







# RADIO TEST REPORT

## Test Report No. 14570738S-A-R2

Customer	AzureWave Technologies, Inc.
Description of EUT	IEEE 802.11 1X1 a/b/g/n Wireless LAN + Bluetooth 5.1 Combo 12 x 12 LGA Module
Model Number of EUT	AW-AM510
FCC ID	TLZ-AM510
Test Regulation	FCC Part 15 Subpart E
Test Result	Complied (Refer to SECTION 3)
Issue Date	April 26, 2023
Remarks	WLAN (5 GHz band) part DFS test only (*Master)

Representative Test Engineer	Approved By
	
Kenichi Adachi Engineer	Toyokazu Imamura Leader
	 
	CERTIFICATE 1266.03
<input type="checkbox"/> The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc.	
<input checked="" type="checkbox"/> There is no testing item of "Non-accreditation".	

Report Cover Page - Form-ULID-003532 (DCS:13-EM-F0429) Issue# 21.0

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- The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan, Inc. has been accredited.
- The information provided from the customer for this report is identified in Section 1.
- For test report(s) referred in this report, the latest version (including any revisions) is always referred.

## REVISION HISTORY

### Original Test Report No.: 14570738S-A-R1

This report is a revised version of 14570738S-A-R1. 14570738S-A-R1 is replaced with this report.

Revision	Test Report No.	Date	Page Revised Contents
- (Original)	14570738S-A	March 17, 2023	-
1	14570738S-A-R1	April 21, 2023	p.8: Correction document number. "13-EM-W0422" to "ULID-003591 and ULID-003593". p.12: Added an example of converting the measured values described in other companies' reports with different antenna gain values to the antenna gain values in this report. p.65: Correction error. 5500 MHz -> 5300 MHz
2	14570738S-A-R2	April 26, 2023	p.12: It corrected the value of the interfering signal level written in the calculation example to the value of the level at the time of the actual test. (" -62 + 1 + (-4.21) = -65.21 dBm") It corrected value of the minimum antenna gain. (" -2.83" to " -4.21")

**Reference: Abbreviations (Including words undescribed in this report)**

A2LA	The American Association for Laboratory Accreditation	ICES	Interference-Causing Equipment Standard
AC	Alternating Current	IEC	International Electrotechnical Commission
AFH	Adaptive Frequency Hopping	IEEE	Institute of Electrical and Electronics Engineers
AM	Amplitude Modulation	IF	Intermediate Frequency
Amp, AMP	Amplifier	ILAC	International Laboratory Accreditation Conference
ANSI	American National Standards Institute	ISED	Innovation, Science and Economic Development Canada
Ant, ANT	Antenna	ISO	International Organization for Standardization
AP	Access Point	JAB	Japan Accreditation Board
ASK	Amplitude Shift Keying	LAN	Local Area Network
Atten., ATT	Attenuator	LIMS	Laboratory Information Management System
AV	Average	MCS	Modulation and Coding Scheme
BPSK	Binary Phase-Shift Keying	MRA	Mutual Recognition Arrangement
BR	Bluetooth Basic Rate	N/A	Not Applicable
BT	Bluetooth	NIST	National Institute of Standards and Technology
BT LE	Bluetooth Low Energy	NS	No signal detect.
BW	BandWidth	NSA	Normalized Site Attenuation
Cal Int	Calibration Interval	NVLAP	National Voluntary Laboratory Accreditation Program
CCK	Complementary Code Keying	OBW	Occupied Band Width
Ch., CH	Channel	OFDM	Orthogonal Frequency Division Multiplexing
CISPR	Comite International Special des Perturbations Radioelectriques	P/M	Power meter
CW	Continuous Wave	PCB	Printed Circuit Board
DBPSK	Differential BPSK	PER	Packet Error Rate
DC	Direct Current	PHY	Physical Layer
D-factor	Distance factor	PK	Peak
DFS	Dynamic Frequency Selection	PN	Pseudo random Noise
DQPSK	Differential QPSK	PRBS	Pseudo-Random Bit Sequence
DSSS	Direct Sequence Spread Spectrum	PSD	Power Spectral Density
EDR	Enhanced Data Rate	QAM	Quadrature Amplitude Modulation
EIRP, e.i.r.p.	Equivalent Isotropically Radiated Power	QP	Quasi-Peak
EMC	ElectroMagnetic Compatibility	QPSK	Quadri-Phase Shift Keying
EMI	ElectroMagnetic Interference	RBW	Resolution Band Width
EN	European Norm	RDS	Radio Data System
ERP, e.r.p.	Effective Radiated Power	RE	Radio Equipment
EU	European Union	RF	Radio Frequency
EUT	Equipment Under Test	RMS	Root Mean Square
Fac.	Factor	RSS	Radio Standards Specifications
FCC	Federal Communications Commission	Rx	Receiving
FHSS	Frequency Hopping Spread Spectrum	SA, S/A	Spectrum Analyzer
FM	Frequency Modulation	SG	Signal Generator
Freq.	Frequency	SVSWR	Site-Voltage Standing Wave Ratio
FSK	Frequency Shift Keying	TR	Test Receiver
GFSK	Gaussian Frequency-Shift Keying	Tx	Transmitting
GNSS	Global Navigation Satellite System	VBW	Video BandWidth
GPS	Global Positioning System	Vert.	Vertical
Hori.	Horizontal	WLAN	Wireless LAN

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## **SECTION 1: Customer Information**

Company Name	AzureWave Technologies, Inc.
Address	8F., No.94, Baozhong Rd., Xindian Dist., New Taipei City, Taiwan 231
Contact Person	Chehsien Lin

The information provided from the customer is as follows;

- Customer, Description of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer Information
- SECTION 2: Equipment Under Test (EUT) other than the Receipt Date and Test Date
- SECTION 5: Operation of EUT during testing

\* The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 5.

## **SECTION 2: Equipment Under Test (EUT)**

### **2.1 Identification of EUT**

Description	IEEE 802.11 1X1 a/b/g/n Wireless LAN + Bluetooth 5.1 Combo 12 x 12 LGA Module
Model Number	AW-AM510
Serial Number	Refer to SECTION 4.2
Condition	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab
Receipt Date	December 26, 2022
Test Date	December 29, 2022 to January 10, 2023

### **2.2 Product Description**

#### **General Specification**

Rating	DC 3.3 V and DC 1.8 V
Operating temperature	0 deg. C to 70 deg. C

**Radio Specification**

**Bluetooth (BR / EDR / Low Energy)**

Equipment Type	Transceiver
Frequency of Operation	2402 MHz to 2480 MHz
Type of Modulation	BT: FHSS (GFSK, $\pi/4$ DQPSK, 8 DPSK) BT LE: GFSK

**WLAN (IEEE802.11b/11g/11n-20)**

Equipment Type	Transceiver
Frequency of Operation	2412 MHz to 2462 MHz
Type of Modulation	DSSS, OFDM

**WLAN (IEEE802.11a/11n-20/11n-40)**

Equipment Type	Transceiver	
Frequency of Operation	20 MHz Band:	5180 MHz to 5240 MHz 5260 MHz to 5320 MHz 5500 MHz to 5700 MHz 5745 MHz to 5825 MHz
	40 MHz Band:	5190 MHz to 5230 MHz 5270 MHz to 5310 MHz 5510 MHz to 5670 MHz 5755 MHz to 5795 MHz
Type of Modulation	OFDM	
Antenna Type	Type D (IW416-D): Dipole Antenna Type G (IW416-G): Dipole Antenna	
Antenna Gain	Type D (IW416-D): 1.41 dBi max (include 100 mm antenna cable) Type G (IW416-G): 1.13 dBi max (include 100 mm antenna cable)	

\* 2.4 GHz band (Bluetooth, WLAN): Not used.

\* 5 GHz band: Receiving only.

\*Following channels are not used.

- 20 MHz Bandwidth (5600 MHz - 5640 MHz)

- 40 MHz Bandwidth (5590 MHz - 5630 MHz)

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### **SECTION 3: Scope of Report**

This report only covers DFS requirement, as specified by the following referenced procedures.

### **SECTION 4: Test specification, Procedures & Results**

#### **4.1 Test Specification**

Test Specification	FCC Part 15 Subpart E The latest version on the first day of the testing period
Title	FCC 47 CFR Part 15 Radio Frequency Device Subpart E Unlicensed National Information Infrastructure Devices Section 15.407 General technical requirements

Test Specification	KDB 905462 D02 UNII DFS Compliance Procedure New Rules v02
Title	COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED- NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350MHz AND 5470-5725MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION

Test Specification	KDB905462 D04 Operational Modes for DFS Testing New Rules v01
Title	OPERATIONAL MODES SUGGESTED FOR DFS TESTING

#### **FCC Part 15.31 (e)**

This EUT provides the stable voltage constantly to RF part regardless of input voltage.  
Therefore, this EUT complies with the requirement.

#### **FCC Part 15.203/212 Antenna requirement**

The EUT has a unique antenna connector (U.FL).  
Therefore the equipment complies with the requirement of 15.203/212.

4.2 Procedures and Results

Table 1: Applicability of DFS Requirements

<Master mode>

Requirement	Operating Mode	Test Procedures & Limits	Deviation	Results
	Master			
U-NII Detection Bandwidth	Yes	KDB905462 D02 UNII DFS Compliance Procedures New Rules v02	N/A	Complied a)
Initial Channel Availability Check Time	Yes	FCC15.407 (h)	N/A	Complied b)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
		RSS-247 6.3		
Radar Burst at the Beginning of the Channel Availability Check Time	Yes	FCC15.407 (h)	N/A	Complied c)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
		RSS-247 6.3		
Radar Burst at the End of the Channel Availability Check Time	Yes	FCC15.407 (h)	N/A	Complied d)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
		RSS-247 6.3		
In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time	Yes	FCC15.407 (h)	N/A	Complied e)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
		RSS-247 6.3		
In-Service Monitoring for Non-Occupancy period	Yes	FCC15.407 (h)	N/A	Complied f)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
		RSS-247 6.3		
Statistical Performance Check	Yes	FCC15.407 (h)	N/A	Complied g)
		KDB905462 D02 UNII DFS Compliance Procedures New Rules v02		
<p>Note: UL Japan, Inc.'s EMI Work Procedures: Work Instructions-ULID-003591 and Work Instructions-ULID-003593.</p> <p>a) Refer to SECTION 6, clause 6.3  b) Refer to SECTION 7, clause 7.3  c) Refer to SECTION 8, clause 8.3  d) Refer to SECTION 9, clause 9.3  e) Refer to SECTION 10, clause 10.3  f) Refer to SECTION 11, clause 11.3  g) Refer to SECTION 12, clause 12.3</p>				

\* This report is master device mode only.



**Table 2 DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection**

Maximum Transmit Power	Value (See Notes 1,2, and 3)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
< 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
<p>Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.</p> <p>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.</p> <p>Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p>	

**Table 3 DFS Response Requirement Values**

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2
U-NII Detection Bandwidth	Minimum 100 % of the U-NII 99 % transmission power bandwidth See Note 3
<p><b>Note 1:</b> 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.</p> <p><b>Note 2:</b> 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 signal will not count quiet periods in between transmissions.</p> <p><b>Note 3:</b> 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.</p>	

**Table 4 Short Pulse Radar Test Waveform**

Radar Type	Pulse Width (μs)	PRI (μs)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{\frac{1}{360}\right\}$ * (19*10 <sup>6</sup> /PRI <sub>us</sub> )	60 %	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μs, with a minimum increment of 1 μs, 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 (Rader Types 1-4)				80 %	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

**Table 5 Long Pulse Radar Test Waveform**

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

**Table 6 Frequency Hopping Radar Test Waveform**

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

**4.3 Addition to Standard**

No addition, exclusion nor deviation has been made from the standard.

#### 4.4 Uncertainty

Measurement uncertainty is not taken into account when stating conformity with a specified requirement.

Note: When margins obtained from test results are less than the measurement uncertainty, the test results may exceed the limit.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor  $k=2$ .

Time Measurement uncertainty for this test was: ( $\pm$ ) 0.012 %

#### 4.5 Test Location

UL Japan, Inc. Shonan EMC Lab.

1-22-3, Megumigaoka, Hiratsuka-shi, Kanagawa-ken 259-1220 Japan

Telephone: +81-463-50-6400

A2LA Certificate Number: 1266.03

(FCC test firm registration number: 626366, ISED lab company number: 2973D / CAB identifier: JP0001)

Test site	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber	2973D-1	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.2 Semi-anechoic chamber	2973D-2	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.3 Semi-anechoic chamber	2973D-3	12.7 x 7.7 x 5.35	12.7 x 7.7	5 m
No.4 Semi-anechoic chamber	-	8.1 x 5.1 x 3.55	8.1 x 5.1	-
No.1 Shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.2 Shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.3 Shielded room	-	6.3 x 4.7 x 2.7	6.3 x 4.7	-
No.4 Shielded room	-	4.4 x 4.7 x 2.7	4.4 x 4.7	-
No.5 Shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.6 Shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.8 Shielded room	-	3.45 x 5.5 x 2.4	3.45 x 5.5	-
No.1 Measurement room	-	2.55 x 4.1 x 2.5	-	-

#### 4.6 Test Data, Test Instruments, and Test Set Up

Refer to APPENDIX.

## **SECTION 5: Operation of EUT during testing**

### **5.1 Operating Mode(s)**

The EUT, which is a Master and Client Device without Radar detection capability, operates over the W53 and W56 Band.

The highest power level is 21.40 [dBm] EIRP.

Power level(EIRP) of the EUT[dBm]

Power level (Max)	
20 MHz band	40 MHz band
21.40	19.71

Power level(Conducted power) of the EUT[dBm]

Power level (Max)	
20 MHz band	40 MHz band
19.99	18.30

The highest power spectral density level is 7.77 [dBm/MHz].

Power spectral density level (Conducted) of the EUT[dBm/MHz]

Power spectral density level (Max)	
20 MHz band	40 MHz band
7.77	3.12

\*Refer to Report No.FR131001AB, FCC Part 15E (FCC 15.407) report for parts other than DFS.

The above report was written with the data in the case of antenna gain 5.16 dBi.

Therefore, the above table shows the values recalculated as the values were corrected to the antenna gain of 1.41 dBi in this report. for example)

EIRP result of 11n-20, 5300 MHz was 25.15 dBm in report FR1310001AB at antenna gain of 5.16 dBi.

$25.15 - 5.16 = 19.99$  dBm

Antenna gain of this report is 1.41 dBi

$19.99$  dBm + 1.41 dBi = 21.40 dBm

Power density result of 11a, 5300 MHz was 12.93 dBm/MHz in report FR1310001AB at antenna gain of 5.16 dBi.

$12.93 - 5.16 = 7.77$  dBm

The channel-loading of approximately 17 % or greater was used for testing, and its test data was transferred from the Master Device to the Client Device for all test configurations.

WLAN traffic is generated transmitting random data by iperf.exe from the Master to the Client.

The EUT utilizes the 802.11a/n architecture, with a 20 MHz and 40 MHz channel bandwidth.

The lowest antenna assembly gain of all available antenna assemblies is -4.21 dBi.

#### 1. In case of Master mode

The rated output power of the Master unit is < 200 mW (23 dBm). Therefore the required interference threshold level is -62 dBm. After correction for antenna gain and procedural adjustments, the required conducted threshold at the antenna port is  $-62 + 1 + (-4.21) = -65.21$  dBm (threshold level + additional 1 dB + antenna gain). (It has been confirmed that the same result is obtained even if the radar signal level is further reduced by 2 dB.)

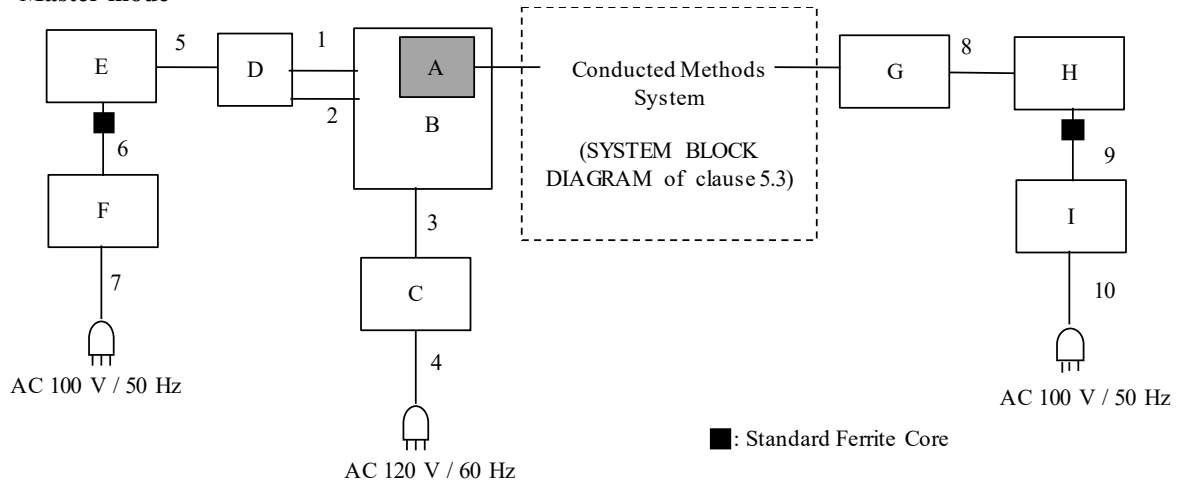
It is impossible for users to change DFS control, because the DFS function is written on the firmware and users cannot access it.

The EUT was set by the software as follows:

Software name & version: IW416 DFS Test Tool version 1.0

## 5.2 Configuration and peripherals

<Master mode>



\* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

### Description of EUT and Support Equipment

No.	Item	Model Number	Serial Number	Manufacturer	Remarks
A	IEEE 802.11 1X1 a/b/g/n Wireless LAN + Bluetooth 5.1 Combo 12 x 12 LGA Module	AW-AM510	E8:FB:1C:CD:BF:FB	AzureWave	EUT
B	AE-C EVT	AE-C EVT	No.013	SONY	-
C	AC Adapter	AC-M1215WW	M2220096354	SONY	-
D	Jig Board	EBISU JIG	0001	SONY	-
E	Laptop Computer	ThinkPad E14 Gen2	PF397TS8	LENOVO	-
F	AC Adapter	ADLX65YCC2D	8SSA10R16922C2TJ19M0AZJ	LENOVO	-
G	Wireless LAN (11ac) station device	WN-AC1300UA	127K010653VU	I-O DATA	-
H	Laptop Computer	Type:20H1CTO1WW	PF-0UU34A	Lenovo	-
I	AC Adapter	ADLX45DLC2A	8SSA10E75792L1CZ75Z0W0R	Lenovo	-

### List of Cables Used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	Signal	0.2	Unshielded	Unshielded	-
2	Signal	0.2	Unshielded	Unshielded	-
3	DC	1.0	Unshielded	Unshielded	-
4	AC	0.6	Unshielded	Unshielded	-
5	USB	1.2	Shielded	Shielded	-
6	DC	1.8	Unshielded	Unshielded	-
7	AC	0.9	Unshielded	Unshielded	-
8	USB	1.0	Shielded	Shielded	-
9	DC	1.8	Unshielded	Unshielded	-
10	AC	0.9	Unshielded	Unshielded	-

### 5.3 Test and Measurement System

#### **SYSTEM OVERVIEW**

The measurement system is based on a conducted test method.

The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution. The short pulse types 1, 2, 3, and 4, the long pulse type 5, and the frequency hopping type 6 parameters are randomized at run-time.

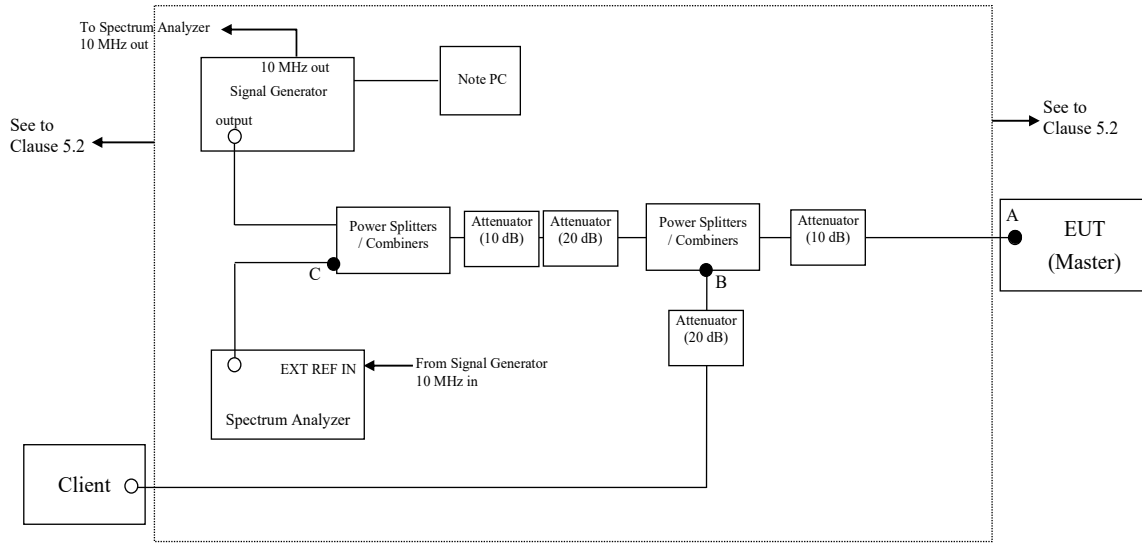
The signal monitoring equipment consists of a spectrum analyzer with the capacity to display 30001 bins on the horizontal axis. A time-domain resolution of 0.533 ms/bin is achievable with a 16 second sweep time, meeting the 10 seconds short pulse reporting criteria. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection.

#### **FREQUENCY HOPPING RADAR WAVEFORM GENERATING SUBSYSTEM**

The first 100 frequencies are selected out of the hopping sequence of the randomized 475 hop frequencies. Only a *Burst* that has the frequency falling within the receiver bandwidth of the tested U-NII device is selected among those frequencies. (Frequency-domain simulation). The radar waveform generated at the start time of the selected *Burst* (Time-domain simulation) is download to the Signal Generator. If all of the randomly selected 100 frequencies do not fall within the receiver bandwidth of the U-NII device, the radar waveform is not used for the test.

**CONDUCTED METHODS SYSTEM BLOCK DIAGRAM**

**<Master mode>**



**MEASUREMENT SYSTEM FREQUENCY REFERENCE**

Lock the signal generator and the spectrum analyzer to the same reference sources as follows: Connect the 10 MHz OUT on the signal generator to the EXT REF IN on the spectrum analyzer and set the spectrum analyzer Ext to On.

## **SYSTEM CALIBRATION**

<Master mode>

**Step 1:** Set the system as shown in Figure 2 of KDB905462 D02, 7.2.1.

**Step 2:** Adjust each attenuator to fulfill the following three conditions:

- WLAN can be communicated, and
- Rader detection threshold level is bigger than Client Device traffic level on the spectrum analyzer.

**Step 3:** Terminate 50 ohm at B and C points, and connect the spectrum analyzer to the point A. (See the figure on clause 5.2)

At the point A, adjust the signal generator and spectrum analyzer to the center frequency of the channel to be measured.

Download the applicable radar waveforms to the signal generator. Select the radar waveform, trigger a burst manually and measure the amplitude on the spectrum analyzer. Readjust the amplitude of the signal generator as required so that the peak level of the waveform is at a displayed level equal to the required or desired interference detection threshold.

Separate signal generator amplitude settings are determined as required for each radar type.

**Step 4:** Without changing any of the instrument settings, restore the system setting to Step 2 and adjust the Reference Level Offset of the spectrum analyzer to the level at Step 3.

By taking the above steps 1 to 4, the spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device.

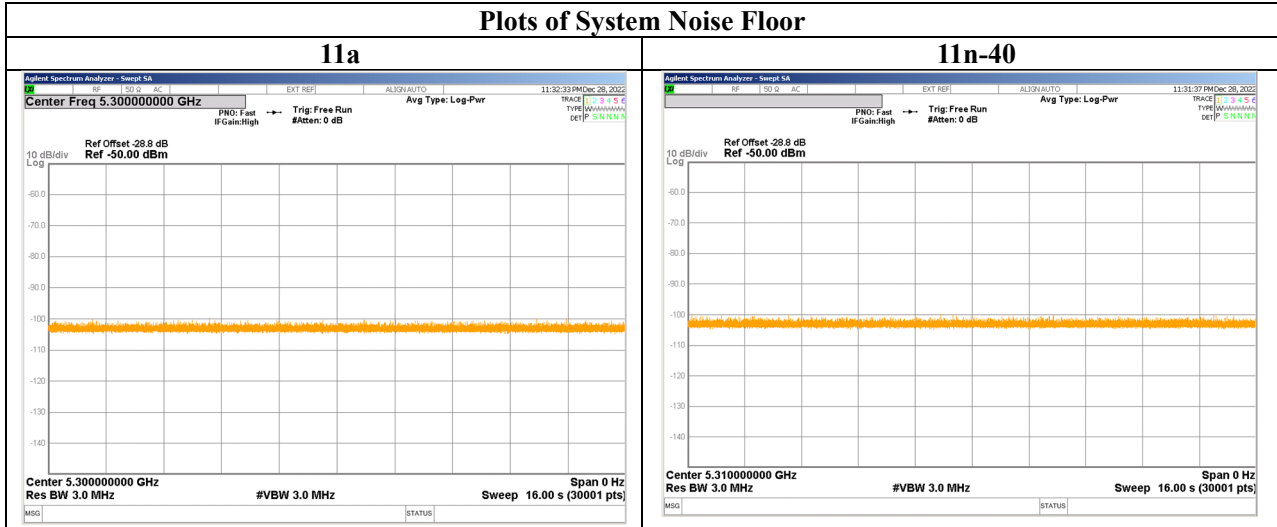
See Clause 5.4 for Plots of Noise, Rader Waveforms, and WLAN signals.



### 5.4 Plots of Noise, Rader Waveforms, and WLAN signals

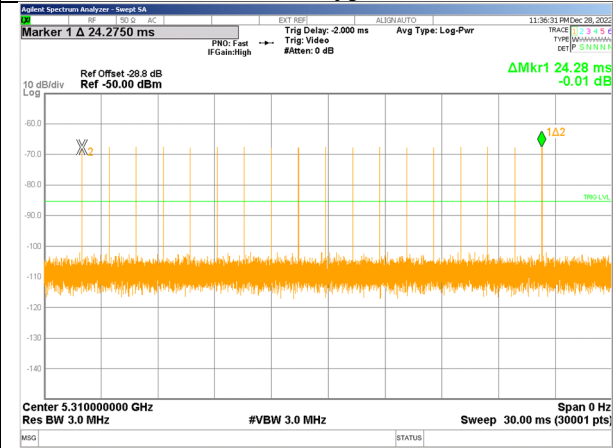
<Master mode>

#### Plots of System Noise Floor

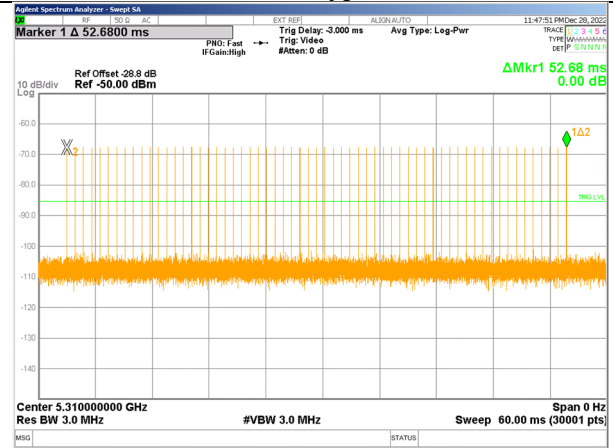


### Plots of Radar Waveforms

#### Rader Type 0



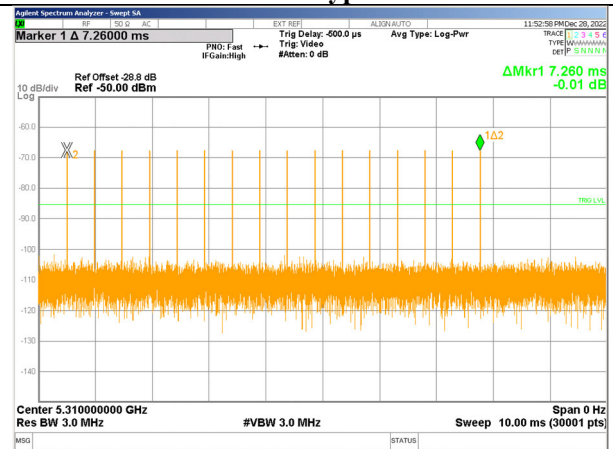
#### Rader Type 1



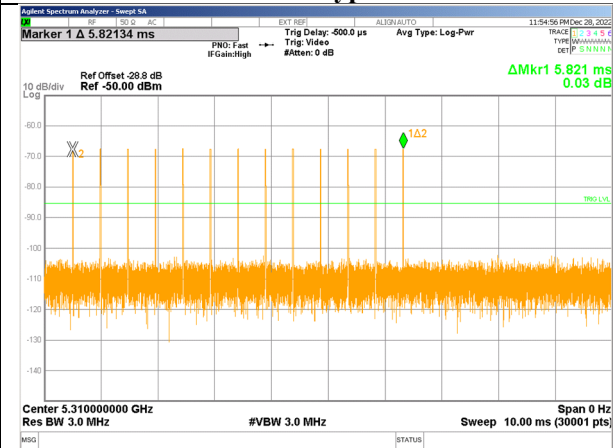
#### Rader Type 2



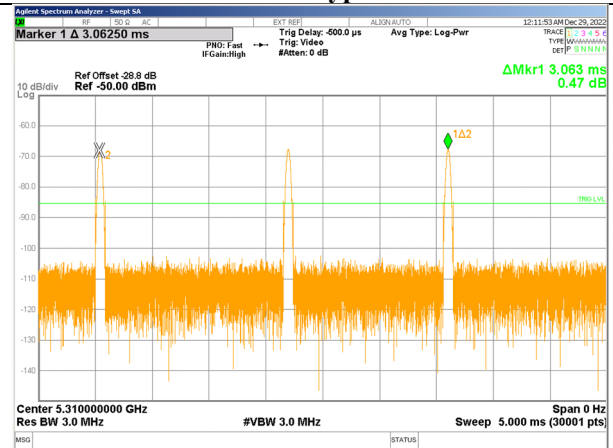
#### Rader Type 3

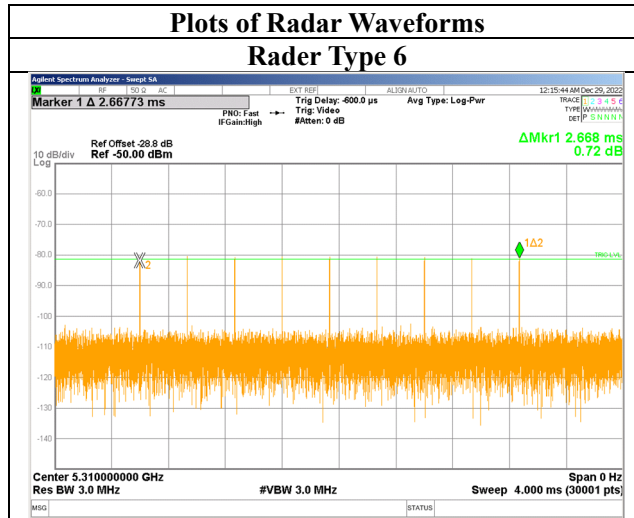


#### Rader Type 4



#### Rader Type 5





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## **SECTION 6: U-NII Detection Bandwidth**

### **6.1 Operating environment**

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 5, 2023
Temperature/ Humidity	25 deg. C / 30 % RH
Engineer	Kenichi Adachi
Mode	11a / 11n-20 / 11n-40

### **6.2 Test Procedure**

Adjust the equipment to produce a single Burst of the Short Pulse Radar Type 0 at the center frequency of the EUT Operating Channel at the specified DFS Detection Threshold level. Set the EUT up as a standalone 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.

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 within the DFS band using the specified U-NII Detection Bandwidth criterion.

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.

Starting at the center frequency of the EUT 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. Repeat this measurement in 1 MHz 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.

Starting at the center frequency of the EUT operating Channel, decrease the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. Repeat this measurement in 1MHz steps at frequencies 5 MHz above where the detection rate begins to fall. 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.

The U-NII Detection Bandwidth is calculated as follows:

U-NII Detection Bandwidth = FH – FL

Radar detection is observed by two techniques.

- a). Monitoring LAN traffic with Spectrum Analyzer.
- b). Indicator of EUT and PC connected to EUT

### 6.3 Test data

5300 MHz (11a)

Waveform: Radar Type 0

FL [MHz]	FH [MHz]	Detection Bandwidth [MHz]	99 % Power Bandwidth [MHz]	Ratio of Detection BW to 99 % Power BW [%]	Limit [%]	Results
5290	5310	20	17.7510	112.7	100	Pass

5300 MHz (11n-20)

Waveform: Radar Type 0

FL [MHz]	FH [MHz]	Detection Bandwidth [MHz]	99 % Power Bandwidth [MHz]	Ratio of Detection BW to 99 % Power BW [%]	Limit [%]	Results
5290	5310	20	19.2800	103.7	100	Pass

5310 MHz (11n-40)

Waveform: Radar Type 0

FL [MHz]	FH [MHz]	Detection Bandwidth [MHz]	99 % Power Bandwidth [MHz]	Ratio of Detection BW to 99 % Power BW [%]	Limit [%]	Results
5290	5330	40	37.6010	106.4	100	Pass

### 99 % Occupied Bandwidth

\* Refer to FCC part 15 subpart E report (except for DFS test).

### 6.4 Test result

Test result: Pass

## SECTION 7: Initial Channel Availability Check Time

### 7.1 Operating environment

Test place Shonan EMC Lab. No.5 Shielded Room  
 Date January 5, 2023  
 Temperature/ Humidity 25 deg. C / 30 % RH  
 Engineer Kenichi Adachi  
 Mode 11a \* / 11n-40  
 (\* It tested with IEEE802.11a, since it cannot boot in IEEE802.11n mode.)

### 7.2 Test Procedure

The Initial Channel Availability Check Time tests that the EUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel.

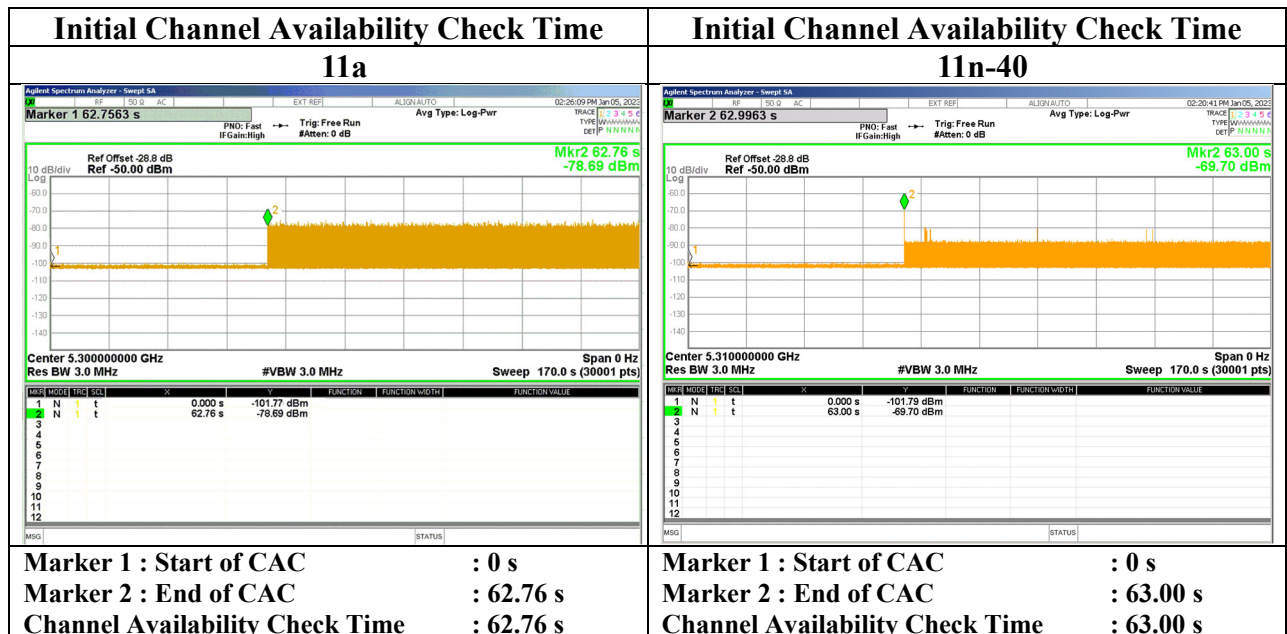
This test does not use any Radar Waveforms and only needs to be performed one time.

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 the 2.5 minutes sweep time.

The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.

The EUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.

### 7.3 Test data



\* In the chart above, the transmission level is changing because it is temporarily switched to a mode such as 11a at startup.

### 7.4 Test result

Test result: Pass

## SECTION 8: Radar Burst at the Beginning of the Channel Availability Check Time

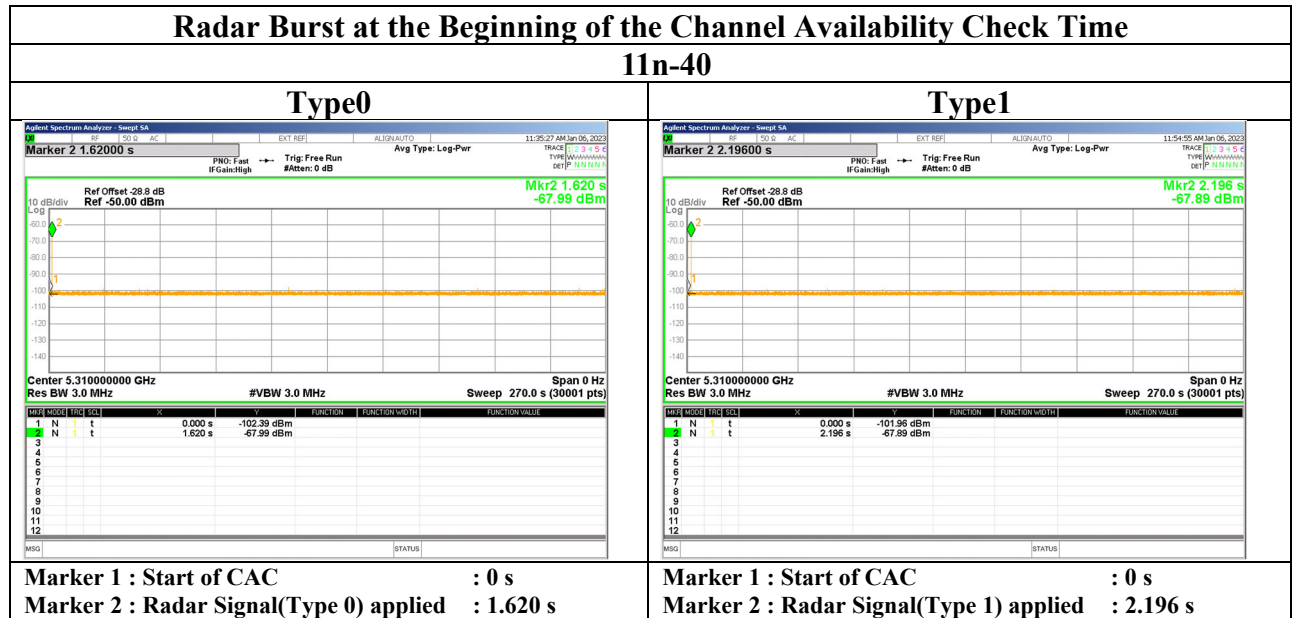
### 8.1 Operating environment

Test place Shonan EMC Lab. No.5 Shielded Room  
Date January 6, 2023  
Temperature/ Humidity 23 deg. C / 24 % RH  
Engineer Kenichi Adachi  
Mode 11n-40

### 8.2 Test Procedure

A single Burst of the Short Pulse Radar Types 0-4 will commence within a 6 second window starting at Start of CAC. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.  
Verify that during the 2.5 minutes measurement window no EUT transmissions occurred on Chr.

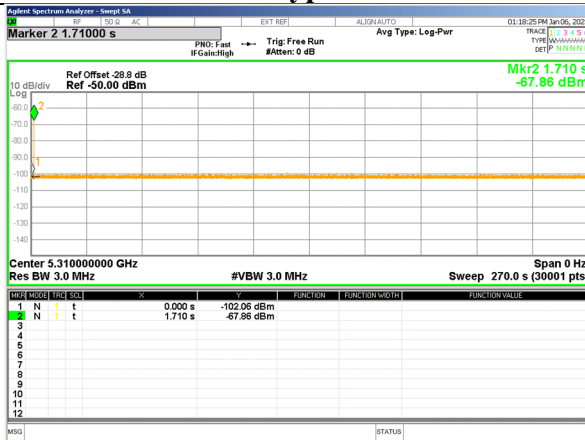
### 8.3 Test data



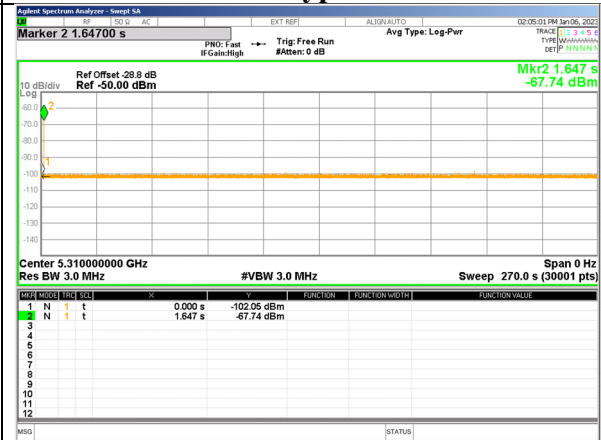
**Radar Burst at the Beginning of the Channel Availability Check Time**

11n-40

**Type2**



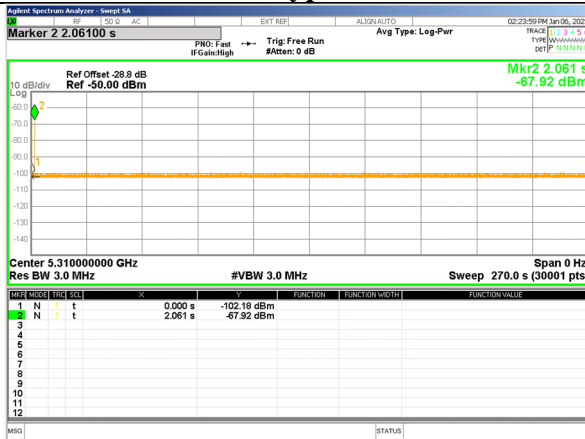
**Type3**



Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 2) applied : 1.710 s

Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 3) applied : 1.647 s

**Type4**



Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 4) applied : 2.061 s

**8.4 Test result**

Test result: Pass



## SECTION 9: Radar Burst at the End of the Channel Availability Check Time

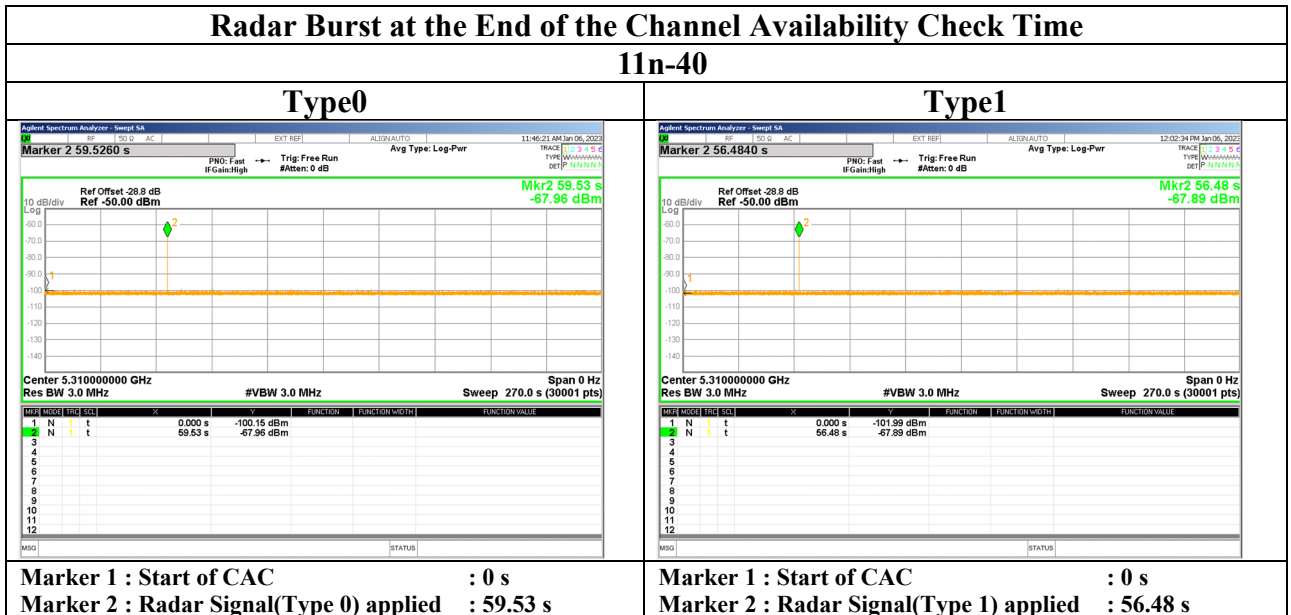
### 9.1 Operating environment

Test place : Shonan EMC Lab. No.5 Shielded Room  
Date : January 6, 2023  
Temperature/ Humidity : 23 deg. C / 24 % RH  
Engineer : Kenichi Adachi  
Mode : 11n-40

### 9.2 Test Procedure

A single Burst of the Short Pulse Radar Types 0-4 will commence within a 6 second window starting at Start of CAC + 54 seconds. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.  
Verify that during the 2.5 minutes measurement window no EUT transmissions occurred on Chr.

### 9.3 Test data



## Radar Burst at the End of the Channel Availability Check Time

11n-40

### Type2



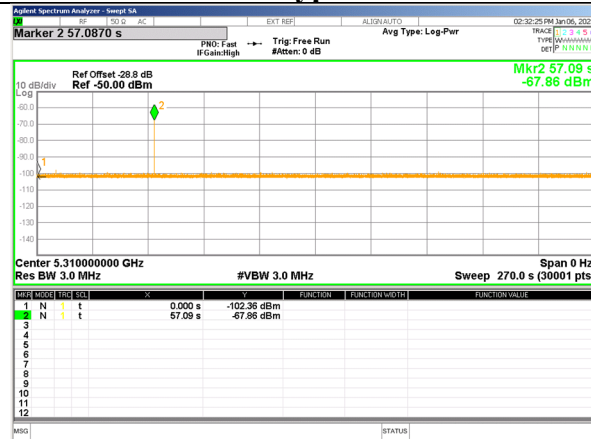
Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 2) applied : 56.15 s

### Type3



Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 3) applied : 56.66 s

### Type4



Marker 1 : Start of CAC : 0 s  
Marker 2 : Radar Signal(Type 4) applied : 57.09 s

## 9.4 Test result

Test result: Pass

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## **SECTION 10: Channel Move Time, Channel Closing Transmission Time**

### **10.1 Operating environment**

Test place                      Shonan EMC Lab. No.5 Shielded Room  
Date                              December 29, 2022  
Temperature/ Humidity        23 deg. C / 31 % RH  
Engineer                        Kenichi Adachi  
Mode                              11n-40

### **10.2 Test Procedure**

Transmit the data from the Master Device to the Client Device on the test Channel for the entire period of the test.

The Radar Waveform generator sends a Burst of pulses for one of the Radar Types 0 at levels defined on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds.

### **10.3 Test data**

<Master Device>

11n-40

Test Item	Unit	Measurement Time	Limit	Results
Channel Move Time *1)	[s]	0.095	10.000	Pass
Channel Closing Transmission Time *2)	[ms]	0.000	60	Pass

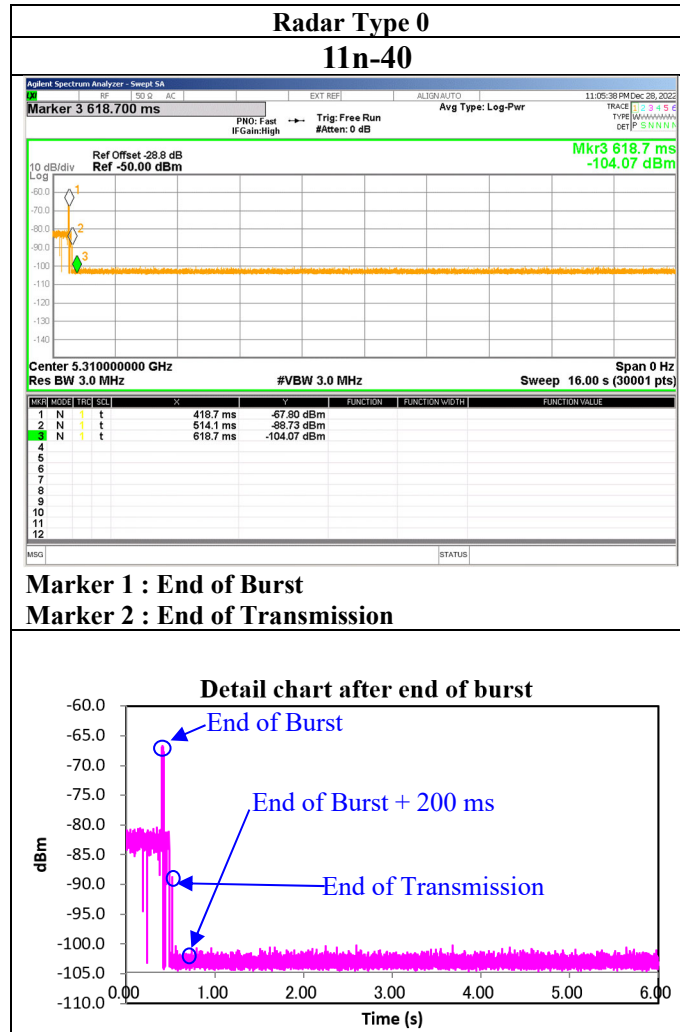
\*1) Channel Move Time is calculated as follows:

(Channel Move Time) = (End of Transmission) - (End of Burst) = 0.514-0.419

\*2) Channel Closing Transmission Time is calculated from (End of Burst + 200 ms) to (End of Burst + 10 s )

(Channel Closing Transmission Time) = (Number of analyzer bins showing transmission) × (dwell time per bin)  
= 0 × 0.533 [ms]

<Master mode>



#### 10.4 Test result

Test result: Pass

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## **SECTION 11: Non-Occupancy Period**

### **11.1 Operating environment**

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	December 29, 2022	January 5, 2023
Temperature/ Humidity	23 deg. C / 31 % RH	25 deg. C / 30 % RH
Engineer	Kenichi Adachi	Kenichi Adachi
Mode	11n-40	

### **11.2 Test Procedure**

The following two tests are performed:

1). Transmit the data from the Master Device to the Client Device on the test Channel for the entire period of the test.

The Radar Waveform generator sends a Burst of pulses for one of the Radar Types 0-4(Master Device) or the Radar Types 0(Client Device) at levels defined on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

Observe the transmissions of the EUT after the Channel Move Time on the Operating Channel for duration greater than 30 minutes.

<Client mode only>

2). Transmit the data from the Master Device to the Client Device on the test Channel for the entire period of the test.

Observe the transmissions of the EUT on the Operating Channel for duration greater than 30 minutes after the Master Device is shut off.

11.3 Test data

<Master mode>



11.4 Test result

Test result: Pass

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## **SECTION 12: In-Service Monitoring (Statistical Performance Check)**

### **12.1 Operating environment**

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 6, 2023	January 10, 2023
Temperature/ Humidity	23 deg. C / 24 % RH	23 deg. C / 24 % RH
Engineer	Kenichi Adachi	Kenichi Adachi
Mode	11a / 11n-40	

### **12.2 Test Procedure**

Transmit the data from the Master Device to the Client Device on the test Channel for the entire period of the test.

Radar Waveform generator sends the individual waveform for each of the Radar Types 1-6, at levels defined, on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.

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 1-4 and 6 to ensure detection occurs.

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.

Radar detection is observed by two techniques.

- a). Monitoring LAN traffic with Spectrum Analyzer.
- b). Indicator of PC connected to EUT

### 12.3 Test data

#### 5300 MHz (11a)

Radar Type	Number of Trials	Number of Successful Detections	Percentage of Successful Detections [%]	Limit [%]	Results
1	30	23	76.67	60	Pass
2	30	28	93.33	60	Pass
3	30	25	83.33	60	Pass
4	30	23	76.67	60	Pass
Aggregate of 1 to 4	-	-	82.50	80	Pass
5	30	29	96.67	80	Pass
6	30	25	83.33	70	Pass

#### 5310 MHz (11n-40)

Radar Type	Number of Trials	Number of Successful Detections	Percentage of Successful Detections [%]	Limit [%]	Results
1	30	25	83.33	60	Pass
2	30	27	90.00	60	Pass
3	30	25	83.33	60	Pass
4	30	24	80.00	60	Pass
Aggregate of 1 to 4	-	-	84.17	80	Pass
5	30	29	96.67	80	Pass
6	30	23	76.67	70	Pass

### 12.4 Test result

Test result: Pass



**APPENDIX 1: Data of DFS test**

**U-NII Detection Bandwidth**

**5300 MHz (11a)**

Frequency [MHz]	Number of Trials [Times]	Number of Detected [Times]	Ratio of Detected [%]	Mark
5285	10	0	0	
5286	10	0	0	
5287	10	0	0	
5288	10	0	0	
5289	10	2	20	
5290	10	10	100	FL
5295	10	10	100	
<b>5300</b>	10	10	100	
5305	10	10	100	
5310	10	10	100	FH
5311	10	0	0	
5312	10	0	0	
5313	10	0	0	
5314	10	0	0	
5315	10	0	0	

**5300 MHz (11n-20)**

Frequency [MHz]	Number of Trials [Times]	Number of Detected [Times]	Ratio of Detected [%]	Mark
5285	10	0	0	
5286	10	0	0	
5287	10	0	0	
5288	10	0	0	
5289	10	0	0	
5290	10	10	100	FL
5295	10	10	100	
<b>5300</b>	10	10	100	
5305	10	10	100	
5310	10	10	100	FH
5311	10	6	60	
5312	10	0	0	
5313	10	0	0	
5314	10	0	0	
5315	10	0	0	

**U-NII Detection Bandwidth**

**5310 MHz (11n-40)**

Frequency [MHz]	Number of Trials [Times]	Number of Detected [Times]	Ratio of Detected [%]	Mark
5285	10	0	0	FL
5286	10	0	0	
5287	10	0	0	
5288	10	0	0	
5289	10	0	0	
5290	10	10	100	
5295	10	10	100	
5300	10	10	100	
5305	10	10	100	
<b>5310</b>	10	10	100	
5315	10	10	100	FH
5320	10	10	100	
5325	10	10	100	
5330	10	10	100	
5331	10	0	0	
5332	10	0	0	
5333	10	0	0	
5334	10	0	0	
5335	10	0	0	

**Statistical Performance Check**

**5300 MHz (11a)**

Trial #	Radar Type1	Radar Type2	Radar Type3	Radar Type4	Radar Type5	Radar Type6
	Detection	Detection	Detection	Detection	Detection	Detection
	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
1	Yes	Yes	Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes	Yes
3	No	Yes	Yes	No	Yes	No
4	Yes	Yes	Yes	No	Yes	Yes
5	No	Yes	No	Yes	Yes	Yes
6	Yes	Yes	Yes	Yes	Yes	Yes
7	Yes	Yes	Yes	Yes	Yes	Yes
8	Yes	Yes	Yes	Yes	Yes	Yes
9	Yes	Yes	Yes	Yes	Yes	Yes
10	Yes	Yes	Yes	Yes	Yes	Yes
11	Yes	Yes	Yes	Yes	Yes	No
12	No	Yes	No	Yes	Yes	Yes
13	Yes	Yes	Yes	Yes	Yes	Yes
14	No	Yes	Yes	Yes	Yes	Yes
15	Yes	Yes	Yes	Yes	Yes	Yes
16	Yes	Yes	Yes	Yes	Yes	Yes
17	Yes	Yes	Yes	No	Yes	No
18	No	Yes	Yes	No	Yes	Yes
19	Yes	Yes	No	No	Yes	No
20	Yes	Yes	Yes	Yes	Yes	Yes
21	No	Yes	Yes	Yes	Yes	Yes
22	Yes	No	Yes	No	Yes	Yes
23	Yes	Yes	Yes	Yes	No	Yes
24	Yes	Yes	Yes	Yes	Yes	Yes
25	Yes	No	Yes	Yes	Yes	Yes
26	No	Yes	Yes	Yes	Yes	Yes
27	Yes	Yes	No	No	Yes	Yes
28	Yes	Yes	No	Yes	Yes	No
29	Yes	Yes	Yes	Yes	Yes	Yes
30	Yes	Yes	Yes	Yes	Yes	Yes
EUT Test Frequency: 5300 MHz						
Radar Frequency: 5300 MHz						

**Statistical Performance Check**

**5310MHz (11n-40)**

Trial #	Radar Type1	Radar Type2	Radar Type3	Radar Type4	Radar Type5	Radar Type6
	Detection	Detection	Detection	Detection	Detection	Detection
	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
1	Yes	Yes	Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	Yes	Yes
4	Yes	No	Yes	Yes	Yes	No
5	Yes	Yes	Yes	Yes	Yes	Yes
6	Yes	Yes	No	Yes	Yes	Yes
7	No	Yes	Yes	No	Yes	Yes
8	Yes	Yes	Yes	Yes	Yes	No
9	No	Yes	Yes	Yes	Yes	Yes
10	Yes	Yes	Yes	Yes	Yes	Yes
11	No	Yes	Yes	Yes	Yes	No
12	Yes	Yes	Yes	Yes	Yes	Yes
13	Yes	Yes	Yes	No	Yes	Yes
14	Yes	Yes	Yes	No	Yes	No
15	Yes	No	No	Yes	Yes	Yes
16	No	Yes	Yes	Yes	Yes	Yes
17	Yes	Yes	Yes	Yes	Yes	Yes
18	Yes	Yes	Yes	Yes	Yes	Yes
19	Yes	Yes	Yes	Yes	Yes	Yes
20	Yes	Yes	Yes	Yes	Yes	Yes
21	Yes	Yes	Yes	No	Yes	Yes
22	Yes	Yes	Yes	No	Yes	Yes
23	Yes	Yes	No	Yes	Yes	No
24	No	Yes	Yes	Yes	Yes	No
25	Yes	Yes	Yes	Yes	Yes	Yes
26	Yes	No	Yes	Yes	Yes	Yes
27	Yes	Yes	Yes	Yes	No	Yes
28	Yes	Yes	Yes	Yes	Yes	No
29	Yes	Yes	No	Yes	Yes	Yes
30	Yes	Yes	No	No	Yes	Yes

EUT Test Frequency: 5310 MHz

Radar Frequency: 5310 MHz

**Parameter Data sheet for Radar Type 1**

**5300 MHz (11a)**

Radar Type1				
Trial #	Pulse Repetition Frequency Number(1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Number of Pulses	Pulse Repetition Interval (Microseconds)
1	19	1139.0	61	878
2	7	1567.4	83	638
3	10	1432.7	76	698
4	22	1066.1	57	938
5	3	1792.1	95	558
6	2	1858.7	99	538
7	20	1113.6	59	898
8	12	1355.0	72	738
9	1	1930.5	102	518
10	23	326.2	18	3066
11	18	1165.5	62	858
12	17	1193.3	63	838
13	6	1618.1	86	618
14	15	1253.1	67	798
15	4	1730.1	92	578
16	-	435.7	23	2295
17	-	728.9	39	1372
18	-	338.0	18	2959
19	-	553.1	30	1808
20	-	412.9	22	2422
21	-	1233.0	66	811
22	-	721.0	39	1387
23	-	590.7	32	1693
24	-	431.0	23	2320
25	-	469.7	25	2129
26	-	664.5	36	1505
27	-	886.5	47	1128
28	-	563.7	30	1774
29	-	572.4	31	1747
30	-	492.6	26	2030

**Parameter Data sheet for Radar Type 1**

**5310 MHz (11n-40)**

Radar Type1				
Trial #	Pulse Repetition Frequency Number(1 to 23)	Pulse Repetition Frequency (Pulses Per Second)	Number of Pulses	Pulse Repetition Interval (Microseconds)
1	2	1858.7	99	538
2	13	1319.3	70	758
3	21	1089.3	58	918
4	11	1392.8	74	718
5	16	1222.5	65	818
6	14	1285.3	68	778
7	20	1113.6	59	898
8	5	1672.2	89	598
9	23	326.2	18	3066
10	17	1193.3	63	838
11	3	1792.1	95	558
12	7	1567.4	83	638
13	4	1730.1	92	578
14	22	1066.1	57	938
15	10	1432.7	76	698
16	-	919.1	49	1088
17	-	509.9	27	1961
18	-	461.7	25	2166
19	-	704.7	38	1419
20	-	520.0	28	1923
21	-	1082.3	58	924
22	-	456.2	25	2192
23	-	1048.2	56	954
24	-	771.0	41	1297
25	-	756.4	40	1322
26	-	602.8	32	1659
27	-	624.6	33	1601
28	-	788.6	42	1268
29	-	946.1	50	1057
30	-	781.9	42	1279

**Parameter Data sheet for Radar Type 2**

**5300 MHz (11a)**

Radar Type2			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	25	2.3	190
2	25	2.6	204
3	27	3.3	206
4	26	3.0	229
5	28	4.2	207
6	24	2.1	183
7	24	1.7	166
8	26	3.1	194
9	23	1.2	189
10	23	1.2	179
11	28	3.9	196
12	25	2.4	226
13	27	3.5	180
14	25	2.5	221
15	28	4.0	163
16	25	2.3	161
17	29	4.9	230
18	24	1.9	186
19	26	3.1	184
20	26	2.8	208
21	29	4.7	214
22	24	2.1	210
23	27	3.7	169
24	25	2.6	191
25	24	1.8	172
26	28	4.1	187
27	23	1.2	209
28	27	3.6	156
29	29	4.9	170
30	24	1.6	203

**Parameter Data sheet for Radar Type 2**

**5310 MHz (11n-40)**

Radar Type2			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	26	3.1	228
2	23	1.4	202
3	23	1.2	211
4	24	1.8	189
5	26	3.2	177
6	24	1.9	210
7	24	1.8	208
8	25	2.5	168
9	29	4.7	203
10	26	2.7	215
11	23	1.3	169
12	27	3.8	199
13	25	2.4	152
14	26	3.0	221
15	28	3.9	180
16	27	3.4	153
17	23	1.5	174
18	24	1.9	222
19	23	1.2	195
20	23	1.2	193
21	25	2.4	230
22	29	4.8	226
23	24	1.6	167
24	23	1.2	217
25	24	1.9	223
26	25	2.4	171
27	29	4.9	181
28	26	2.8	166
29	23	1.3	201
30	28	4.4	207



**Parameter Data sheet for Radar Type 3**

**5300 MHz (11a)**

Radar Type3			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	16	7.3	484
2	17	7.6	252
3	17	8.3	230
4	17	8.0	320
5	18	9.2	458
6	16	7.1	380
7	16	6.7	400
8	17	8.1	324
9	16	6.2	249
10	16	6.2	224
11	18	8.9	242
12	17	7.4	384
13	17	8.5	209
14	17	7.5	229
15	18	9.0	379
16	16	7.3	373
17	18	9.9	211
18	16	6.9	336
19	17	8.1	476
20	17	7.8	275
21	18	9.7	361
22	16	7.1	236
23	17	8.7	264
24	17	7.6	369
25	16	6.8	329
26	18	9.1	259
27	16	6.2	423
28	17	8.6	464
29	18	9.9	420
30	16	6.6	349

**Parameter Data sheet for Radar Type 3**

**5310 MHz (11n-40)**

Radar Type3			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	17	8.1	361
2	16	6.4	481
3	16	6.2	358
4	16	6.8	341
5	17	8.2	274
6	16	6.9	425
7	16	6.8	302
8	17	7.5	399
9	18	9.7	344
10	17	7.7	214
11	16	6.3	455
12	18	8.8	224
13	17	7.4	391
14	17	8.0	423
15	18	8.9	489
16	17	8.4	281
17	16	6.5	230
18	16	6.9	452
19	16	6.2	382
20	16	6.2	227
21	17	7.4	472
22	18	9.8	316
23	16	6.6	415
24	16	6.2	206
25	16	6.9	298
26	17	7.4	435
27	18	9.9	314
28	17	7.8	342
29	16	6.3	345
30	18	9.4	479

**Parameter Data sheet for Radar Type 4**

**5300 MHz (11a)**

Radar Type4			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	16	18.6	201
2	15	17.2	411
3	13	13.5	486
4	15	17.4	493
5	13	13.3	384
6	12	12.3	476
7	15	16.6	483
8	12	11.2	346
9	12	12.7	474
10	14	14.8	290
11	14	15.1	308
12	12	12.1	465
13	13	13.7	259
14	16	19.2	274
15	14	15.0	391
16	16	19.6	307
17	13	14.3	480
18	16	18.8	500
19	14	16.0	490
20	16	18.6	216
21	12	11.4	266
22	14	15.7	314
23	16	18.5	418
24	15	17.7	471
25	13	13.8	251
26	14	14.6	316
27	16	19.4	279
28	13	13.5	280
29	13	13.2	303
30	16	19.8	442

**Parameter Data sheet for Radar Type 4**

**5310 MHz (11n-40)**

Radar Type4			
Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]
1	12	11.4	379
2	13	14.5	338
3	15	18.0	307
4	14	14.9	212
5	16	20.0	201
6	12	11.9	219
7	15	16.8	385
8	16	18.9	422
9	12	11.4	266
10	16	18.3	282
11	16	18.5	220
12	14	15.4	305
13	12	11.2	443
14	12	11.2	467
15	14	14.9	500
16	13	12.9	214
17	14	16.0	294
18	16	18.8	406
19	12	11.7	452
20	14	15.0	328
21	14	15.3	345
22	12	12.7	465
23	13	14.0	261
24	14	14.7	353
25	13	13.8	346
26	16	20.0	455
27	16	18.3	496
28	12	11.7	205
29	13	14.1	409
30	15	16.9	484

**Parameter Data sheet for Radar Type 5**

**5300 MHz (11a)**

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
1	0	3	92.1	18.0	1194.9	1860.9	55653	5300
	1	3	84.2	18.0	1136.8	1389.8	216201	5300
	2	1	63.8	18.0	-	-	378337	5300
	3	3	85.5	18.0	1336.5	1218.5	537777	5300
	4	1	62.7	18.0	-	-	36015	5300
	5	1	57.6	18.0	-	-	197337	5300
	6	2	81.0	18.0	1108.0	-	357836	5300
	7	1	51.3	18.0	-	-	519746	5300
	8	1	59.4	18.0	-	-	16169	5300
	9	2	71.4	18.0	1725.6	-	177067	5300
	10	2	73.1	18.0	1914.9	-	337540	5300
	11	1	56.4	18.0	-	-	500402	5300
	12	1	65.2	18.0	-	-	661492	5300
	13	3	95.1	18.0	1186.9	1114.9	156915	5300
	14	2	72.2	18.0	1258.8	-	318242	5300
	15	3	97.6	18.0	1337.4	1838.4	478055	5300
	16	2	68.6	18.0	1713.4	-	639469	5300
17	3	93.0	18.0	1840.0	1469.0	137039	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
2	0	2	77.6	15.0	1678.4	-	335928	5300
	1	3	92.2	15.0	1319.8	1490.8	516043	5300
	2	1	52.3	15.0	-	-	699926	5300
	3	2	76.0	15.0	1154.0	-	132504	5300
	4	3	91.6	15.0	1655.4	1877.4	312750	5300
	5	3	87.0	15.0	1352.0	1792.0	493287	5300
	6	1	65.8	15.0	-	-	677110	5300
	7	2	70.2	15.0	997.8	-	110185	5300
	8	3	96.6	15.0	1827.4	1164.4	290654	5300
	9	1	63.8	15.0	-	-	473409	5300
	10	1	62.2	15.0	-	-	654756	5300
	11	3	98.5	15.0	1160.5	1141.5	87605	5300
	12	2	81.1	15.0	1346.9	-	269025	5300
	13	3	94.6	15.0	1806.4	1416.4	449041	5300
	14	2	75.7	15.0	1618.3	-	631009	5300
15	2	81.7	15.0	959.3	-	65419	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
3	0	1	60.0	9.0	-	-	359490	5300
	1	2	76.8	9.0	1509.2	-	622754	5300
	2	3	86.7	9.0	949.3	1044.3	885897	5300
	3	1	59.8	9.0	-	-	62880	5300
	4	2	82.4	9.0	1756.6	-	326500	5300
	5	1	51.2	9.0	-	-	591186	5300
	6	3	87.8	9.0	1161.2	969.2	853618	5300
	7	3	94.7	9.0	1044.3	1746.3	30223	5300
	8	1	56.9	9.0	-	-	294401	5300
	9	1	60.1	9.0	-	-	558638	5300
10	2	80.9	9.0	1132.1	-	821874	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
4	0	1	65.8	16.0	-	-	702745	5300
	1	3	92.4	16.0	1060.6	1250.6	168901	5300
	2	1	62.8	16.0	-	-	339994	5300
	3	3	95.6	16.0	1268.4	1140.4	508879	5300
	4	3	96.6	16.0	1753.4	1741.4	677984	5300
	5	1	62.9	16.0	-	-	148248	5300
	6	3	86.9	16.0	1650.1	1142.1	318050	5300
	7	2	69.1	16.0	1723.9	-	488926	5300
	8	1	51.4	16.0	-	-	660801	5300
	9	1	65.7	16.0	-	-	127344	5300
	10	1	66.1	16.0	-	-	298011	5300
	11	3	92.6	16.0	1726.4	984.4	467313	5300
	12	2	76.8	16.0	983.2	-	638744	5300
	13	2	69.7	16.0	1505.3	-	105956	5300
	14	3	92.6	16.0	1285.4	1471.4	276104	5300
	15	1	61.1	16.0	-	-	447961	5300
16	2	67.1	16.0	1618.9	-	617318	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
5	0	3	89.1	9.0	1143.9	1065.9	131457	5300
	1	1	60.9	9.0	-	-	395904	5300
	2	3	90.3	9.0	1512.7	1587.7	658416	5300
	3	2	78.6	9.0	1575.4	-	922839	5300
	4	2	80.7	9.0	1320.3	-	99146	5300
	5	3	83.5	9.0	1583.5	1115.5	362379	5300
	6	3	85.1	9.0	1099.9	1303.9	626163	5300
	7	3	95.5	9.0	1297.5	1499.5	889377	5300
	8	1	60.8	9.0	-	-	66731	5300
	9	1	58.7	9.0	-	-	331037	5300
10	1	60.5	9.0	-	-	595349	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
6	0	2	76.4	7.0	1797.6	-	1049047	5300
	1	1	54.3	7.0	-	-	41775	5300
	2	1	57.6	7.0	-	-	364778	5300
	3	2	69.1	7.0	1696.9	-	686868	5300
	4	2	81.5	7.0	969.5	-	1009810	5300
	5	1	56.0	7.0	-	-	1986	5300
	6	3	100.0	7.0	1791.0	1186.0	324218	5300
	7	2	77.8	7.0	1131.2	-	647358	5300
8	3	83.7	7.0	1508.3	1767.3	968635	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
7	0	2	68.3	14.0	1891.7	-	724906	5300
	1	1	65.6	14.0	-	-	160193	5300
	2	3	85.6	14.0	1220.4	1360.4	340448	5300
	3	3	94.3	14.0	972.7	996.7	522120	5300
	4	2	75.3	14.0	1920.7	-	703245	5300
	5	2	74.3	14.0	1041.7	-	137634	5300
	6	1	65.9	14.0	-	-	319532	5300
	7	3	94.0	14.0	1855.0	1892.0	498117	5300
	8	3	84.2	14.0	1305.8	1203.8	679753	5300
	9	1	59.8	14.0	-	-	115549	5300
	10	3	90.2	14.0	926.8	1171.8	296291	5300
	11	3	89.9	14.0	986.1	1084.1	477135	5300
	12	3	90.1	14.0	1123.9	1353.9	658246	5300
	13	2	70.7	14.0	1281.3	-	93012	5300
	14	1	55.6	14.0	-	-	274573	5300
15	3	96.1	14.0	1805.9	1720.9	453928	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
8	0	2	69.8	5.0	1100.2	-	1275479	5300
	1	1	52.3	5.0	-	-	141843	5300
	2	3	85.1	5.0	1259.9	1566.9	504410	5300
	3	1	58.8	5.0	-	-	868981	5300
	4	2	77.7	5.0	1722.3	-	1230954	5300
	5	1	50.1	5.0	-	-	97081	5300
	6	3	85.7	5.0	996.3	1016.3	459798	5300
7	1	54.1	5.0	-	-	823972	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
9	0	2	76.3	8.0	1118.7	-	948859	5300
	1	3	92.8	8.0	1287.2	1316.2	41730	5300
	2	3	97.1	8.0	1632.9	1306.9	331678	5300
	3	1	58.1	8.0	-	-	623098	5300
	4	3	97.1	8.0	1633.9	1025.9	911753	5300
	5	1	61.1	8.0	-	-	6027	5300
	6	2	70.7	8.0	1038.3	-	296366	5300
	7	2	69.8	8.0	1663.2	-	586729	5300
	8	1	64.8	8.0	-	-	877717	5300
9	2	77.4	8.0	1799.6	-	1166426	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
10	0	3	98.9	11.0	1580.1	1382.1	199862	5300
	1	2	73.4	11.0	1298.6	-	423532	5300
	2	2	75.4	11.0	1388.6	-	646639	5300
	3	3	96.1	11.0	1131.9	1731.9	868574	5300
	4	1	53.1	11.0	-	-	173146	5300
	5	1	56.4	11.0	-	-	396456	5300
	6	2	67.6	11.0	933.4	-	619391	5300
	7	3	91.2	11.0	1849.8	952.8	840732	5300
	8	1	61.3	11.0	-	-	145572	5300
	9	1	51.0	11.0	-	-	369235	5300
	10	2	68.6	11.0	1620.4	-	591333	5300
	11	2	70.7	11.0	1858.3	-	814602	5300
12	3	86.3	11.0	1031.7	1615.7	117661	5300	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
11	0	3	83.7	12.0	1354.3	1321.3	340342	5295.9245
	1	1	52.0	12.0	-	-	564856	5295.9245
	2	2	73.0	12.0	1538.0	-	787202	5295.9245
	3	1	61.7	12.0	-	-	90492	5295.9245
	4	1	53.7	12.0	-	-	314015	5295.9245
	5	1	64.8	12.0	-	-	537629	5295.9245
	6	2	68.9	12.0	1416.1	-	759738	5295.9245
	7	1	55.9	12.0	-	-	62950	5295.9245
	8	2	68.1	12.0	1039.9	-	286144	5295.9245
	9	2	79.9	12.0	1065.1	-	509265	5295.9245
	10	2	81.4	12.0	1229.6	-	732595	5295.9245
	11	2	67.9	12.0	1291.1	-	35367	5295.9245
12	2	82.7	12.0	1761.3	-	258501	5295.9245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
12	0	2	77.2	7.0	1729.8	-	696220	5293.9245
	1	1	57.8	7.0	-	-	1020034	5293.9245
	2	3	97.0	7.0	1020.0	1254.0	11384	5293.9245
	3	2	73.1	7.0	999.9	-	334273	5293.9245
	4	3	89.2	7.0	1212.8	1075.8	656304	5293.9245
	5	2	70.3	7.0	1321.7	-	979411	5293.9245
	6	2	75.0	7.0	1182.0	-	1302380	5293.9245
	7	1	62.7	7.0	-	-	294693	5293.9245
8	2	71.9	7.0	1013.1	-	617090	5293.9245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
13	0	2	82.2	9.0	1011.8	-	768626	5294.7245
	1	2	70.6	9.0	1700.4	-	1032306	5294.7245
	2	2	73.7	9.0	1190.3	-	208137	5294.7245
	3	3	99.2	9.0	1600.8	1792.8	471303	5294.7245
	4	2	78.7	9.0	1553.3	-	736048	5294.7245
	5	3	91.3	9.0	1851.7	1462.7	997660	5294.7245
	6	3	86.6	9.0	1062.4	1263.4	175552	5294.7245
	7	3	88.9	9.0	1037.1	1751.1	438758	5294.7245
	8	3	84.7	9.0	1830.3	1084.3	702091	5294.7245
	9	3	85.5	9.0	1291.5	1578.5	965712	5294.7245
10	1	55.5	9.0	-	-	143427	5294.7245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
14	0	1	56.4	19.0	-	-	235889	5298.7245
	1	1	63.3	19.0	-	-	388276	5298.7245
	2	1	56.0	19.0	-	-	541545	5298.7245
	3	2	74.0	19.0	1646.0	-	63970	5298.7245
	4	3	99.4	19.0	1345.6	1863.6	215872	5298.7245
	5	2	67.0	19.0	941.0	-	368997	5298.7245
	6	1	54.9	19.0	-	-	522511	5298.7245
	7	3	95.9	19.0	1578.1	1212.1	45065	5298.7245
	8	2	71.4	19.0	1286.6	-	197522	5298.7245
	9	2	80.7	19.0	1298.3	-	350186	5298.7245
	10	3	93.6	19.0	1878.4	1524.4	500976	5298.7245
	11	3	94.0	19.0	1633.0	1722.0	26280	5298.7245
	12	2	78.1	19.0	1352.9	-	178777	5298.7245
	13	2	70.5	19.0	1303.5	-	331274	5298.7245
	14	2	79.2	19.0	1076.8	-	484332	5298.7245
	15	1	59.8	19.0	-	-	7620	5298.7245
	16	3	94.3	19.0	1600.7	1274.7	159654	5298.7245
	17	3	88.2	19.0	1796.8	1495.8	311316	5298.7245
18	1	61.8	19.0	-	-	466435	5298.7245	



Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
15	0	3	98.4	12.0	1080.6	1343.6	902611	5295.9245
	1	3	95.7	12.0	1785.3	1023.3	206482	5295.9245
	2	2	73.6	12.0	985.4	-	430245	5295.9245
	3	1	61.8	12.0	-	-	654255	5295.9245
	4	2	69.9	12.0	1153.1	-	876978	5295.9245
	5	1	52.3	12.0	-	-	179512	5295.9245
	6	3	88.1	12.0	1896.9	1155.9	401610	5295.9245
	7	1	54.5	12.0	-	-	626367	5295.9245
	8	3	86.2	12.0	1113.8	1773.8	847012	5295.9245
	9	2	77.6	12.0	1886.4	-	151811	5295.9245
	10	2	69.4	12.0	1812.6	-	375000	5295.9245
	11	2	79.3	12.0	972.7	-	598576	5295.9245
12	3	95.2	12.0	1145.8	1167.8	820147	5295.9245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
16	0	3	95.9	20.0	1322.1	1419.1	80510	5299.1245
	1	1	62.3	20.0	-	-	225950	5299.1245
	2	2	76.2	20.0	1402.8	-	370558	5299.1245
	3	1	63.8	20.0	-	-	516658	5299.1245
	4	1	51.7	20.0	-	-	62953	5299.1245
	5	2	72.9	20.0	1618.1	-	207467	5299.1245
	6	2	73.8	20.0	1401.2	-	352698	5299.1245
	7	2	72.1	20.0	1493.9	-	497559	5299.1245
	8	1	65.4	20.0	-	-	45122	5299.1245
	9	2	79.2	20.0	1192.8	-	190025	5299.1245
	10	3	91.3	20.0	1340.7	1891.7	333789	5299.1245
	11	3	91.2	20.0	1398.8	987.8	478750	5299.1245
	12	3	88.7	20.0	1702.3	1184.3	27107	5299.1245
	13	2	76.6	20.0	1330.4	-	171905	5299.1245
	14	3	95.6	20.0	1236.4	1483.4	316199	5299.1245
	15	2	78.6	20.0	1078.4	-	461653	5299.1245
	16	3	99.5	20.0	1064.5	1088.5	9324	5299.1245
	17	2	81.5	20.0	1701.5	-	153960	5299.1245
	18	3	92.3	20.0	1730.7	1815.7	297779	5299.1245
19	1	50.6	20.0	-	-	444720	5299.1245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
17	0	2	72.8	10.0	1297.2	-	983377	5295.1245
	1	3	87.2	10.0	1394.8	1572.8	227327	5295.1245
	2	1	59.9	10.0	-	-	470083	5295.1245
	3	2	82.8	10.0	933.2	-	711435	5295.1245
	4	1	51.5	10.0	-	-	954031	5295.1245
	5	3	86.2	10.0	1449.8	1500.8	197566	5295.1245
	6	2	71.6	10.0	1797.4	-	439459	5295.1245
	7	1	61.2	10.0	-	-	682291	5295.1245
	8	1	62.4	10.0	-	-	925021	5295.1245
	9	2	68.7	10.0	1711.3	-	167967	5295.1245
	10	2	68.2	10.0	1269.8	-	409802	5295.1245
11	1	51.9	10.0	-	-	652936	5295.1245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
18	0	1	51.3	18.0	-	-	564969	5298.3245
	1	3	98.4	18.0	1107.6	947.6	87101	5298.3245
	2	3	98.2	18.0	1868.8	1699.8	238878	5298.3245
	3	1	65.7	18.0	-	-	392692	5298.3245
	4	3	94.4	18.0	1498.6	1107.6	543781	5298.3245
	5	1	65.4	18.0	-	-	68587	5298.3245
	6	1	58.0	18.0	-	-	221369	5298.3245
	7	2	71.3	18.0	1140.7	-	373605	5298.3245
	8	1	64.4	18.0	-	-	527016	5298.3245
	9	3	89.8	18.0	1181.2	964.2	49531	5298.3245
	10	2	82.9	18.0	1401.1	-	201952	5298.3245
	11	1	66.5	18.0	-	-	355212	5298.3245
	12	2	82.4	18.0	1821.6	-	506594	5298.3245
	13	2	70.6	18.0	1704.4	-	30802	5298.3245
	14	2	81.3	18.0	1077.7	-	183440	5298.3245
	15	2	75.7	18.0	1660.3	-	335564	5298.3245
	16	3	92.5	18.0	1190.5	1449.5	486964	5298.3245
	17	2	75.9	18.0	1285.1	-	12066	5298.3245
18	3	86.8	18.0	1356.2	1831.2	164105	5298.3245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
19	0	3	96.2	13.0	1876.8	1573.8	400836	5296.3245
	1	2	77.1	13.0	1585.9	-	595108	5296.3245
	2	2	78.7	13.0	1488.3	-	788312	5296.3245
	3	2	72.4	13.0	1294.6	-	184827	5296.3245
	4	1	58.6	13.0	-	-	378762	5296.3245
	5	1	52.4	13.0	-	-	572516	5296.3245
	6	3	93.5	13.0	1234.5	1531.5	763641	5296.3245
	7	1	62.3	13.0	-	-	161216	5296.3245
	8	1	65.6	13.0	-	-	355055	5296.3245
	9	1	51.3	13.0	-	-	548375	5296.3245
	10	1	62.5	13.0	-	-	742045	5296.3245
	11	1	59.7	13.0	-	-	137355	5296.3245
	12	3	96.7	13.0	1791.3	1771.3	329548	5296.3245
	13	1	60.9	13.0	-	-	524433	5296.3245
14	3	89.3	13.0	1347.7	1910.7	715304	5296.3245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
20	0	3	89.9	18.0	923.1	1153.1	94256	5298.3245
	1	3	90.3	18.0	1277.7	1547.7	254700	5298.3245
	2	2	78.5	18.0	1726.5	-	416094	5298.3245
	3	2	79.8	18.0	1158.2	-	577366	5298.3245
	4	3	84.3	18.0	1462.7	942.7	74488	5298.3245
	5	3	84.1	18.0	1627.9	1039.9	235134	5298.3245
	6	2	73.4	18.0	1710.6	-	396201	5298.3245
	7	2	71.0	18.0	1900.0	-	557371	5298.3245
	8	3	86.2	18.0	1681.8	1700.8	54564	5298.3245
	9	2	83.1	18.0	1372.9	-	215559	5298.3245
	10	1	54.3	18.0	-	-	377466	5298.3245
	11	3	93.5	18.0	1528.5	1227.5	536728	5298.3245
	12	1	50.4	18.0	-	-	34961	5298.3245
	13	2	80.9	18.0	1887.1	-	195667	5298.3245
	14	1	54.8	18.0	-	-	357383	5298.3245
	15	3	95.9	18.0	1465.1	1011.1	517190	5298.3245
	16	2	68.8	18.0	1085.2	-	15081	5298.3245
17	3	86.5	18.0	1766.5	1417.5	175562	5298.3245	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
21	0	2	82.0	5.0	1483.0	-	759871	5306.8755
	1	2	72.1	5.0	1728.9	-	1123121	5306.8755
	2	2	74.9	5.0	1021.1	-	1487020	5306.8755
	3	2	72.7	5.0	1340.3	-	352339	5306.8755
	4	2	76.0	5.0	1174.0	-	715355	5306.8755
	5	3	89.5	5.0	1712.5	1416.5	1077458	5306.8755
	6	1	63.3	5.0	-	-	1442668	5306.8755
7	1	50.9	5.0	-	-	307863	5306.8755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
22	0	1	53.0	13.0	-	-	383406	5303.6755
	1	3	92.5	13.0	1155.5	1669.5	589108	5303.6755
	2	2	70.0	13.0	1135.0	-	797237	5303.6755
	3	1	51.9	13.0	-	-	150205	5303.6755
	4	2	80.0	13.0	1744.0	-	356852	5303.6755
	5	3	86.2	13.0	1603.8	1845.8	563150	5303.6755
	6	1	55.5	13.0	-	-	772663	5303.6755
	7	3	93.1	13.0	1593.9	1728.9	124181	5303.6755
	8	2	80.8	13.0	1285.2	-	331551	5303.6755
	9	3	91.0	13.0	1239.0	1447.0	537943	5303.6755
	10	3	97.3	13.0	1237.7	1841.7	744110	5303.6755
	11	1	62.6	13.0	-	-	99145	5303.6755
	12	3	91.7	13.0	1604.3	1545.3	305599	5303.6755
13	1	52.7	13.0	-	-	513925	5303.6755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
23	0	2	72.7	18.0	1916.3	-	559272	5301.6755
	1	1	56.1	18.0	-	-	57193	5301.6755
	2	3	92.5	18.0	1554.5	1805.5	217373	5301.6755
	3	3	89.3	18.0	1579.7	1884.7	378028	5301.6755
	4	1	54.3	18.0	-	-	540773	5301.6755
	5	1	59.0	18.0	-	-	37335	5301.6755
	6	3	93.0	18.0	1791.0	1873.0	197569	5301.6755
	7	2	81.4	18.0	1548.6	-	358981	5301.6755
	8	1	60.7	18.0	-	-	521549	5301.6755
	9	1	55.5	18.0	-	-	17448	5301.6755
	10	3	93.8	18.0	1088.2	913.2	178076	5301.6755
	11	2	73.2	18.0	1433.8	-	339336	5301.6755
	12	1	64.7	18.0	-	-	501181	5301.6755
	13	3	88.9	18.0	1164.1	1238.1	659794	5301.6755
	14	1	64.4	18.0	-	-	158976	5301.6755
	15	2	67.1	18.0	1670.9	-	319500	5301.6755
	16	1	64.3	18.0	-	-	481429	5301.6755
17	3	89.0	18.0	1399.0	1423.0	639653	5301.6755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
24	0	1	66.5	16.0	-	-	147335	5302.4755
	1	3	83.4	16.0	1593.6	1356.6	316609	5302.4755
	2	2	81.0	16.0	1307.0	-	487640	5302.4755
	3	2	81.0	16.0	1601.0	-	657924	5302.4755
	4	1	50.9	16.0	-	-	126176	5302.4755
	5	3	84.3	16.0	1871.7	1874.7	295465	5302.4755
	6	1	53.1	16.0	-	-	467786	5302.4755
	7	2	68.2	16.0	1125.8	-	637240	5302.4755
	8	3	88.0	16.0	1795.0	1773.0	104624	5302.4755
	9	1	57.4	16.0	-	-	275856	5302.4755
	10	1	50.1	16.0	-	-	446662	5302.4755
	11	1	63.9	16.0	-	-	617928	5302.4755
	12	3	98.6	16.0	1798.4	1030.4	83724	5302.4755
	13	1	56.1	16.0	-	-	254896	5302.4755
	14	3	94.9	16.0	935.1	1049.1	424368	5302.4755
	15	2	79.3	16.0	1698.7	-	594718	5302.4755
16	3	99.4	16.0	1472.6	1222.6	62830	5302.4755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
25	0	2	68.7	10.0	1760.3	-	330961	5304.8755
	1	2	80.3	10.0	1618.7	-	572716	5304.8755
	2	3	86.7	10.0	1889.3	1189.3	813071	5304.8755
	3	3	85.2	10.0	1390.8	933.8	59434	5304.8755
	4	1	54.2	10.0	-	-	301657	5304.8755
	5	1	57.9	10.0	-	-	543915	5304.8755
	6	2	71.6	10.0	1644.4	-	784793	5304.8755
	7	2	81.8	10.0	989.2	-	29720	5304.8755
	8	1	64.5	10.0	-	-	271906	5304.8755
	9	1	58.2	10.0	-	-	513894	5304.8755
	10	1	56.7	10.0	-	-	755939	5304.8755
11	2	71.4	10.0	1859.6	-	996260	5304.8755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
26	0	1	66.6	11.0	-	-	223382	5304.4755
	1	2	78.6	11.0	1308.4	-	446114	5304.4755
	2	1	63.6	11.0	-	-	670726	5304.4755
	3	2	76.6	11.0	1702.4	-	892471	5304.4755
	4	1	58.3	11.0	-	-	195847	5304.4755
	5	3	96.1	11.0	1627.9	1778.9	417954	5304.4755
	6	1	58.2	11.0	-	-	642874	5304.4755
	7	2	71.7	11.0	932.3	-	865926	5304.4755
	8	3	91.8	11.0	1900.2	1798.2	167666	5304.4755
	9	1	55.1	11.0	-	-	391895	5304.4755
	10	1	58.2	11.0	-	-	615643	5304.4755
	11	3	86.1	11.0	1772.9	1298.9	836285	5304.4755
12	3	86.1	11.0	1707.9	1220.9	140368	5304.4755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
27	0	2	71.1	19.0	962.9	-	236133	5301.2755
	1	3	85.6	19.0	1657.4	1394.4	379986	5301.2755
	2	2	81.3	19.0	1142.7	-	526056	5301.2755
	3	3	96.8	19.0	1766.2	1239.2	73145	5301.2755
	4	1	56.9	19.0	-	-	218912	5301.2755
	5	3	87.6	19.0	974.4	1109.4	362727	5301.2755
	6	2	78.4	19.0	1706.6	-	507647	5301.2755
	7	3	85.5	19.0	1751.5	1189.5	55397	5301.2755
	8	3	89.6	19.0	1435.4	1459.4	199891	5301.2755
	9	3	95.8	19.0	1409.2	1514.2	344315	5301.2755
	10	3	86.9	19.0	1566.1	1712.1	488213	5301.2755
	11	2	77.6	19.0	1718.4	-	37708	5301.2755
	12	1	53.7	19.0	-	-	182883	5301.2755
	13	1	62.2	19.0	-	-	328199	5301.2755
	14	2	75.5	19.0	1277.5	-	471827	5301.2755
	15	1	59.4	19.0	-	-	19947	5301.2755
	16	3	99.2	19.0	915.8	1011.8	164570	5301.2755
	17	3	86.5	19.0	1261.5	1096.5	309106	5301.2755
	18	2	76.0	19.0	1810.0	-	454191	5301.2755
19	3	96.4	19.0	1802.6	1547.6	2054	5301.2755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
28	0	3	96.8	9.0	953.2	1684.2	267342	5305.2755
	1	2	71.3	9.0	1301.7	-	531747	5305.2755
	2	2	78.8	9.0	1373.2	-	795391	5305.2755
	3	3	86.5	9.0	1544.5	1452.5	1057949	5305.2755
	4	3	87.3	9.0	945.7	998.7	235073	5305.2755
	5	3	90.3	9.0	1160.7	1431.7	498395	5305.2755
	6	1	60.0	9.0	-	-	763983	5305.2755
	7	3	86.7	9.0	1378.3	1716.3	1024843	5305.2755
	8	1	57.5	9.0	-	-	202820	5305.2755
	9	1	57.5	9.0	-	-	467111	5305.2755
10	1	63.5	9.0	-	-	731370	5305.2755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
29	0	2	72.1	8.0	1521.9	-	994317	5305.6755
	1	1	50.5	8.0	-	-	170304	5305.6755
	2	3	99.1	8.0	1071.9	1239.9	433463	5305.6755
	3	2	83.2	8.0	997.8	-	698226	5305.6755
	4	2	72.4	8.0	1201.6	-	961772	5305.6755
	5	3	90.3	8.0	1360.7	1686.7	137333	5305.6755
	6	3	85.0	8.0	1767.0	1414.0	400764	5305.6755
	7	1	57.6	8.0	-	-	666192	5305.6755
	8	2	70.6	8.0	1492.4	-	929515	5305.6755
	9	2	78.4	8.0	1283.6	-	105119	5305.6755
10	3	86.0	8.0	1042.0	1834.0	368533	5305.6755	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
30	0	2	77.0	20.0	1208.0	-	347456	5300.8755
	1	2	82.9	20.0	1134.1	-	492193	5300.8755
	2	2	76.8	20.0	1464.2	-	39835	5300.8755
	3	3	99.1	20.0	1050.9	1539.9	184387	5300.8755
	4	1	54.5	20.0	-	-	330500	5300.8755
	5	3	83.9	20.0	1432.1	1212.1	473086	5300.8755
	6	2	82.8	20.0	1460.2	-	22009	5300.8755
	7	1	62.3	20.0	-	-	167158	5300.8755
	8	3	92.6	20.0	1755.4	1476.4	310763	5300.8755
	9	2	68.7	20.0	1109.3	-	456510	5300.8755
	10	2	82.2	20.0	1538.8	-	4172	5300.8755
	11	3	89.8	20.0	1698.2	1450.2	148593	5300.8755
	12	3	89.4	20.0	1180.6	1583.6	293069	5300.8755
	13	3	99.8	20.0	1329.2	995.2	437489	5300.8755
	14	1	56.7	20.0	-	-	584776	5300.8755
	15	3	94.9	20.0	1159.1	1664.1	130745	5300.8755
	16	1	59.5	20.0	-	-	276790	5300.8755
	17	1	66.6	20.0	-	-	421716	5300.8755
	18	2	77.6	20.0	944.4	-	566321	5300.8755
19	3	91.8	20.0	1232.2	1753.2	113053	5300.8755	

**Parameter Data sheet for Radar Type 5**

**5310 MHz (11n-40)**

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
1	0	1	52.7	5.0	-	-	444710	5310
	1	2	69.7	5.0	1290.3	-	807325	5310
	2	3	88.5	5.0	1313.5	1076.5	1169288	5310
	3	2	71.6	5.0	1859.4	-	36363	5310
	4	3	99.9	5.0	1758.1	1458.1	398920	5310
	5	1	55.0	5.0	-	-	763509	5310
	6	2	82.4	5.0	1528.6	-	1125260	5310
	7	3	93.5	5.0	1079.5	1470.5	1487046	5310

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
2	0	1	52.3	11.0	-	-	218455	5310
	1	3	90.2	11.0	1183.8	981.8	440657	5310
	2	3	91.4	11.0	1377.6	1655.6	663143	5310
	3	2	74.3	11.0	1422.7	-	887245	5310
	4	1	51.4	11.0	-	-	190924	5310
	5	1	51.4	11.0	-	-	414228	5310
	6	2	71.5	11.0	1585.5	-	636907	5310
	7	1	60.5	11.0	-	-	861605	5310
	8	2	77.6	11.0	1096.4	-	163153	5310
	9	3	93.0	11.0	1265.0	1869.0	385248	5310
	10	1	54.3	11.0	-	-	610337	5310
	11	2	72.2	11.0	939.8	-	832517	5310
12	2	74.1	11.0	1555.9	-	135589	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
3	0	1	59.4	17.0	-	-	259438	5310
	1	2	66.7	17.0	1413.3	-	419559	5310
	2	2	70.6	17.0	1803.4	-	580047	5310
	3	1	65.9	17.0	-	-	78138	5310
	4	3	99.8	17.0	1245.2	1305.2	238283	5310
	5	3	90.7	17.0	1844.3	1201.3	398763	5310
	6	1	54.0	17.0	-	-	561991	5310
	7	2	67.5	17.0	1853.5	-	58076	5310
	8	2	82.5	17.0	979.5	-	219093	5310
	9	1	60.5	17.0	-	-	380932	5310
	10	2	79.7	17.0	1823.3	-	540946	5310
	11	2	78.8	17.0	1430.2	-	38273	5310
	12	1	58.4	17.0	-	-	199763	5310
	13	3	89.5	17.0	1248.5	1014.5	359702	5310
	14	1	60.2	17.0	-	-	522670	5310
	15	3	95.4	17.0	1165.6	1237.6	18450	5310
	16	3	97.4	17.0	1086.6	1801.6	179079	5310
17	1	63.7	17.0	-	-	341028	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
4	0	3	96.3	11.0	1145.7	1166.7	694271	5310
	1	2	80.2	11.0	1849.8	-	917939	5310
	2	3	90.3	11.0	1639.7	1521.7	220782	5310
	3	1	60.6	11.0	-	-	445242	5310
	4	3	89.2	11.0	1868.8	1089.8	666019	5310
	5	1	61.8	11.0	-	-	892360	5310
	6	2	81.8	11.0	1217.2	-	193838	5310
	7	3	97.9	11.0	1009.1	1403.1	416321	5310
	8	1	54.4	11.0	-	-	640807	5310
	9	3	87.9	11.0	1605.1	1753.1	861382	5310
	10	1	50.8	11.0	-	-	166557	5310
	11	2	67.4	11.0	1903.6	-	389076	5310
12	1	54.3	11.0	-	-	613586	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
5	0	3	88.1	20.0	1055.9	1821.9	541246	5310
	1	3	94.6	20.0	1266.4	1256.4	89898	5310
	2	2	71.5	20.0	1051.5	-	234835	5310
	3	3	93.3	20.0	1511.7	1447.7	378773	5310
	4	1	52.9	20.0	-	-	525868	5310
	5	2	67.8	20.0	1358.2	-	72232	5310
	6	1	55.6	20.0	-	-	217443	5310
	7	1	50.1	20.0	-	-	362655	5310
	8	1	64.4	20.0	-	-	508001	5310
	9	2	78.3	20.0	1333.7	-	54402	5310
	10	2	75.9	20.0	981.1	-	199180	5310
	11	2	69.8	20.0	1184.2	-	344013	5310
	12	2	79.7	20.0	1343.3	-	489022	5310
	13	1	61.6	20.0	-	-	36658	5310
	14	3	95.5	20.0	1742.5	1893.5	180732	5310
	15	3	93.0	20.0	1390.0	1628.0	325235	5310
	16	1	62.0	20.0	-	-	471841	5310
	17	1	61.3	20.0	-	-	18762	5310
	18	1	65.1	20.0	-	-	164033	5310
19	2	80.3	20.0	1283.7	-	308146	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
6	0	2	79.2	6.0	1803.8	-	1009092	5310
	1	1	58.1	6.0	-	-	1986	5310
	2	3	92.1	6.0	1210.9	1550.9	324193	5310
	3	3	83.8	6.0	1147.2	1242.2	646825	5310
	4	3	98.9	6.0	1588.1	1523.1	968650	5310
	5	2	77.6	6.0	1104.4	-	1292399	5310
	6	1	58.8	6.0	-	-	285301	5310
	7	3	84.1	6.0	1593.9	976.9	606958	5310
8	1	51.8	6.0	-	-	931045	5310	



Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
7	0	3	86.2	15.0	1467.8	1184.8	702063	5310
	1	1	66.1	15.0	-	-	137985	5310
	2	2	66.7	15.0	1022.3	-	319178	5310
	3	1	65.0	15.0	-	-	501063	5310
	4	1	56.1	15.0	-	-	682297	5310
	5	3	91.6	15.0	1492.4	1019.4	115122	5310
	6	3	84.2	15.0	1198.8	1219.8	296227	5310
	7	3	87.0	15.0	1540.0	1124.0	476871	5310
	8	3	96.2	15.0	1668.8	1768.8	656947	5310
	9	1	57.2	15.0	-	-	93229	5310
	10	2	77.5	15.0	962.5	-	274346	5310
	11	3	91.7	15.0	1543.3	1080.3	454321	5310
	12	1	63.5	15.0	-	-	638199	5310
	13	2	81.9	15.0	973.1	-	70786	5310
	14	1	51.8	15.0	-	-	252489	5310
15	1	64.4	15.0	-	-	434015	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
8	0	3	90.8	18.0	1770.2	1610.2	515543	5310
	1	1	59.5	18.0	-	-	40793	5310
	2	1	50.1	18.0	-	-	193538	5310
	3	3	86.4	18.0	1880.6	1663.6	344170	5310
	4	1	54.9	18.0	-	-	499085	5310
	5	3	92.5	18.0	1281.5	1663.5	21870	5310
	6	2	76.6	18.0	1180.4	-	174334	5310
	7	3	85.7	18.0	1660.3	1070.3	326083	5310
	8	3	87.2	18.0	978.8	934.8	478775	5310
	9	2	75.1	18.0	1608.9	-	3158	5310
	10	2	80.0	18.0	1780.0	-	155561	5310
	11	1	52.5	18.0	-	-	308573	5310
	12	3	87.7	18.0	1683.3	1674.3	459065	5310
	13	3	94.5	18.0	1503.5	975.5	611381	5310
	14	2	75.4	18.0	1283.6	-	136932	5310
	15	1	59.0	18.0	-	-	289835	5310
	16	2	71.5	18.0	1020.5	-	442166	5310
	17	3	98.4	18.0	1106.6	1887.6	592452	5310
18	2	78.3	18.0	1036.7	-	118204	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
9	0	1	62.1	5.0	-	-	644996	5310
	1	1	59.1	5.0	-	-	1008637	5310
	2	1	54.8	5.0	-	-	1372001	5310
	3	2	73.5	5.0	984.5	-	236543	5310
	4	2	70.0	5.0	1693.0	-	599538	5310
	5	1	61.3	5.0	-	-	963324	5310
	6	1	56.0	5.0	-	-	1326585	5310
7	1	65.8	5.0	-	-	191927	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
10	0	1	54.0	17.0	-	-	246439	5310
	1	3	87.7	17.0	1576.3	1420.3	406000	5310
	2	3	88.7	17.0	957.3	1416.3	566659	5310
	3	1	65.6	17.0	-	-	65310	5310
	4	2	76.2	17.0	1712.8	-	225908	5310
	5	3	90.3	17.0	1686.7	1785.7	385877	5310
	6	2	69.4	17.0	1499.6	-	547650	5310
	7	1	58.0	17.0	-	-	45422	5310
	8	2	68.0	17.0	1472.0	-	206141	5310
	9	1	58.6	17.0	-	-	367922	5310
	10	3	97.8	17.0	1157.2	1184.2	527756	5310
	11	3	97.0	17.0	1766.0	1446.0	25429	5310
	12	3	93.8	17.0	1770.2	975.2	185973	5310
	13	3	89.5	17.0	1503.5	985.5	346584	5310
	14	2	81.1	17.0	1140.9	-	508644	5310
	15	2	77.9	17.0	1443.1	-	5685	5310
	16	2	81.1	17.0	1440.9	-	166598	5310
17	1	61.6	17.0	-	-	328497	5310	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
11	0	2	81.7	18.0	1195.3	-	488909	5298.3995
	1	3	99.3	18.0	1645.7	1333.7	648156	5298.3995
	2	1	51.6	18.0	-	-	147182	5298.3995
	3	2	81.9	18.0	1833.1	-	307815	5298.3995
	4	2	68.5	18.0	1648.5	-	468668	5298.3995
	5	2	70.1	18.0	1765.9	-	629133	5298.3995
	6	1	65.2	18.0	-	-	127364	5298.3995
	7	1	53.6	18.0	-	-	288647	5298.3995
	8	3	89.7	18.0	1466.3	964.3	448352	5298.3995
	9	1	55.2	18.0	-	-	611481	5298.3995
	10	3	86.0	18.0	1449.0	1485.0	106903	5298.3995
	11	3	86.1	18.0	1859.9	949.9	267372	5298.3995
	12	2	80.1	18.0	1055.9	-	429091	5298.3995
	13	2	75.1	18.0	1904.9	-	589815	5298.3995
	14	3	98.9	18.0	1405.1	1264.1	87163	5298.3995
	15	2	76.6	18.0	1758.4	-	248032	5298.3995
	16	2	72.6	18.0	1409.4	-	409339	5298.3995
17	3	98.1	18.0	1844.9	1722.9	568396	5298.3995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
12	0	3	98.6	12.0	1040.4	1340.4	86795	5295.9995
	1	1	59.4	12.0	-	-	294695	5295.9995
	2	1	53.7	12.0	-	-	502286	5295.9995
	3	1	62.2	12.0	-	-	709475	5295.9995
	4	2	68.3	12.0	1332.7	-	61396	5295.9995
	5	3	86.5	12.0	1530.5	1022.5	268068	5295.9995
	6	1	57.3	12.0	-	-	476378	5295.9995
	7	1	50.3	12.0	-	-	683705	5295.9995
	8	2	73.8	12.0	1176.2	-	35848	5295.9995
	9	1	51.3	12.0	-	-	243522	5295.9995
	10	3	84.5	12.0	1010.5	1510.5	449642	5295.9995
	11	2	72.7	12.0	1110.3	-	657316	5295.9995
	12	2	78.1	12.0	1398.9	-	10332	5295.9995
13	2	76.9	12.0	1857.1	-	217503	5295.9995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
13	0	3	92.4	5.0	1622.6	1701.6	743120	5293.1995
	1	1	58.4	5.0	-	-	1108513	5293.1995
	2	2	79.6	5.0	1385.4	-	1470011	5293.1995
	3	1	56.8	5.0	-	-	336714	5293.1995
	4	1	64.1	5.0	-	-	700438	5293.1995
	5	2	72.1	5.0	968.9	-	1062787	5293.1995
	6	2	69.1	5.0	1797.9	-	1425293	5293.1995
	7	2	68.5	5.0	1140.5	-	291756	5293.1995

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
14	0	1	50.4	5.0	-	-	655362	5293.1995
	1	2	72.6	5.0	1495.4	-	1018046	5293.1995
	2	1	50.5	5.0	-	-	1382046	5293.1995
	3	1	64.1	5.0	-	-	247312	5293.1995
	4	2	72.1	5.0	1112.9	-	610196	5293.1995
	5	2	82.0	5.0	1765.0	-	972790	5293.1995
	6	2	78.6	5.0	934.4	-	1336588	5293.1995
	7	2	72.7	5.0	1398.3	-	202248	5293.1995

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
15	0	3	98.2	11.0	1218.8	1684.8	346870	5295.5995
	1	2	67.1	11.0	970.9	-	570744	5295.5995
	2	2	66.9	11.0	1054.1	-	793833	5295.5995
	3	2	83.0	11.0	1570.0	-	96794	5295.5995
	4	2	79.4	11.0	1655.6	-	319889	5295.5995
	5	2	71.6	11.0	944.4	-	543452	5295.5995
	6	1	57.8	11.0	-	-	767139	5295.5995
	7	2	69.4	11.0	1903.6	-	69301	5295.5995
	8	2	81.0	11.0	1539.0	-	292506	5295.5995
	9	1	65.2	11.0	-	-	516267	5295.5995
	10	2	74.5	11.0	1317.5	-	738831	5295.5995
	11	2	68.2	11.0	1642.8	-	41878	5295.5995
12	3	96.4	11.0	1868.6	1118.6	264560	5295.5995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
16	0	1	63.9	8.0	-	-	635767	5294.3995
	1	2	69.1	8.0	1817.9	-	925052	5294.3995
	2	2	67.0	8.0	1185.0	-	18720	5294.3995
	3	2	77.2	8.0	1581.8	-	309015	5294.3995
	4	1	59.0	8.0	-	-	600337	5294.3995
	5	3	93.7	8.0	1286.3	1496.3	888883	5294.3995
	6	2	71.7	8.0	1569.3	-	1179900	5294.3995
	7	3	95.5	8.0	1082.5	1164.5	273148	5294.3995
	8	3	92.0	8.0	1386.0	1346.0	563020	5294.3995
9	1	62.5	8.0	-	-	855280	5294.3995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
17	0	1	50.4	13.0	-	-	762840	5296.3995
	1	2	78.9	13.0	1135.1	-	158218	5296.3995
	2	2	80.0	13.0	1192.0	-	351493	5296.3995
	3	1	59.0	13.0	-	-	546008	5296.3995
	4	2	81.1	13.0	1798.9	-	737573	5296.3995
	5	1	61.7	13.0	-	-	134635	5296.3995
	6	1	54.1	13.0	-	-	328388	5296.3995
	7	1	64.3	13.0	-	-	521857	5296.3995
	8	2	75.4	13.0	1414.6	-	713791	5296.3995
	9	2	71.8	13.0	1022.2	-	110535	5296.3995
	10	1	51.1	13.0	-	-	304514	5296.3995
	11	1	53.2	13.0	-	-	498094	5296.3995
	12	2	67.4	13.0	1651.6	-	690447	5296.3995
	13	1	55.7	13.0	-	-	86878	5296.3995
14	3	95.1	13.0	1766.9	1446.9	279245	5296.3995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
18	0	3	97.6	18.0	1564.4	1544.4	372182	5298.3995
	1	2	70.8	18.0	1830.2	-	525529	5298.3995
	2	1	50.5	18.0	-	-	49726	5298.3995
	3	1	60.1	18.0	-	-	202466	5298.3995
	4	2	75.9	18.0	1094.1	-	354651	5298.3995
	5	3	98.9	18.0	934.1	1592.1	506263	5298.3995
	6	3	97.7	18.0	1277.3	920.3	30767	5298.3995
	7	1	50.9	18.0	-	-	183851	5298.3995
	8	2	72.2	18.0	1104.8	-	336170	5298.3995
	9	3	86.6	18.0	1706.4	1000.4	487182	5298.3995
	10	1	53.5	18.0	-	-	12089	5298.3995
	11	3	83.6	18.0	1460.4	1429.4	164049	5298.3995
	12	3	87.0	18.0	1328.0	1747.0	315978	5298.3995
	13	1	63.0	18.0	-	-	470522	5298.3995
	14	3	88.3	18.0	1565.7	1880.7	619970	5298.3995
	15	1	56.8	18.0	-	-	145994	5298.3995
	16	2	77.2	18.0	1258.8	-	298256	5298.3995
	17	1	56.1	18.0	-	-	451999	5298.3995
18	1	54.6	18.0	-	-	604135	5298.3995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
19	0	1	66.4	6.0	-	-	268941	5293.5995
	1	1	54.0	6.0	-	-	591784	5293.5995
	2	3	99.4	6.0	919.6	1034.6	913574	5293.5995
	3	1	62.5	6.0	-	-	1238150	5293.5995
	4	2	76.8	6.0	1029.2	-	229018	5293.5995
	5	1	57.7	6.0	-	-	552001	5293.5995
	6	2	76.8	6.0	1434.2	-	874029	5293.5995
	7	1	50.9	6.0	-	-	1198601	5293.5995
8	3	99.1	6.0	1445.9	1703.9	188856	5293.5995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
20	0	3	96.4	12.0	1141.6	1149.6	353557	5295.9995
	1	3	95.3	12.0	1029.7	1694.7	576441	5295.9995
	2	1	60.6	12.0	-	-	801898	5295.9995
	3	1	51.6	12.0	-	-	103555	5295.9995
	4	1	61.2	12.0	-	-	327182	5295.9995
	5	2	82.1	12.0	1204.9	-	549548	5295.9995
	6	1	61.5	12.0	-	-	774215	5295.9995
	7	2	72.8	12.0	1808.2	-	75822	5295.9995
	8	2	71.1	12.0	1164.9	-	299239	5295.9995
	9	3	85.3	12.0	1720.7	1853.7	520898	5295.9995
	10	1	66.1	12.0	-	-	746549	5295.9995
	11	1	63.6	12.0	-	-	48475	5295.9995
12	1	52.8	12.0	-	-	271955	5295.9995	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
21	0	2	78.0	12.0	1060.0	-	459449	5324.0005
	1	1	57.8	12.0	-	-	667544	5324.0005
	2	2	72.5	12.0	1262.5	-	19392	5324.0005
	3	2	77.6	12.0	1688.4	-	226528	5324.0005
	4	2	78.2	12.0	1513.8	-	433884	5324.0005
	5	2	67.2	12.0	1275.8	-	640875	5324.0005
	6	1	51.3	12.0	-	-	849414	5324.0005
	7	3	87.1	12.0	1288.9	1713.9	200594	5324.0005
	8	1	64.9	12.0	-	-	409107	5324.0005
	9	2	73.9	12.0	1549.1	-	615455	5324.0005
	10	3	97.1	12.0	1552.9	922.9	821228	5324.0005
	11	1	62.8	12.0	-	-	175832	5324.0005
	12	3	89.4	12.0	1677.6	1767.6	381711	5324.0005
13	3	91.0	12.0	1649.0	1439.0	588543	5324.0005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
22	0	3	98.2	8.0	1064.8	1420.8	1115892	5325.6005
	1	1	58.2	8.0	-	-	210400	5325.6005
	2	2	73.8	8.0	1669.2	-	500593	5325.6005
	3	1	52.4	8.0	-	-	792068	5325.6005
	4	3	99.1	8.0	983.9	1195.9	1080107	5325.6005
	5	3	98.0	8.0	1474.0	1568.0	174232	5325.6005
	6	3	98.6	8.0	1705.4	1166.4	464175	5325.6005
	7	1	54.5	8.0	-	-	756122	5325.6005
	8	2	77.0	8.0	1419.0	-	1045404	5325.6005
9	2	75.9	8.0	1276.1	-	138752	5325.6005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
23	0	1	51.8	10.0	-	-	358036	5324.8005
	1	2	72.3	10.0	1524.7	-	598851	5324.8005
	2	1	54.8	10.0	-	-	842228	5324.8005
	3	1	51.4	10.0	-	-	85889	5324.8005
	4	1	65.4	10.0	-	-	327940	5324.8005
	5	3	85.8	10.0	1562.2	1251.2	568285	5324.8005
	6	3	91.9	10.0	1036.1	1846.1	810024	5324.8005
	7	3	90.0	10.0	1409.0	1218.0	55907	5324.8005
	8	3	91.1	10.0	1393.9	1061.9	297470	5324.8005
	9	1	63.6	10.0	-	-	540580	5324.8005
	10	2	76.1	10.0	1649.9	-	781570	5324.8005
11	3	91.6	10.0	1060.4	1275.4	26139	5324.8005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
24	0	3	90.1	11.0	1599.9	1136.9	247031	5324.4005
	1	3	99.2	11.0	1446.8	1175.8	469599	5324.4005
	2	2	79.6	11.0	1592.4	-	693414	5324.4005
	3	1	59.6	11.0	-	-	917760	5324.4005
	4	3	99.6	11.0	1798.4	1098.4	219354	5324.4005
	5	1	61.9	11.0	-	-	443505	5324.4005
	6	2	81.4	11.0	1289.6	-	666354	5324.4005
	7	2	71.3	11.0	1584.7	-	889435	5324.4005
	8	1	63.5	11.0	-	-	192723	5324.4005
	9	3	88.9	11.0	1902.1	926.1	414878	5324.4005
	10	2	71.9	11.0	1655.1	-	638379	5324.4005
	11	3	91.2	11.0	959.8	1401.8	860342	5324.4005
12	1	63.3	11.0	-	-	165094	5324.4005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
25	0	1	64.6	10.0	-	-	421218	5324.8005
	1	3	97.4	10.0	933.6	1378.6	661483	5324.8005
	2	2	82.9	10.0	1901.1	-	903563	5324.8005
	3	2	67.1	10.0	1748.9	-	148730	5324.8005
	4	1	65.6	10.0	-	-	391263	5324.8005
	5	1	54.2	10.0	-	-	633422	5324.8005
	6	2	73.4	10.0	1118.6	-	874303	5324.8005
	7	2	80.8	10.0	1197.2	-	119091	5324.8005
	8	3	96.7	10.0	1224.3	1815.3	360060	5324.8005
	9	2	75.7	10.0	1706.3	-	602249	5324.8005
	10	1	55.9	10.0	-	-	845486	5324.8005
11	1	62.3	10.0	-	-	89378	5324.8005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
26	0	3	99.9	20.0	1606.1	1345.1	197717	5320.8005
	1	2	71.6	20.0	962.4	-	343575	5320.8005
	2	2	79.2	20.0	1285.8	-	488029	5320.8005
	3	2	82.0	20.0	1507.0	-	35594	5320.8005
	4	1	57.0	20.0	-	-	180712	5320.8005
	5	2	71.7	20.0	1805.3	-	324771	5320.8005
	6	2	75.7	20.0	1543.3	-	470156	5320.8005
	7	1	64.9	20.0	-	-	17819	5320.8005
	8	1	56.6	20.0	-	-	162954	5320.8005
	9	2	68.2	20.0	1575.8	-	307335	5320.8005
	10	2	74.6	20.0	1862.4	-	452130	5320.8005
	11	2	72.9	20.0	1086.1	-	597524	5320.8005
	12	3	89.4	20.0	949.6	1280.6	144506	5320.8005
	13	3	98.5	20.0	1338.5	1846.5	288737	5320.8005
	14	3	86.6	20.0	1590.4	1806.4	433019	5320.8005
	15	2	73.1	20.0	1868.9	-	579158	5320.8005
	16	1	55.6	20.0	-	-	127257	5320.8005
	17	1	62.3	20.0	-	-	272298	5320.8005
	18	1	62.9	20.0	-	-	417250	5320.8005
19	1	50.3	20.0	-	-	563157	5320.8005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
27	0	1	63.7	18.0	-	-	121505	5321.6005
	1	3	88.2	18.0	1708.8	1204.8	281475	5321.6005
	2	1	50.8	18.0	-	-	444029	5321.6005
	3	3	88.4	18.0	1151.6	1557.6	602679	5321.6005
	4	1	59.0	18.0	-	-	101646	5321.6005
	5	2	72.9	18.0	1359.1	-	262357	5321.6005
	6	2	75.4	18.0	1489.6	-	423219	5321.6005
	7	1	59.3	18.0	-	-	585235	5321.6005
	8	1	52.6	18.0	-	-	81763	5321.6005
	9	1	60.7	18.0	-	-	243145	5321.6005
	10	3	93.5	18.0	1055.5	1455.5	402669	5321.6005
	11	2	73.5	18.0	1479.5	-	564470	5321.6005
	12	2	73.7	18.0	1154.3	-	61766	5321.6005
	13	3	97.3	18.0	1493.7	1878.7	222119	5321.6005
	14	3	99.8	18.0	1209.2	1470.2	382670	5321.6005
	15	3	90.3	18.0	1689.7	973.7	543465	5321.6005
	16	1	52.2	18.0	-	-	42058	5321.6005
17	3	89.4	18.0	1397.6	1210.6	202604	5321.6005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
28	0	1	56.4	6.0	-	-	730393	5326.4005
	1	2	67.1	6.0	1119.9	-	1052295	5326.4005
	2	3	96.2	6.0	1809.8	1106.8	44275	5326.4005
	3	2	76.2	6.0	1846.8	-	366962	5326.4005
	4	1	56.7	6.0	-	-	690438	5326.4005
	5	3	96.5	6.0	1394.5	1896.5	1010883	5326.4005
	6	2	72.7	6.0	1560.3	-	4587	5326.4005
	7	1	59.9	6.0	-	-	327570	5326.4005
8	2	77.8	6.0	1553.2	-	650002	5326.4005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency[MHz]
29	0	2	67.2	10.0	1331.8	-	728686	5324.8005
	1	2	67.6	10.0	1684.4	-	970434	5324.8005
	2	1	50.2	10.0	-	-	215873	5324.8005
	3	2	75.1	10.0	1256.9	-	457230	5324.8005
	4	3	84.3	10.0	1676.7	950.7	698212	5324.8005
	5	1	62.7	10.0	-	-	942646	5324.8005
	6	1	55.5	10.0	-	-	185923	5324.8005
	7	3	98.7	10.0	1213.3	1359.3	427128	5324.8005
	8	1	61.7	10.0	-	-	669969	5324.8005
	9	2	70.8	10.0	1851.2	-	911094	5324.8005
	10	3	90.8	10.0	1278.2	1905.2	155602	5324.8005
11	2	72.9	10.0	1846.1	-	397377	5324.8005	

Trial #	Burst Number	Number of Pulses	Pulse Width [us]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [us]	Pulse 2-to-3 Spacing [us]	Starting Location Within Interval [us]	Center Frequency [MHz]
30	0	3	84.2	15.0	1673.8	1474.8	478164	5322.8005
	1	3	96.4	15.0	1093.6	1135.6	659920	5322.8005
	2	1	66.4	15.0	-	-	94690	5322.8005
	3	1	62.2	15.0	-	-	276254	5322.8005
	4	3	95.9	15.0	1709.1	913.1	455983	5322.8005
	5	2	74.7	15.0	1205.3	-	638243	5322.8005
	6	1	51.1	15.0	-	-	72294	5322.8005
	7	3	99.3	15.0	960.7	1719.7	252887	5322.8005
	8	3	92.1	15.0	1358.9	1223.9	433570	5322.8005
	9	3	98.8	15.0	1589.2	1615.2	613963	5322.8005
	10	3	96.3	15.0	1635.7	940.7	49781	5322.8005
	11	2	70.9	15.0	1342.1	-	231186	5322.8005
	12	1	66.3	15.0	-	-	412842	5322.8005
	13	1	55.8	15.0	-	-	594338	5322.8005
	14	3	95.9	15.0	1270.1	1376.1	27469	5322.8005
15	1	54.1	15.0	-	-	209149	5322.8005	



**Parameter Data sheet for Radar Type 6**

**5300 MHz (11a)**

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
1	23	66	5300
	71	210	5292

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
2	3	6	5308
	36	105	5310
	55	162	5304
	75	222	5296

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
3	62	183	5301
	73	216	5295
	79	234	5298
	94	279	5306

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
4	36	105	5302
	41	120	5296
	76	225	5307
	81	240	5309

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
5	21	60	5294
	25	72	5296
	61	180	5295
	77	228	5309

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
6	1	0	5300
	6	15	5307
	9	24	5305
	21	60	5302
	35	102	5294
	36	105	5299
	50	147	5308
	55	162	5296
	75	222	5301

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
7	5	12	5298
	19	54	5309
	91	270	5304

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
8	15	42	5295
	32	93	5290
	46	135	5297

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
9	44	129	5298

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
10	11	30	5307
	20	57	5292
	81	240	5302

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
11	17	48	5292
	44	129	5303
	64	189	5297

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
12	1	0	5308
	8	21	5303
	13	36	5306
	46	135	5298
	51	150	5293
	55	162	5305
	86	255	5304

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
13	9	24	5302
	29	84	5294
	65	192	5308
	69	204	5305
	96	285	5292

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
14	41	120	5305
	53	156	5291
	63	186	5292
	96	285	5309

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
15	14	39	5290
	25	72	5309
	35	102	5310
	63	186	5308
	67	198	5297

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
16	5	12	5291
	28	81	5304
	39	114	5305
	49	144	5294
	75	222	5300
	84	249	5292
	98	291	5290

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
17	3	6	5298
	13	36	5306
	19	54	5308
	30	87	5309
	52	153	5295

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
18	7	18	5292
	76	225	5297

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
19	22	63	5295
	33	96	5293

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
20	53	156	5303
	62	183	5300
	76	225	5302

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
21	13	36	5295
	87	258	5305

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
22	47	138	5292
	48	141	5298

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
23	71	210	5298
	89	264	5301

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
24	27	78	5303
	28	81	5309
	39	114	5292
	61	180	5296
	67	198	5301

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
25	24	69	5304
	89	264	5310

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
26	23	66	5302
	24	69	5301
	42	123	5309
	80	237	5292

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
27	49	144	5295
	74	219	5302
	90	267	5296
	94	279	5310
	95	282	5305

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
28	19	54	5294
	34	99	5305
	37	108	5298
	46	135	5301
	61	180	5300
	68	201	5295
	78	231	5293

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
29	2	3	5292
	44	129	5298
	84	249	5295

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
30	9	24	5310
	43	126	5295
	94	279	5299

**Parameter Data sheet for Radar Type 6**

**5310 MHz (11n-40)**

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
1	14	39	5299
	18	51	5292
	19	54	5313
	26	75	5296
	38	111	5311
	43	126	5312
	73	216	5298
	90	267	5302
	96	285	5293

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
2	2	3	5325
	3	6	5326
	8	21	5302
	18	51	5298
	29	84	5290
	43	126	5311
	57	168	5328

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
3	13	36	5312
	30	87	5324
	32	93	5325
	33	96	5294
	36	105	5291
	42	123	5301
	46	135	5323
	68	201	5315
	75	222	5308
	77	228	5303

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
4	2	3	5328
	6	15	5310
	29	84	5311
	53	156	5305
	54	159	5299
	75	222	5307
	95	282	5317
	98	291	5309

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
5	22	63	5317
	31	90	5327
	54	159	5328
	55	162	5321
	63	186	5315
	64	189	5330
	67	198	5319
	68	201	5291
	69	204	5305
	71	210	5322
	77	228	5307

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
6	4	9	5311
	26	75	5326
	54	159	5327
	57	168	5323
	87	258	5298
	96	285	5290



Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
7	22	63	5296
	27	78	5315
	39	114	5317
	42	123	5318
	45	132	5322
	64	189	5319
	71	210	5325
	80	237	5324
	82	243	5294
	94	279	5307

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
8	37	108	5325
	55	162	5313
	56	165	5295
	73	216	5328
	87	258	5294
	92	273	5324

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
9	4	9	5319
	31	90	5328
	63	186	5308
	86	255	5329
	90	267	5321
	96	285	5316
	98	291	5320
	99	294	5310

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
10	8	21	5330
	24	69	5307
	40	117	5318
	44	129	5322
	49	144	5326
	55	162	5329
	60	177	5290
	82	243	5311
	83	246	5317
	90	267	5315
	99	294	5294

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
11	6	15	5323
	16	45	5308
	24	69	5299
	35	102	5302
	38	111	5307
	44	129	5319
	54	159	5291
	80	237	5297
	88	261	5320
	94	279	5314

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
12	4	9	5327
	13	36	5301
	34	99	5310
	46	135	5316
	63	186	5295
	81	240	5302
	90	267	5325

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
13	41	120	5310
	43	126	5324
	45	132	5313
	57	168	5303
	60	177	5300
	78	231	5315
	89	264	5295
	93	276	5292

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
14	21	60	5290
	32	93	5296
	35	102	5298
	45	132	5310
	47	138	5301
	63	186	5323
	68	201	5315
	75	222	5330
	97	288	5327

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
15	11	30	5308
	37	108	5293
	40	117	5298
	60	177	5316
	71	210	5324
	83	246	5329
	87	258	5313
	92	273	5301
	95	282	5311
	97	288	5322

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
16	5	12	5298
	8	21	5305
	34	99	5306
	35	102	5316
	40	117	5309
	47	138	5293
	56	165	5295
	75	222	5300
	94	279	5313

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
17	3	6	5310
	6	15	5294
	39	114	5297
	51	150	5328
	82	243	5317
	84	249	5304

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
18	15	42	5290
	49	144	5312
	53	156	5324
	65	192	5303
	69	204	5301
	78	231	5310
	85	252	5302

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
19	11	30	5313
	14	39	5311
	29	84	5296
	42	123	5330
	53	156	5290
	69	204	5292
	76	225	5306
	80	237	5298
	92	273	5327

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
20	7	18	5302
	30	87	5330
	42	123	5327
	64	189	5294
	86	255	5295
	87	258	5311
	93	276	5319
	98	291	5328

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
21	13	36	5292
	25	72	5316
	36	105	5319
	53	156	5306
	56	165	5322
	61	180	5291

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
22	4	9	5318
	18	51	5298
	29	84	5320
	30	87	5330
	47	138	5293
	69	204	5308
	71	210	5314
	74	219	5295

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
23	2	3	5313
	22	63	5327
	23	66	5312
	24	69	5310
	29	84	5300
	39	114	5302
	62	183	5305
	77	228	5318
	89	264	5297

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
24	17	48	5291
	38	111	5290
	47	138	5302
	57	168	5296
	64	189	5297
	79	234	5319
	83	246	5329
	98	291	5299

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
25	2	3	5316
	4	9	5326
	5	12	5291
	33	96	5303
	37	108	5301
	63	186	5307
	68	201	5320
	79	234	5297
	84	249	5329

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
26	16	45	5290
	57	168	5322
	64	189	5302
	69	204	5315
	73	216	5313
	74	219	5324
	90	267	5317
	96	285	5305

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
27	2	3	5319
	19	54	5329
	33	96	5297
	46	135	5322
	49	144	5315
	52	153	5308
	61	180	5292
	64	189	5330
	66	195	5296
	69	204	5302
	73	216	5317
	88	261	5324

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
28	1	0	5314
	13	36	5329
	29	84	5323
	44	129	5302
	45	132	5294
	65	192	5326
	71	210	5311
	73	216	5293
	91	270	5310
	95	282	5315
	98	291	5318

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Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
29	2	3	5322
	8	21	5330
	58	171	5320
	69	204	5303
	72	213	5314
	79	234	5319

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
30	18	51	5322
	20	57	5299
	21	60	5311
	28	81	5321
	37	108	5329
	83	246	5300



## **APPENDIX 2: Test Instruments**

### **Test Equipment**

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
DFS	COTS-SDFS-03	176615	Signal Studio for DFS Rader Profiles	EMC Instruments Corporation	N7607C	-	-	-
DFS	CSG-12	143677	Signal Generator	Keysight Technologies Inc	N5182B	MY53050599	2022/06/15	12
DFS	SAT10-16	160494	Attenuator	Weinschel Corp.	54A-10	83420	2022/12/01	12
DFS	SAT10-23	204927	Attenuator	Weinschel Corp.	54A-10	109972	2022/02/21	12
DFS	SAT20-12	160495	Attenuator	Weinschel Corp.	54A-20	86752	2022/12/02	12
DFS	SAT20-13	160496	Attenuator	Weinschel Corp.	54A-20	87636	2022/12/02	12
DFS	SCC-G12	145040	Coaxial Cable	Suhner	SUCOFLEX 102	30790/2	2022/03/02	12
DFS	SCC-G24	145181	Coaxial Cable	Suhner	141PE	-	2022/07/05	12
DFS	SCC-G25	145182	Coaxial Cable	Suhner	141PE	-	2022/07/05	12
DFS	SCC-G67	196949	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	803480/2	2022/03/02	12
DFS	SCC-H25	202919	Microwave cable	RS Pro	R-132G7210 100CO	-	2022/11/11	12
DFS	SOS-27	191845	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2022/08/08	12
DFS	SPSC-14	157772	Power Splitters/Combiners	Mini-Circuits	ZFSC-2-10G-S+	-	2022/08/23	12
DFS	SPSC-15	157774	Power Splitters/Combiners	Mini-Circuits	ZFSC-2-10G-S+	-	2022/08/23	12
DFS	SRE-258	220894	Wireless LAN(11ac) station device	I-O DATA	WN-AC1300UA	127K010653VU	-	-
DFS	SSA-01	146223	Spectrum Analyzer	Keysight Technologies Inc	N9010A-526	MY48031482	2022/09/22	12
DFS	STM-G7	171614	Terminator	Weinschel - API Technologies Corp	M1459A	88995	2022/05/12	12
DFS	STM-G8	171615	Terminator	Weinschel - API Technologies Corp	M1459A	88997	2022/05/20	12
DFS	STS-05	146212	Digital Hitester	HIOKI E.E. CORPORATION	3805-50	80997828	2022/09/20	12

**\*Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.**

**The expiration date of the calibration is the end of the expired month.**

**As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.**

**All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.**

**Test item:**

**DFS: Dynamic Frequency Selection**