5505	63	21	5524	63
30	5529	90	31	5507	93
31	5508	93	37	5494	111
34	5511	102	41	5530	123
47	5498	141	60	5504	180
--	--	--	76	5500	228
--	--	--	86	5499	258
--	--	--	90	5521	270
--	--	--	99	5498	297

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
34	5501	102	11	5511	33
36	5492	108	22	5499	66
40	5510	120	47	5525	141
67	5526	201	63	5514	189
79	5527	237	67	5530	201
95	5507	285	77	5501	231
96	5504	288	100	5526	300
100	5512	300	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5519	48	15	5492	45
20	5496	60	19	5511	57
36	5495	108	24	5505	72
38	5497	114	27	5515	81
39	5490	117	28	5501	84
61	5525	183	33	5520	99
78	5518	234	40	5509	120
93	5520	279	78	5502	234
--	--	--	91	5503	273
--	--	--	99	5523	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5528	15	9	5509	27
7	5526	21	23	5499	69
10	5512	30	24	5497	72
32	5522	96	33	5514	99
64	5496	192	39	5508	117
81	5517	243	51	5506	153
84	5527	252	52	5530	156
100	5494	300	61	5512	183
--	--	--	64	5526	192
--	--	--	85	5494	255
--	--	--	89	5500	267

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5511	60	11	5518	33
24	5505	72	43	5513	129
28	5518	84	66	5497	198
43	5514	129	72	5493	216
55	5504	165	77	5510	231
69	5528	207	94	5520	282
99	5523	297	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5530	24	4	5514	12
26	5527	78	9	5508	27
30	5524	90	13	5523	39
32	5494	96	58	5502	174
43	5502	129	67	5512	201
49	5490	147	72	5495	216
71	5506	213	73	5519	219
74	5522	222	75	5524	225
92	5526	276	78	5503	234
--	--	--	80	5525	240

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5504	9	22	5514	66
13	5496	39	44	5515	132
14	5490	42	49	5502	147
67	5497	201	82	5490	246
95	5501	285	95	5525	285
97	5527	291	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
22	5491	66	12	5529	36
23	5514	69	13	5502	39
26	5504	78	19	5505	57
29	5501	87	38	5513	114
40	5509	120	40	5500	120
44	5528	132	48	5492	144
93	5526	279	67	5501	201
--	--	--	86	5493	258
--	--	--	97	5496	291

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5507	18	51	5496	153
12	5492	36	56	5515	168
19	5514	57	62	5503	186
21	5515	63	76	5513	228
33	5509	99	83	5495	249
44	5518	132	95	5492	285
94	5528	282	--	--	--
95	5504	285	--	--	--
96	5499	288	--	--	--
97	5498	291	--	--	--
100	5496	300	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
23	5493	69	35	5498	105
26	5501	78	49	5491	147
48	5523	144	55	5530	165
53	5506	159	63	5515	189
59	5525	177	67	5503	201
64	5502	192	77	5490	231
70	5530	210	86	5523	258
71	5495	213	91	5518	273
74	5511	222	--	--	--
86	5517	258	--	--	--
88	5519	264	--	--	--
99	5499	297	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5507	36	20	5527	60
19	5511	57	22	5524	66
35	5527	105	28	5503	84
37	5523	111	45	5530	135
38	5490	114	74	5511	222
41	5495	123	79	5517	237
49	5524	147	92	5523	276
66	5520	198	93	5525	279
67	5510	201	99	5506	297
69	5509	207	100	5509	300
71	5498	213	--	--	--
83	5512	249	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5511	24	4	5495	12
56	5494	168	19	5496	57
61	5522	183	30	5517	90
77	5526	231	31	5491	93
78	5504	234	45	5519	135
82	5492	246	47	5528	141
94	5500	282	68	5504	204
--	--	--	78	5524	234
--	--	--	100	5502	300

Product	Wireless Router	Temperature	27°C
Test Engineer	Jake Lan	Relative Humidity	65%
Test Site	WZ-SR4	Test Date	2022-06-27
Test Item	Radar Statistical Performance Check (802.11ax-HE80– 5530MHz)-mode 1		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5522	1	778	68	1
2	5518	1	618	86	1
3	5503	1	818	65	1
4	5532	1	578	92	1
5	5520	1	578	92	1
6	5517	1	938	57	1
7	5555	1	918	58	1
8	5526	1	538	98	1
9	5558	1	798	67	1
10	5516	1	658	81	1
11	5546	1	698	76	1
12	5515	1	618	86	1
13	5498	1	938	57	0
14	5506	1	718	74	1
15	5559	1	698	76	1
16	5551	1	818	65	1
17	5530	1	878	61	1
18	5553	1	678	78	1
19	5510	1	558	95	1
20	5559	1	718	74	0
21	5531	1	838	63	1
22	5509	1	718	74	0
23	5530	1	558	95	1
24	5511	1	558	95	1
25	5546	1	918	58	1
26	5563	1	558	95	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5522	1	898	59	1
28	5557	1	798	67	1
29	5552	1	558	95	1
30	5540	1	818	65	1
Detection Percentage (%)					**90.0%**

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5524	2.1	157	25	1
2	5514	1.5	225	23	1
3	5530	3.1	151	24	1
4	5551	1.6	188	26	1
5	5564	3.4	223	24	0
6	5557	4.1	168	28	0
7	5519	3.3	166	27	1
8	5545	3.7	206	23	1
9	5498	2.5	174	25	0
10	5520	4.3	195	28	1
11	5559	1.2	156	28	1
12	5511	1.4	152	24	1
13	5542	3.1	225	25	1
14	5491	2.8	184	27	1
15	5545	1.7	190	28	0
16	5493	1.1	193	25	1
17	5498	1.8	189	24	0
18	5496	1.6	167	25	1
19	5499	3.7	219	26	1
20	5508	2.9	172	29	1
21	5533	4.0	218	24	1
22	5563	2.6	192	28	1
23	5550	1.0	213	25	1
24	5544	1.3	219	25	1
25	5490	1.6	190	24	1
26	5553	4.5	178	29	1
27	5513	4.3	225	29	0
28	5561	3.3	186	25	1
29	5519	2.7	207	26	1
30	5562	3.8	182	29	1
Detection Percentage (%)					**80.0%**

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5496	9.4	271	18	1
2	5541	9.2	238	17	1
3	5518	7.1	342	17	1
4	5507	6.3	345	17	1
5	5552	9.8	446	16	1
6	5556	6.2	315	16	1
7	5513	8.3	427	16	1
8	5561	9.4	329	17	1
9	5542	9.2	356	18	1
10	5516	9.8	278	17	1
11	5505	8.3	326	17	1
12	5492	9.9	248	16	1
13	5509	6.4	281	17	0
14	5520	8.8	364	18	0
15	5500	7.6	349	17	1
16	5507	8.0	228	16	1
17	5548	9.2	438	17	0
18	5550	8.0	345	17	1
19	5534	8.5	312	17	1
20	5537	8.2	235	17	1
21	5559	7.1	416	17	1
22	5503	7.8	218	17	1
23	5547	6.0	274	18	1
24	5560	7.2	397	17	1
25	5544	7.4	497	16	1
26	5491	7.0	255	17	1
27	5551	7.0	246	17	0
28	5492	7.1	240	17	1
29	5552	6.8	471	16	1
30	5563	8.5	385	17	1
Detection Percentage (%)					**86.7%**

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5495	11.8	239	12	1
2	5566	11.0	417	13	0
3	5524	16.9	362	15	1
4	5568	14.9	314	15	1
5	5511	11.5	215	15	1
6	5511	14.5	331	14	1
7	5557	19.6	451	13	1
8	5534	11.1	308	13	1
9	5552	11.8	254	13	1
10	5563	18.6	455	14	1
11	5496	17.4	393	14	1
12	5531	14.6	482	14	1
13	5496	15.9	210	13	1
14	5567	16.0	488	14	1
15	5556	12.1	267	15	1
16	5515	13.6	270	13	0
17	5539	12.6	316	13	0
18	5497	11.1	455	15	1
19	5520	13.3	368	16	1
20	5503	12.9	287	14	1
21	5516	19.8	481	16	1
22	5555	17.2	232	15	0
23	5546	18.9	497	16	1
24	5528	15.1	454	13	1
25	5500	17.3	372	13	1
26	5533	18.0	408	13	1
27	5559	17.3	378	15	1
28	5528	14.0	322	14	1
29	5561	17.7	209	15	1
30	5527	11.6	221	14	0
Detection Percentage (%)					**83.3%**

Note: In addition an average minimum percentage of successful detection across all four short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (90%+80%+86.7%+83.3%)/4 = 85% (≥ 80%)

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5530	1	16	5496.8	1
2	5530	1	17	5494	1
3	5530	1	18	5493.6	1
4	5530	1	19	5498	1
5	5530	1	20	5494	1
6	5530	1	21	5562.4	1
7	5530	1	22	5567.2	1
8	5530	1	23	5563.6	1
9	5530	1	24	5566	1
10	5530	1	25	5562	1
11	5492	1	26	5565.6	1
12	5494.8	0	27	5564.8	1
13	5494.8	0	28	5566	1
14	5493.2	1	29	5567.6	1
15	5493.2	1	30	5564.4	1
Detection Percentage (%)					90%

Type 5 Radar Waveform_1

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	60.5	14	1665		230.792
2	1	56.1	14			276.987
3	2	97.5	14	1948		759.594
4	1	75.2	14			507.871
5	2	87.8	14	1968		143.439
6	3	63.9	14	1428	1974	630.546
7	1	77	14			644.943
8	3	84	14	1501	1527	730.97
9	2	95.4	14	1316		75.097
10	2	87.7	14	1941		503.554
11	2	58	14	1177		281.291
12	3	65.4	14	1683	1766	98.499
13	1	75.4	14			541.586
14	3	54.5	14	1152	1954	388.243

Type 5 Radar Waveform_2

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	63	11			244.933
2	2	90	11	1547		846.28
3	1	58.2	11			1103.16
4	2	58.4	11	1455		1038.56
5	2	90.3	11	1918		720.13
6	2	75.4	11	1159		1002.02
7	1	54.9	11			808.53
8	1	91.6	11			1008.75
9	1	92.1	11			898.3
10	3	62.1	11	1449	1205	532.9

Type 5 Radar Waveform_3

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	75.8	20			75.99
2	3	89.1	20	1915	1070	303.08
3	2	68.9	20	1897		391.05
4	3	65	20	1393	1540	686
5	2	68	20	1107		221.74
6	3	86	20	1927	1094	134.24
7	2	53	20	1152		622.25
8	2	93.4	20	1644		277.1
9	2	84.3	20	1198		223.18
10	2	92.1	20	1600		124.42
11	2	50	20	1194		446.64
12	2	86.1	20	1436		425.66
13	3	53.3	20	1471	1332	404.65
14	1	62.3	20			527
15	2	97.7	20	1693		544.6
16	3	82.4	20	1261	1530	31.1

Type 5 Radar Waveform_4

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	71.2	17			162.824
2	1	68.8	17			417.09
3	2	73.6	17	1777		46.31
4	2	62.7	17	1271		309.81
5	2	88.1	17	1811		238.73
6	3	56.5	17	1436	1398	69.42
7	2	67.5	17	1191		162.51
8	2	70.1	17	1937		347.61
9	3	53	17	1187	1111	514.33
10	2	90.7	17	1205		192.18
11	3	77.2	17	1854	1542	368.09
12	2	88.4	17	1464		313.72
13	2	96.4	17	1500		430.81
14	3	67.2	17	1159	1988	582.18
15	1	87	17			430.4
16	3	62.1	17	1047	1239	257.45
17	3	81.3	17	1853	1278	279.44
18	2	85.1	17	1349		458.5
19	2	94.3	17	1490		369.6
20	2	90.4	17	1689		139.3

Type 5 Radar Waveform_5

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	82.3	8	1583	1976	518.084
2	1	83.5	8			522.817
3	2	50.2	8	1164		427.984
4	2	57.4	8	1983		615.091
5	2	79.5	8	1394		651.279
6	3	55.5	8	1509	1184	348.136
7	2	86.8	8	1351		357.083
8	2	50.5	8	1988		779.48
9	3	60.6	8	1073	1846	364.017
10	2	58.2	8	1018		693.274
11	1	58.9	8			549.741
12	1	89.7	8			535.259
13	3	68.6	8	1459	1901	110.586
14	1	96.4	8			780.943

Type 5 Radar Waveform_6

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	90.2	6	1108	1429	735.041
2	2	95.2	6	1025		286.581
3	2	72.3	6	1631		675.572
4	3	82.2	6	1014	1580	339.693
5	1	82.8	6			36.924
6	1	67.9	6			512.265
7	3	58.4	6	1024	1646	774.735
8	3	76.5	6	1874	1493	330.426
9	3	97.4	6	1632	1920	1071.247
10	2	71.7	6	1993		685.918
11	2	98.8	6	1041		99.709

Type 5 Radar Waveform_7

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	50.4	10	1995	1397	376.211
2	2	71.5	10	1973		443.793
3	1	61.5	10			558.947
4	2	60.8	10	1353		328.79
5	3	69	10	1800	1963	135.163
6	2	74.8	10	1513		477.327
7	3	98.3	10	1640	1142	118.63
8	2	99.5	10	1993		191.073
9	2	92.7	10	1165		62.947
10	3	74.3	10	1694	1413	290.23
11	2	56.8	10	1643		433.703
12	1	65.2	10			627.647
13	3	77.1	10	1215	1327	535.47
14	1	84.9	10			41.953
15	2	94.3	10	1765		513.687
16	2	66.2	10	1424		402.3
17	1	88.1	10			211.733
18	2	65.1	10	1173		646.467

Type 5 Radar Waveform_8

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (μ sec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	86.2	7	1192		192.832
2	3	60.1	7	1868	1260	1173.857
3	2	61.4	7	1909		1057.053
4	1	53.5	7			1210.14
5	2	53.8	7	1522		172.557
6	2	94.5	7	1963		455.123
7	2	83.9	7	1592		1031.65
8	2	55.3	7	1329		985.367
9	1	77.3	7			1116.333

Type 5 Radar Waveform_9

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	76.7	19	1420	1734	299.801
2	2	74.8	19	1443		288.023
3	2	84.7	19	1362		108.66
4	3	63.3	19	1423	1953	342.52
5	3	94.6	19	1426	1796	176.32
6	1	76.8	19			352.47
7	1	91	19			16.87
8	1	75.7	19			547.5
9	2	77.2	19	1320		263.92
10	2	79.3	19	1347		472.62
11	1	93	19			128.8
12	1	82	19			436.34
13	1	93.7	19			403.21
14	3	93.2	19	1451	1891	366.41
15	2	57.2	19	1228		353.14
16	2	67.8	19	1588		58.5
17	1	94	19			17.41
18	2	100	19	1733		286.4
19	1	62	19			27.8
20	2	83.8	19	1888		406.2

Type 5 Radar Waveform_10

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	73.2	11	1144		677.505
2	1	79	11			299.13
3	3	68.2	11	1751	1514	946.95
4	2	78.5	11	1779		184.41
5	2	71.3	11	1630		33.77
6	2	67.6	11	1998		865.18
7	2	94.5	11	1559		213.95
8	1	54.8	11			26.79
9	2	91.2	11	1931		441.37
10	3	78.6	11	1284	1721	142.99
11	2	78.2	11	1579		72.9
12	1	81.1	11			160

Type 5 Radar Waveform_11

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	67.5	5			193.461
2	2	83.8	5	1150		197.25
3	2	51.5	5	1096		588.54
4	2	52.1	5	1902		284.57
5	2	71.8	5	1117		181.77
6	2	77.5	5	1405		735.25
7	3	51	5	1414	1706	457.31
8	2	73.4	5	1188		282.82
9	2	96	5	1274		173.55
10	1	59.8	5			730.22
11	2	82.2	5	1514		739.51
12	2	57.2	5	1198		23.65
13	3	88.6	5	1537	1471	29.89
14	1	70.9	5			408.3
15	2	50.6	5	1680		127.1
16	2	54.7	5	1484		691.6

Type 5 Radar Waveform_12

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	76.4	12	1043		540.675
2	3	100	12	1687	1498	548.028
3	2	88	12	1483		473.585
4	1	97.3	12			373.933
5	2	59.6	12	1858		231.211
6	2	61.5	12	1371		529.928
7	1	83.4	12			614.086
8	1	88.6	12			104.364
9	2	68.5	12	1368		685.871
10	2	77.3	12	1144		213.979
11	3	90.3	12	1978	1304	280.456
12	1	55.9	12			528.814
13	3	91.3	12	1993	1948	636.402
14	2	60.3	12	1580		92.929
15	3	56.8	12	1963	1142	608.447
16	1	66.3	12			299.565
17	2	78.4	12	1271		149.982

Type 5 Radar Waveform_13

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	61.1	12	1160		227.464
2	2	99.6	12	1541		626.468
3	2	76.3	12	1324		491.985
4	2	64.3	12	1129		46.573
5	1	77.9	12			658.221
6	3	66.7	12	1803	1252	177.008
7	3	93	12	1201	1119	93.906
8	1	72.2	12			66.974
9	2	91.2	12	1168		325.721
10	1	90.3	12			572.789
11	1	91.2	12			359.796
12	1	90.8	12			652.644
13	2	50.7	12	1167		101.942
14	2	72.1	12	1329		233.029
15	2	67.8	12	1584		300.347
16	3	57.1	12	1491	1940	178.265
17	2	99.4	12	1437		304.982

Type 5 Radar Waveform_14

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	96.9	8	1128		476.783
2	2	60.1	8	1768		718.12
3	2	74	8	1781		322.3
4	2	72.3	8	1275		649.44
5	3	80.5	8	1703	1761	715.57
6	1	81.2	8			240.93
7	2	97.6	8	1643		522.79
8	1	53.5	8			352.88
9	3	82.2	8	1942	1080	148.13
10	2	91.6	8	1289		136.32
11	2	96.8	8	1278		80.71
12	2	86.4	8	1834		615.02
13	2	53.8	8	1350		544.88
14	2	57.1	8	1169		285.5
15	2	54.9	8	1595		494.4
16	2	76	8	1091		515.3

Type 5 Radar Waveform_15

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	89.5	8	1080	1763	231.867
2	2	55.5	8	1621		395.138
3	3	67.9	8	1691	1069	265.135
4	1	87.6	8			509.013
5	2	88.7	8	1526		531.311
6	2	77.7	8	1501		28.908
7	2	68.2	8	1553		42.406
8	2	79.7	8	1487		668.684
9	2	92.8	8	1142		310.771
10	2	67.9	8	1930		343.019
11	2	75.5	8	1063		397.796
12	1	68.9	8			106.994
13	2	87.9	8	1647		120.852
14	3	63.2	8	1188	1664	187.319
15	2	64	8	1639		318.747
16	1	78.1	8			472.365
17	3	95	8	1304	1297	666.982

Type 5 Radar Waveform_16

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	68.1	17	1969		943.924
2	2	94.6	17	1208		616.51
3	1	52.9	17			502.23
4	1	63	17			734.48
5	3	94.1	17	1727	1239	63.46
6	3	90.2	17	1239	1907	23.73
7	2	84.2	17	1133		31.11
8	2	79.8	17	1654		145.1
9	2	74.3	17	1277		839.87
10	1	95.4	17			414.7
11	2	65.5	17	1445		615.9
12	2	88	17	2000		780.6

Type 5 Radar Waveform_17

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	58.3	10	1451		19.646
2	1	96.6	10			372.97
3	2	59.5	10	1921		296.51
4	3	70.8	10	1002	1635	473.42
5	3	84.2	10	1361	1422	348.41
6	2	77.1	10	1329		99.12
7	2	78.2	10	1884		606.53
8	2	58.8	10	1621		526.36
9	2	52.5	10	1002		261.74
10	3	64.2	10	1039	1648	677
11	2	55.5	10	1046		667.8
12	2	89.7	10	1260		515.16
13	1	58.1	10			458.2
14	1	72.4	10			676.2
15	2	73.4	10	1650		508.8

Type 5 Radar Waveform_18

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	70.3	9	1238		476.968
2	3	67.4	9	1381	1805	215.88
3	1	91.8	9			59.8
4	3	87.6	9	1265	1199	201.5
5	3	66.3	9	1848	1441	369.14
6	3	86.3	9	1676	1059	799
7	3	63.2	9	1469	1010	30.14
8	3	92.6	9	1043	1069	198.49
9	3	71.7	9	1179	1529	709.7
10	2	66.8	9	1915		434.5

Type 5 Radar Waveform_19

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	57.6	20	1881	1835	130.129
2	1	63.5	20			601.84
3	2	55.1	20	1795		184.16
4	2	64.8	20	1951		696.45
5	1	91.9	20			596.49
6	2	71.4	20	1941		566.12
7	2	70.1	20	1453		590.05
8	3	74.2	20	1971	1883	403.13
9	3	79	20	1490	1597	431.66
10	2	74.7	20	1731		298.87
11	3	52.1	20	1284	1903	719.51
12	3	94.1	20	1009	1756	750.32
13	3	87.5	20	1647	1871	173.68
14	2	53.8	20	1737		445.1
15	3	98.4	20	1030	1029	661.2

Type 5 Radar Waveform_20

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	59.6	10	1415		538.324
2	2	94.8	10	1352		459.851
3	2	92.4	10	1055		600.812
4	2	78.5	10	1428		26.943
5	3	67.8	10	1365	1688	196.254
6	1	63.6	10			252.955
7	3	68.8	10	1480	1270	356.346
8	1	64.7	10			18.617
9	3	75.8	10	1775	1238	62.588
10	2	84.6	10	1202		171.729
11	3	97.9	10	1801	1881	19.881
12	2	72.7	10	1889		200.172
13	2	98.4	10	1004		298.563
14	2	50.1	10	1472		210.064
15	2	60.6	10	1232		2.145
16	2	50.4	10	1029		71.856
17	1	77.8	10			421.137
18	2	66.3	10	1944		157.958
19	2	74	10	1849		41.179

Type 5 Radar Waveform_21

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	73.1	19			14.638
2	2	76.8	19	1955		466.113
3	1	55	19			535.517
4	3	87.7	19	1244	1145	608.47
5	3	71.7	19	1881	1667	390.923
6	2	51.6	19	1395		584.847
7	2	85.2	19	1395		123.06
8	2	67.5	19	1546		302.593
9	1	76.2	19			413.737
10	2	75.5	19	1504		506.99
11	2	69.4	19	1251		505.673
12	3	67.4	19	1514	1209	622.927
13	2	50.7	19	1854		364.26
14	2	91.9	19	1045		488.373
15	1	94.7	19			47.847
16	2	63.1	19	1038		236
17	3	81.7	19	1409	1895	374.733
18	1	52.4	19			90.867

Type 5 Radar Waveform_22

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	99.1	7	1442		458.548
2	2	69.5	7	1532		236.77
3	1	52.4	7			1068.83
4	3	78.5	7	1759	1025	1028.96
5	3	59.1	7	1790	1051	852.33
6	2	85.8	7	1483		1156.78
7	1	56.1	7			1125.73
8	3	55.1	7	1717	1302	132.17
9	2	84.8	7	1778		139.34
10	2	99	7	1059		989.6

Type 5 Radar Waveform_23

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	63	16	1203		522.932
2	1	72.4	16			352.21
3	1	85.2	16			622.46
4	2	55.2	16	1787		754.88
5	2	77.9	16	1918		608.69
6	2	54.1	16	1177		678.35
7	2	62	16	1160		661.75
8	3	93.6	16	1552	1754	836.14
9	1	75.6	16			456.14
10	3	97	16	1078	1026	922.35
11	1	61.2	16			643.5
12	1	55.2	16			126.2

Type 5 Radar Waveform_24

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	56.9	10	1246	1126	159.093
2	3	78.9	10	1025	1022	126.141
3	1	75.9	10			527.192
4	1	59.5	10			228.713
5	1	71.3	10			320.264
6	1	78.6	10			275.005
7	1	55.4	10			372.656
8	1	98.1	10			277.527
9	2	62.3	10	1059		316.878
10	2	83.1	10	1333		413.449
11	2	93.9	10	1850		616.371
12	3	96.1	10	1775	1222	487.162
13	1	62.3	10			263.203
14	2	58.3	10	1414		127.324
15	2	53.1	10	1396		15.655
16	2	63.1	10	1784		549.116
17	2	96.7	10	1927		175.537
18	3	88.5	10	1514	1521	21.858
19	2	69.1	10	1172		166.579

Type 5 Radar Waveform_25

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	75.1	20	1265		43.486
2	3	88.5	20	1594	1237	85.848
3	2	90.3	20	1001		354.465
4	3	85.8	20	1931	1265	287.253
5	1	94.7	20			58.101
6	1	75.5	20			226.008
7	2	81.4	20	1994		468.066
8	2	61.4	20	1336		667.234
9	2	51.8	20	1046		573.351
10	2	56.4	20	1358		164.399
11	1	67.4	20			69.006
12	2	85.7	20	1494		63.414
13	2	73.7	20	1220		244.422
14	3	95.6	20	1299	1659	14.229
15	1	83.8	20			374.747
16	2	76.5	20	1684		302.265
17	2	71.5	20	1398		377.282

Type 5 Radar Waveform_26

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	79.7	11	1261		736.938
2	2	50.5	11	1580		125.11
3	2	64.4	11	1212		747.16
4	2	72.5	11	1647		174.6
5	2	81.8	11	1840		504.18
6	1	89.3	11			128.05
7	2	74	11	1984		819.12
8	2	66.3	11	1033		14
9	3	85.5	11	1330	1127	531.4
10	2	91.5	11	1513		1104.1

Type 5 Radar Waveform_27

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	2	53	13	1485		580.54
2	2	100	13	1264		526.241
3	2	53.9	13	1275		473.012
4	2	70.6	13	1324		473.403
5	3	88.8	13	1515	1803	510.674
6	2	86.7	13	1703		68.195
7	1	95.7	13			359.756
8	1	72.9	13			144.977
9	3	99.7	13	1639	1864	382.008
10	3	67.9	13	1208	1500	513.149
11	1	66.4	13			463.161
12	1	75.1	13			439.272
13	3	86.2	13	1953	1395	541.283
14	3	67.2	13	1231	1072	570.074
15	2	92.8	13	1416		306.845
16	1	60.6	13			579.616
17	2	66.1	13	1797		224.737
18	2	55	13	1822		195.958
19	1	99.6	13			614.179

Type 5 Radar Waveform_28

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	3	86.5	10	1244	1321	236.213
2	2	84.7	10	1233		487.561
3	2	71.9	10	1850		134.432
4	2	57.5	10	1871		465.453
5	2	80.7	10	1064		212.704
6	3	67.8	10	1482	1806	6.665
7	2	64.6	10	1470		238.125
8	3	81.2	10	1759	1188	954.596
9	2	99.9	10	1675		375.777
10	2	80.9	10	1284		225.518
11	2	88.7	10	1073		996.409

Type 5 Radar Waveform_29

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	79.7	6			541.07
2	1	63.8	6			322.661
3	2	61.4	6	1002		758.522
4	3	69.6	6	1986	1361	520.013
5	2	61.2	6	1991		280.954
6	2	67	6	1443		27.105
7	2	69.8	6	1047		791.485
8	2	51.1	6	1869		112.066
9	3	84.2	6	1613	1808	651.897
10	3	72.1	6	1144	1759	583.518
11	3	62.3	6	1744	1135	194.209

Type 5 Radar Waveform_30

Burst	Number of Pulses	Pulse Width (μ sec)	Chirp Width (MHz)	Pulse 1-to-2 PRI (μsec)	Pulse 2-to-3 PRI (μsec)	Start Location Within Interval (msec)
1	1	90.4	14			107.124
2	2	100	14	1124		55.614
3	2	88.4	14	1199		74.09
4	3	89.8	14	1137	1656	549.77
5	1	54.5	14			548.82
6	1	89	14			426.96
7	2	67.7	14	1129		692.49
8	2	98.6	14	1841		594.02
9	2	67.4	14	1108		323.46
10	3	75.2	14	1187	1348	135.79
11	3	88.2	14	1865	1734	559.29
12	2	61.9	14	1895		465.26
13	1	88.4	14			366.31
14	2	60.2	14	1174		711.7
15	1	93.7	14			27.6
16	1	59.1	14			274.8

Radar Type 6 - Radar Statistical Performance

Trail #	1=Detection 0=No Detection	Trail #	1=Detection 0=No Detection
1	1	16	1
2	1	17	1
3	1	18	1
4	1	19	1
5	1	20	1
6	1	21	1
7	1	22	1
8	1	23	1
9	1	24	1
10	1	25	1
11	1	26	1
12	1	27	1
13	1	28	1
14	1	29	1
15	1	30	1
	Detection Percentage (%)		100.0%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
28	5526	84	1	5526	3
32	5538	96	7	5515	21
33	5513	99	8	5528	24
34	5522	102	13	5568	39
41	5532	123	15	5557	45
43	5528	129	20	5520	60
50	5555	150	22	5508	66
51	5536	153	31	5525	93
53	5521	159	34	5522	102
56	5545	168	37	5561	111
70	5490	210	39	5543	117
75	5520	225	40	5499	120
76	5558	228	41	5491	123
82	5568	246	42	5533	126
89	5556	267	48	5566	144
91	5507	273	53	5497	159
98	5503	294	57	5517	171
--	--	--	63	5536	189
--	--	--	64	5506	192
--	--	--	69	5524	207
--	--	--	75	5565	225
--	--	--	89	5559	267
--	--	--	98	5495	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5502	6	3	5519	9
8	5531	24	10	5565	30
11	5558	33	17	5492	51
13	5491	39	18	5540	54
31	5544	93	25	5569	75
32	5541	96	29	5543	87
36	5505	108	33	5545	99
43	5517	129	35	5499	105
47	5526	141	37	5523	111
50	5533	150	42	5497	126
54	5492	162	61	5548	183
57	5518	171	70	5527	210
66	5530	198	91	5516	273
67	5561	201	94	5570	282
70	5562	210	97	5520	291
78	5495	234	99	5502	297
90	5522	270	--	--	--
100	5552	300	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5549	18	7	5533	21
8	5547	24	9	5507	27
11	5503	33	22	5553	66
19	5541	57	28	5543	84
23	5509	69	36	5512	108
34	5521	102	44	5514	132
37	5514	111	47	5509	141
38	5534	114	50	5493	150
44	5565	132	63	5563	189
50	5562	150	68	5524	204
52	5519	156	73	5552	219
55	5497	165	79	5494	237
56	5505	168	85	5557	255
60	5495	180	87	5511	261
64	5552	192	90	5542	270
67	5526	201	91	5504	273
79	5569	237	93	5501	279
88	5508	264	--	--	--
100	5498	300	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5552	15	7	5528	21
8	5501	24	17	5570	51
16	5503	48	21	5537	63
17	5514	51	30	5499	90
26	5495	78	41	5497	123
32	5510	96	43	5550	129
40	5558	120	46	5505	138
45	5567	135	48	5520	144
65	5494	195	55	5557	165
66	5550	198	61	5547	183
67	5532	201	65	5568	195
68	5520	204	70	5534	210
77	5518	231	78	5541	234
81	5505	243	83	5530	249
85	5521	255	84	5518	252
92	5512	276	91	5515	273
93	5533	279	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5525	3	2	5490	6
4	5510	12	4	5554	12
6	5502	18	11	5493	33
10	5551	30	16	5530	48
11	5540	33	23	5559	69
15	5500	45	26	5520	78
16	5512	48	28	5508	84
31	5537	93	35	5548	105
36	5562	108	41	5523	123
37	5527	111	46	5550	138
47	5556	141	68	5531	204
48	5517	144	77	5536	231
51	5529	153	--	--	--
57	5518	171	--	--	--
63	5535	189	--	--	--
67	5564	201	--	--	--
70	5533	210	--	--	--
75	5514	225	--	--	--
88	5523	264	--	--	--
91	5552	273	--	--	--
95	5541	285	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5532	54	11	5535	33
21	5544	63	18	5491	54
25	5521	75	23	5566	69
38	5541	114	33	5509	99
52	5558	156	34	5512	102
54	5539	162	37	5568	111
71	5524	213	39	5493	117
74	5497	222	40	5511	120
79	5509	237	48	5539	144
80	5501	240	49	5541	147
82	5556	246	56	5551	168
83	5517	249	57	5531	171
92	5536	276	72	5506	216
96	5555	288	75	5499	225
--	--	--	76	5561	228
--	--	--	81	5570	243
--	--	--	83	5497	249
--	--	--	85	5528	255
--	--	--	94	5545	282
--	--	--	97	5529	291
--	--	--	98	5554	294

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5515	21	1	5564	3
12	5516	36	3	5537	9
18	5549	54	4	5568	12
19	5530	57	5	5533	15
23	5507	69	23	5501	69
25	5540	75	25	5518	75
26	5556	78	31	5542	93
35	5555	105	34	5508	102
41	5565	123	39	5494	117
49	5492	147	45	5493	135
70	5526	210	48	5526	144
81	5529	243	58	5556	174
83	5550	249	65	5524	195
86	5534	258	69	5500	207
89	5520	267	70	5522	210
93	5499	279	76	5540	228
100	5559	300	80	5558	240
--	--	--	81	5497	243
--	--	--	89	5560	267

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5514	6	6	5561	18
17	5564	51	9	5540	27
19	5541	57	10	5510	30
21	5537	63	25	5542	75
25	5510	75	36	5504	108
31	5499	93	37	5551	111
35	5553	105	38	5515	114
40	5538	120	51	5531	153
48	5493	144	54	5550	162
65	5504	195	65	5535	195
68	5505	204	70	5570	210
75	5557	225	73	5493	219
76	5516	228	80	5557	240
--	--	--	81	5508	243
--	--	--	82	5534	246
--	--	--	84	5522	252
--	--	--	86	5498	258
--	--	--	87	5528	261
--	--	--	96	5495	288

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5543	15	2	5541	6
7	5526	21	4	5560	12
8	5525	24	5	5491	15
14	5532	42	9	5511	27
17	5565	51	15	5538	45
20	5490	60	21	5567	63
28	5511	84	28	5568	84
36	5567	108	31	5544	93
48	5552	144	46	5547	138
60	5564	180	52	5505	156
83	5544	249	58	5546	174
89	5531	267	66	5535	198
96	5493	288	77	5543	231
99	5558	297	82	5526	246
--	--	--	83	5494	249
--	--	--	89	5533	267
--	--	--	94	5537	282

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5513	12	6	5496	18
9	5556	27	25	5505	75
10	5491	30	45	5495	135
19	5545	57	58	5531	174
26	5516	78	59	5549	177
29	5503	87	80	5562	240
31	5563	93	89	5525	267
32	5562	96	94	5501	282
37	5524	111	95	5541	285
41	5500	123	100	5557	300
55	5539	165	6	5496	18
73	5552	219	25	5505	75
79	5568	237	45	5495	135
83	5558	249	58	5531	174
84	5494	252	59	5549	177
87	5546	261	80	5562	240
98	5551	294	89	5525	267
99	5550	297	94	5501	282
--	--	--	95	5541	285
--	--	--	100	5557	300

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5506	9	5	5506	15
11	5497	33	11	5531	33
12	5546	36	22	5516	66
13	5528	39	38	5538	114
21	5570	63	47	5545	141
23	5520	69	48	5539	144
50	5566	150	53	5514	159
51	5495	153	54	5562	162
56	5516	168	59	5551	177
61	5558	183	67	5557	201
64	5505	192	77	5537	231
71	5531	213	86	5554	258
81	5493	243	90	5513	270
84	5527	252	96	5503	288
94	5568	282	--	--	--
96	5517	288	--	--	--
99	5509	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5545	3	15	5497	45
5	5503	15	30	5543	90
18	5553	54	39	5567	117
27	5498	81	66	5493	198
31	5523	93	93	5501	279
33	5567	99	120	5546	360
36	5550	108	135	5511	405
38	5493	114	147	5566	441
40	5552	120	177	5535	531
44	5521	132	183	5500	549
52	5511	156	186	5508	558
64	5538	192	192	5515	576
67	5519	201	198	5532	594
76	5501	228	231	5530	693
78	5554	234	246	5562	738
83	5515	249	264	5552	792
89	5525	267	267	5503	801
92	5565	276	282	5570	846

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5565	3	1	5490	3
10	5538	30	2	5568	6
23	5544	69	3	5520	9
25	5493	75	9	5500	27
30	5494	90	10	5494	30
55	5561	165	14	5506	42
57	5554	171	25	5570	75
84	5531	252	27	5525	81
85	5533	255	35	5512	105
91	5511	273	51	5537	153
92	5495	276	52	5521	156
--	--	--	67	5546	201
--	--	--	68	5552	204
--	--	--	75	5531	225
--	--	--	79	5503	237
--	--	--	84	5523	252
--	--	--	88	5549	264
--	--	--	94	5564	282

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5554	9	8	5543	24
4	5523	12	10	5545	30
8	5498	24	12	5504	36
13	5491	39	20	5530	60
26	5521	78	33	5518	99
47	5558	141	47	5502	141
52	5505	156	52	5544	156
57	5565	171	58	5554	174
63	5563	189	65	5494	195
69	5496	207	73	5553	219
77	5540	231	74	5498	222
88	5569	264	84	5490	252
90	5514	270	92	5499	276
93	5552	279	95	5507	285
--	--	--	97	5515	291

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5493	3	6	5494	18
7	5491	21	7	5532	21
17	5546	51	12	5517	36
20	5543	60	13	5507	39
23	5570	69	15	5522	45
24	5528	72	20	5567	60
35	5508	105	27	5541	81
38	5556	114	31	5509	93
48	5525	144	41	5497	123
49	5568	147	45	5516	135
51	5514	153	47	5546	141
57	5532	171	59	5534	177
58	5517	174	62	5525	186
59	5499	177	64	5524	192
66	5530	198	67	5545	201
81	5563	243	70	5520	210
82	5494	246	84	5495	252
95	5495	285	100	5544	300
96	5504	288	--	--	--

Appendix B – Test Setup Photograph

Refer to “2205RSU031-UT” file.

Appendix C – EUT Photograph

Refer to “2205RSU031-UE” file.

The End