



RADIO TEST REPORT

Test Report No. : 31JE0038-HO-01-C

Applicant : **silex technology, Inc.**
Type of Equipment : **Wireless LAN PCI Express Mini Card Module**
Model No. : **SX-PCEAN**
FCC ID : **N6C-SXPCEAN**
Test regulation : **FCC Part 15 Subpart E: 2012
(DFS test only)**
Test Result : **Complied**

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of test: June 6 to July 24, 2012

Representative test engineer:

K Okai

Katsunori Okai
Engineer of WiSE Japan,
UL Verification Service

Approved by:

T. Hatakeda

Takahiro Hatakeda
Leader of WiSE Japan,
UL Verification Service



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SECTION 1: Customer information

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Contact Person : Toshiro Kometani

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Wireless LAN PCI Express Mini Card Module
Model No. : SX-PCEAN
Serial No. : Refer to Clause 5.2
Rating : DC3.3V
Receipt Date of Sample : April 5, 2012
Country of Mass-production : Japan
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No Modification by the test lab

2.2 Product Description

Model No: SX-PCEAN (referred to as the EUT in this report) is the Wireless LAN PCI Express Mini Card Module.

General Specification

Clock frequency(ies) in the system : 40MHz

Radio Specification

Radio Type : Transceiver
Method of Frequency Generation : Synthesizer
Power Supply (inner) : DC1.2V

	IEEE802.11b	IEEE802.11g	IEEE802.11a	IEEE802.11n (20 M band)	IEEE802.11n (40 M band)
Frequency of operation	2412-2462MHz	2412-2462MHz	5180-5320MHz *1) 5745-5825MHz	2412 - 2462MHz 5180-5320MHz *1) 5745-5825MHz	2422 - 2452MHz 5190 - 5310MHz *2) 5755 - 5795MHz
Type of modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (64QAM, 16QAM, QPSK, BPSK)	OFDM (64QAM, 16QAM, QPSK, BPSK)		
Channel spacing	5MHz		20MHz	<u>2.4GHz band</u> 5MHz <u>5GHz band</u> 20MHz	<u>2.4GHz band</u> 5MHz <u>5GHz band</u> 40MHz
Antenna type	Sleeve antenna (Omni-Directional)				
Antenna Gain: G _{ANT}	1.5dBi@2.4GHz Band, 2.1dBi@5GHz Band				
Directional Gain	4.51dBi@2.4GHz Band, 5.11dBi@5GHz Band (G _{ANT} + 10log2)				
Antenna Connector type	U.FL Alternative connector				

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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: 2012, final revised on August 13, 2012 and effective September 12, 2012

Title : FCC 47CFR Part15 Radio Frequency Device
Subpart E Unlicensed National Information Infrastructure Devices
Section 15.407 General technical requirements

* The revision on August 13, 2012 does not affect the test specification applied to the EUT.

Test Specification : FCC 06-96 APPENDIX
Title : COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-
NATIONAL INFORMATION INFRASTRUCTURE DEVICES
OPERATING IN THE 5250-5350 MHz AND 5470-5725MHz BANDS
INCORPORATING DYNAMIC FREQUENCY SELECTION

FCC 15.31 (e)

The RF Module has own regulator.

The RF Module is constantly provided voltage through own regulator regardless of input voltage (DC3.3V).

Therefore, this EUT complies with the requirement.

FCC Part 15.203/212 Antenna requirement

The EUT has a unique antenna connector (U.FL on the Module and Reverse SMA for Antenna itself).

Therefore the equipment complies with the requirement of 15.203/212.

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4.2 Procedures and results

Table 1: Applicability of DFS Requirements

Requirement	Operating Mode	Test Procedures & Limits	Deviation	Results
	Master			
U-NII Detection Bandwidth	Yes	FCC 06-96 Appendix 7.8.1	N/A	Complied
Channel Availability Check Time	Yes	FCC15.407 (h) FCC 06-96 Appendix 7.8.2.1 Appendix 7.8.2.2 Appendix 7.8.2.3 RSS-210 A9.3	N/A	Complied
Channel Move Time, Channel Closing Transmission Time	Yes	FCC15.407 (h) FCC 06-96 Appendix 7.8.3 RSS-210 A9.3	N/A	Complied
Non-Occupancy period	Yes	FCC15.407 (h) FCC 06-96 Appendix 7.8.3 RSS-210 A9.3	N/A	Complied
In-Service Monitoring	Yes	FCC15.407 (h) FCC 06-96 Appendix 7.8.4	N/A	Complied
Overlapping Channel Tests	Yes	FCC15.407 (h)	N/A	Complied*)

*) The test was not performed because the EUT meets the requirements by its specification.

(The EUT implements an automatic channel selection feature at startup such that operation commences on channels distributed across the entire set of allowed 5GHz channels. This feature will ensure uniform spreading is achieved while avoiding non-allowed channels due to prior radar events.)

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

Maximum Transmit Power	Value (See Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

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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 80% of the U-NII 99% transmission power bandwidth See Note 3
<p>Note 1: The instant that the Channel Move Time and the Channel Closing Transmission Time begins is as follows:</p> <ul style="list-style-type: none"> • For the Short Pulse Radar Test Signals this instant is the end of the <i>Burst</i>. • For the Frequency Hopping radar Test Signal, this instant is the end of the last radar <i>Burst</i> generated • For the Long Pulse Radar Test Signal this instant is the end of the 12 second period defining the <i>Radar Waveform</i>. <p>Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signal will not count quiet periods in between transmissions.</p> <p>Note 3: During the U-NII Detection Bandwidth detection test, radar type 1 is used and 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 (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
1	1	1428	18	60%	30
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

Table 5 Long Pulse Radar Test Waveform

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

4.3 Test Location

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	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	2973C-1	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	655103	2973C-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	148738	2973C-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.3 Preparation room
No.3 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	134570	2973C-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.4 Preparation room
No.4 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	-	6.0 x 6.0 x 3.9m	6.0 x 6.0m	-
No.6 shielded room	-	-	4.0 x 4.5 x 2.7m	4.75 x 5.4 m	-
No.6 measurement room	-	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-
No.9 measurement room	-	-	8.0 x 4.5 x 2.8m	2.0 x 2.0m	-
No.10 measurement room	-	-	2.6 x 2.8 x 2.5m	2.4 x 2.4m	-
No.11 measurement room	-	-	3.1 x 3.4 x 3.0m	2.4 x 3.4m	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

4.4 Uncertainty

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 Data of DFS test, Test instruments of DFS, Test set up

Refer to APPENDIX.

SECTION 5: Operation of E.U.T. during testing

5.1 Operating Modes

OVERVIEW WITH RESPECT TO 15.407(h) REQUIREMENTS

The EUT, which is a Master Device, operates over the 5250-5350MHz.

Power level(EIRP) of the EUT[dBm]

5250-5350MHz Band*	
Output Power (Min)	Output Power(Max)
12.76	19.34

*Refer to 31JE0038-HO-01-B, FCC Part 15E (FCC 15.407) report for other parts than DFS.

The only antenna assembly utilized with the EUT has a gain of 2.1dBi.

The rated output power of the Master unit is < 200mW(23dBm). 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 + 2.1=-58.9 dBm (threshold level + additional 1dB + antenna gain).

The EUT uses one transmitter connected to two 50-ohm coaxial antenna ports. Both antenna ports are connected to the test system via a power divider to perform conducted tests.

The Slave device associated with the EUT during these tests does not have radar detection capability.

WLAN traffic is generated by streaming the MPEG Test file "6 ½ Magic Hours" from the Master to the Client in full motion video mode using the media player with the V2.61 Codec package.

TPC is not required since the maximum EIRP is less than 500mW(27dBm).

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

Test results show that the EUT requires 17.2 seconds to complete its initial power-up cycle.

*Information on DFS controls (hardware and software) related to radar detection is not disclosed to users. Therefore, it is impossible for end users to control or change these.

Information of software used for the test:

- Name: Sagittarius Drv
- Version: Ver 9.1.0.309

MANUFACTURE'S STATEMENT REGARDING UNIFORM CHANNEL SPREADING

The end product implements an automatic channel selection feature at startup such that operation commences on channels distributed across the entire set of allowed 5GHz channels. This feature will ensure uniform spreading is achieved while avoiding non-allowed channels due to prior radar events.

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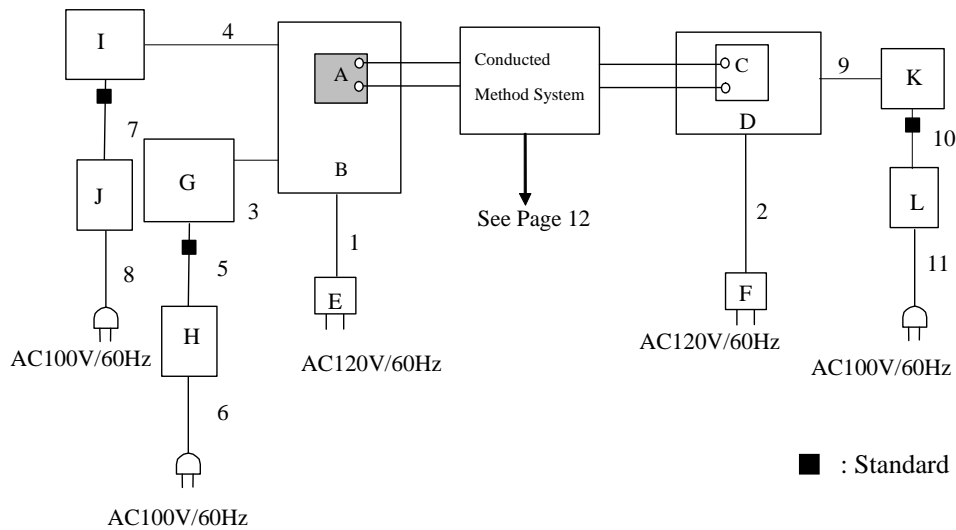
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5.2 Configuration and peripherals



Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Wireless LAN PCI Express Mini Card Module	SX-PCEAN	008092-01 2052	silex technology, Inc.	EUT
B	Network Display Adaptor	SX-ND4050G	-	silex technology, Inc.	-
C	Wireless LAN PCI Express Mini Card Module	SX-PCEAN	008092-01 205C	silex technology, Inc.	-
D	Network Display Adaptor	SX-ND4050G	-	silex technology, Inc.	-
E	AC Adaptor	WA-24E12	939839125	Asian Power Devices Inc	-
F	AC Adaptor	WA-24E12	0B9136183	Asian Power Devices Inc	-
G	Laptop PC	7661CB9	L3R2055	Lenovo	-
H	AC Adaptor	92P1213	11S92P1213Z1ZBGK7AH11F	Lenovo	-
I	Laptop PC	T23	97-ALT9W	IBM	-
J	AC Adaptor	02K6757	11S02K6750Z1Z2UP3561HY	IBM	-
K	Laptop PC	T61	L3R2056	Lenovo	-
L	AC Adaptor	92P1160	11S92P1160Z1ZBGH7B99A8	Lenovo	-

List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC Cable	1.5	Unshielded	Unshielded	-
2	DC Cable	1.5	Unshielded	Unshielded	-
3	LAN Cable	2.0	Unshielded	Unshielded	-
4	Serial Cable	4.8	Shielded	Shielded	-
5	DC Cable	1.8	Unshielded	Unshielded	-
6	AC Cable	0.9	Unshielded	Unshielded	-
7	DC Cable	1.8	Unshielded	Unshielded	-
8	AC Cable	0.9	Unshielded	Unshielded	-
9	LAN Cable	1.0	Unshielded	Unshielded	-
10	DC Cable	1.8	Unshielded	Unshielded	-
11	AC Cable	0.9	Unshielded	Unshielded	-

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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 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 8001 bins on the horizontal axis. A time-domain resolution of 2 msec/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. A time-domain resolution of 3 msec/bin is achievable with a 24 second sweep time, meeting the 22 second long pulse reporting criteria and allowing a minimum of 10 seconds after the end of the long pulse waveform.

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.

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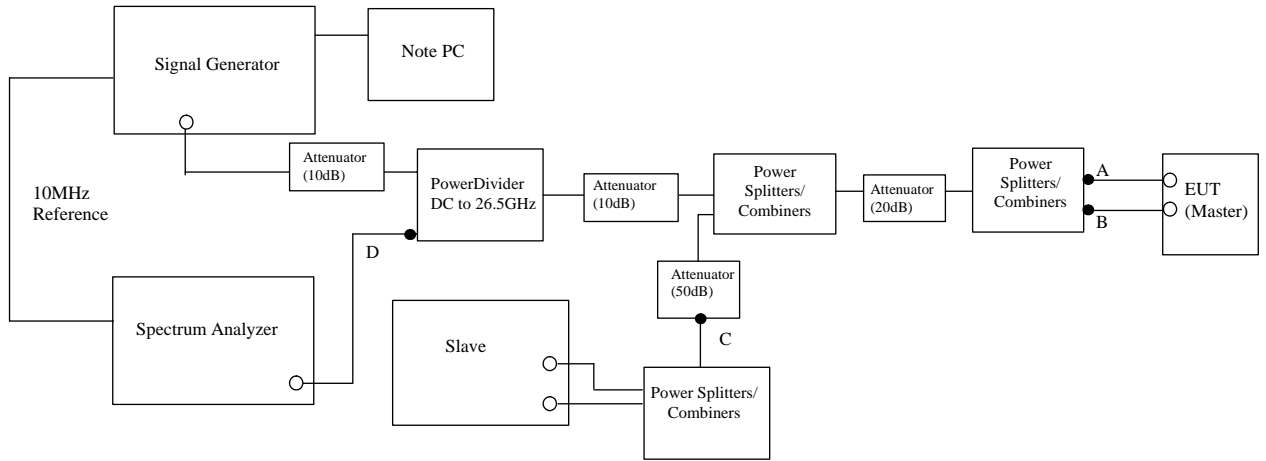
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CONDUCTED METHODS SYSTEM BLOCK DIAGRM



MEASUREMENT SYSTEM FREQUENCY REFERENCE

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

SYSTEM CALIBRATION

Step 1: Set the system as shown in Figure 2 of FCC 06-96 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 Master Device traffic level on the spectrum analyzer, and
- Slave Device traffic level is not displayed on the spectrum analyzer.

Step 3: Terminate at the points, B, C, and D and connect the spectrum analyzer to the point A. (See the figure on page 12) 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.

Terminate at the points A, C, and D and confirm at the point B if it has the same value as point A. If necessary, add the attenuator to make the same level.

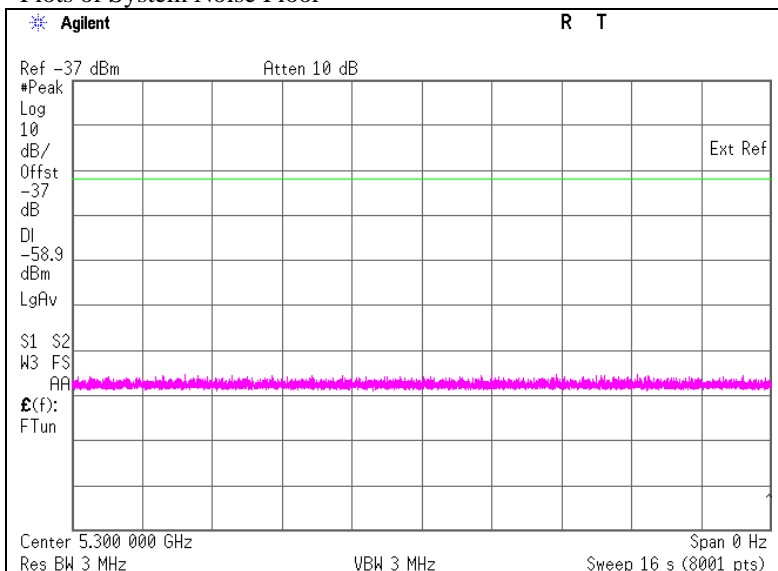
Step 4: Without changing any of the instrument settings, restore the system setting to Step 2 and adjust the Reference Level Offset of the spectrum analyzer to the level at Step 3.

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.

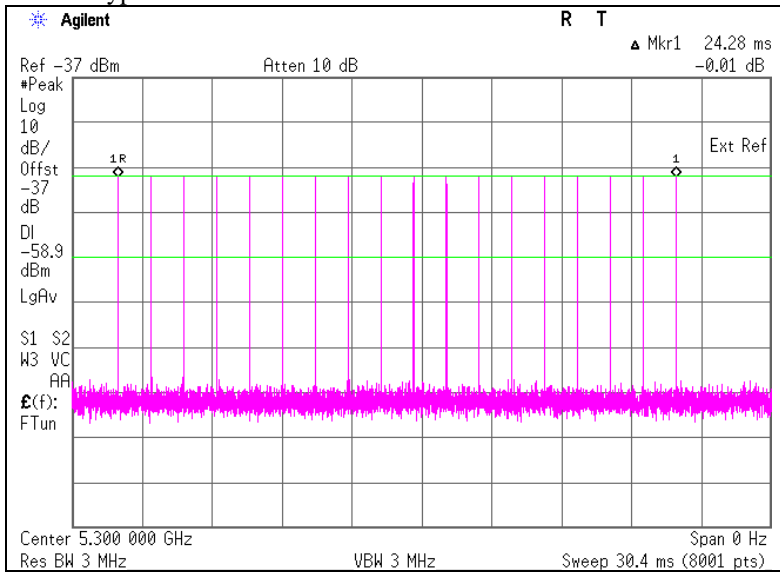
5.4 Plots of Noise, Rader Waveforms, and WLAN signals

Plots of System Noise Floor

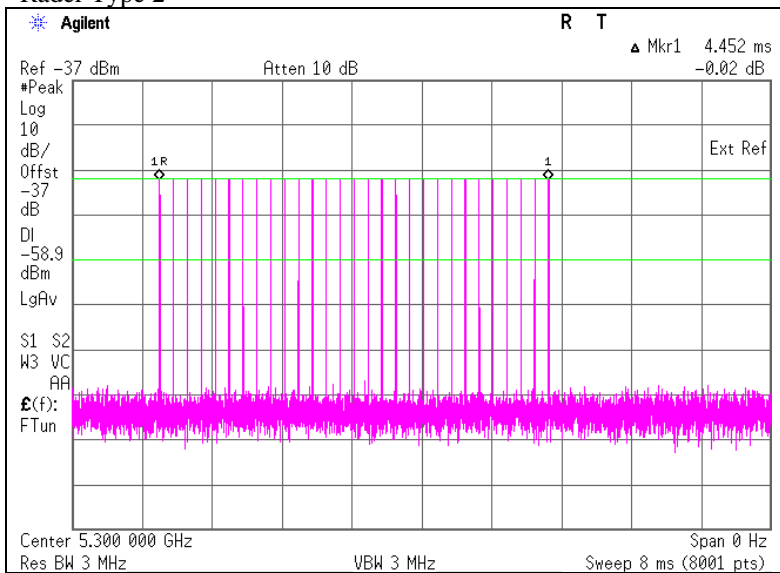


Plots of Radar Waveforms

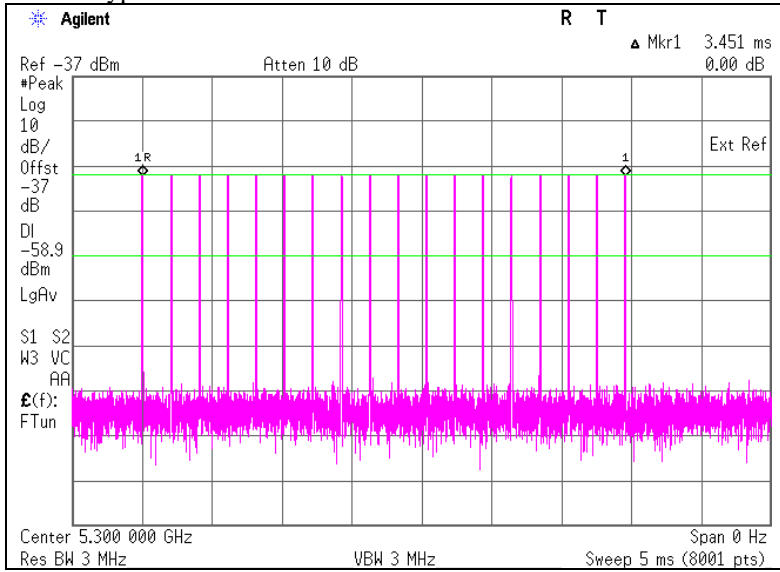
Rader Type 1



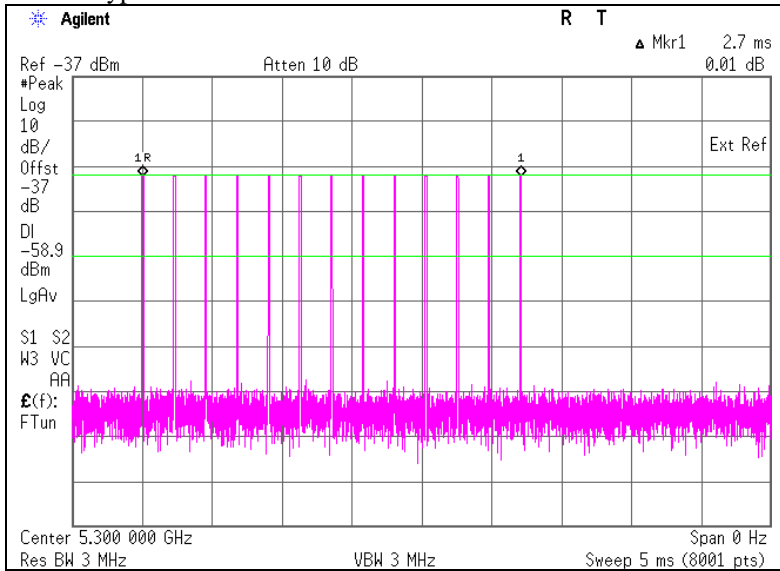
Rader Type 2



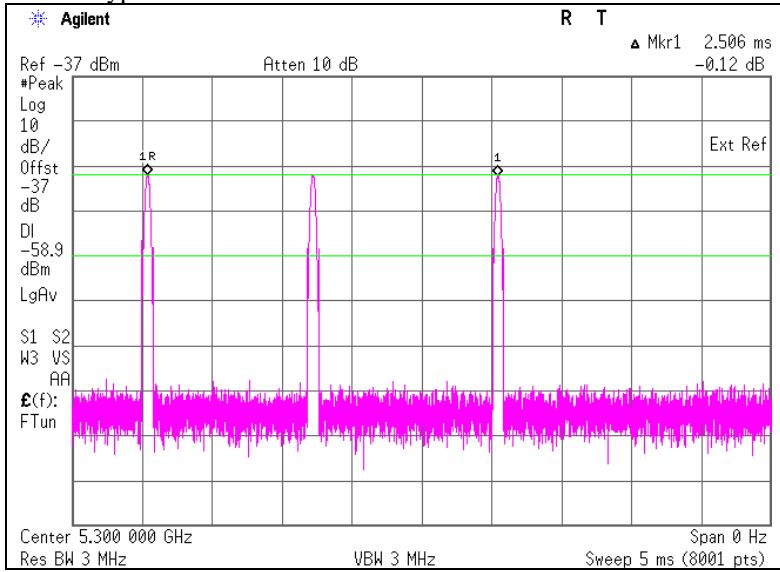
Rader Type 3



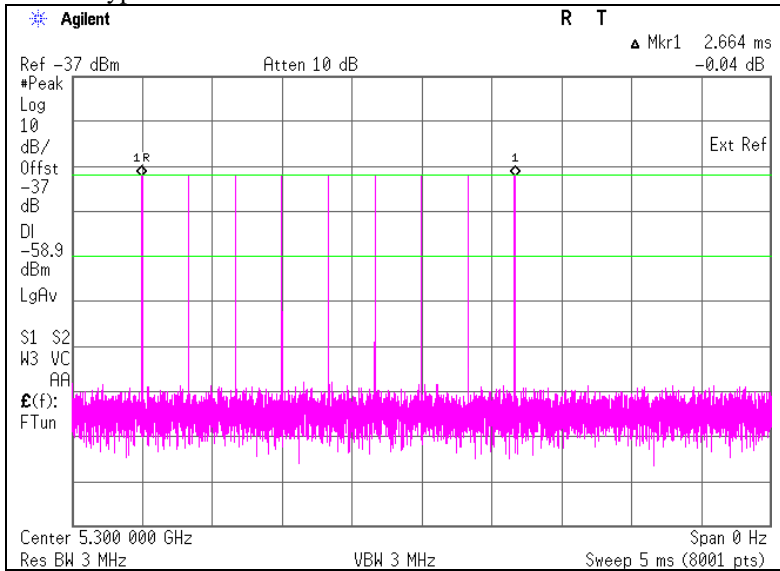
Rader Type 4



Rader Type 5



Rader Type 6



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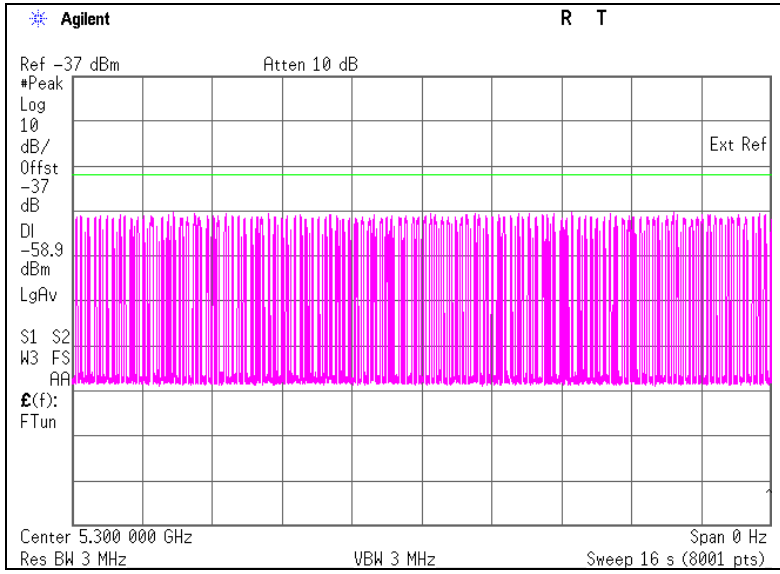
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Plots of WLAN Traffic



SECTION 6: U-NII Detection Bandwidth

6.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C
Humidity : 65 % RH

6.2 Test Procedure

Adjust the equipment to produce a single Burst of the Short Pulse Radar Type 1 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 of 0%/100% 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 using the specified U-NII Detection Bandwidth criterion.

Starting at the center frequency of the EUT operating Channel, increase the radar frequency in 1 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. 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 1 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.

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

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6.3 Test data

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 1

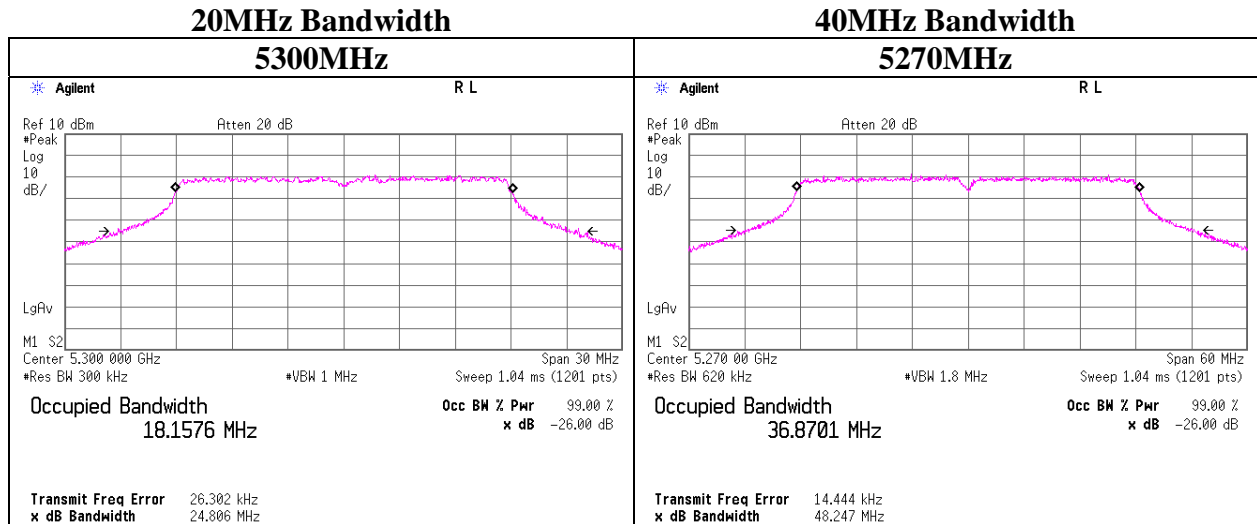
FL [MHz]	FH [MHz]	Detection Bandwidth [MHz]	99% Power Bandwidth [MHz]	Ratio of Detection BW to 99% Power BW [%]	Limit [%]	Results
5290	5310	20	18.1576	100	80	Pass

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 1

FL [MHz]	FH [MHz]	Detection Bandwidth [MHz]	99% Power Bandwidth [MHz]	Ratio of Detection BW to 99% Power BW [%]	Limit [%]	Results
5250	5290	40	36.8701	100	80	Pass

99% Occupied Bandwidth



6.4 Test result

Test result: Pass

Date : July 24, 2012

Test engineer : Katsunori Okai

SECTION 7: Initial Channel Availability Check Time

7.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C.
Humidity : 65 % RH

7.2 Test Procedure

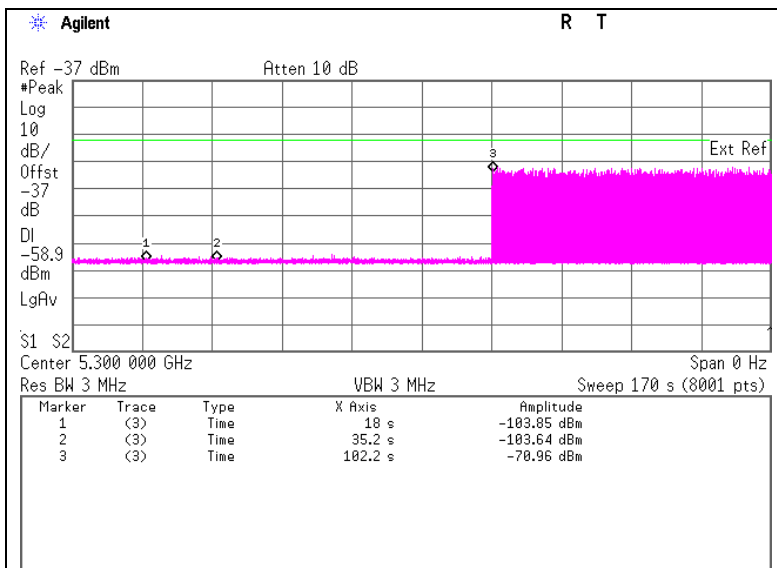
The Initial Channel Availability Check Time tests that the EUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel.

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 a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.

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



Marker 1 : EUT Power On : 18.0 sec
Marker 2 : End of Initial Power-up cycle & Start of CAC : 35.2 sec
Marker 3 : End of CAC : 102.2 sec
Channel Availability Check Time : 67.0 sec

7.4 Test result

Test result: Pass

Date : July 24, 2012

Test engineer : Katsunori Okai

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

8.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C.
Humidity : 65 % RH

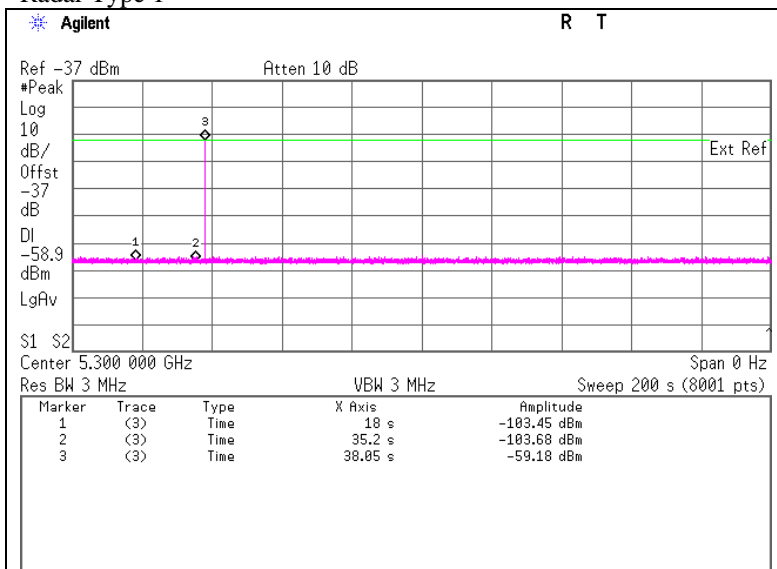
8.2 Test Procedure

A single Burst of one of the Short Pulse Radar Types 1-4 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 minute measurement window no EUT transmissions occurred on Chr.

8.3 Test data

Radar Type 1



Marker 1 : EUT Power On : 18.0 sec
Marker 2 : End of Initial Power-up cycle & Start of CAC : 35.2 sec
Marker 3 : Radar Signal(Type 1) applied : 38.05 sec

8.4 Test result

Test result: Pass

Date :July 24, 2012

Test engineer : Katsunori Okai

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

9.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C.
Humidity : 65 % RH

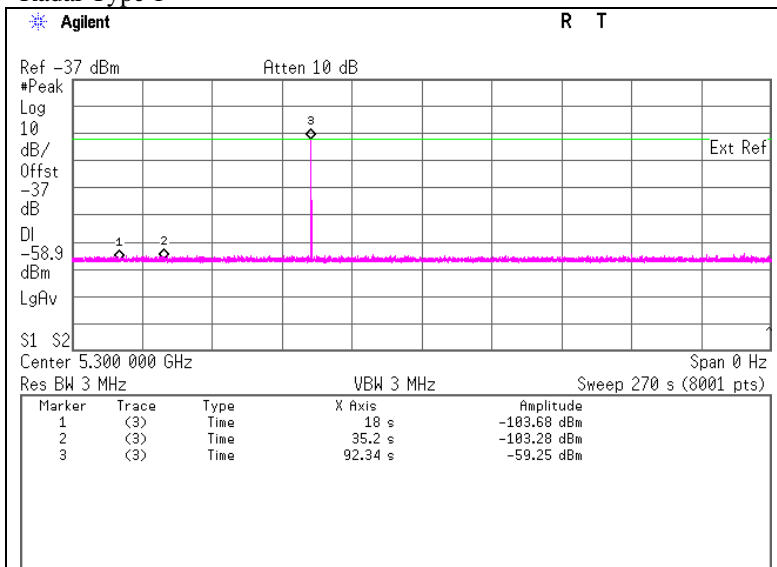
9.2 Test Procedure

A single Burst of one of the Short Pulse Radar Types 1-4 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 minute measurement window no EUT transmissions occurred on Chr.

9.3 Test data

Radar Type 1



Marker 1 : EUT Power On : 18.0 sec
Marker 2 : End of Initial Power-up cycle & Start of CAC : 35.2 sec
Marker 3 : Radar Signal(Type 1) applied : 92.34 sec

9.4 Test result

Test result: Pass

Date :July 24, 2012

Test engineer : Katsunori Okai

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SECTION 10: Channel Move Time, Channel Closing Transmission Time

10.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C.
Humidity : 65 % RH

10.2 Test Procedure

Stream the MPEG test file 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 Short Pulse Radar Types 1-4 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

Test Item	Unit	Measuremnt Time				Limit	Results
		Radar Type 1	Radar Type 2	Radar Type 3	Radar Type 4		
Channel Move Time *1)	[sec]	0.436	0.482	0.524	0.448	10.000	Pass
Channel Closing Transmission Time *2)	[msec]	6	14	12	8	60	Pass

*1) Channel Move Time is calculated as follows:

$$(\text{Channel Move Time}) = (\text{End of Transmission}) - (\text{End of Burst})$$

*2) Channel Closing Transmission Time is calculated from (End of Burst + 200msec) to (End of Burst + 10sec)

$$(\text{Channel Closing Transmission Time}) = (\text{Number of analyzer bins showing transmission}) * (\text{dwell time per bin})$$

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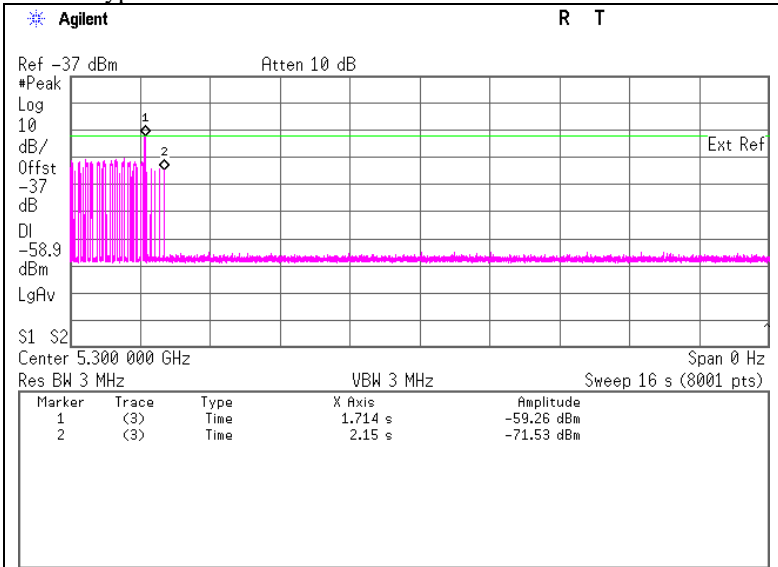
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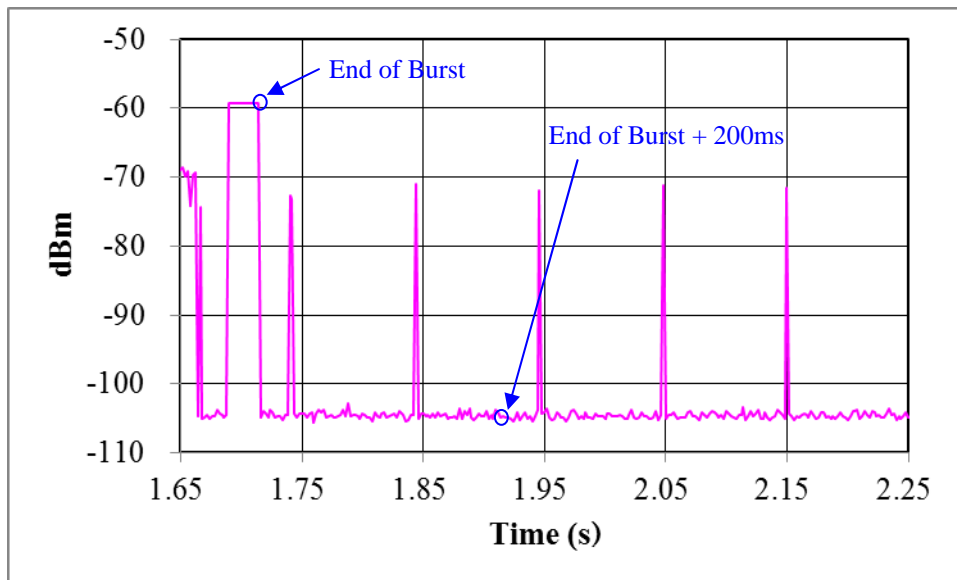
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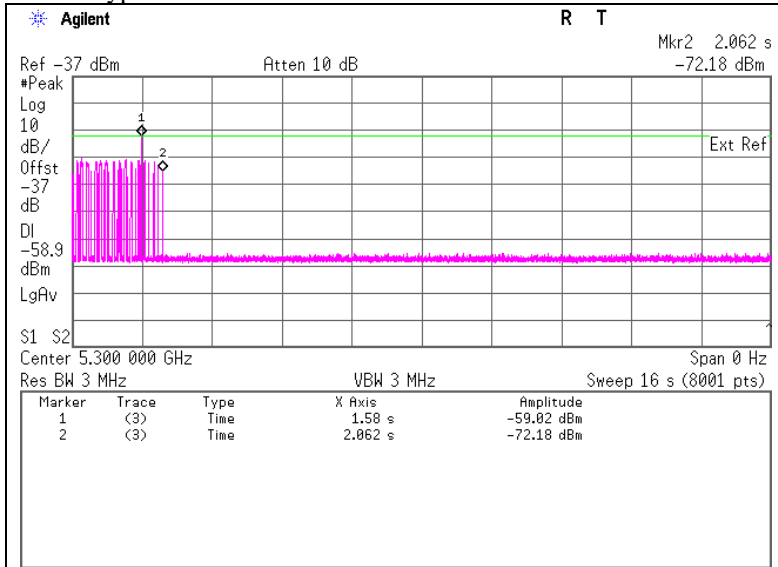
Radar Type 1



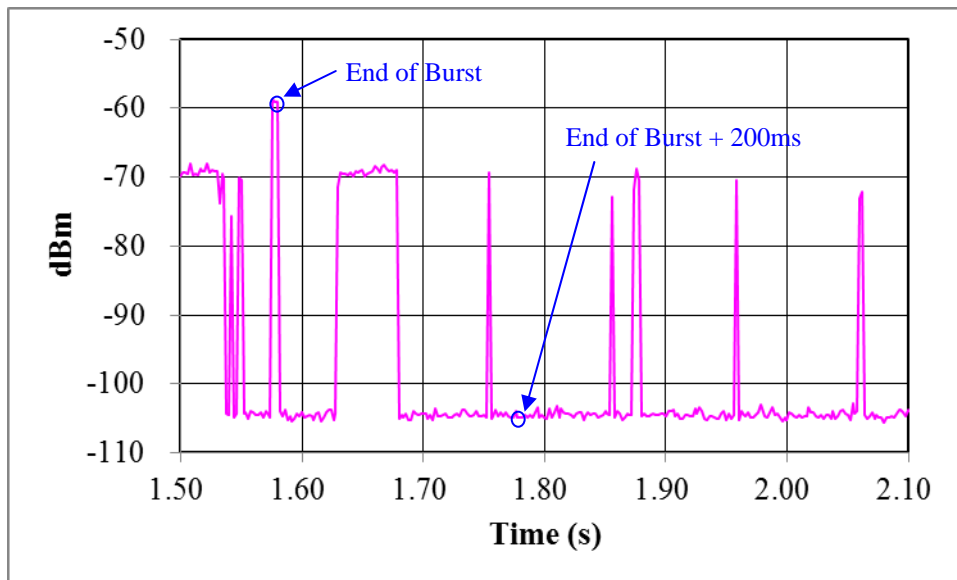
Marker 1 : End of Burst : 1714 ms
Marker 2 : End of Transmission : 2150 ms



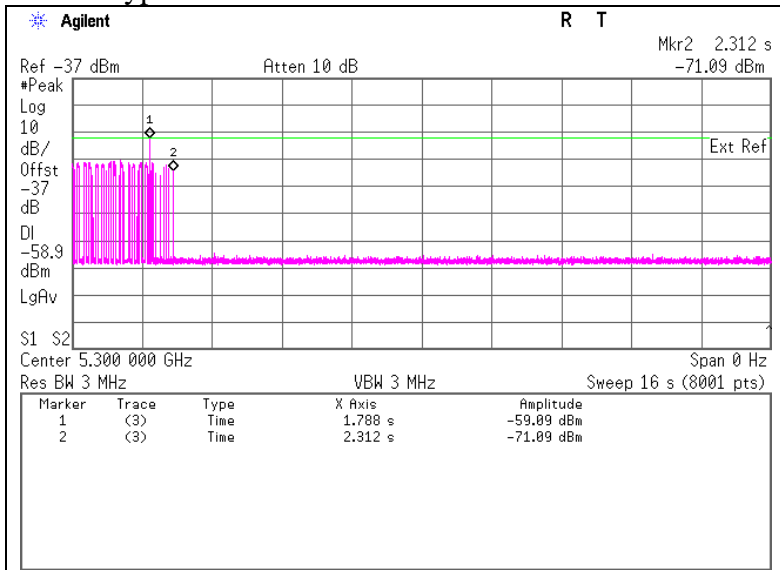
Radar Type 2



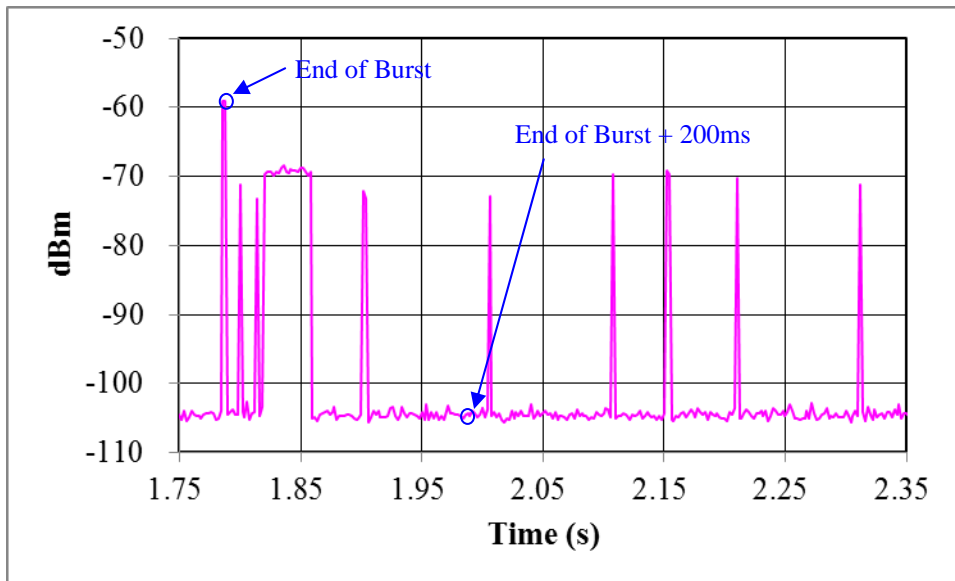
Marker 1 : End of Burst : 1580 ms
Marker 2 : End of Transmission : 2062 ms



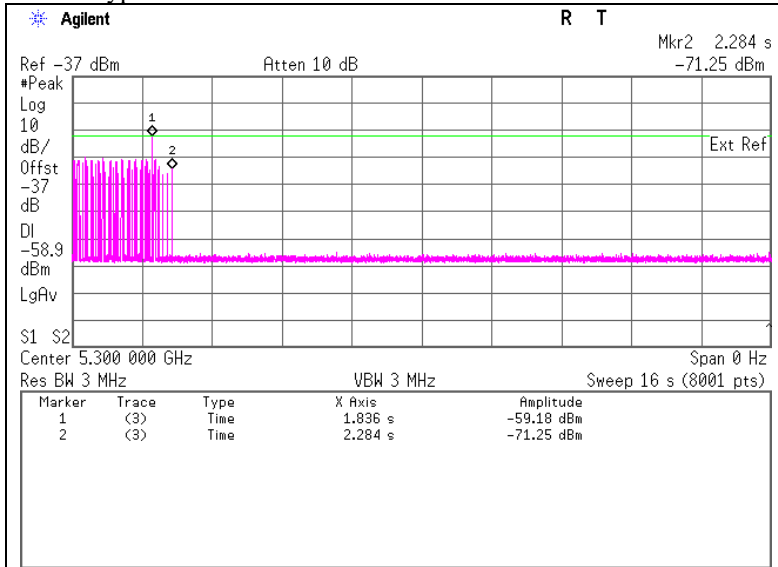
Radar Type 3



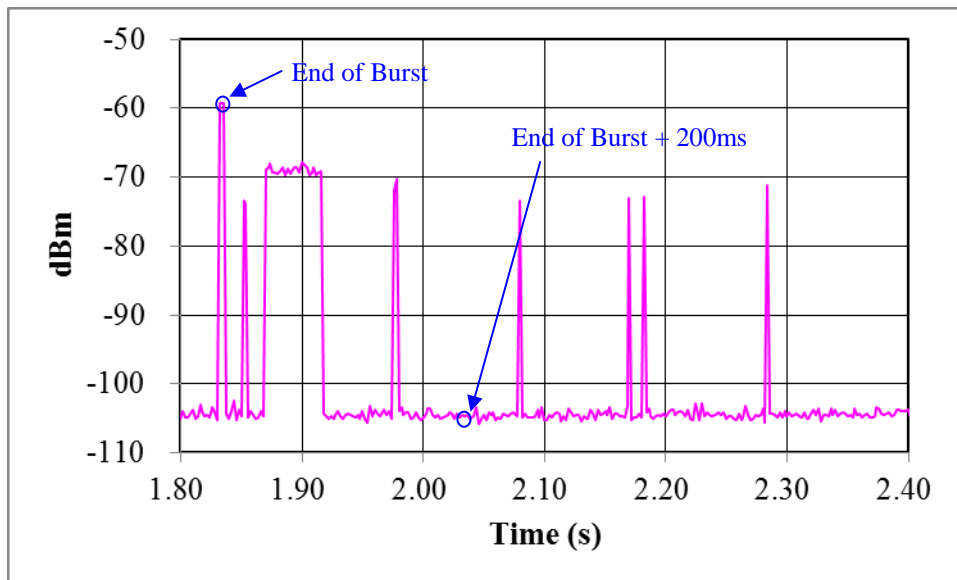
Marker 1 : End of Burst : 1788 ms
Marker 2 : End of Transmission : 2312 ms



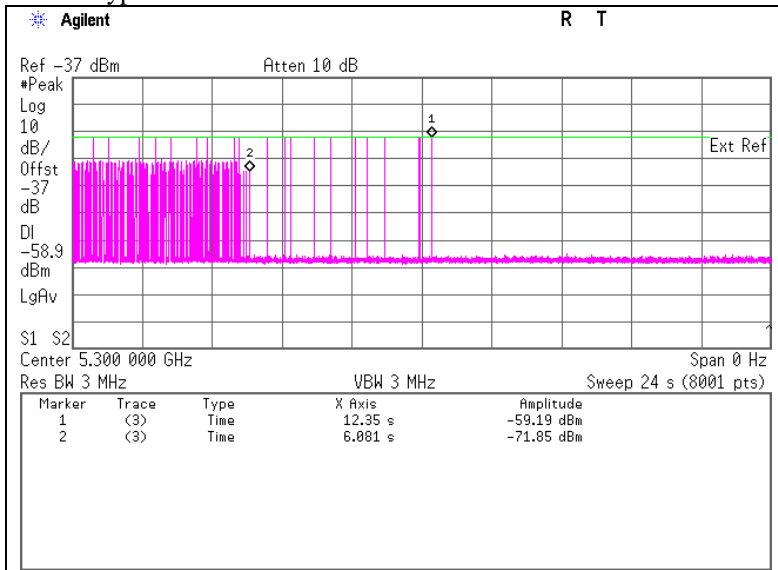
Radar Type 4



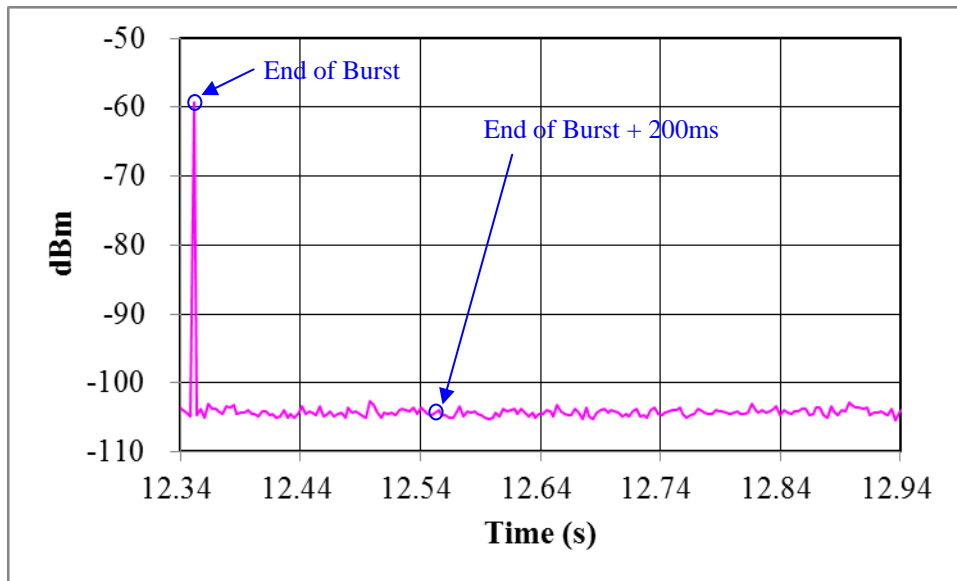
Marker 1 : End of Burst : 1836 ms
Marker 2 : End of Transmission : 2284 ms



Radar Type 5



Marker 1 : End of Burst : 12350 ms
Marker 2 : End of Transmission : 6081 ms



10.4 Test result

Test result: Pass
 Date : July 24, 2012

Test engineer : Katsunori Okai

SECTION 11: Non-Occupancy Period

11.1 Operating environment

Test place : No.6 measurement room
Temperature : 24 deg.C.
Humidity : 65 % RH

11.2 Test Procedure

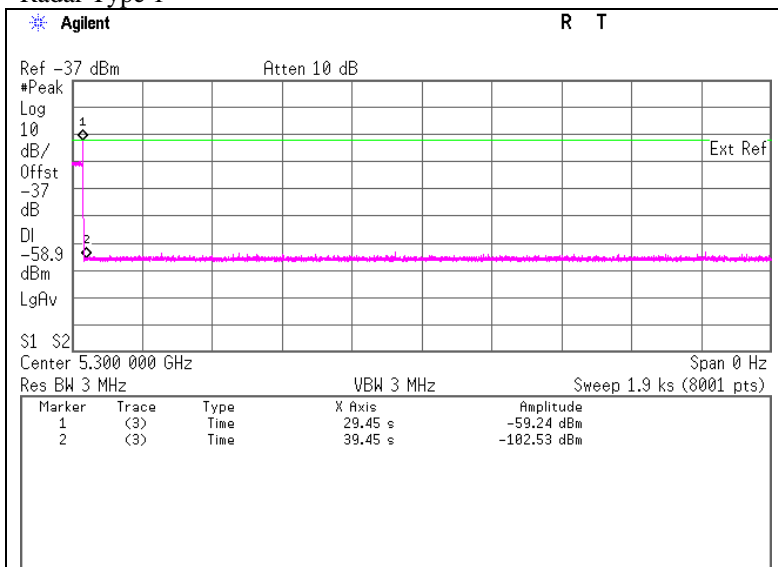
Stream the MPEG test file from the Master Device to the Client Device on the test Channel for the entire period of the test.

The Radar Waveform generator sends a Burst of pulses for one of the Radar Types 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.

Monitor the EUT for more than 30 minutes following End of Channel Move Time to verify that the EUT does not resume any transmissions on this Channel.

11.3 Test data

Radar Type 1



Marker 1 : End of Burst : 29.45 sec
Marker 2 : End of Burst +10sec : 39.45 sec

11.4 Test result

Test result: Pass

Date : July 24, 2012

Test engineer : Katsunori Okai

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

12.1 Operating environment

Test place	No.11 measurement room	
Test Date	June 6, 2012	June 29, 2012
Temperature	22 deg.C	23 deg.C
Humidity	68 % RH	61 % RH

12.2 Test Procedure

Stream the MPEG test file 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 1dB 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 EUT and PC connected to EUT

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12.3 Test data

5300MHz (20MHz Bandwidth)

Radar Type	Number of Trials	Number of Successful Detections	Percentage of Successful Detections [%]	Limit [%]	Results
1	30	28	93.33	60	Pass
2	30	26	86.67	60	Pass
3	30	22	73.33	60	Pass
4	30	28	93.33	60	Pass
Aggregate of 1 to 4	-	-	86.67	80	Pass
5	30	30	100.00	80	Pass
6	30	28	93.33	70	Pass

5270MHz (40MHz Bandwidth)

Radar Type	Number of Trials	Number of Successful Detections	Percentage of Successful Detections [%]	Limit [%]	Results
1	30	28	93.33	60	Pass
2	30	26	86.67	60	Pass
3	30	26	86.67	60	Pass
4	30	26	86.67	60	Pass
Aggregate of 1 to 4	-	-	88.33	80	Pass
5	30	29	96.67	80	Pass
6	30	30	100.00	70	Pass

12.4 Test result

Test result: Pass

Date : June 6 and 29, 2012

Test engineer : Katsunori Okai

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APPENDIX 1: Data of DFS test

U-NII Detection Bandwidth

5300MHz (20MHz Bandwidth)

Frequency [MHz]	Number of Trials [Times]	Number of Detected [Times]	Ratio of Detected [%]	Mark
5290	10	10	100	FL
5291	10	10	100	
5292	10	10	100	
5293	10	10	100	
5294	10	10	100	
5295	10	10	100	
5296	10	10	100	
5297	10	10	100	
5298	10	10	100	
5299	10	10	100	
5300	10	10	100	
5301	10	10	100	
5302	10	10	100	
5303	10	10	100	
5304	10	10	100	
5305	10	10	100	
5306	10	10	100	
5307	10	10	100	
5308	10	10	100	
5309	10	10	100	
5310	10	10	100	FH

U-NII Detection Bandwidth

5270MHz (40MHz Bandwidth)

Frequency [MHz]	Number of Trials [Times]	Number of Detected [Times]	Ratio of Detected [%]	Mark
5250	10	10	100	FL
5251	10	10	100	
5252	10	10	100	
5253	10	10	100	
5254	10	10	100	
5255	10	10	100	
5256	10	10	100	
5257	10	10	100	
5258	10	10	100	
5259	10	10	100	
5260	10	10	100	
5261	10	10	100	
5262	10	10	100	
5263	10	10	100	
5264	10	10	100	
5265	10	10	100	
5266	10	10	100	
5267	10	10	100	
5268	10	10	100	
5269	10	10	100	
5270	10	10	100	
5271	10	10	100	
5272	10	10	100	
5273	10	10	100	
5274	10	10	100	
5275	10	10	100	
5276	10	10	100	
5277	10	10	100	
5278	10	10	100	
5279	10	10	100	
5280	10	10	100	
5281	10	10	100	
5282	10	10	100	
5283	10	10	100	
5284	10	10	100	
5285	10	10	100	
5286	10	10	100	
5287	10	10	100	
5288	10	10	100	
5289	10	10	100	
5290	10	10	100	FH

Statistical Performance Check (Radar Type 1)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 1

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	No
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	No
27	Yes
28	Yes
29	Yes
30	Yes

Statistical Performance Check (Radar Type 1)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 1

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	No
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	No
29	Yes
30	Yes

Statistical Performance Check (Radar Type 2)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 2

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	29	2.8	159	Yes
2	26	1.9	177	No
3	24	2.5	222	Yes
4	27	1.7	206	Yes
5	25	1.2	230	Yes
6	26	4.4	204	Yes
7	29	3.2	212	Yes
8	23	4.1	197	Yes
9	26	3.5	210	Yes
10	25	3.7	189	Yes
11	24	1.7	210	Yes
12	28	3.4	217	Yes
13	24	4.2	227	Yes
14	27	4.9	155	Yes
15	29	3.3	183	Yes
16	25	4.7	185	No
17	23	4.7	224	Yes
18	28	2.9	217	Yes
19	29	1.2	217	No
20	23	4.7	218	Yes
21	24	1.8	228	Yes
22	25	2.4	211	Yes
23	25	4.1	179	Yes
24	26	3.8	152	No
25	28	4.2	161	Yes
26	26	2.2	152	Yes
27	27	2.2	198	Yes
28	26	3.0	150	Yes
29	23	2.6	169	Yes
30	26	4.2	191	Yes

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Statistical Performance Check (Radar Type 2)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 2

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	29	4.9	202	Yes
2	23	2.2	168	Yes
3	26	1.2	169	Yes
4	24	2.3	197	Yes
5	27	2.7	199	Yes
6	26	1.8	167	Yes
7	24	3.3	230	Yes
8	29	4.7	179	Yes
9	28	5.0	217	Yes
10	23	4.9	171	Yes
11	27	1.8	210	Yes
12	28	3.5	152	Yes
13	25	1.6	190	Yes
14	25	2.1	214	Yes
15	27	3.3	220	Yes
16	29	4.1	206	Yes
17	26	4.6	156	Yes
18	26	3.1	160	No
19	27	1.4	209	No
20	28	2.3	230	Yes
21	27	1.3	175	Yes
22	28	2.2	207	Yes
23	24	4.6	190	Yes
24	25	3.5	208	Yes
25	26	2.7	196	Yes
26	27	1.3	179	Yes
27	24	2.8	229	No
28	28	3.8	219	Yes
29	28	2.6	194	No
30	28	4.1	227	Yes

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Statistical Performance Check (Radar Type 3)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 3

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	18	7.8	203	Yes
2	17	9.4	223	Yes
3	18	9.9	392	No
4	17	9.1	251	Yes
5	16	7.3	397	Yes
6	16	6.3	335	No
7	16	6.4	427	No
8	17	10.0	222	Yes
9	17	6.7	471	Yes
10	17	7.3	455	No
11	17	9.9	304	Yes
12	17	8.5	335	Yes
13	17	7.8	308	Yes
14	16	7.8	400	No
15	17	9.3	373	Yes
16	18	6.4	432	Yes
17	16	6.9	369	No
18	17	6.9	260	No
19	16	8.1	401	Yes
20	18	6.1	311	Yes
21	17	7.8	272	Yes
22	17	9.2	251	Yes
23	17	6.6	457	Yes
24	18	7.0	206	No
25	17	8.3	384	Yes
26	17	9.8	307	Yes
27	16	9.0	348	Yes
28	17	8.0	483	Yes
29	18	6.3	238	Yes
30	16	6.8	368	Yes

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Statistical Performance Check (Radar Type 3)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 3

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	17	8.5	447	Yes
2	16	8.5	404	Yes
3	18	6.8	425	Yes
4	16	9.2	350	Yes
5	18	9.7	406	No
6	18	8.8	342	Yes
7	16	7.7	252	Yes
8	16	7.1	282	Yes
9	17	8.0	334	Yes
10	17	8.0	332	Yes
11	16	8.7	430	Yes
12	18	8.1	442	No
13	18	8.1	286	Yes
14	16	9.5	422	Yes
15	16	9.1	476	Yes
16	16	7.8	487	Yes
17	17	7.0	402	Yes
18	17	6.8	293	Yes
19	17	9.3	222	Yes
20	18	8.1	249	Yes
21	16	9.1	299	Yes
22	18	6.3	406	No
23	17	7.4	484	Yes
24	18	9.6	441	Yes
25	18	7.3	299	Yes
26	16	8.6	453	Yes
27	18	8.7	266	Yes
28	18	8.9	385	Yes
29	16	6.7	368	No
30	18	7.6	289	Yes

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Statistical Performance Check (Radar Type 4)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 4

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	13	11.3	225	Yes
2	16	18.0	303	Yes
3	16	11.9	244	Yes
4	13	12.0	266	Yes
5	15	12.5	492	Yes
6	16	11.7	281	Yes
7	14	17.3	412	Yes
8	14	16.4	217	No
9	15	12.6	360	Yes
10	15	15.4	487	Yes
11	13	11.5	366	Yes
12	12	17.1	236	Yes
13	14	17.7	299	Yes
14	15	17.8	472	Yes
15	14	19.2	406	Yes
16	15	19.1	317	Yes
17	15	14.6	436	Yes
18	15	14.3	438	Yes
19	16	16.4	404	Yes
20	13	15.1	388	Yes
21	12	14.9	294	Yes
22	14	14.7	263	Yes
23	16	13.5	469	Yes
24	14	11.7	243	Yes
25	12	18.2	487	Yes
26	14	19.0	421	Yes
27	13	20.1	203	Yes
28	16	14.4	333	No
29	12	16.4	344	Yes
30	12	12.6	494	Yes

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Statistical Performance Check (Radar Type 4)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 4

Trial #	Number Pulses per Burst	Pulse Width [us]	PRI [us]	Successful Detection (Yes/No)
1	14	11.7	269	Yes
2	13	11.9	274	Yes
3	13	12.8	487	Yes
4	15	13.7	327	Yes
5	12	11.9	346	Yes
6	16	11.0	232	Yes
7	15	19.7	391	Yes
8	16	17.3	222	Yes
9	13	19.8	215	No
10	16	13.8	413	Yes
11	12	13.8	353	Yes
12	16	18.3	425	Yes
13	16	12.3	294	Yes
14	14	11.2	232	Yes
15	12	11.5	478	Yes
16	16	11.7	222	Yes
17	15	19.8	294	No
18	13	11.2	262	Yes
19	14	18.4	465	No
20	15	17.4	354	Yes
21	12	12.7	423	Yes
22	15	20.3	394	Yes
23	15	18.8	263	Yes
24	13	11.5	378	Yes
25	15	19.8	321	Yes
26	15	17.6	462	No
27	16	15.4	334	Yes
28	14	11.2	201	Yes
29	12	14.8	280	Yes
30	13	14.6	271	Yes

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Statistical Performance Check (Radar Type 5)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 5

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

Statistical Performance Check (Radar Type 5)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 5

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	No
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

Statistical Performance Check (Radar Type 6)

5300MHz (20MHz Bandwidth)

Waveform : Radar Type 6

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	No
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	No
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

Statistical Performance Check (Radar Type 6)

5270MHz (40MHz Bandwidth)

Waveform : Radar Type 6

Trial #	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

Parameter Data for Radar Type 5

5300MHz (20MHz Bandwidth)

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
1	1	3	78	9	1183	1323	305687
	2	2	67	15	1889		63741
	3	3	75	13	1607	1570	570583
	4	3	100	18	1746	1115	598119
	5	3	67	14	1906	1533	6437
	6	3	95	15	1880	1518	84764
	7	1	68	11			442850
	8	3	67	18	1344	1116	408844
	9	2	82	6	1897		42636
	10	2	58	17	1584		371683
	11	3	80	11	1459	1377	3085
	12	3	76	10	1565	1718	341303
	13	3	94	18	1307	1191	111037
	14	1	72	14			235705
	15	3	54	13	1733	1726	239748
	16	1	90	15			534894
	17	3	94	17	1538	1482	559393
	18	3	64	19	1329	1813	377133
	19	2	86	17	1711		425597

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
2	1	2	86	10	1000		307698
	2	1	93	11			257154
	3	3	91	13	1942	1577	540635
	4	3	50	15	1317	1704	312681
	5	3	87	19	1451	1945	451147
	6	3	68	5	1130	1572	351468
	7	3	85	17	1689	1638	576322
	8	3	82	11	1604	1656	560573
	9	1	93	10			460279
	10	1	51	12			313191
	11	3	63	12	1300	1865	158467
	12	3	100	17	1741	1539	172358
	13	2	92	9	1854		191970
	14	1	68	6			267733
	15	1	87	13			370930
	16	3	72	8	1160	1852	425783
	17	3	54	10	1271	1102	70662
	18	2	71	14	1769		324239
	19	1	58	14			431144
	20	1	96	18			17207

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
3	1	3	86	18	1057	1253	70139
	2	2	64	8	1666		47667
	3	1	71	20			189471
	4	1	84	9			408194
	5	2	87	10	1322		518917
	6	3	72	15	1623	1217	598417
	7	3	51	12	1773	1798	94558
	8	3	98	9	1060	1221	356592
	9	3	73	19	1879	1293	578294
	10	1	79	15			433330
	11	2	79	18	1763		461688
	12	1	57	5			354109
	13	3	54	20	1712	1339	369614
	14	3	89	14	1747	1385	36974
	15	1	85	14			250190
	16	3	66	13	1340	1562	491785
	17	2	77	5	1989		490116
	18	1	74	19			442424

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
4	1	3	90	15	1853	1815	386012
	2	2	69	9	1586		703672
	3	2	98	12	1183		434529
	4	1	61	15			284640
	5	3	54	18	1413	1228	612261
	6	1	76	15			725132
	7	1	74	12			146454
	8	2	62	8	1080		650756
	9	3	93	9	1169	1086	715575
	10	1	54	16			565148
	11	3	82	16	1720	1660	583729
	12	1	96	19			658521
	13	2	57	10	1107		728549
	14	3	89	7	1910	1307	133097
	15	2	88	16	1954		97900
	16	3	87	5	1382	1900	135069

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
5	1	3	76	11	1672	1589	481510
	2	2	98	6	1494		641696
	3	3	89	20	1065	1093	622557
	4	1	76	20			314698
	5	2	90	9	1955		538934
	6	3	78	14	1298	1857	646779
	7	2	66	17	1249		307881
	8	3	83	18	1339	1145	195456
	9	3	99	6	1427	1088	37587
	10	2	81	5	1800		556395
	11	1	62	14			81586
	12	3	67	8	1498	1815	524969
	13	1	83	8			235710
	14	3	73	20	1796	1330	108775
	15	3	95	18	1020	1273	681020

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
6	1	3	55	18	1624	1180	557923
	2	2	60	17	1828		177590
	3	3	81	19	1469	1827	103073
	4	1	91	16			389858
	5	3	100	5	1525	1534	140821
	6	3	71	8	1640	1578	425984
	7	2	72	13	1197		767489
	8	2	68	18	1546		322871
	9	3	53	10	1294	1964	226041
	10	1	52	13			201999
	11	2	92	14	1026		144061
	12	2	67	19	1370		625688
	13	1	62	19			493486
	14	1	63	20			184444
	15	1	61	7			309225

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
7	1	2	59	13	1000		169102
	2	3	65	5	1845	1084	752664
	3	1	57	11			703368
	4	1	94	9			1235287
	5	3	63	8	1692	1779	1053394
	6	2	52	14	1506		824116
	7	1	61	8			965919
	8	2	95	7	1541		286347

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
8	1	1	68	18			845
	2	2	55	9	1629		198771
	3	2	81	14	1732		1241815
	4	1	90	9			498282
	5	2	65	10	1226		1065185
	6	2	90	5	1122		571462
	7	1	56	7			286307
	8	1	90	5			191728
	9	3	78	20	1381	1339	544

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
9	1	1	89	7			321
	2	2	82	18	1323		188446
	3	2	84	12	1411		402932
	4	1	67	18			446016
	5	2	60	16	1802		390786
	6	3	50	14	1663	1048	453634
	7	1	94	5			269846
	8	1	77	16			49785
	9	2	73	16	1946		304852
	10	1	95	11			161933
	11	1	69	8			79734
	12	3	55	5	1432	1365	71931
	13	2	70	8	1632		648298
	14	2	82	10	1331		90793
	15	1	76	13			196256
	16	3	72	10	1254	1424	253795
	17	1	88	13			638909
	18	2	77	6	1607		654022

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
10	1	3	76	8	1423	1466	358557
	2	2	76	17	1905		578271
	3	3	51	9	1305	1439	431229
	4	1	91	9			19609
	5	2	87	12	1076		713038
	6	1	78	15			248664
	7	1	59	17			177701
	8	2	64	6	1568		640010
	9	3	98	15	1678	1275	412106
	10	3	59	6	1585	1930	760462
	11	3	64	10	1688	1312	543734
	12	3	99	10	1919	1566	232929
	13	3	62	8	1859	1042	549574
	14	2	82	17	1910		162171
	15	2	83	13	1603		539776

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
11	1	3	54	18	1505	1269	74364
	2	2	89	5	1222		353746
	3	1	84	16			48196
	4	3	79	16	1748	1882	171981
	5	1	52	15			122634
	6	1	78	14			489451
	7	3	97	18	1345	1007	208550
	8	2	88	7	1751		404308
	9	1	93	9			560755
	10	1	55	8			285755
	11	3	92	5	1045	1872	565743
	12	1	84	20			179733
	13	2	51	14	1622		631712
	14	3	56	15	1866	1731	112843
	15	3	70	11	1393	1745	237066
	16	1	71	6			386165
	17	2	81	16	1112		147240
	18	1	83	9			168798

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
12	1	3	53	15	1290	1469	1258285
	2	2	85	19	1565		1172189
	3	1	95	11			1128210
	4	2	53	16	1234		860222
	5	3	50	17	1349	1663	520204
	6	1	75	13			1090739
	7	2	70	18	1304		963655
	8	3	82	11	1074	1723	78794
	9	2	85	17	1573		689617

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
13	1	3	98	14	1956	1965	447828
	2	2	58	9	1003		983825
	3	1	82	10			596763
	4	3	59	8	1767	1988	997002
	5	1	96	10			1278417
	6	1	86	8			174914
	7	3	86	7	1112	1029	78996
	8	3	82	7	1522	1654	531232
	9	1	52	6			1282022

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
14	1	3	97	13	1764	1613	133065
	2	1	90	19			308048
	3	1	51	18			113390
	4	1	50	17			365482
	5	3	69	13	1186	1781	379350
	6	2	97	11	1556		427910
	7	3	53	5	1491	1170	13178
	8	2	78	18	1171		388788
	9	3	87	19	1912	1395	267439
	10	1	80	11			370918
	11	1	96	9			598320
	12	1	100	20			44143
	13	2	52	9	1119		562832
	14	1	99	14			252468
	15	2	70	14	1788		579951
	16	1	57	5			271833
	17	1	100	18			475855
	18	2	58	20	1532		483257
	19	1	55	19			125078

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
15	1	3	58	18	1421	1971	689413
	2	3	57	10	1501	1334	586092
	3	2	94	9	1342		135313
	4	2	93	5	1783		147489
	5	1	95	10			68829
	6	1	61	6			1155
	7	2	76	5	1330		46706
	8	2	85	17	1944		103549
	9	2	65	9	1276		385258
	10	2	94	15	1119		121919
	11	3	93	11	1571	1338	262543
	12	1	83	9			347921
	13	3	70	7	1744	1040	374978
	14	2	50	5	1931		381372
	15	3	64	20	1034	1473	447233
	16	1	60	19			379939
	17	3	50	15	1724	1107	162757

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
16	1	3	67	13	1776	1740	472060
	2	1	82	20			125922
	3	2	86	18	1389		159649
	4	2	51	6	1129		446498
	5	3	79	11	1613	1889	448958
	6	2	85	10	1481		386902
	7	2	74	7	1129		441974
	8	1	75	7			221023
	9	1	84	20			619998
	10	3	79	17	1780	1988	490238
	11	2	84	13	1298		581601
	12	2	87	16	1270		515557
	13	3	83	20	1781	1561	246927
	14	2	55	15	1921		109292
	15	2	97	11	1110		85644
	16	3	86	9	1412	1017	175959
	17	3	67	17	1937	1308	337989
	18	2	67	19	1164		364260
	19	2	54	11	1876		6733

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
17	1	2	87	13	1000		63868
	2	3	88	20	1064	1254	276287
	3	2	96	7	1718		627864
	4	1	54	8			251897
	5	2	72	20	1755		628976
	6	1	97	19			195485
	7	1	69	9			462207
	8	1	65	17			123744
	9	3	80	13	1365	1570	414620
	10	2	63	16	1713		158140
	11	1	92	17			162187
	12	1	67	15			88138
	13	3	68	15	1673	1935	257732
	14	1	91	6			604741
	15	2	90	17	1302		216661
	16	2	93	18	1754		14714
	17	3	70	18	1179	1327	416511
	18	1	51	5			548456

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
18	1	1	80	19			825
	2	3	80	5	1039	1435	659152
	3	2	94	13	1776		581042
	4	2	70	19	1366		294576
	5	2	92	6	1053		695918
	6	3	79	18	1672	1110	323374
	7	3	91	7	1734	1331	599414
	8	3	53	7	1934	1759	33357
	9	3	57	6	1996	1603	44743
	10	1	92	18			459896
	11	2	58	7	1209		157369
	12	2	100	17	1239		742529
	13	3	83	6	1868	1942	544722
	14	1	65	19			299564

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
19	1	1	73	7			759
	2	3	85	10	1411	1925	467871
	3	1	72	9			399491
	4	3	64	5	1033	1320	148172
	5	3	68	18	1009	1875	299179
	6	3	95	13	1317	1921	658880
	7	2	83	5	1937		382802
	8	1	52	20			616289
	9	1	52	16			197205
	10	1	76	9			169458
	11	3	59	10	1351	1145	499561
	12	1	59	17			145512
	13	1	86	20			21457
	14	2	54	5	1471		225140

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
20	1	3	91	8	1347	1309	475381
	2	1	74	20			637550
	3	1	76	13			708048
	4	2	91	7	1367		742850
	5	3	60	16	1832	1433	85721
	6	2	96	14	1097		906448
	7	3	97	18	1193	1300	228851
	8	3	81	15	1432	1427	604874
	9	2	59	6	1211		341261
	10	1	55	13			803502
	11	3	55	9	1862	1368	422949
	12	3	66	7	1922	1891	803074
	13	2	82	7	1505		395600

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
21	1	3	57	10	1451	1745	744611
	2	3	76	11	1952	1972	217538
	3	1	93	13			699410
	4	3	50	12	1349	1098	253325
	5	2	84	17	1078		175638
	6	2	89	6	1833		826445
	7	1	92	10			825846
	8	2	57	8	1161		307347
	9	3	56	11	1600	1080	635670
	10	3	84	8	1954	1127	890527
	11	3	74	6	1277	1374	935989
	12	3	73	5	1417	1008	654549

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
22	1	1	93	16			298
	2	1	72	15			454698
	3	2	84	16	1211		495797
	4	3	74	6	1210	1684	15798
	5	2	92	20	1210		15020
	6	3	84	14	1687	1002	305284
	7	1	54	18			23907
	8	1	90	8			221633
	9	2	64	16	1824		211091
	10	1	58	17			544361
	11	2	64	16	1267		597076
	12	3	61	18	1724	1614	247565
	13	3	90	12	1253	1887	256685
	14	2	66	9	1298		244225
	15	3	55	13	1171	1020	385733
	16	2	67	16	1682		62211
	17	3	54	14	1757	1977	268149
	18	3	82	6	1269	1573	133745
	19	1	100	19			119088

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
23	1	2	96	17	1000		71298
	2	2	70	11	1036		166315
	3	1	64	19			1018289
	4	3	70	20	1944	1791	992342
	5	3	63	8	1487	1070	742022
	6	3	52	12	1957	1145	722708
	7	1	68	10			462010
	8	3	55	19	1981	1571	1029238
	9	3	59	6	1007	1905	701473
	10	2	86	10	1255		473050

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
24	1	3	72	9	1630	1604	652030
	2	3	87	20	1221	1749	347803
	3	2	74	19	1145		126918
	4	1	51	15			185070
	5	3	58	8	1110	1738	162845
	6	2	89	14	1679		335292
	7	1	71	11			403016
	8	1	73	13			469027
	9	1	74	12			26216
	10	2	95	14	1828		586634
	11	2	60	16	1042		311058
	12	2	53	6	1799		204855
	13	2	94	5	1886		271014
	14	1	88	11			620902
	15	3	54	7	1040	1484	624103
	16	2	57	8	1898		499194
	17	2	79	12	1084		150822
	18	1	100	13			480249

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
25	1	1	55	6			370
	2	3	75	11	1171	1259	80683
	3	3	90	13	1684	1348	710028
	4	3	80	14	1094	1900	676732
	5	2	66	5	1321		331394
	6	2	84	19	1141		167074
	7	2	98	12	1274		166491
	8	1	92	11			7709
	9	1	87	12			312144
	10	3	69	6	1660	1141	240198
	11	2	91	5	1716		336680
	12	2	91	12	1598		669617
	13	1	74	9			703036
	14	2	99	18	1556		463571
	15	3	60	19	1088	1868	148497
	16	3	72	13	1175	1356	627298

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
26	1	1	59	5			945
	2	3	82	7	1686	1139	300290
	3	2	81	6	1357		152122
	4	2	98	6	1764		1184399
	5	3	54	18	1768	1119	97680
	6	2	90	14	1450		620672
	7	3	93	12	1248	1644	176773
	8	2	64	5	1320		553010
	9	3	92	15	1499	1066	919978

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
27	1	1	79	9			472
	2	2	88	13	1185		18856
	3	1	69	18			659780
	4	2	94	7	1250		523962
	5	2	51	8	1641		464273
	6	1	55	10			77838
	7	1	85	18			506812
	8	1	57	19			460723
	9	2	94	7	1206		380299
	10	3	92	20	1754	1258	487114
	11	3	67	12	1202	1026	32509
	12	1	79	9			672228
	13	1	65	15			625166
	14	1	59	15			419263
	15	2	52	18	1760		275492

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
28	1	3	89	10	1740	1428	465232
	2	2	62	11	1885		750518
	3	1	56	16			386698
	4	2	92	11	1278		140336
	5	2	52	16	1571		618887
	6	2	64	16	1258		574341
	7	1	74	15			94139
	8	2	88	16	1012		516036
	9	3	84	12	1183	1253	722811
	10	2	65	19	1399		335249
	11	3	62	16	1454	1030	53016
	12	3	53	12	1339	1508	322778
	13	1	94	6			368648

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
29	1	2	54	20	1000		293304
	2	1	83	19			647461
	3	1	66	10			721315
	4	2	53	6	1047		5391
	5	3	50	5	1172	1129	19847
	6	2	77	5	1557		36879
	7	3	97	7	1998	1449	306917
	8	2	60	18	1050		299448
	9	1	73	15			527342
	10	2	71	16	1760		171799
	11	2	69	7	1220		86690
	12	3	85	17	1216	1815	735685
	13	3	94	11	1186	1823	6997

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
30	1	1	58	13			528
	2	3	53	11	1682	1746	920487
	3	2	82	11	1135		936752
	4	3	65	18	1227	1467	410722
	5	1	85	16			1066954
	6	2	51	19	1126		406224
	7	2	51	14	1665		420288
	8	1	87	12			202200
	9	1	87	17			278300
	10	2	98	18	1141		492678

Parameter Data for Radar Type 5

5270MHz (40MHz Bandwidth)

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
1	1	2	75	9	1000		431943
	2	3	80	8	1131	1062	1160815
	3	2	74	16	1238		259802
	4	2	96	7	1486		1077696
	5	2	76	15	1209		995849
	6	1	84	18			113806
	7	2	97	12	1836		747300
	8	3	58	7	1125	1634	141558

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
2	1	1	75	5			406
	2	2	53	13	1735		116974
	3	1	78	9			296559
	4	1	57	14			142983
	5	2	59	8	1631		67248
	6	2	65	19	1675		172544
	7	2	96	5	1800		29858
	8	2	79	20	1721		236733
	9	1	80	7			376002
	10	2	83	9	1525		697415
	11	3	59	14	1603	1366	213936
	12	3	94	5	1309	1694	711880

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
3	1	1	69	11			559
	2	2	90	10	1198		41940
	3	3	52	18	1358	1452	450407
	4	2	94	10	1766		223924
	5	1	77	14			577369
	6	3	57	17	1364	1117	651216
	7	2	95	17	1012		23970
	8	2	74	12	1591		265358
	9	2	93	15	1896		20481
	10	1	71	9			137709
	11	1	71	17			236752
	12	3	85	6	1928	1997	172326
	13	2	94	8	1910		452972
	14	2	73	19	1880		639239
	15	2	93	20	1754		440059
	16	1	94	17			555059
	17	3	74	11	1257	1321	545190
	18	2	89	16	1384		223988

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
4	1	1	60	17			553
	2	3	60	7	1844	1603	658490
	3	1	56	9			766924
	4	2	100	10	1900		131456
	5	1	82	18			660295
	6	1	97	15			259432
	7	3	59	8	1838	1423	61283
	8	3	84	10	1970	1855	353132
	9	1	96	10			91826
	10	1	96	14			120572
	11	1	64	15			631854
	12	3	85	11	1560	1342	300327
	13	1	82	6			156003
	14	2	82	13	1826		55789
	15	1	58	19			786648

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
5	1	2	86	17	1000		21747
	2	1	89	11			501776
	3	1	73	14			682112
	4	3	90	14	1212	1081	636450
	5	2	86	6	1557		463178
	6	3	82	17	1179	1330	108433
	7	1	90	18			650090
	8	2	72	20	1076		538834
	9	1	52	16			390409
	10	2	52	17	1425		285432
	11	3	81	6	1260	1541	671602
	12	2	50	9	1009		607638
	13	2	58	15	1182		78809
	14	1	83	12			449520
	15	2	60	13	1728		315505
	16	2	57	6	1115		653510
	17	2	68	16	1073		102892

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
6	1	2	95	7	1000		419215
	2	1	52	14			768532
	3	2	95	17	1640		82509
	4	3	61	9	1673	1492	781710
	5	2	100	19	1354		282645
	6	2	92	12	1720		765640
	7	3	60	18	1909	1075	775388
	8	1	70	14			442768
	9	2	76	20	1522		465172
	10	2	81	9	1206		890265
	11	3	97	11	1660	1664	100523
	12	1	60	11			880474
	13	3	64	14	1519	1070	791637

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
7	1	1	90	6			608
	2	1	58	14			77502
	3	3	62	15	1070	1525	629136
	4	1	72	17			524150
	5	2	83	17	1837		273705
	6	2	81	9	1416		180408
	7	2	87	12	1457		144750
	8	1	88	15			267601
	9	1	61	12			615986
	10	3	76	18	1230	1620	448116
	11	2	83	9	1149		367094
	12	1	78	16			435265
	13	1	51	17			51048
	14	3	90	13	1972	1567	600287
	15	2	96	19	1044		517877
	16	1	81	9			213967
	17	3	76	19	1082	1316	473068
	18	3	93	19	1775	1882	514395

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
8	1	3	68	19	1525	1580	324544
	2	2	69	19	1740		628349
	3	2	76	20	1111		547436
	4	1	93	6			336816
	5	2	97	7	1432		483318
	6	2	96	10	1402		742693
	7	1	57	18			527554
	8	1	88	5			530727
	9	2	82	13	1496		307259
	10	3	84	7	1667	1078	509601
	11	1	71	11			749457
	12	1	57	9			181984
	13	3	84	19	1455	1739	757267
	14	3	65	10	1625	1159	148184

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
9	1	3	59	17	1924	1029	308326
	2	2	78	20	1681		350066
	3	2	53	14	1514		120942
	4	2	68	8	1045		437305
	5	2	56	13	1204		634729
	6	3	62	19	1016	1621	174121
	7	2	86	11	1028		22884
	8	3	84	16	1073	1475	150597
	9	2	55	14	1226		547285
	10	1	82	12			783734
	11	3	74	5	1535	1385	292626

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
10	1	2	65	12	1000		916462
	2	2	61	10	1337		271846
	3	1	97	20			419920
	4	3	72	6	1849	1914	761164
	5	2	65	15	1558		27608
	6	3	88	16	1937	1293	827409
	7	1	72	5			580486
	8	1	87	17			765822
	9	3	80	13	1154	1500	656441

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
11	1	1	92	16			101
	2	1	73	11			316124
	3	3	91	13	1409	1882	546393
	4	2	82	6	1823		537181
	5	1	55	12			622308
	6	1	76	19			261396
	7	2	95	8	1811		149531
	8	2	70	11	1589		119484
	9	1	56	16			532107
	10	2	79	11	1078		321108
	11	3	78	18	1020	1703	199548
	12	2	52	9	1799		480765
	13	2	85	19	1072		136145
	14	1	68	15			132428
	15	2	88	15	1492		347020
	16	2	51	20	1059		654435
	17	1	74	11			545421

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
12	1	1	96	5			642
	2	3	71	8	1251	1479	396899
	3	3	81	12	1521	1068	128798
	4	1	50	10			726790
	5	3	69	10	1085	1077	416558
	6	1	69	9			734059
	7	3	62	15	1389	1178	369540
	8	1	80	18			17810
	9	2	54	17	1408		607202
	10	1	66	16			9707
	11	3	85	18	1059	1218	533791
	12	2	95	20	1559		82896
	13	3	58	16	1279	1178	588269
	14	3	58	6	1593	1240	106847
	15	3	88	12	1750	1237	302613
	16	2	64	11	1518		512261

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
13	1	2	54	5	1000		172219
	2	3	81	11	1376	1411	309038
	3	1	63	17			398457
	4	3	78	18	1345	1915	285396
	5	1	85	20			313197
	6	3	52	16	1110	1973	147231
	7	2	92	19	1569		493834
	8	3	64	13	1447	1715	537810
	9	1	61	15			501001
	10	3	88	8	1210	1070	247252
	11	3	55	5	1619	1955	464465
	12	2	59	5	1746		349111
	13	1	86	20			455137
	14	3	75	18	1736	1293	51157
	15	3	84	8	1224	1423	402855
	16	3	96	5	1554	1244	509379
	17	1	91	11			59237
	18	1	83	15			338878
	19	2	52	6	1531		569931

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
14	1	3	92	19	1482	1004	194820
	2	1	62	13			173764
	3	1	80	8			372423
	4	1	93	8			131261
	5	1	55	8			119357
	6	2	51	19	1807		125989
	7	3	86	15	1139	1277	621572
	8	2	66	18	1606		396141
	9	2	87	12	1886		451121
	10	1	81	10			417869
	11	3	66	11	1393	1636	778068
	12	2	84	12	1548		673316
	13	2	53	20	1088		656625
	14	3	67	6	1264	1558	248581
	15	1	73	12			404724

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
15	1	3	96	15	1264	1351	165159
	2	3	76	20	1124	1121	368804
	3	1	95	7			552597
	4	2	83	13	1101		706359
	5	3	94	6	1230	1436	315448
	6	3	51	11	1172	1073	705686
	7	2	96	11	1628		529657
	8	2	95	17	1200		356404
	9	2	59	16	1618		181647
	10	3	54	16	1934	1716	717350
	11	3	91	20	1452	1084	606906
	12	1	66	6			593945
	13	3	85	20	1238	1702	385612
	14	3	68	14	1448	1985	87894
	15	1	82	19			421300
	16	3	86	12	1888	1594	526747

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Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
16	1	1	84	11			492
	2	2	82	13	1059		521009
	3	2	69	17	1355		542346
	4	2	88	20	1609		560884
	5	3	89	13	1037	1052	707842
	6	2	94	18	1417		758996
	7	3	89	20	1848	1222	511014
	8	2	57	14	1551		337017
	9	3	87	11	1791	1122	510290
	10	1	79	16			363723
	11	2	75	18	1085		263721
	12	3	74	15	1595	1422	371049
	13	3	97	10	1622	1721	348764
	14	3	94	7	1314	1198	338139
	15	1	55	9			107001

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
17	1	3	79	6	1194	1273	773914
	2	2	73	19	1486		370382
	3	3	78	18	1703	1322	526957
	4	2	90	9	1883		187614
	5	2	79	18	1124		154938
	6	3	95	6	1269	1130	9435
	7	1	90	6			706849
	8	3	59	16	1666	1087	215872
	9	1	62	18			147502
	10	1	78	9			755039
	11	3	63	7	1974	1202	69320
	12	3	73	16	1418	1250	435483
	13	2	100	16	1980		183897
	14	1	88	20			263374
	15	1	58	9			93552

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
18	1	1	94	18			636
	2	2	71	5	1537		463745
	3	2	68	16	1889		644861
	4	1	71	9			424280
	5	2	80	12	1302		497555
	6	1	60	20			755443
	7	3	95	16	1920	1726	583135
	8	3	64	10	1921	1865	403990
	9	3	66	15	1730	1119	457751
	10	2	67	13	1464		539930
	11	3	79	6	1144	1740	757778
	12	2	58	7	1936		669586
	13	3	84	16	1004	1984	293502
	14	3	62	10	1737	1615	513477
	15	2	92	18	1676		108339

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
19	1	3	92	19	1436	1553	407082
	2	3	58	12	1787	1634	296747
	3	2	52	14	1074		265311
	4	2	50	9	1063		204097
	5	2	80	18	1575		64827
	6	2	92	14	1199		104831
	7	3	84	14	1304	1317	568854
	8	2	73	17	1381		566807
	9	1	73	13			805441
	10	1	60	12			494084
	11	1	83	11			154950
	12	3	54	13	1440	1615	206451
	13	1	69	15			410441
	14	3	65	19	1099	1379	153479

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
20	1	2	84	11	1000		337472
	2	1	54	9			403617
	3	1	57	19			542090
	4	3	80	18	1075	1744	265867
	5	3	65	12	1417	1091	332882
	6	1	76	5			98278
	7	2	69	13	1464		227876
	8	3	53	13	1812	1919	435185
	9	1	92	18			96504
	10	1	73	11			260251
	11	2	56	12	1920		386018
	12	3	100	9	1228	1183	56065
	13	3	89	12	1734	1991	10653
	14	3	72	15	1339	1158	470377
	15	3	80	9	1814	1053	144503
	16	2	90	18	1844		542227
	17	2	88	6	1287		148073
	18	3	82	7	1560	1557	174363
	19	2	94	5	1913		72468

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
21	1	3	62	10	1287	1461	351733
	2	1	92	14			131538
	3	1	54	7			482186
	4	3	76	18	1228	1071	183729
	5	1	81	14			627239
	6	2	67	20	1513		503865
	7	2	76	18	1082		605279
	8	3	81	16	1861	1153	408388
	9	1	91	13			10370
	10	2	93	10	1961		286745
	11	1	58	15			133160
	12	3	74	9	1359	1975	251143
	13	1	56	9			233178
	14	2	99	17	1545		330061
	15	3	77	13	1605	1599	118618
	16	2	84	15	1952		217330

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
22	1	2	50	19	1000		182773
	2	1	51	17			337629
	3	3	89	16	1556	1921	97821
	4	3	74	8	1463	1195	204729
	5	1	53	10			444476
	6	3	71	18	1273	1432	485043
	7	2	94	8	1789		721171
	8	1	74	10			26115
	9	3	93	20	1909	1019	383653
	10	1	77	18			288828
	11	3	98	18	1235	1572	771624
	12	2	74	8	1658		739543
	13	3	96	7	1260	1042	642183
	14	3	73	20	1629	1901	733829
	15	1	98	14			313585

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
23	1	3	81	11	1361	1592	950636
	2	2	94	5	1865		283304
	3	1	70	19			138629
	4	1	59	7			998476
	5	1	86	19			401945
	6	2	88	7	1480		282196
	7	3	57	19	1641	1486	801812
	8	1	75	20			66758
	9	3	90	18	1321	1348	155040
	10	2	50	5	1805		347249
	11	1	57	7			327372

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
24	1	1	80	9			597
	2	2	99	12	1948		610898
	3	3	76	14	1848	1942	494454
	4	3	99	5	1029	1853	459354
	5	1	64	9			706415
	6	3	92	14	1061	1475	41872
	7	2	88	10	1286		132554
	8	3	71	15	1999	1307	499325
	9	3	91	19	1886	1092	323016
	10	3	95	14	1591	1448	222895
	11	3	61	19	1882	1916	54336
	12	2	77	16	1118		79826
	13	3	76	20	1366	1188	690629
	14	1	89	9			402473
	15	3	62	13	1632	1586	434329
	16	3	58	18	1611	1634	88858

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
25	1	3	61	15	1107	1173	816456
	2	1	63	6			73718
	3	1	62	16			438859
	4	1	57	10			606063
	5	2	65	14	1924		831471
	6	3	55	20	1509	1427	783684
	7	2	96	14	1546		384173
	8	2	55	7	1956		68504
	9	2	58	18	1847		264215
	10	3	85	12	1120	1115	824553
	11	1	87	20			795266
	12	1	90	6			346160
	13	3	76	17	1213	1404	645525
	14	2	61	20	1793		527651

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
26	1	2	52	13	1000		945661
	2	3	78	11	1400	1422	599462
	3	3	90	13	1604	1201	567910
	4	2	92	10	1268		916139
	5	2	66	20	1086		201312
	6	2	52	16	1655		58894
	7	2	54	18	1260		973523
	8	1	78	14			1440800

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
27	1	3	64	14	1776	1430	171687
	2	1	96	11			758878
	3	2	70	17	1771		285016
	4	3	65	20	1136	1244	255941
	5	2	75	17	1324		396588
	6	2	70	13	1681		632483
	7	3	52	14	1709	1725	264584
	8	1	64	17			599870
	9	3	56	14	1626	1178	599465
	10	3	64	20	1479	1706	470961
	11	2	86	8	1140		449944
	12	3	99	6	1479	1413	137857
	13	2	68	14	1780		166119
	14	2	74	14	1908		174776

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
28	1	3	81	8	1498	1322	1284162
	2	2	74	7	1010		771967
	3	2	91	11	1578		336693
	4	3	68	14	1325	1649	286831
	5	3	97	11	1250	1617	900444
	6	1	78	18			858372
	7	3	79	13	1209	1000	822207
	8	1	96	16			281227
	9	2	81	16	1155		798698

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
29	1	1	67	16			14
	2	1	58	13			64954
	3	1	81	16			301117
	4	1	63	9			84267
	5	2	75	14	1703		487812
	6	3	87	12	1648	1269	380496
	7	1	56	9			287312
	8	1	95	10			188557
	9	2	68	14	1815		194987
	10	1	51	16			142060
	11	3	74	6	1802	1735	81183
	12	3	81	19	1275	1719	176293
	13	3	64	19	1399	1109	548089
	14	1	91	12			543925
	15	3	84	11	1560	1788	401979
	16	2	74	11	1635		541718
	17	3	53	16	1081	1770	273874
	18	2	77	13	1895		512357
	19	2	50	13	1963		51129

Trial #	Burst Number	Number of Pulses	Pulse Width [usec]	Chirp Width [MHz]	Pulse 1-to-2 Spacing [usec]	Pulse 2-to-3 Spacing [usec]	Starting Location Within Interval [usec]
30	1	1	58	9			16
	2	2	96	12	1245		336832
	3	2	64	5	1307		785976
	4	1	84	11			299524
	5	3	74	18	1866	1760	974847
	6	2	93	6	1213		300242
	7	2	95	15	1919		763069
	8	1	97	18			560318
	9	2	91	16	1427		661040
	10	2	75	16	1754		230222
	11	1	79	19			673755
	12	1	79	17			965096

Parameter Data for Radar Type 6

5300MHz (20MHz Bandwidth)

Trial #	Hopping Number	Start Time	Frequency [MHz]
1	19	54	5291
	22	63	5293
	25	72	5300
	38	111	5296
	96	285	5290

Trial #	Hopping Number	Start Time	Frequency [MHz]
2	8	21	5292
	9	24	5300
	22	63	5294

Trial #	Hopping Number	Start Time	Frequency [MHz]
3	2	3	5310
	63	186	5298
	67	198	5309
	80	237	5291

Trial #	Hopping Number	Start Time	Frequency [MHz]
4	3	6	5301
	47	138	5302

Trial #	Hopping Number	Start Time	Frequency [MHz]
5	28	81	5305
	30	87	5303
	57	168	5302
	83	246	5310
	85	252	5304
	99	294	5306

Trial #	Hopping Number	Start Time	Frequency [MHz]
6	19	54	5295
	23	66	5303
	30	87	5299
	66	195	5291

Trial #	Hopping Number	Start Time	Frequency [MHz]
7	13	36	5300
	23	66	5304
	61	180	5307
	69	204	5310

Trial #	Hopping Number	Start Time	Frequency [MHz]
8	8	21	5304
	19	54	5297
	41	120	5290
	91	270	5303

Trial #	Hopping Number	Start Time	Frequency [MHz]
9	13	36	5292
	25	72	5303
	51	150	5291
	62	183	5296
	68	201	5290

Trial #	Hopping Number	Start Time	Frequency [MHz]
10	29	84	5292
	43	126	5306
	48	141	5298
	71	210	5294

Trial #	Hopping Number	Start Time	Frequency [MHz]
11	36	105	5293
	41	120	5298
	84	249	5307
	90	267	5297

Trial #	Hopping Number	Start Time	Frequency [MHz]
12	20	57	5300
	21	60	5306
	23	66	5299
	66	195	5310

Trial #	Hopping Number	Start Time	Frequency [MHz]
13	7	18	5306
	22	63	5293
	26	75	5305
	29	84	5297
	40	117	5310
	48	141	5307
	55	162	5303
	57	168	5290
84	249	5298	

Trial #	Hopping Number	Start Time	Frequency [MHz]
14	11	30	5297
	16	45	5310
	17	48	5292
	65	192	5307

Trial #	Hopping Number	Start Time	Frequency [MHz]
15	20	57	5308
	74	219	5297
	76	225	5294
	77	228	5306

Trial #	Hopping Number	Start Time	Frequency [MHz]
16	2	3	5310

Trial #	Hopping Number	Start Time	Frequency [MHz]
17	15	42	5301
	16	45	5299
	27	78	5306
	51	150	5303
	90	267	5291
	93	276	5308

Trial #	Hopping Number	Start Time	Frequency [MHz]
18	40	117	5295
	56	165	5292
	67	198	5300
	81	240	5302
	83	246	5303
	86	255	5305

Trial #	Hopping Number	Start Time	Frequency [MHz]
19	76	225	5293
	93	276	5296
	98	291	5304

Trial #	Hopping Number	Start Time	Frequency [MHz]
20	9	24	5297
	51	150	5309
	78	231	5293
	81	240	5302
	93	276	5303
	98	291	5308

Trial #	Hopping Number	Start Time	Frequency [MHz]
21	4	9	5296
	38	111	5297
	61	180	5295
	90	267	5300

Trial #	Hopping Number	Start Time	Frequency [MHz]
22	7	18	5295
	21	60	5308
	37	108	5300
	66	195	5290

Trial #	Hopping Number	Start Time	Frequency [MHz]
23	42	123	5298
	74	219	5302
	94	279	5299
	100	297	5310

Trial #	Hopping Number	Start Time	Frequency [MHz]
24	7	18	5298
	9	24	5295
	40	117	5291
	61	180	5293
	86	255	5296
	93	276	5292

Trial #	Hopping Number	Start Time	Frequency [MHz]
25	23	66	5307
	55	162	5292
	78	231	5305
	87	258	5298
	90	267	5308
	93	276	5296
	97	288	5306

Trial #	Hopping Number	Start Time	Frequency [MHz]
26	13	36	5300
	14	39	5291
	18	51	5296
	39	114	5310
	82	243	5308
	100	297	5304

Trial #	Hopping Number	Start Time [ms]	Frequency [MHz]
27	40	117	5291
	95	282	5310
	96	285	5301

Trial #	Hopping Number	Start Time	Frequency [MHz]
28	7	18	5291
	15	42	5301
	24	69	5310
	29	84	5293
	31	90	5290
	46	135	5298
	80	237	5303

Trial #	Hopping Number	Start Time	Frequency [MHz]
29	7	18	5301
	11	30	5302
	64	189	5305
	88	261	5309

Trial #	Hopping Number	Start Time	Frequency [MHz]
30	17	48	5293
	26	75	5305
	41	120	5303
	58	171	5290
	85	252	5292

Parameter Data for Radar Type 6

5270MHz (40MHz Bandwidth)

Trial #	Hopping Number	Start Time	Frequency [MHz]
1	15	42	5253
	17	48	5250
	23	66	5278
	36	105	5255
	39	114	5290
	53	156	5259
	68	201	5260
	98	291	5252

Trial #	Hopping Number	Start Time	Frequency [MHz]
2	8	21	5288
	36	105	5276
	41	120	5287
	46	135	5283
	48	141	5286
	54	159	5280
	62	183	5255
	72	213	5250
	87	258	5275
	97	288	5278

Trial #	Hopping Number	Start Time	Frequency [MHz]
3	58	171	5271
	59	174	5289
	62	183	5290
	66	195	5268
	77	228	5269
	83	246	5256
	96	285	5272
	99	294	5277

Trial #	Hopping Number	Start Time	Frequency [MHz]
4	2	3	5277
	9	24	5269
	20	57	5274
	28	81	5254
	31	90	5267
	49	144	5252
	57	168	5271
	71	210	5280
	77	228	5285
	88	261	5251
93	276	5264	

Trial #	Hopping Number	Start Time	Frequency [MHz]
5	20	57	5263
	21	60	5273
	25	72	5252
	35	102	5250
	42	123	5275
	44	129	5281
	51	150	5264

Trial #	Hopping Number	Start Time	Frequency [MHz]
6	12	33	5266
	25	72	5252
	29	84	5275
	33	96	5257
	37	108	5273
	81	240	5281
	83	246	5267

Trial #	Hopping Number	Start Time	Frequency [MHz]
7	3	6	5265
	16	45	5281
	29	84	5253
	85	252	5266
	86	255	5256
	90	267	5283

Trial #	Hopping Number	Start Time	Frequency [MHz]
8	7	18	5288
	8	21	5261
	30	87	5264
	36	105	5254
	47	138	5286
	58	171	5285
	72	213	5289
	76	225	5265
	85	252	5258
95	282	5278	

Trial #	Hopping Number	Start Time	Frequency [MHz]
9	6	15	5285
	56	165	5283
	60	177	5265
	62	183	5250
	80	237	5279
	84	249	5264
	91	270	5266
	95	282	5251
	96	285	5275

Trial #	Hopping Number	Start Time	Frequency [MHz]
10	28	81	5250
	33	96	5257
	37	108	5286
	42	123	5278
	45	132	5265
	47	138	5263
	57	168	5255
	63	186	5290
	65	192	5285
	66	195	5256
	95	282	5251

Trial #	Hopping Number	Start Time	Frequency [MHz]
11	4	9	5262
	10	27	5279
	12	33	5250
	13	36	5271
	35	102	5260
	73	216	5253
	99	294	5258

Trial #	Hopping Number	Start Time	Frequency [MHz]
12	16	45	5261
	18	51	5271
	28	81	5280
	33	96	5273
	36	105	5288
	38	111	5285
	71	210	5279
	74	219	5265

Trial #	Hopping Number	Start Time	Frequency [MHz]
13	10	27	5250
	27	78	5256
	35	102	5257
	38	111	5282
	53	156	5272
	57	168	5280
	74	219	5268
	75	222	5259
	83	246	5251
	87	258	5260
	90	267	5275
	93	276	5281
	100	297	5285

Trial #	Hopping Number	Start Time	Frequency [MHz]
14	7	18	5279
	9	24	5277
	23	66	5286
	49	144	5264
	78	231	5290
	94	279	5276

Trial #	Hopping Number	Start Time	Frequency [MHz]
15	51	150	5287
	52	153	5250
	73	216	5281
	86	255	5253
	88	261	5278
	93	276	5266

Trial #	Hopping Number	Start Time	Frequency [MHz]
16	15	42	5270
	18	51	5273
	31	90	5259
	52	153	5268
	68	201	5290
	77	228	5288

Trial #	Hopping Number	Start Time	Frequency [MHz]
17	11	30	5285
	16	45	5261
	32	93	5275
	48	141	5259
	54	159	5277
	64	189	5268
	81	240	5284
	83	246	5273
	100	297	5267

Trial #	Hopping Number	Start Time	Frequency [MHz]
18	28	81	5283
	38	111	5288
	46	135	5269
	65	192	5254
	82	243	5276
	91	270	5286
	97	288	5264
	99	294	5263

Trial #	Hopping Number	Start Time	Frequency [MHz]
19	6	15	5251
	9	24	5273
	11	30	5269
	30	87	5266
	36	105	5262
	64	189	5253
	70	207	5257
	81	240	5278
	85	252	5287
	88	261	5263
92	273	5288	

Trial #	Hopping Number	Start Time	Frequency [MHz]
20	7	18	5285
	17	48	5253
	35	102	5250
	48	141	5256
	50	147	5262
	62	183	5267
	64	189	5284
	80	237	5272

Trial #	Hopping Number	Start Time	Frequency [MHz]
21	4	9	5263
	16	45	5282
	34	99	5285
	42	123	5252
	43	126	5251
	64	189	5253
	65	192	5259
	80	237	5287

Trial #	Hopping Number	Start Time	Frequency [MHz]
22	8	21	5265
	18	51	5267
	38	111	5287
	39	114	5252
	56	165	5260
	61	180	5268
	62	183	5256
	63	186	5258
	97	288	5257
100	297	5283	

Trial #	Hopping Number	Start Time	Frequency [MHz]
23	24	69	5266
	28	81	5286
	43	126	5269
	61	180	5251
	69	204	5285
	74	219	5277
	77	228	5278
	82	243	5257
	91	270	5268
	92	273	5267
	97	288	5288

Trial #	Hopping Number	Start Time	Frequency [MHz]
24	33	96	5262
	50	147	5271
	76	225	5274
	89	264	5258
	94	279	5289

Trial #	Hopping Number	Start Time	Frequency [MHz]
25	7	18	5261
	9	24	5272
	14	39	5266
	22	63	5268
	69	204	5274
	80	237	5258

Trial #	Hopping Number	Start Time	Frequency [MHz]
26	22	63	5263
	27	78	5278
	39	114	5277
	50	147	5259
	55	162	5280
	70	207	5279
	82	243	5258
	93	276	5290

Trial #	Hopping Number	Start Time	Frequency [MHz]
27	5	12	5287
	18	51	5272
	19	54	5268
	37	108	5265
	41	120	5289
	47	138	5290
	60	177	5282
	77	228	5278
	89	264	5284

Trial #	Hopping Number	Start Time	Frequency [MHz]
28	5	12	5260
	25	72	5290
	35	102	5261
	43	126	5273
	47	138	5255
	48	141	5253
	65	192	5263
	71	210	5268
	83	246	5288
	95	282	5274

Trial #	Hopping Number	Start Time	Frequency [MHz]
29	10	27	5252
	14	39	5290
	21	60	5288
	32	93	5254
	37	108	5287
	52	153	5262
	61	180	5257
	78	231	5286
	90	267	5284

Trial #	Hopping Number	Start Time	Frequency [MHz]
30	15	42	5259
	27	78	5274
	41	120	5281
	54	159	5270
	60	177	5271
	61	180	5253
	64	189	5251
	71	210	5276
	89	264	5275
	92	273	5277

APPENDIX 2: Test instruments

EMI Test Equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	DFS	2011/12/09 * 12
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	DFS	2012/02/03 * 12
EST-48 *1)	Signal Generator	Agilent	E4438C	MY45090353	DFS	2011/11/09 * 12
MCC-96	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30817/2	DFS	2012/05/09 * 12
MCC-97	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30818/2	DFS	2012/05/09 * 12
MCC-98	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30819/2	DFS	2012/05/09 * 12
MCC-99	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	30820/2	DFS	2012/05/09 * 12
MCC-66	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	28636/2	DFS	2012/04/25 * 12
MCC-137	Microwave cable	HUBER+SUHNER	SUCOFLEX 102	37954/2	DFS	2011/10/28 * 12
MPSC-01	Power splitters/Combiners	Mini-Circuit	ZFSC-2-2500	0124	DFS	2011/09/27 * 12
MPSC-02	Power Splitters/Combiners	Mini-Circuit	ZFSC-2-10G	0127	DFS	Pre Check
MPSC-04	Power Splitters/Combiners	Mini-Circuit	ZFSC-2-10G	0326	DFS	Pre Check
MPD-01	PowerDivider DC to 26.5GHz	Agilent	11636B	52258	DFS	2012/03/27 * 12
MAT-55	Attenuator(6dB)	JFW	50FH-006-100-3	-	DFS	Pre Check
MAT-56	Attenuator(10dB)	Suhner	6810.19.A	-	DFS	Pre Check
MAT-57	Attenuator(10dB)	Suhner	6810.19.A	-	DFS	Pre Check
MAT-58	Attenuator(10dB)	Suhner	6810.19.A	-	DFS	Pre Check
MAT-60	Attenuator(20dB)	Suhner	6820.19.A	-	DFS	Pre Check
MAT-61	Attenuator(20dB)	Suhner	6820.19.A	-	DFS	Pre Check
COTS-MDFS-01	Signal Studio Software for DFS	Agilent	N7620A-101	5010-7739	DFS	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	DFS	2012/04/06 * 12
MCC-115	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290211/4	DFS	2011/08/24 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-201	-	DFS	2012/02/06 * 12
MCC-138	Microwave cable	HUBER+SUHNER	SUCOFLEX 102	37953/2	DFS	2011/10/28 * 12
COTS-MDFS-02	Radar Generating Software for DFS	Agilent	-	-	DFS	-

***1) Signal generator is only used to generate radar test signal, and the wave form is confirmed with spectrum analyzer every time before the test.**

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

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

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

DFS: Dynamic Frequency Selection

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