

TEST REPORT
DYNAMIC FREQUENCY SELECTION REQUIREMENTS
OF

FCC Part 15 Subpart E (UNII)

Cascade Networks, Incorporated
Model(s): 54xx-AP

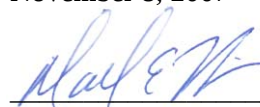
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REPORT DATE: November 8, 2007

FINAL TEST DATE: November 8, 2007

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2016-01

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SCOPE

The Federal Communications Commission and the European Telecommunications Standards Institute (ETSI) publish standards regarding ElectroMagnetic Compatibility and Radio spectrum Matters for radio-communications devices. Tests have been performed on the Cascade Networks, Incorporated model 5450-AP in accordance with these standards.

Test data has been taken pursuant to the relevant requirements of the following standard(s).

- FCC Part 15 Subpart E Unlicensed National Information Infrastructure (U-NII) Devices

Tests were performed in accordance with these standards together with the current published versions of the basic standards referenced therein as outlined in Elliott Laboratories test procedures.

The test results recorded herein are based on a single type test of the Cascade Networks, Incorporated model 5450-AP and therefore apply only to the tested sample. The sample was selected and prepared by Brian Magnuson of Cascade Networks, Incorporated.

OBJECTIVE

The objective of the manufacturer is to comply with the standards identified in the previous section. In order to demonstrate compliance, the manufacturer or a contracted laboratory makes measurements and takes the necessary steps to ensure that the equipment complies with the appropriate technical standards. Compliance with some DFS features is covered through a manufacturer statement or through observation of the device.

STATEMENT OF COMPLIANCE

The tested sample of Cascade Networks, Incorporated model 5450-AP complied with the DFS requirements of:

FCC Part 15.407(h)(2)

Maintenance of compliance is the responsibility of the manufacturer. Any modifications to the product should be assessed to determine their potential impact on the compliance status of the device with respect to the standards detailed in this test report.

DEVIATIONS FROM THE STANDARD

No deviations were made from the test methods and requirements covered by the scope of this report.

EQUIPMENT UNDER TEST (EUT) DETAILS**GENERAL**

The Cascade Networks, Incorporated model 54xx-AP is a high speed wireless communication product operating in the 5470-5725 MHz frequency band.

The sample was received on November 6, 2007 and tested on November 8, 2007. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number
Cascade Networks, Inc.	5450-AP	High speed wireless communication radio	11079904

The manufacturer declared values for the EUT operational characteristics that affect DFS are as follows:

Operating Modes

☒ Master Device

Antenna Gains / EIRP

	5470 – 5725 MHz
Lowest Antenna Gain (dBi)	+10
Highest Antenna Gain (dBi)	+23
Output Power (dBm)	-23

☒ Power can exceed 200mW eirp

Channel Protocol

☒ Frame Based

ENCLOSURE

The EUT enclosure measures approximately 30.0 by 9.0 by 4.5 centimeters. It is primarily constructed of anodized aluminum.

MODIFICATIONS

The EUT did not require modifications during testing in order to comply with the requirements of the standard(s) referenced in this test report.

SUPPORT EQUIPMENT

The following equipment was used as local support equipment for testing:

Manufacturer	Model	Description	Serial Number	FCC ID
Panasonic	PF-18	Laptop Computer	6AKYB72356	DoC
Dell	Inspiron 8600	Laptop Computer	42707742661	DoC
<i>Motorola</i>	<i>5400 5MAB</i>	<i>5.4GHz Radio</i>	-	<i>ABZ89FT7623</i>

The italicized device was the client device.

EUT INTERFACE PORTS

The I/O cabling configuration during testing was as follows:

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
Ethernet	Laptop computer	CAT5	Unshielded	3

EUT OPERATION

The EUT was operating with the following software 8.2. The software is secured by country code selection during professional installation to prevent the end users from disabling the DFS function.

Master Device: 8.2

The manufacturer provided special software that over-rode the non-occupancy mechanism (allowing return to the same channel) for the purposes of determining the probability of detection. This test feature was disabled and the normal operating software enabled for verifying the 30-minute non-occupancy period and channel move time.

The start of the Channel Availability Check occurred 23 seconds after power was applied.

During the in-service monitoring detection probability, channel move time and closing transmission time tests on the 5450AP, the system was configured with a "FCC" streaming video file from the AP (sourced by the PC connected to the AP device via an Ethernet interface) to a remote client viewed on the PC connected to the client. The talk/listen ratio was set to 45%/55%.

During the detection bandwidth tests, the 5450AP was configured without traffic on the channel. The talk/listen ration was set to 0%/100%.

TEST RESULTS**TEST RESULTS SUMMARY – FCC Part 15, MASTER DEVICE**

Description	Radar Type	Radar Frequency	Measured Value	Requirement	Test Data	Status
Channel Availability Check (CAC) Time	Type 1	5500	70s	$\geq 60s$	Appendix D	Complies
CAC Detection Threshold	Type 1	5500	-53dBm	-64dBm (see note 2)	Appendix D	Complies
In-Service Monitoring Detection Threshold	Type 1	5500	-53dBm	-64dBm (see note 2)	Appendix B	Complies
	Type 2	5600				
	Type 3	5700				
	Type 4	5700				
	Type 5					
	Type 6	5585				
Bandwidth Detection	Type 1	Varies	13 MHz	80% of the 99% BW	-	Pass
Channel closing transmission time	Type 1	5500	0ms	$\leq 260ms$	Appendix C	Complies
	Type 5	5600	0ms			
Channel move time	Type 1	5500	21ms	$\leq 10s$	Appendix C	Complies
	Type 5	5600	0ms			
Non-occupancy period	N/A	5600	30 minutes	> 30 minutes	Appendix C	Complies
Uniform Spreading	N/A	N/A			Note 4	Complies

Table 1 - FCC Part 15 Subpart E Client Device Test Result Summary

Notes:

- 1) The radar was considered to be “detected” during in-service monitoring if the master device indicated detection more than 18 times out of 30 trials for each radar type(60%). The device detected each burst of radar at least 18 times out of 30 trials. In addition, the aggregate number of detections for radar types 1-4 was at least 96 of 120 trials (80%).
- 2) Detection threshold is based on the master device having an antenna gain of 10 dBi. (-64+10+1 = -53 dBm). If gains of 0 dBi or less are used then the required threshold increases to -62dBm (output EIRP drops below 23dBm).
- 3) Tests were performed using the conducted test method.
- 4) Compliance with the uniformed spreading requirement is documented in the products Theory of Operations.

MEASUREMENT UNCERTAINTIES

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level, with a coverage factor ($k=2$) and were calculated in accordance with UKAS document LAB 34.

Measurement	Measurement Unit	Expanded Uncertainty
Timing (Channel move time, aggregate transmission time)	ms	Timing resolution +/- 0.24%
Timing (non occupancy period)	seconds	5 seconds
DFS Threshold (radiated)	dBm	1.6
DFS Threshold (conducted)	dBm	1.2

DFS TEST METHODS**RADIATED TEST METHOD**

The combination of master and slave devices is located in an anechoic chamber. The simulated radar waveform is transmitted from a directional horn antenna (typically an EMCO 3115) toward the unit performing the radar detection (radar detection device, RDD). Every effort is made to ensure that the main beam of the EUT's antenna is aligned with the radar generating antenna.

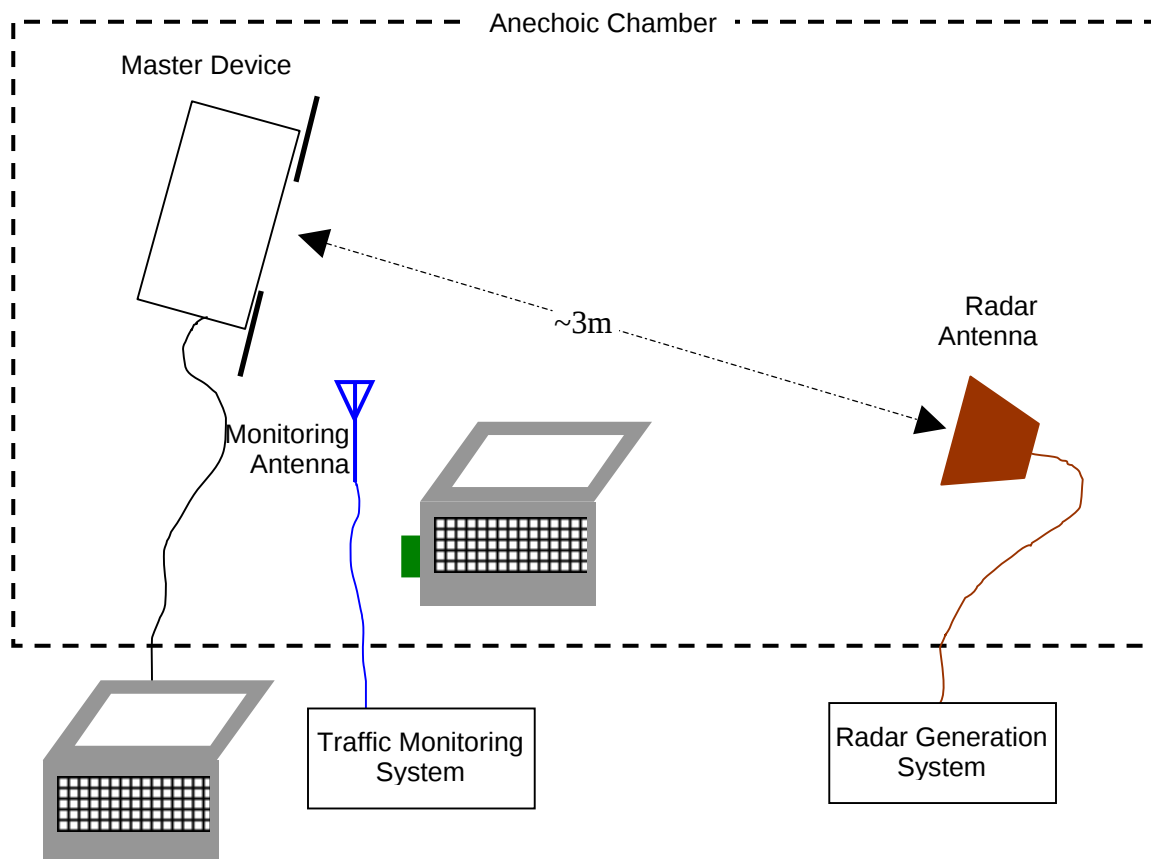


Figure 1 - Test Configuration for radiated Measurement Method

The signal level of the simulated waveform is set to a reference level equal to the threshold level (plus 1dB if testing against FCC requirements). Lower levels may also be applied on request of the manufacturer. The level reported is the level at the RDD antenna and so it is not corrected for the RDD's antenna gain. The RDD is configured with the lowest gain antenna assembly intended for use with the device.

The signal level is verified by measuring the CW signal level from the radar generation system using a reference antenna of gain G (dBi). The radar signal level is calculated from the measured level, R (dBm), and any cable loss, L (dB), between the reference antenna and the measuring instrument:

$$\text{Applied level (dBm)} = R - G_{\text{REF}} + L$$

If both master and client devices have radar detection capability then the device not under test is positioned with absorbing material between its antenna and the radar generating antenna, and the radar level at the non RDD is verified to be at least 20dB below the threshold level to ensure that any responses are due to the RDD detecting radar.

The antenna connected to the channel monitoring subsystem is positioned to allow both master and client transmissions to be observed, with the level of the EUT's transmissions between 6 and 10dB higher than those from the other device.

CONDUCTED TEST METHOD

The combination of master and slave devices is located in an anechoic chamber. The simulated radar waveform is coupled into the unit performing the radar detection (radar detection device, RDD) via couplers and attenuators.

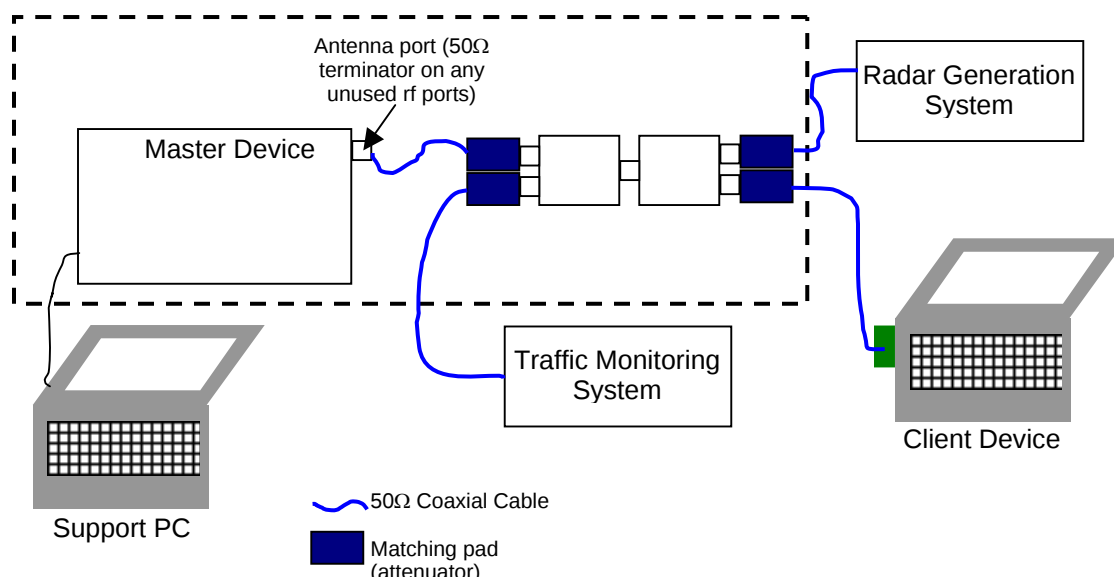


Figure 2 - Test Configuration for Conducted Measurement Method

The signal level of the simulated waveform is set to a reference level equal to the threshold level (plus 1dB if testing against FCC requirements). Lower levels may also be applied on request of the manufacturer.

The signal level is verified by measuring the CW signal level at the coupling point to the RDD antenna port. The radar signal level is calculated from the measured level, R (dBm) and the lowest gain antenna assembly intended for use with the RDD, GRDD (dBi):

$$\text{Applied level (dBm)} = R - \text{GRDD}$$

If both master and client devices have radar detection capability then the radar level at the non RDD is verified to be at least 20dB below the threshold level to ensure that any responses are due to the RDD detecting radar.

The antenna connected to the channel monitoring subsystem is positioned to allow both master and client transmissions to be observed, with the level of the EUT's transmissions between 6 and 10dB higher than those from the other device.

DFS MEASUREMENT INSTRUMENTATION

RADAR GENERATION SYSTEM

An Agilent PSG is used as the radar generating source. The integral arbitrary waveform generators are programmed using Agilent's "Pulse Building" software and Elliott custom software to produce the required waveforms, with the capability to produce both unmodulated and modulated (FM Chirp) pulses. Where there are multiple values for a specific radar parameter then the software selects a value at random and, for FCC tests, the software verifies that the resulting waveform is truly unique.

With the exception of the hopping waveforms required by the FCC's rules (see below), the radar generator is set to a single frequency within the radar detection bandwidth of the EUT.

Frequency hopping radar waveforms are simulated using a time domain model. A randomly hopping sequence algorithm (which uses each channel in the hopping radar's range once in a hopping sequence) generates a hop sequence. A segment of the first 100 elements of the hop sequence are then examined to determine if it contains one or more frequencies within the radar detection bandwidth of the EUT. If it does not then the first element of the segment is discarded and the next frequency in the sequence is added. The process repeats until a valid segment is produced. The radar system is then programmed to produce bursts at time slots coincident with the frequencies within the segment that fall in the detection bandwidth. The frequency of the generator is stepped in 1 MHz increments across the EUT's detection range.

The radar signal level is verified during testing using a CW signal with the AGC function switched on. Correction factors to account for the fact that pulses are generated with the AGC functions switched off are measured annually and an offset is used to account for this in the software.

The generator output is connected to the coupling port of the conducted set-up or to the radar generating antenna.

CHANNEL MONITORING SYSTEM

Channel monitoring is achieved using a spectrum analyzer and digital storage oscilloscope. The analyzer is configured in a zero-span mode, center frequency set to the radar waveform's frequency or the center frequency of the EUT's operating channel. The IF output of the analyzer is connected to one input of the oscilloscope.

A signal generator output is set to send either the modulating signal directly or a pulse gate with an output pulse co-incident with each radar pulse. This output is connected to a second input on the oscilloscope and the oscilloscope displays both the channel traffic (via the if input) and the radar pulses on its display.

For in service monitoring tests the analyzer sweep time is set to > 20 seconds and the oscilloscope is configured with a data record length of 10 seconds for the short duration and frequency hopping waveforms, 20 seconds for the long duration waveforms. Both instruments are set for a single acquisition sequence. The analyzer is triggered 500ms before the start of the waveform and the oscilloscope is triggered directly by the modulating pulse train. Timing measurements for aggregate channel transmission time and channel move time are made from the oscilloscope data, with the end of the waveform clearly identified by the pulse train on one trace. The analyzer trace data is used to confirm that the last transmission occurred within the 10-second record of the oscilloscope. If necessary the record length of the oscilloscope is expanded to capture the last transmission on the channel prior to the channel move.

Channel availability check time timing plots are made using the analyzer. The analyzer is triggered at start of the EUT's channel availability check and used to verify that the EUT does not transmit when radar is applied during the check time.

The analyzer detector and oscilloscope sampling mode is set to peak detect for all plots.

DFS MEASUREMENT METHODS**DFS RADAR DETECTION BANDWIDTH**

The radar detection bandwidth is determined by using one of the radar waveforms (in the FCC case, the selection is limited to the short duration burst waveforms) and applying radar pulses at offset from the center channel frequency by multiples of 1MHz. These bursts are applied with no traffic on the channel. The first frequencies above and below the center channel frequency that have a detection rate below 90% define the radar bandwidth, the actual range being 1MHz below the upper frequency and 1MHz above the lower frequency.

DFS – CHANNEL CLOSING TRANSMISSION TIME AND CHANNEL MOVE TIME

Channel clearing and closing times are measured by applying a radar burst with the device configured to change channel and by observing the channel for transmissions. The time between the end of the applied radar waveform and the final transmission on the channel is the channel move time.

The aggregate transmission closing time is measured in two ways:

FCC – the total time of all individual transmissions from the EUT that are observed starting 200ms at the end of the last radar pulse in the waveform. This value is required to be less than 60ms.

ETSI – the total time of all individual transmissions from the EUT that are observed from the end of the last radar pulse in the waveform. This value is required to be less than 260ms.

For Client devices, the channel that was in use prior to radar detection by the master is additionally monitored for 30 minutes to ensure no transmissions by the client. This 30 minute period is repeated with the master device switched off.

DFS CHANNEL AVAILABILITY CHECK TIME

It is preferred that the EUT report when it starts the radar channel availability check. In this case a single type one burst of radar is applied within 6 seconds of observing the start of the channel availability check and it is verified that the device does not use the channel. The test is repeated by applying a burst of radar no sooner than 54 seconds and no later than 60 seconds after the start of the check.

If the EUT does not report the start of the check time, then the time to start transmitting on a channel after switching the device on is measured to approximate the time from power-on to the end of the channel availability check. The start of the channel availability check is assumed to be 60 seconds prior to the first transmission on the channel.

UNIFORM LOADING

Compliance with the channel loading requirement, where appropriate (i.e. when channel selection is not determined under control of the network), is demonstrated through the manufacturer's statement(s).

TRANSMIT POWER CONTROL (TPC)

Compliance with the transmit power control requirements for devices is demonstrated through measurements showing multiple power levels and manufacturer statements explaining how the power control is implemented.

SAMPLE CALCULATIONS

DETECTION PROBABILITY / SUCCESS RATE

The detection probability, or success rate, for any one radar waveform equals the number of successful trials divided by the total number of trials for that waveform.

In the case of the FCC requirements, for radar waveform types 1 through 4 an additional calculation is made to determine the average detection probability over all four radar waveform types. This calculation is the arithmetic mean of the four individual probabilities.

THRESHOLD LEVEL

The threshold level is the level of the simulated radar waveform at the EUT's antenna. If the test is performed in a conducted fashion then the level at the rf input equals the level at the antenna plus the gain of the antenna assembly, in dBi. The gain of the antenna assembly equals the gain of the antenna minus the loss of the cabling between the rf input and the antenna. The lowest gain value for all antenna assemblies intended for use with the device is used when making this calculation.

If the test is performed using the radiated method then the threshold level is the level at the antenna.

Appendix A Test Equipment Calibration Data

<u>Manufacturer</u>	<u>Description</u>	<u>Model #</u>	<u>Asset #</u>	<u>Cal Due</u>
Hewlett Packard	EMC Analyzer	8595EM	787	21-Dec-07
Tektronix	Oscilloscope	TDS 5104	1435	26-Apr-08
Agilent	PSG Vector Signal Generator	E8267C	1877	23-Nov-07

Appendix B Test Data Tables for Radar Detection Probability**Table 2 - Summary of All Results**

Waveform Name	Success Rate	Number of Trials
FCC Short Pulse Radar (Type 1)	100.0 %	30
FCC Short Pulse Radar (Type 2)	96.7 %	30
FCC Short Pulse Radar (Type 3)	100.0 %	30
FCC Short Pulse Radar (Type 4)	96.7 %	30
FCC frequency hopping radar (Type 6)	100.0 %	42
Long Sequence (Type 5)	100.0 %	30

Table 3 - FCC Short Pulse Radar (Type 1) Test Results

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected?	Fr (MHz) and level (dBm)	Hop seq.
0	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
1	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
2	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
3	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
4	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
5	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
6	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
7	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
8	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
9	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
10	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
11	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
12	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
13	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
14	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
15	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
16	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
17	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A

18	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
19	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
20	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
21	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
22	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
23	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
24	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
25	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
26	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A
27	18	1.0	1428.0	Yes	5600.0MHz, -52.0dBm	N/A
28	18	1.0	1428.0	Yes	5700.0MHz, -52.0dBm	N/A
29	18	1.0	1428.0	Yes	5500.0MHz, -52.0dBm	N/A

Table 4 - FCC Short Pulse Radar (Type 2) Test Results

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected?	Fr (MHz) and level (dBm)	Hop seq.
0	24	3.3	202.0	Yes	5600.0MHz, -52.0dBm	N/A
1	25	3.0	158.0	Yes	5700.0MHz, -52.0dBm	N/A
2	25	1.9	190.0	Yes	5500.0MHz, -52.0dBm	N/A
3	28	4.4	204.0	Yes	5600.0MHz, -52.0dBm	N/A
4	25	3.6	165.0	Yes	5700.0MHz, -52.0dBm	N/A
5	26	3.2	189.0	Yes	5500.0MHz, -52.0dBm	N/A
6	26	2.3	168.0	Yes	5600.0MHz, -52.0dBm	N/A
7	28	2.9	179.0	Yes	5700.0MHz, -52.0dBm	N/A
8	23	4.5	152.0	Yes	5500.0MHz, -52.0dBm	N/A
9	26	1.3	210.0	Yes	5600.0MHz, -52.0dBm	N/A
10	25	2.5	186.0	Yes	5700.0MHz, -52.0dBm	N/A
11	26	2.2	228.0	Yes	5500.0MHz, -52.0dBm	N/A
12	23	3.4	207.0	Yes	5600.0MHz, -52.0dBm	N/A
13	28	3.6	197.0	Yes	5700.0MHz, -52.0dBm	N/A

14	27	2.2	180.0	Yes	5500.0MHz, -52.0dBm	N/A
15	26	1.1	166.0	Yes	5600.0MHz, -52.0dBm	N/A
16	25	4.3	199.0	Yes	5700.0MHz, -52.0dBm	N/A
17	28	1.3	154.0	Yes	5500.0MHz, -52.0dBm	N/A
18	26	4.0	225.0	Yes	5600.0MHz, -52.0dBm	N/A
19	27	1.7	217.0	Yes	5700.0MHz, -52.0dBm	N/A
20	25	4.8	154.0	No	5600.0MHz, -52.0dBm	N/A
21	25	1.3	223.0	Yes	5500.0MHz, -52.0dBm	N/A
22	26	1.2	207.0	Yes	5600.0MHz, -52.0dBm	N/A
23	25	1.1	159.0	Yes	5700.0MHz, -52.0dBm	N/A
24	27	4.4	170.0	Yes	5500.0MHz, -52.0dBm	N/A
25	27	1.5	187.0	Yes	5600.0MHz, -52.0dBm	N/A
26	24	4.3	196.0	Yes	5700.0MHz, -52.0dBm	N/A
27	26	3.3	163.0	Yes	5500.0MHz, -52.0dBm	N/A
28	24	2.2	172.0	Yes	5600.0MHz, -52.0dBm	N/A
29	28	3.7	165.0	Yes	5700.0MHz, -52.0dBm	N/A

Table 5 - FCC Short Pulse Radar (Type 3) Test Results

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected?	Fr (MHz) and level (dBm)	Hop seq.
0	17	6.3	477.0	Yes	5500.0MHz, -52.0dBm	N/A
1	17	6.1	392.0	Yes	5600.0MHz, -52.0dBm	N/A
2	18	7.7	267.0	Yes	5700.0MHz, -52.0dBm	N/A
3	17	9.1	217.0	Yes	5500.0MHz, -52.0dBm	N/A
4	18	9.7	392.0	Yes	5600.0MHz, -52.0dBm	N/A
5	17	9.6	361.0	Yes	5700.0MHz, -52.0dBm	N/A
6	16	8.8	240.0	Yes	5500.0MHz, -52.0dBm	N/A
7	16	7.0	334.0	Yes	5600.0MHz, -52.0dBm	N/A
8	16	8.2	220.0	Yes	5700.0MHz, -52.0dBm	N/A
9	16	6.2	217.0	Yes	5500.0MHz, -52.0dBm	N/A

10	18	7.4	389.0	Yes	5700.0MHz, -52.0dBm	N/A
11	17	8.6	480.0	Yes	5600.0MHz, -52.0dBm	N/A
12	17	9.7	441.0	Yes	5700.0MHz, -52.0dBm	N/A
13	17	8.2	202.0	Yes	5500.0MHz, -52.0dBm	N/A
14	16	6.3	437.0	Yes	5600.0MHz, -52.0dBm	N/A
15	17	6.4	247.0	Yes	5700.0MHz, -52.0dBm	N/A
16	16	7.4	230.0	Yes	5500.0MHz, -52.0dBm	N/A
17	16	7.9	347.0	Yes	5600.0MHz, -52.0dBm	N/A
18	17	8.4	472.0	Yes	5700.0MHz, -52.0dBm	N/A
19	17	8.4	311.0	Yes	5500.0MHz, -52.0dBm	N/A
20	17	8.8	419.0	Yes	5600.0MHz, -52.0dBm	N/A
21	17	6.5	313.0	Yes	5700.0MHz, -52.0dBm	N/A
22	17	6.6	407.0	Yes	5500.0MHz, -52.0dBm	N/A
23	16	6.1	363.0	Yes	5600.0MHz, -52.0dBm	N/A
24	16	8.4	249.0	Yes	5700.0MHz, -52.0dBm	N/A
25	17	7.7	498.0	Yes	5500.0MHz, -52.0dBm	N/A
26	17	9.8	413.0	Yes	5600.0MHz, -52.0dBm	N/A
27	18	6.5	284.0	Yes	5700.0MHz, -52.0dBm	N/A
28	16	8.0	247.0	Yes	5500.0MHz, -52.0dBm	N/A
29	17	6.2	299.0	Yes	5600.0MHz, -52.0dBm	N/A

Table 6 - FCC Short Pulse Radar (Type 4) Test Results

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected?	Fr (MHz) and level (dBm)	Hop seq.
0	16	16.5	352.0	Yes	5700.0MHz, -52.0dBm	N/A
1	14	15.8	425.0	No	5500.0MHz, -52.0dBm	N/A
2	16	18.5	316.0	Yes	5500.0MHz, -52.0dBm	N/A
3	14	20.0	433.0	Yes	5600.0MHz, -52.0dBm	N/A
4	13	18.8	382.0	Yes	5700.0MHz, -52.0dBm	N/A
5	12	14.8	492.0	Yes	5500.0MHz, -52.0dBm	N/A

6	12	14.8	346.0	Yes	5600.0MHz, -52.0dBm	N/A
7	13	18.4	253.0	Yes	5700.0MHz, -52.0dBm	N/A
8	13	11.8	478.0	Yes	5500.0MHz, -52.0dBm	N/A
9	12	12.5	414.0	Yes	5600.0MHz, -52.0dBm	N/A
10	16	14.7	332.0	Yes	5700.0MHz, -52.0dBm	N/A
11	15	15.3	472.0	Yes	5500.0MHz, -52.0dBm	N/A
12	16	15.6	394.0	Yes	5600.0MHz, -52.0dBm	N/A
13	14	18.0	434.0	Yes	5700.0MHz, -52.0dBm	N/A
14	13	11.6	289.0	Yes	5500.0MHz, -52.0dBm	N/A
15	13	17.9	257.0	Yes	5600.0MHz, -52.0dBm	N/A
16	16	13.7	376.0	Yes	5700.0MHz, -52.0dBm	N/A
17	16	17.0	274.0	Yes	5500.0MHz, -52.0dBm	N/A
18	14	18.9	339.0	Yes	5600.0MHz, -52.0dBm	N/A
19	15	11.2	282.0	Yes	5700.0MHz, -52.0dBm	N/A
20	12	14.2	339.0	Yes	5500.0MHz, -52.0dBm	N/A
21	13	16.0	255.0	Yes	5600.0MHz, -52.0dBm	N/A
22	13	13.7	372.0	Yes	5700.0MHz, -52.0dBm	N/A
23	14	17.3	461.0	Yes	5500.0MHz, -52.0dBm	N/A
24	16	12.9	380.0	Yes	5600.0MHz, -52.0dBm	N/A
25	15	13.0	464.0	Yes	5700.0MHz, -52.0dBm	N/A
26	13	12.6	446.0	Yes	5500.0MHz, -52.0dBm	N/A
27	15	19.2	286.0	Yes	5600.0MHz, -52.0dBm	N/A
28	16	17.5	319.0	Yes	5700.0MHz, -52.0dBm	N/A
29	15	19.6	236.0	Yes	5500.0MHz, -52.0dBm	N/A

Table 7 - FCC frequency hopping radar (Type 6) Test Results

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected?	Fr (MHz) and level (dBm)	Hop seq.
0	9	1.0	333.0	Yes	5578.0MHz, -52.0dBm	5309, 5522, 5560, 5647, 5456, 5707, 5534, 5272, 5281, 5702, 5649, 5464, 5353, 5613, 5503, 5704, 5612, 5678, 5636, 5472,

						5323, 5375, 5288, 5716, 5633, 5475, 5340, 5400, 5680, 5662, 5694, 5565, 5721, 5705, 5572, 5396, 5273, 5718, 5710, 5361, 5691, 5292, 5465, 5436, 5690, 5304, 5653, 5372, 5320, 5391, 5363, 5685, 5543, 5590, 5547, 5512, 5558, 5709, 5696, 5635, 5444, 5683, 5632, 5651, 5358, 5608, 5325, 5339, 5568, 5513, 5416, 5422, 5574, 5254, 5552, 5487, 5463, 5646, 5703, 5679, 5311, 5461, 5407, 5630, 5377, 5424, 5360, 5440, 5474, 5695, 5364, 5586, 5351, 5301, 5466, 5619, 5392, 5478, 5404, 5626 (2 hits)
1	9	1.0	333.0	Yes	5579.0MHz, -52.0dBm	5571, 5363, 5626, 5586, 5603, 5485, 5333, 5638, 5709, 5669, 5592, 5426, 5620, 5668, 5268, 5677, 5465, 5627, 5378, 5250, 5474, 5291, 5389, 5712, 5252, 5488, 5720, 5714, 5390, 5643, 5290, 5595, 5254, 5470, 5475, 5386, 5418, 5549, 5451, 5376, 5663, 5296, 5265, 5691, 5493, 5283, 5618, 5715, 5597, 5722, 5690, 5367, 5693, 5676, 5384, 5675, 5328, 5354, 5519, 5306, 5385, 5274, 5661, 5529, 5258, 5557, 5594, 5278, 5380, 5342, 5721, 5311, 5572, 5270, 5548, 5361, 5719, 5372, 5396, 5421, 5464, 5281, 5295, 5641, 5264, 5579, 5414, 5500, 5325, 5645, 5650, 5468, 5424, 5269, 5316, 5428, 5513, 5280, 5600, 5285 (2 hits)
2	9	1.0	333.0	Yes	5580.0MHz, -52.0dBm	5290, 5503, 5626, 5671, 5472, 5413, 5621, 5301, 5719, 5632, 5380, 5530, 5516, 5442, 5258, 5534, 5498, 5571, 5357, 5454, 5631, 5615, 5288, 5499, 5352, 5441, 5513, 5540, 5582, 5364, 5430, 5409, 5662, 5484, 5505, 5283, 5302, 5576, 5386, 5432, 5350, 5404, 5613, 5314, 5538, 5299, 5473, 5597, 5669, 5512, 5392, 5457, 5428, 5459, 5541, 5616, 5336, 5688, 5455, 5351, 5427, 5654, 5521, 5553, 5640, 5327, 5273, 5414, 5292, 5366, 5376, 5356, 5672, 5611, 5588, 5264, 5385, 5702, 5318, 5257, 5429, 5596, 5536, 5661, 5593, 5690, 5712, 5625, 5447, 5415, 5634, 5293, 5374, 5691, 5574, 5368, 5284, 5677, 5422, 5704 (2 hits)

3	9	1.0	333.0	Yes	5581.0MHz, -52.0dBm	5724, 5319, 5625, 5333, 5580, 5377, 5451, 5321, 5336, 5483, 5387, 5723, 5527, 5545, 5405, 5397, 5663, 5521, 5564, 5412, 5266, 5437, 5444, 5395, 5720, 5635, 5523, 5473, 5673, 5391, 5422, 5552, 5610, 5495, 5665, 5262, 5283, 5503, 5643, 5578, 5579, 5568, 5404, 5270, 5479, 5566, 5496, 5339, 5355, 5439, 5705, 5390, 5369, 5555, 5672, 5664, 5573, 5567, 5532, 5370, 5334, 5497, 5562, 5661, 5644, 5608, 5530, 5374, 5359, 5406, 5265, 5472, 5676, 5272, 5598, 5603, 5592, 5596, 5560, 5396, 5718, 5654, 5642, 5493, 5633, 5389, 5597, 5251, 5326, 5291, 5435, 5478, 5522, 5329, 5601, 5278, 5260, 5636, 5535, 5256 (3 hits)
4	9	1.0	333.0	Yes	5582.0MHz, -52.0dBm	5593, 5348, 5443, 5553, 5491, 5671, 5498, 5596, 5712, 5652, 5318, 5573, 5663, 5527, 5603, 5352, 5456, 5687, 5565, 5266, 5629, 5344, 5664, 5347, 5676, 5610, 5401, 5299, 5529, 5720, 5658, 5688, 5518, 5328, 5656, 5626, 5539, 5591, 5680, 5602, 5298, 5517, 5633, 5445, 5659, 5590, 5421, 5521, 5510, 5369, 5389, 5697, 5496, 5337, 5635, 5366, 5393, 5691, 5357, 5723, 5428, 5713, 5580, 5256, 5319, 5335, 5450, 5417, 5286, 5423, 5651, 5661, 5451, 5547, 5708, 5373, 5259, 5470, 5585, 5384, 5646, 5554, 5432, 5716, 5297, 5255, 5442, 5435, 5341, 5279, 5355, 5402, 5501, 5412, 5613, 5606, 5655, 5277, 5657, 5346 (4 hits)
5	9	1.0	333.0	Yes	5583.0MHz, -52.0dBm	5710, 5704, 5286, 5407, 5712, 5660, 5532, 5383, 5376, 5546, 5360, 5284, 5607, 5418, 5442, 5276, 5666, 5282, 5476, 5425, 5347, 5631, 5377, 5627, 5511, 5694, 5392, 5384, 5705, 5396, 5371, 5253, 5645, 5342, 5399, 5394, 5285, 5646, 5423, 5335, 5720, 5513, 5506, 5427, 5330, 5711, 5617, 5529, 5500, 5515, 5523, 5595, 5453, 5682, 5587, 5422, 5687, 5648, 5661, 5308, 5534, 5524, 5485, 5649, 5431, 5356, 5723, 5305, 5698, 5270, 5549, 5662, 5291, 5650, 5493, 5278, 5696, 5351, 5641, 5361, 5357, 5668, 5556, 5725, 5718,

						5445, 5306, 5612, 5321, 5622, 5713, 5403, 5518, 5522, 5365, 5585, 5344, 5638, 5251, 5629 (2 hits)
6	9	1.0	333.0	Yes	5584.0MHz, -52.0dBm	5367, 5479, 5562, 5527, 5430, 5412, 5519, 5568, 5556, 5292, 5702, 5395, 5300, 5630, 5302, 5358, 5593, 5647, 5686, 5295, 5614, 5651, 5333, 5260, 5540, 5673, 5369, 5267, 5646, 5348, 5492, 5521, 5595, 5426, 5462, 5592, 5652, 5677, 5461, 5450, 5654, 5410, 5707, 5324, 5440, 5584, 5334, 5481, 5429, 5305, 5415, 5622, 5487, 5287, 5667, 5388, 5701, 5620, 5698, 5270, 5572, 5422, 5477, 5704, 5407, 5428, 5393, 5697, 5571, 5390, 5354, 5511, 5482, 5331, 5509, 5550, 5679, 5365, 5720, 5278, 5391, 5276, 5306, 5549, 5522, 5525, 5536, 5721, 5684, 5314, 5468, 5524, 5513, 5653, 5588, 5510, 5301, 5564, 5554, 5626 (2 hits)
7	9	1.0	333.0	Yes	5585.0MHz, -52.0dBm	5528, 5581, 5669, 5522, 5452, 5350, 5348, 5289, 5470, 5478, 5327, 5665, 5599, 5382, 5527, 5366, 5498, 5290, 5610, 5453, 5673, 5563, 5287, 5412, 5492, 5667, 5694, 5697, 5339, 5632, 5534, 5263, 5404, 5582, 5715, 5431, 5464, 5443, 5269, 5426, 5672, 5347, 5572, 5642, 5319, 5299, 5519, 5617, 5499, 5258, 5626, 5618, 5539, 5466, 5432, 5633, 5720, 5456, 5561, 5660, 5326, 5329, 5315, 5354, 5270, 5465, 5474, 5361, 5530, 5266, 5333, 5586, 5681, 5657, 5430, 5359, 5668, 5330, 5413, 5467, 5360, 5603, 5367, 5424, 5274, 5630, 5260, 5298, 5693, 5455, 5439, 5520, 5429, 5259, 5438, 5613, 5416, 5422, 5417, 5423 (3 hits)
8	9	1.0	333.0	Yes	5586.0MHz, -52.0dBm	5662, 5583, 5490, 5465, 5596, 5602, 5567, 5542, 5270, 5554, 5420, 5577, 5657, 5267, 5313, 5636, 5276, 5565, 5537, 5557, 5676, 5716, 5646, 5466, 5569, 5346, 5478, 5341, 5410, 5669, 5529, 5411, 5414, 5564, 5394, 5300, 5494, 5630, 5274, 5477, 5634, 5382, 5359, 5572, 5366, 5507, 5702, 5697, 5706, 5368, 5576, 5328, 5397, 5257, 5436, 5285, 5317, 5327, 5435, 5333, 5635, 5336, 5686, 5699, 5352,

						5667, 5574, 5536, 5315, 5449, 5406, 5502, 5471, 5391, 5487, 5658, 5322, 5722, 5479, 5389, 5695, 5430, 5469, 5725, 5283, 5528, 5644, 5337, 5413, 5553, 5520, 5559, 5550, 5704, 5609, 5611, 5599, 5654, 5340, 5552 (1 hits)
9	9	1.0	333.0	Yes	5587.0MHz, -52.0dBm	5261, 5635, 5696, 5459, 5344, 5533, 5686, 5433, 5602, 5355, 5604, 5444, 5277, 5521, 5539, 5447, 5341, 5396, 5490, 5693, 5268, 5386, 5369, 5338, 5721, 5483, 5619, 5499, 5331, 5446, 5448, 5423, 5531, 5683, 5610, 5559, 5611, 5430, 5615, 5476, 5349, 5439, 5700, 5299, 5530, 5290, 5443, 5335, 5688, 5314, 5685, 5392, 5489, 5366, 5519, 5307, 5505, 5413, 5651, 5508, 5703, 5328, 5589, 5285, 5317, 5553, 5578, 5557, 5491, 5326, 5593, 5351, 5267, 5591, 5676, 5569, 5304, 5643, 5554, 5258, 5486, 5370, 5537, 5410, 5417, 5466, 5346, 5638, 5496, 5655, 5571, 5301, 5575, 5551, 5691, 5598, 5264, 5485, 5378, 5253 (3 hits)
10	9	1.0	333.0	Yes	5588.0MHz, -52.0dBm	5712, 5527, 5429, 5413, 5342, 5451, 5283, 5337, 5420, 5285, 5294, 5595, 5708, 5717, 5275, 5302, 5528, 5627, 5252, 5440, 5319, 5365, 5635, 5573, 5360, 5394, 5260, 5390, 5300, 5554, 5395, 5616, 5685, 5507, 5428, 5531, 5336, 5686, 5553, 5722, 5412, 5580, 5568, 5363, 5301, 5623, 5346, 5333, 5683, 5291, 5614, 5560, 5436, 5280, 5547, 5406, 5495, 5697, 5523, 5484, 5661, 5667, 5373, 5475, 5284, 5681, 5679, 5332, 5377, 5612, 5666, 5439, 5368, 5652, 5353, 5548, 5567, 5588, 5695, 5546, 5561, 5532, 5705, 5267, 5419, 5341, 5602, 5323, 5282, 5432, 5427, 5530, 5536, 5476, 5624, 5600, 5566, 5677, 5608, 5611 (2 hits)
11	9	1.0	333.0	Yes	5589.0MHz, -52.0dBm	5589, 5305, 5612, 5548, 5706, 5621, 5293, 5303, 5378, 5552, 5452, 5412, 5273, 5417, 5349, 5341, 5675, 5664, 5356, 5667, 5345, 5515, 5318, 5260, 5514, 5336, 5630, 5534, 5661, 5301, 5629, 5338, 5312, 5568, 5357, 5298, 5316, 5497, 5613, 5279, 5365, 5431, 5447, 5371, 5582,

						5504, 5276, 5580, 5663, 5467, 5599, 5258, 5546, 5270, 5374, 5252, 5701, 5585, 5656, 5274, 5535, 5672, 5609, 5340, 5300, 5462, 5500, 5666, 5478, 5528, 5359, 5460, 5428, 5598, 5288, 5498, 5440, 5723, 5253, 5508, 5635, 5393, 5594, 5710, 5490, 5482, 5464, 5491, 5355, 5392, 5375, 5509, 5283, 5473, 5709, 5526, 5698, 5492, 5637, 5626 (4 hits)
12	9	1.0	333.0	Yes	5590.0MHz, -52.0dBm	5609, 5462, 5429, 5633, 5295, 5588, 5293, 5497, 5439, 5660, 5252, 5566, 5573, 5365, 5535, 5390, 5703, 5561, 5430, 5386, 5354, 5625, 5687, 5553, 5645, 5273, 5621, 5438, 5664, 5465, 5348, 5600, 5630, 5268, 5666, 5415, 5521, 5401, 5322, 5291, 5585, 5569, 5627, 5544, 5470, 5550, 5469, 5256, 5380, 5312, 5349, 5342, 5383, 5617, 5301, 5542, 5495, 5583, 5447, 5476, 5715, 5441, 5490, 5433, 5272, 5599, 5331, 5578, 5435, 5372, 5330, 5580, 5363, 5484, 5260, 5334, 5281, 5651, 5451, 5296, 5392, 5501, 5297, 5579, 5675, 5524, 5292, 5601, 5288, 5351, 5668, 5475, 5427, 5725, 5474, 5493, 5369, 5251, 5483, 5545 (6 hits)
13	9	1.0	333.0	Yes	5591.0MHz, -52.0dBm	5251, 5378, 5338, 5398, 5576, 5649, 5652, 5703, 5519, 5267, 5371, 5457, 5562, 5659, 5587, 5329, 5345, 5359, 5676, 5417, 5643, 5445, 5356, 5439, 5366, 5683, 5673, 5484, 5324, 5394, 5431, 5697, 5635, 5560, 5288, 5263, 5694, 5353, 5592, 5315, 5266, 5671, 5297, 5580, 5583, 5397, 5472, 5277, 5600, 5567, 5388, 5321, 5557, 5513, 5582, 5450, 5426, 5639, 5666, 5541, 5308, 5628, 5705, 5502, 5420, 5317, 5318, 5547, 5595, 5429, 5577, 5259, 5385, 5280, 5311, 5298, 5456, 5301, 5584, 5538, 5585, 5504, 5270, 5723, 5346, 5693, 5422, 5305, 5430, 5372, 5699, 5392, 5687, 5437, 5691, 5254, 5396, 5403, 5325, 5362 (6 hits)
14	9	1.0	333.0	Yes	5578.0MHz, -52.0dBm	5320, 5386, 5252, 5690, 5558, 5350, 5289, 5648, 5713, 5549, 5399, 5711, 5314, 5396, 5310, 5676, 5680, 5552, 5368, 5415, 5369, 5316, 5668, 5611, 5522,

						5365, 5567, 5614, 5374, 5299, 5612, 5669, 5442, 5384, 5724, 5385, 5583, 5489, 5394, 5596, 5276, 5715, 5546, 5670, 5445, 5388, 5689, 5389, 5337, 5375, 5294, 5456, 5417, 5383, 5576, 5334, 5405, 5721, 5687, 5479, 5451, 5305, 5253, 5400, 5327, 5353, 5281, 5509, 5472, 5485, 5452, 5448, 5449, 5646, 5595, 5533, 5307, 5477, 5254, 5656, 5527, 5272, 5685, 5306, 5382, 5535, 5641, 5287, 5326, 5435, 5397, 5550, 5298, 5568, 5566, 5366, 5309, 5574, 5712, 5587 (2 hits)
15	9	1.0	333.0	Yes	5579.0MHz, -52.0dBm	5319, 5391, 5498, 5659, 5298, 5390, 5420, 5259, 5615, 5355, 5696, 5432, 5526, 5652, 5700, 5707, 5381, 5335, 5546, 5489, 5324, 5392, 5397, 5371, 5714, 5339, 5408, 5318, 5621, 5423, 5658, 5255, 5407, 5269, 5576, 5409, 5558, 5637, 5447, 5698, 5491, 5531, 5699, 5668, 5421, 5510, 5402, 5496, 5483, 5595, 5629, 5446, 5404, 5474, 5280, 5382, 5625, 5449, 5256, 5462, 5440, 5602, 5535, 5565, 5333, 5517, 5340, 5454, 5628, 5464, 5411, 5441, 5478, 5313, 5611, 5270, 5465, 5574, 5367, 5486, 5306, 5617, 5653, 5328, 5620, 5702, 5666, 5614, 5466, 5606, 5288, 5601, 5268, 5393, 5541, 5511, 5706, 5484, 5325, 5578 (1 hits)
16	9	1.0	333.0	Yes	5580.0MHz, -52.0dBm	5291, 5581, 5456, 5322, 5333, 5260, 5364, 5446, 5710, 5712, 5294, 5458, 5603, 5696, 5320, 5552, 5445, 5472, 5661, 5515, 5685, 5488, 5509, 5630, 5376, 5257, 5506, 5535, 5586, 5719, 5592, 5669, 5608, 5533, 5476, 5451, 5530, 5695, 5543, 5481, 5370, 5702, 5599, 5344, 5422, 5534, 5297, 5502, 5346, 5277, 5438, 5350, 5289, 5672, 5610, 5606, 5419, 5501, 5296, 5553, 5654, 5667, 5575, 5725, 5408, 5484, 5254, 5721, 5250, 5255, 5653, 5288, 5666, 5518, 5724, 5340, 5389, 5573, 5627, 5395, 5449, 5514, 5338, 5705, 5640, 5325, 5290, 5410, 5372, 5464, 5632, 5665, 5693, 5567, 5563, 5494, 5324, 5677, 5354, 5283 (2 hits)
17	9	1.0	333.0	Yes	5581.0MHz,	5452, 5420, 5481, 5424, 5356,

					-52.0dBm	5364, 5256, 5440, 5369, 5436, 5669, 5547, 5709, 5265, 5458, 5579, 5441, 5408, 5674, 5550, 5626, 5488, 5651, 5342, 5490, 5303, 5381, 5478, 5505, 5462, 5261, 5562, 5405, 5278, 5491, 5327, 5496, 5640, 5638, 5574, 5439, 5338, 5473, 5395, 5627, 5306, 5414, 5682, 5554, 5438, 5284, 5588, 5533, 5720, 5268, 5463, 5647, 5523, 5482, 5504, 5368, 5538, 5358, 5539, 5618, 5294, 5621, 5687, 5524, 5699, 5380, 5479, 5470, 5295, 5560, 5552, 5427, 5274, 5319, 5305, 5324, 5345, 5376, 5680, 5578, 5310, 5668, 5599, 5286, 5512, 5513, 5394, 5445, 5501, 5678, 5320, 5467, 5400, 5684, 5250 (3 hits)
18	9	1.0	333.0	Yes	5582.0MHz, -52.0dBm	5504, 5309, 5348, 5521, 5602, 5582, 5621, 5643, 5558, 5370, 5489, 5595, 5640, 5482, 5296, 5581, 5544, 5660, 5254, 5567, 5384, 5683, 5551, 5664, 5429, 5641, 5328, 5368, 5381, 5702, 5484, 5478, 5358, 5646, 5393, 5514, 5380, 5446, 5464, 5398, 5347, 5421, 5720, 5316, 5469, 5546, 5614, 5502, 5376, 5511, 5650, 5525, 5341, 5270, 5723, 5605, 5350, 5474, 5326, 5431, 5604, 5625, 5468, 5389, 5534, 5271, 5530, 5609, 5333, 5593, 5506, 5345, 5445, 5441, 5540, 5320, 5303, 5673, 5306, 5527, 5606, 5439, 5305, 5716, 5700, 5677, 5336, 5417, 5288, 5338, 5480, 5416, 5485, 5533, 5366, 5510, 5459, 5711, 5635, 5275 (2 hits)
19	9	1.0	333.0	Yes	5583.0MHz, -52.0dBm	5387, 5638, 5567, 5537, 5609, 5575, 5452, 5703, 5462, 5435, 5634, 5391, 5694, 5676, 5404, 5360, 5279, 5441, 5499, 5549, 5386, 5723, 5398, 5722, 5626, 5656, 5691, 5277, 5621, 5644, 5431, 5415, 5618, 5550, 5409, 5470, 5305, 5335, 5287, 5402, 5653, 5433, 5374, 5495, 5285, 5527, 5347, 5327, 5350, 5635, 5615, 5388, 5461, 5591, 5359, 5430, 5605, 5678, 5596, 5526, 5337, 5422, 5364, 5340, 5494, 5665, 5648, 5592, 5357, 5714, 5454, 5604, 5705, 5706, 5313, 5542, 5281, 5390, 5324, 5507, 5291, 5342, 5562, 5501, 5611, 5540, 5271, 5543, 5420, 5274,

						5339, 5295, 5663, 5633, 5421, 5446, 5489, 5573, 5556, 5522 (1 hits)
20	9	1.0	333.0	Yes	5584.0MHz, -52.0dBm	5621, 5530, 5304, 5330, 5454, 5458, 5578, 5361, 5722, 5671, 5639, 5631, 5476, 5421, 5703, 5442, 5484, 5317, 5359, 5507, 5318, 5586, 5383, 5636, 5324, 5286, 5533, 5420, 5565, 5423, 5305, 5426, 5376, 5589, 5472, 5459, 5273, 5276, 5414, 5315, 5685, 5614, 5291, 5391, 5648, 5436, 5689, 5592, 5494, 5593, 5542, 5672, 5255, 5513, 5692, 5718, 5496, 5711, 5397, 5544, 5419, 5534, 5251, 5657, 5331, 5516, 5602, 5694, 5517, 5411, 5629, 5506, 5604, 5541, 5297, 5404, 5663, 5275, 5637, 5696, 5695, 5264, 5687, 5693, 5590, 5655, 5336, 5515, 5363, 5522, 5319, 5666, 5550, 5638, 5408, 5527, 5451, 5409, 5717, 5334 (4 hits)
21	9	1.0	333.0	Yes	5585.0MHz, -52.0dBm	5563, 5407, 5307, 5450, 5592, 5546, 5395, 5509, 5694, 5363, 5537, 5270, 5344, 5538, 5536, 5692, 5613, 5255, 5583, 5507, 5668, 5678, 5420, 5267, 5576, 5714, 5642, 5375, 5422, 5423, 5388, 5594, 5481, 5497, 5691, 5635, 5471, 5624, 5664, 5276, 5629, 5715, 5597, 5656, 5562, 5429, 5621, 5700, 5574, 5485, 5633, 5284, 5561, 5432, 5474, 5392, 5434, 5361, 5492, 5490, 5460, 5659, 5357, 5473, 5366, 5535, 5559, 5506, 5453, 5298, 5379, 5288, 5464, 5577, 5347, 5706, 5501, 5374, 5369, 5297, 5269, 5603, 5565, 5699, 5351, 5315, 5555, 5338, 5333, 5685, 5585, 5681, 5279, 5264, 5367, 5553, 5293, 5695, 5686, 5364 (2 hits)
22	9	1.0	333.0	Yes	5586.0MHz, -52.0dBm	5599, 5658, 5269, 5466, 5504, 5270, 5408, 5707, 5449, 5600, 5623, 5381, 5652, 5293, 5410, 5384, 5593, 5515, 5306, 5366, 5541, 5373, 5528, 5671, 5423, 5546, 5483, 5402, 5604, 5620, 5628, 5573, 5695, 5526, 5473, 5328, 5363, 5318, 5321, 5341, 5649, 5259, 5668, 5307, 5657, 5554, 5382, 5577, 5663, 5289, 5266, 5508, 5265, 5252, 5665, 5494, 5635, 5327, 5272, 5589, 5387, 5258, 5415, 5305, 5513, 5282, 5499, 5346, 5536, 5709,

						5647, 5525, 5605, 5295, 5469, 5609, 5606, 5302, 5616, 5460, 5617, 5582, 5535, 5634, 5294, 5296, 5397, 5611, 5680, 5527, 5445, 5313, 5648, 5705, 5563, 5342, 5664, 5292, 5602, 5495 (2 hits)
23	9	1.0	333.0	Yes	5587.0MHz, -52.0dBm	5461, 5606, 5277, 5321, 5478, 5329, 5349, 5594, 5263, 5480, 5666, 5602, 5293, 5639, 5481, 5432, 5449, 5704, 5276, 5677, 5401, 5561, 5282, 5292, 5440, 5505, 5428, 5352, 5452, 5344, 5588, 5629, 5687, 5304, 5455, 5722, 5355, 5683, 5357, 5316, 5415, 5559, 5685, 5431, 5330, 5587, 5486, 5688, 5323, 5394, 5603, 5385, 5395, 5715, 5542, 5424, 5289, 5693, 5515, 5350, 5391, 5536, 5425, 5684, 5278, 5379, 5503, 5260, 5416, 5384, 5326, 5541, 5392, 5605, 5267, 5565, 5530, 5508, 5572, 5710, 5615, 5718, 5300, 5347, 5613, 5633, 5532, 5356, 5632, 5527, 5319, 5678, 5569, 5417, 5604, 5694, 5657, 5285, 5668, 5696 (2 hits)
24	9	1.0	333.0	Yes	5588.0MHz, -52.0dBm	5584, 5531, 5697, 5276, 5696, 5598, 5655, 5648, 5301, 5479, 5267, 5376, 5285, 5338, 5546, 5386, 5560, 5273, 5299, 5323, 5635, 5358, 5545, 5404, 5432, 5674, 5720, 5650, 5641, 5354, 5303, 5619, 5630, 5330, 5467, 5431, 5571, 5472, 5270, 5699, 5509, 5395, 5417, 5447, 5623, 5311, 5266, 5615, 5486, 5626, 5649, 5629, 5587, 5724, 5582, 5502, 5451, 5511, 5652, 5419, 5538, 5444, 5712, 5586, 5428, 5609, 5706, 5331, 5470, 5399, 5258, 5383, 5625, 5637, 5407, 5703, 5336, 5684, 5497, 5704, 5377, 5621, 5329, 5530, 5677, 5337, 5397, 5555, 5620, 5717, 5664, 5449, 5425, 5713, 5372, 5522, 5478, 5689, 5659, 5710 (4 hits)
25	9	1.0	333.0	Yes	5589.0MHz, -52.0dBm	5588, 5420, 5426, 5522, 5573, 5508, 5377, 5270, 5692, 5374, 5654, 5289, 5427, 5663, 5586, 5293, 5428, 5269, 5503, 5403, 5686, 5646, 5462, 5500, 5482, 5705, 5314, 5673, 5504, 5488, 5551, 5484, 5656, 5455, 5635, 5286, 5605, 5272, 5649, 5282, 5334, 5549, 5674, 5266, 5675, 5554, 5346, 5352, 5406, 5365,

						5591, 5681, 5615, 5283, 5479, 5486, 5691, 5677, 5477, 5445, 5412, 5251, 5278, 5629, 5632, 5441, 5491, 5393, 5310, 5337, 5345, 5574, 5618, 5717, 5300, 5342, 5409, 5584, 5543, 5416, 5344, 5356, 5483, 5523, 5627, 5347, 5443, 5711, 5703, 5349, 5697, 5325, 5647, 5529, 5599, 5459, 5466, 5330, 5721, 5308 (4 hits)
26	9	1.0	333.0	Yes	5590.0MHz, -52.0dBm	5498, 5499, 5507, 5670, 5656, 5646, 5354, 5595, 5516, 5254, 5660, 5465, 5310, 5327, 5280, 5665, 5303, 5412, 5418, 5395, 5337, 5409, 5693, 5411, 5388, 5417, 5562, 5451, 5457, 5347, 5651, 5593, 5433, 5515, 5267, 5666, 5453, 5524, 5692, 5287, 5714, 5600, 5350, 5568, 5459, 5469, 5679, 5539, 5323, 5658, 5678, 5297, 5357, 5355, 5535, 5485, 5616, 5284, 5523, 5530, 5375, 5687, 5649, 5331, 5288, 5478, 5682, 5671, 5349, 5260, 5647, 5720, 5351, 5483, 5318, 5356, 5481, 5348, 5290, 5268, 5447, 5554, 5345, 5635, 5379, 5374, 5322, 5494, 5686, 5432, 5716, 5521, 5549, 5387, 5639, 5456, 5313, 5376, 5557, 5578 (1 hits)
27	9	1.0	333.0	Yes	5591.0MHz, -52.0dBm	5357, 5363, 5690, 5322, 5457, 5404, 5537, 5468, 5631, 5576, 5321, 5522, 5509, 5364, 5342, 5562, 5384, 5683, 5557, 5712, 5577, 5283, 5259, 5471, 5262, 5553, 5331, 5686, 5556, 5513, 5429, 5435, 5273, 5377, 5558, 5559, 5672, 5280, 5546, 5299, 5667, 5516, 5589, 5290, 5285, 5515, 5426, 5535, 5382, 5463, 5442, 5444, 5303, 5428, 5374, 5598, 5503, 5654, 5592, 5615, 5308, 5275, 5456, 5627, 5618, 5306, 5587, 5272, 5571, 5427, 5282, 5256, 5304, 5436, 5499, 5718, 5517, 5440, 5411, 5338, 5454, 5385, 5398, 5480, 5252, 5626, 5298, 5564, 5313, 5424, 5484, 5657, 5277, 5723, 5380, 5714, 5498, 5386, 5688, 5694 (2 hits)
28	9	1.0	333.0	Yes	5578.0MHz, -52.0dBm	5623, 5296, 5606, 5712, 5413, 5442, 5294, 5553, 5407, 5298, 5563, 5523, 5441, 5567, 5323, 5443, 5685, 5279, 5401, 5399, 5397, 5609, 5625, 5591, 5425, 5470, 5604, 5497, 5410, 5537,

						5458, 5451, 5690, 5327, 5579, 5557, 5317, 5684, 5392, 5405, 5564, 5462, 5531, 5678, 5704, 5288, 5270, 5577, 5314, 5651, 5597, 5610, 5721, 5357, 5341, 5278, 5265, 5293, 5680, 5309, 5545, 5291, 5636, 5418, 5498, 5529, 5532, 5439, 5479, 5509, 5538, 5353, 5665, 5639, 5328, 5629, 5297, 5350, 5271, 5566, 5330, 5412, 5560, 5251, 5312, 5614, 5284, 5289, 5504, 5496, 5647, 5253, 5254, 5485, 5558, 5676, 5518, 5562, 5398, 5513 (2 hits)
29	9	1.0	333.0	Yes	5579.0MHz, -52.0dBm	5379, 5625, 5532, 5644, 5468, 5351, 5316, 5675, 5467, 5274, 5413, 5286, 5710, 5636, 5304, 5290, 5471, 5605, 5575, 5508, 5704, 5708, 5626, 5492, 5606, 5254, 5414, 5381, 5724, 5326, 5667, 5688, 5393, 5586, 5278, 5490, 5640, 5611, 5604, 5612, 5545, 5341, 5519, 5620, 5431, 5395, 5292, 5534, 5403, 5513, 5720, 5516, 5610, 5320, 5385, 5512, 5715, 5354, 5550, 5619, 5347, 5554, 5523, 5509, 5315, 5655, 5608, 5639, 5324, 5264, 5529, 5287, 5265, 5329, 5630, 5327, 5377, 5705, 5308, 5386, 5454, 5501, 5261, 5686, 5277, 5339, 5518, 5330, 5520, 5595, 5361, 5298, 5380, 5549, 5359, 5477, 5464, 5506, 5466, 5497 (1 hits)
30	9	1.0	333.0	Yes	5580.0MHz, -52.0dBm	5373, 5330, 5466, 5579, 5395, 5596, 5439, 5538, 5618, 5508, 5460, 5370, 5447, 5288, 5374, 5426, 5344, 5489, 5578, 5545, 5530, 5599, 5411, 5434, 5356, 5388, 5259, 5301, 5697, 5628, 5253, 5410, 5652, 5402, 5280, 5409, 5677, 5562, 5630, 5716, 5574, 5389, 5348, 5365, 5683, 5669, 5679, 5469, 5529, 5427, 5319, 5600, 5464, 5472, 5620, 5300, 5428, 5326, 5686, 5670, 5586, 5694, 5612, 5494, 5363, 5378, 5307, 5661, 5672, 5557, 5451, 5452, 5559, 5314, 5308, 5406, 5318, 5355, 5455, 5566, 5633, 5495, 5463, 5340, 5285, 5432, 5663, 5369, 5537, 5493, 5443, 5482, 5416, 5317, 5377, 5359, 5400, 5571, 5615, 5632 (3 hits)
31	9	1.0	333.0	Yes	5581.0MHz, -52.0dBm	5673, 5478, 5385, 5363, 5432, 5435, 5407, 5295, 5250, 5338,

						5471, 5631, 5347, 5492, 5529, 5585, 5371, 5439, 5409, 5395, 5549, 5717, 5426, 5720, 5647, 5721, 5512, 5253, 5449, 5468, 5650, 5322, 5479, 5334, 5606, 5467, 5495, 5688, 5645, 5331, 5508, 5393, 5346, 5706, 5396, 5442, 5583, 5491, 5689, 5301, 5694, 5323, 5352, 5624, 5597, 5704, 5455, 5527, 5402, 5586, 5368, 5510, 5458, 5394, 5316, 5374, 5400, 5372, 5303, 5312, 5598, 5437, 5355, 5550, 5356, 5341, 5498, 5329, 5576, 5487, 5637, 5457, 5679, 5260, 5560, 5607, 5296, 5725, 5362, 5693, 5630, 5562, 5358, 5580, 5532, 5655, 5364, 5686, 5254, 5333 (4 hits)
32	9	1.0	333.0	Yes	5582.0MHz, -52.0dBm	5502, 5646, 5687, 5259, 5550, 5302, 5379, 5342, 5439, 5388, 5307, 5311, 5273, 5642, 5602, 5712, 5300, 5565, 5480, 5471, 5356, 5347, 5479, 5511, 5455, 5404, 5569, 5510, 5367, 5360, 5420, 5596, 5440, 5252, 5366, 5628, 5350, 5337, 5371, 5405, 5626, 5539, 5497, 5416, 5492, 5641, 5666, 5407, 5503, 5505, 5309, 5469, 5720, 5290, 5516, 5663, 5673, 5592, 5534, 5255, 5370, 5579, 5643, 5284, 5319, 5296, 5288, 5696, 5690, 5540, 5613, 5448, 5604, 5619, 5549, 5262, 5461, 5699, 5594, 5698, 5521, 5611, 5351, 5567, 5491, 5612, 5640, 5725, 5433, 5474, 5328, 5624, 5271, 5256, 5406, 5527, 5609, 5723, 5310, 5438 (1 hits)
33	9	1.0	333.0	Yes	5583.0MHz, -52.0dBm	5585, 5571, 5259, 5403, 5424, 5350, 5251, 5415, 5468, 5411, 5494, 5276, 5443, 5719, 5683, 5372, 5526, 5398, 5637, 5634, 5480, 5409, 5258, 5590, 5346, 5365, 5274, 5484, 5720, 5685, 5665, 5595, 5366, 5284, 5336, 5668, 5456, 5436, 5422, 5503, 5271, 5402, 5457, 5554, 5429, 5496, 5670, 5268, 5630, 5420, 5370, 5659, 5566, 5455, 5431, 5307, 5318, 5721, 5264, 5584, 5419, 5421, 5629, 5698, 5703, 5483, 5481, 5500, 5672, 5661, 5673, 5435, 5427, 5640, 5255, 5329, 5562, 5311, 5291, 5304, 5592, 5519, 5557, 5515, 5577, 5700, 5385, 5330, 5283, 5593, 5281, 5406, 5529, 5620, 5390,

						5367, 5718, 5708, 5425, 5344 (3 hits)
34	9	1.0	333.0	Yes	5584.0MHz, -52.0dBm	5414, 5516, 5684, 5644, 5716, 5701, 5428, 5342, 5402, 5620, 5280, 5658, 5352, 5442, 5692, 5578, 5468, 5469, 5694, 5407, 5448, 5359, 5639, 5482, 5654, 5496, 5542, 5571, 5476, 5410, 5491, 5361, 5269, 5593, 5567, 5621, 5324, 5395, 5339, 5554, 5574, 5577, 5394, 5675, 5299, 5272, 5360, 5534, 5708, 5616, 5688, 5459, 5707, 5358, 5387, 5715, 5602, 5327, 5485, 5650, 5253, 5722, 5277, 5530, 5603, 5699, 5373, 5704, 5478, 5423, 5297, 5721, 5417, 5438, 5524, 5710, 5546, 5613, 5517, 5506, 5520, 5631, 5330, 5695, 5483, 5362, 5334, 5641, 5527, 5543, 5353, 5435, 5404, 5717, 5600, 5294, 5556, 5682, 5573, 5505 (1 hits)
35	9	1.0	333.0	Yes	5585.0MHz, -52.0dBm	5526, 5321, 5511, 5357, 5628, 5633, 5390, 5519, 5425, 5313, 5583, 5398, 5452, 5364, 5707, 5449, 5502, 5317, 5261, 5524, 5653, 5405, 5673, 5492, 5591, 5421, 5323, 5542, 5571, 5508, 5347, 5659, 5396, 5576, 5594, 5418, 5335, 5371, 5518, 5322, 5463, 5320, 5439, 5309, 5531, 5592, 5578, 5333, 5438, 5647, 5434, 5631, 5379, 5663, 5522, 5349, 5283, 5273, 5356, 5555, 5574, 5661, 5487, 5573, 5615, 5609, 5286, 5724, 5363, 5572, 5494, 5626, 5413, 5686, 5328, 5350, 5295, 5495, 5532, 5569, 5695, 5344, 5514, 5299, 5282, 5602, 5436, 5267, 5515, 5440, 5622, 5632, 5300, 5393, 5503, 5368, 5351, 5358, 5537, 5718 (3 hits)
36	9	1.0	333.0	Yes	5586.0MHz, -52.0dBm	5537, 5501, 5355, 5648, 5612, 5348, 5572, 5516, 5608, 5387, 5485, 5676, 5366, 5306, 5311, 5441, 5362, 5551, 5530, 5707, 5655, 5256, 5589, 5557, 5720, 5457, 5529, 5636, 5695, 5380, 5461, 5536, 5286, 5578, 5534, 5331, 5587, 5365, 5555, 5294, 5385, 5463, 5606, 5357, 5708, 5483, 5338, 5687, 5702, 5684, 5672, 5263, 5699, 5482, 5550, 5581, 5549, 5568, 5295, 5637, 5663, 5332, 5698, 5644, 5437, 5510, 5430, 5654, 5252, 5683, 5444, 5542, 5524, 5486, 5615,

						5713, 5310, 5378, 5393, 5301, 5409, 5573, 5538, 5473, 5610, 5614, 5664, 5671, 5382, 5326, 5712, 5401, 5268, 5715, 5467, 5371, 5580, 5459, 5439, 5302 (5 hits)
37	9	1.0	333.0	Yes	5587.0MHz, -52.0dBm	5581, 5545, 5481, 5589, 5497, 5456, 5324, 5697, 5485, 5642, 5389, 5506, 5269, 5611, 5668, 5687, 5413, 5453, 5645, 5534, 5487, 5270, 5533, 5688, 5608, 5673, 5566, 5610, 5543, 5678, 5564, 5621, 5268, 5682, 5709, 5704, 5696, 5297, 5310, 5585, 5277, 5433, 5383, 5438, 5647, 5578, 5616, 5515, 5286, 5708, 5376, 5686, 5443, 5614, 5460, 5384, 5461, 5584, 5366, 5571, 5613, 5666, 5547, 5528, 5706, 5423, 5358, 5715, 5514, 5363, 5713, 5637, 5465, 5473, 5464, 5276, 5360, 5342, 5364, 5299, 5665, 5595, 5362, 5311, 5592, 5287, 5421, 5427, 5313, 5641, 5630, 5294, 5662, 5397, 5635, 5471, 5596, 5422, 5538, 5629 (5 hits)
38	9	1.0	333.0	Yes	5588.0MHz, -52.0dBm	5668, 5262, 5476, 5317, 5363, 5415, 5599, 5278, 5677, 5663, 5564, 5630, 5459, 5516, 5577, 5596, 5331, 5649, 5682, 5537, 5430, 5503, 5482, 5379, 5323, 5307, 5607, 5716, 5427, 5639, 5531, 5528, 5407, 5582, 5492, 5585, 5692, 5499, 5266, 5330, 5511, 5383, 5546, 5544, 5664, 5263, 5426, 5654, 5470, 5328, 5412, 5626, 5650, 5334, 5349, 5580, 5558, 5637, 5592, 5442, 5405, 5617, 5632, 5300, 5534, 5463, 5354, 5551, 5622, 5575, 5376, 5358, 5465, 5483, 5697, 5436, 5336, 5547, 5281, 5490, 5616, 5666, 5271, 5420, 5684, 5615, 5568, 5303, 5375, 5416, 5539, 5656, 5672, 5302, 5411, 5718, 5723, 5388, 5572, 5561 (3 hits)
39	9	1.0	333.0	Yes	5589.0MHz, -52.0dBm	5473, 5446, 5545, 5632, 5382, 5521, 5625, 5396, 5287, 5335, 5344, 5567, 5258, 5601, 5285, 5315, 5443, 5470, 5552, 5437, 5406, 5376, 5452, 5516, 5642, 5519, 5430, 5561, 5439, 5386, 5716, 5399, 5691, 5683, 5609, 5707, 5568, 5656, 5457, 5543, 5338, 5652, 5460, 5380, 5676, 5706, 5503, 5257, 5284, 5640, 5702, 5527, 5465, 5586, 5649,

						5721, 5295, 5562, 5520, 5297, 5467, 5501, 5686, 5613, 5509, 5689, 5504, 5492, 5657, 5687, 5356, 5522, 5455, 5508, 5390, 5362, 5569, 5617, 5682, 5352, 5713, 5435, 5379, 5667, 5468, 5720, 5412, 5537, 5627, 5389, 5291, 5358, 5475, 5664, 5540, 5558, 5360, 5477, 5556, 5299 (1 hits)
40	9	1.0	333.0	Yes	5590.0MHz, -52.0dBm	5550, 5621, 5689, 5372, 5262, 5473, 5522, 5341, 5612, 5441, 5724, 5414, 5615, 5362, 5427, 5257, 5317, 5588, 5690, 5250, 5276, 5628, 5567, 5647, 5680, 5657, 5502, 5330, 5499, 5480, 5271, 5702, 5379, 5288, 5524, 5320, 5673, 5370, 5699, 5581, 5603, 5648, 5635, 5599, 5377, 5365, 5400, 5376, 5307, 5520, 5455, 5686, 5687, 5325, 5544, 5350, 5368, 5543, 5281, 5564, 5301, 5435, 5576, 5641, 5434, 5277, 5720, 5642, 5471, 5654, 5678, 5545, 5585, 5357, 5695, 5290, 5584, 5286, 5605, 5403, 5467, 5568, 5361, 5679, 5608, 5295, 5498, 5311, 5345, 5374, 5464, 5419, 5465, 5453, 5645, 5571, 5360, 5448, 5569, 5282 (4 hits)
41	9	1.0	333.0	Yes	5591.0MHz, -52.0dBm	5381, 5274, 5644, 5671, 5582, 5286, 5501, 5465, 5661, 5637, 5391, 5678, 5600, 5517, 5450, 5458, 5322, 5699, 5261, 5279, 5579, 5412, 5530, 5650, 5521, 5631, 5278, 5349, 5434, 5538, 5588, 5424, 5687, 5617, 5672, 5423, 5645, 5589, 5426, 5377, 5413, 5633, 5473, 5445, 5437, 5335, 5525, 5564, 5648, 5654, 5329, 5270, 5679, 5568, 5584, 5690, 5276, 5574, 5319, 5290, 5435, 5514, 5398, 5357, 5544, 5397, 5512, 5334, 5622, 5657, 5620, 5277, 5284, 5470, 5508, 5461, 5408, 5257, 5385, 5393, 5586, 5539, 5317, 5551, 5428, 5503, 5382, 5605, 5467, 5546, 5526, 5296, 5255, 5507, 5442, 5298, 5308, 5609, 5528, 5565 (6 hits)

Table 8 - Long Sequence Waveform Summary

Long Sequence Trial	Result	Radar Frequency / Amplitude
Trial #1	Detected	5600.0MHz, -52.0dBm
Trial #2	Detected	5700.0MHz,

		-52.0dBm
Trial #3	Detected	5500.0MHz, -52.0dBm
Trial #4	Detected	5600.0MHz, -52.0dBm
Trial #5	Detected	5700.0MHz, -52.0dBm
Trial #6	Detected	5500.0MHz, -52.0dBm
Trial #7	Detected	5600.0MHz, -52.0dBm
Trial #8	Detected	5700.0MHz, -52.0dBm
Trial #9	Detected	5500.0MHz, -52.0dBm
Trial #10	Detected	5600.0MHz, -52.0dBm
Trial #11	Detected	5700.0MHz, -52.0dBm
Trial #12	Detected	5500.0MHz, -52.0dBm
Trial #13	Detected	5600.0MHz, -52.0dBm
Trial #14	Detected	5700.0MHz, -52.0dBm
Trial #15	Detected	5500.0MHz, -52.0dBm
Trial #16	Detected	5600.0MHz, -52.0dBm
Trial #17	Detected	5700.0MHz, -52.0dBm
Trial #18	Detected	5500.0MHz, -52.0dBm
Trial #19	Detected	5600.0MHz, -52.0dBm
Trial #20	Detected	5700.0MHz, -52.0dBm
Trial #21	Detected	5500.0MHz, -52.0dBm
Trial #22	Detected	5600.0MHz, -52.0dBm
Trial #23	Detected	5700.0MHz, -52.0dBm
Trial #24	Detected	5500.0MHz, -52.0dBm
Trial #25	Detected	5600.0MHz, -52.0dBm
Trial #26	Detected	5700.0MHz, -52.0dBm
Trial #27	Detected	5500.0MHz, -52.0dBm
Trial #28	Detected	5600.0MHz, -52.0dBm
Trial #29	Detected	5700.0MHz, -52.0dBm
Trial #30	Detected	5500.0MHz, -52.0dBm

Table 9 - Long Sequence Waveform Trial#1 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	69.2	6	1770.0	-	0.772694
1	2	94.6	17	1700.0	-	2.164299
2	1	54.2	7	-	-	2.311160
3	1	54.8	18	-	-	3.445831
4	2	75.4	17	1150.0	-	5.104387
5	2	88.1	8	1163.0	-	5.848149
6	2	60.7	18	1198.0	-	7.188929
7	3	75.6	11	1967.0	1826.0	8.641228
8	2	88.9	13	1776.0	-	9.729186
9	2	62.4	17	1202.0	-	10.788465
10	3	89.2	10	1685.0	1333.0	11.593755

Table 10 - Long Sequence Waveform Trial#2 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	76.9	15	-	-	0.723039
1	1	65.0	15	-	-	2.339419
2	2	50.5	7	1159.0	-	4.196855
3	1	89.6	13	-	-	5.705305
4	3	93.4	11	1331.0	1655.0	7.175271
5	2	69.9	6	1075.0	-	8.500581
6	1	95.3	8	-	-	9.804783
7	2	86.5	14	1694.0	-	11.895915

Table 11 - Long Sequence Waveform Trial#3 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	57.7	11	1924.0	-	0.659749
1	3	80.2	18	1379.0	1682.0	1.878870
2	2	73.9	11	1764.0	-	3.826710
3	2	74.6	10	1664.0	-	4.854059
4	2	93.3	7	1895.0	-	6.648229
5	3	65.7	10	1087.0	1403.0	7.254444
6	3	90.7	11	1738.0	1684.0	9.140494
7	3	54.7	5	1712.0	1790.0	9.418864
8	1	60.1	17	-	-	11.442595

Table 12 - Long Sequence Waveform Trial#4 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	95.7	14	1944.0	1941.0	0.313896
1	2	95.2	16	1147.0	-	2.003716
2	2	96.4	14	1186.0	-	2.958473
3	2	79.9	11	1854.0	-	4.332514
4	2	55.3	8	1888.0	-	4.560906
5	2	62.2	19	1248.0	-	5.918417
6	2	98.9	6	1815.0	-	6.840817
7	2	58.9	13	1142.0	-	8.283272
8	2	82.3	15	1615.0	-	9.469311
9	1	88.0	16	-	-	10.414593

10	2	76.1	14	1807.0	-	11.740858
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Table 13 - Long Sequence Waveform Trial#5 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	81.7	7	1813.0	-	0.533890
1	2	82.9	7	1953.0	-	1.231999
2	2	61.6	20	1556.0	-	2.006554
3	2	83.7	19	1955.0	-	2.816093
4	3	65.7	7	1841.0	1814.0	3.474549
5	3	54.4	12	1604.0	1009.0	4.218334
6	2	67.9	15	1092.0	-	4.759349
7	1	51.1	18	-	-	5.419033
8	1	71.8	6	-	-	6.205668
9	3	76.8	5	1653.0	1347.0	7.108381
10	2	84.5	7	1846.0	-	7.846423
11	1	85.5	18	-	-	8.257335
12	3	94.0	18	1177.0	1154.0	9.061066
13	2	73.8	19	1754.0	-	9.891287
14	3	66.1	17	1232.0	1330.0	11.148875
15	1	65.2	9	-	-	11.907274

Table 14 - Long Sequence Waveform Trial#6 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	79.1	14	1335.0	-	0.067112
1	2	92.7	16	1895.0	-	1.744081
2	2	66.5	19	1097.0	-	2.448898
3	2	77.8	17	1531.0	-	2.975764
4	3	56.2	5	1263.0	1145.0	4.217504
5	2	75.0	19	1444.0	-	4.794060
6	1	79.7	12	-	-	5.603947
7	2	80.4	5	1543.0	-	6.777095
8	1	59.2	17	-	-	8.285819
9	3	63.1	5	1224.0	1392.0	8.981502
10	2	66.3	9	1992.0	-	9.841616
11	3	73.4	10	1229.0	1798.0	10.636161
12	1	87.9	17	-	-	11.723953

Table 15 - Long Sequence Waveform Trial#7 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	53.2	12	-	-	0.068941
1	2	70.1	7	1087.0	-	0.959217
2	1	77.0	8	-	-	1.358240
3	1	66.5	9	-	-	2.144032
4	1	61.6	17	-	-	2.964355
5	2	84.9	8	1694.0	-	3.361920
6	1	90.9	12	-	-	4.415490
7	2	96.8	16	1160.0	-	4.562950
8	2	91.2	9	1036.0	-	5.286562
9	2	89.7	12	1746.0	-	6.121491
10	1	76.4	15	-	-	6.419650

11	2	86.1	8	1675.0	-	6.982146
12	1	62.0	19	-	-	7.903751
13	3	52.4	6	1944.0	1828.0	8.704288
14	2	86.3	19	1866.0	-	9.015012
15	1	66.1	15	-	-	9.475172
16	2	91.8	8	1643.0	-	10.271038
17	2	78.4	13	1374.0	-	11.241029
18	2	65.8	15	1852.0	-	11.976536

Table 16 - Long Sequence Waveform Trial#8 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	75.6	10	1063.0	1456.0	0.403419
1	2	50.9	13	1517.0	-	0.892799
2	1	52.6	10	-	-	1.589619
3	2	61.2	10	1413.0	-	1.926690
4	3	54.6	8	1934.0	1590.0	2.638233
5	1	78.2	16	-	-	3.407743
6	3	52.4	17	1850.0	1849.0	4.333115
7	2	95.7	7	1294.0	-	4.745671
8	1	98.1	13	-	-	5.547112
9	3	80.1	15	1192.0	1287.0	6.154611
10	3	61.2	19	1687.0	1696.0	6.533839
11	1	97.8	11	-	-	7.381705
12	2	52.1	17	1561.0	-	7.771831
13	1	82.7	9	-	-	8.715436
14	2	96.6	9	1927.0	-	9.158925
15	1	74.9	6	-	-	9.558694
16	2	90.9	12	1001.0	-	10.445637
17	2	65.2	15	1862.0	-	10.862387
18	1	90.7	8	-	-	11.888949

Table 17 - Long Sequence Waveform Trial#9 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	80.6	7	1822.0	-	0.721252
1	2	99.0	7	1274.0	-	1.106627
2	3	66.6	14	1367.0	1920.0	2.240864
3	3	85.4	20	1492.0	1625.0	3.023669
4	1	57.5	6	-	-	4.483691
5	2	90.8	11	1058.0	-	5.208982
6	1	78.7	11	-	-	5.777588
7	2	72.7	18	1227.0	-	6.695037
8	2	81.7	10	1329.0	-	7.728384
9	2	86.9	8	1032.0	-	8.792116
10	1	91.2	15	-	-	10.027052
11	3	63.5	18	1388.0	1001.0	10.379760
12	2	77.1	17	1933.0	-	11.152587

Table 18 - Long Sequence Waveform Trial#10 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	94.6	15	1519.0	1265.0	0.008007

1	2	58.6	7	1186.0	-	1.066473
2	3	85.2	19	1528.0	1416.0	2.856671
3	2	83.3	19	1258.0	-	3.415884
4	2	95.8	20	1158.0	-	4.498784
5	3	55.3	9	1107.0	1765.0	5.592030
6	3	83.1	13	1051.0	1904.0	6.510762
7	2	52.7	14	1652.0	-	7.814028
8	1	60.0	16	-	-	8.711318
9	3	66.7	7	1059.0	1564.0	9.350340
10	2	84.9	17	1857.0	-	10.928403
11	3	55.5	9	1036.0	1399.0	11.493672

Table 19 - Long Sequence Waveform Trial#11 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	75.7	9	-	-	0.809971
1	2	97.6	7	1073.0	-	1.357562
2	1	91.8	14	-	-	2.424522
3	1	92.6	15	-	-	3.263959
4	2	63.6	10	1902.0	-	4.371174
5	3	72.6	9	1897.0	1457.0	5.779031
6	3	86.7	19	1485.0	1036.0	6.944677
7	1	83.6	10	-	-	7.473403
8	2	52.9	8	1247.0	-	8.651377
9	1	67.8	14	-	-	9.116460
10	1	59.3	17	-	-	10.794424
11	3	75.6	5	1747.0	1435.0	11.906359

Table 20 - Long Sequence Waveform Trial#12 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	74.1	12	1223.0	1640.0	1.288273
1	3	65.9	19	1845.0	1129.0	2.495516
2	2	70.0	18	1291.0	-	3.287437
3	2	83.9	13	1581.0	-	5.064111
4	2	57.9	18	1486.0	-	7.243753
5	2	82.2	19	1648.0	-	8.326360
6	2	66.3	16	1497.0	-	9.991863
7	3	62.1	8	1796.0	1034.0	11.309933

Table 21 - Long Sequence Waveform Trial#13 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	68.1	18	1913.0	1969.0	0.986071
1	2	56.7	18	1421.0	-	1.644157
2	2	99.0	7	1657.0	-	4.199624
3	1	64.6	15	-	-	5.825498
4	2	64.6	17	1690.0	-	6.241912
5	3	72.4	13	1270.0	1549.0	8.103721
6	1	63.8	11	-	-	9.091382
7	3	61.9	15	1681.0	1678.0	11.297803

Table 22 - Long Sequence Waveform Trial#14 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	85.8	9	-	-	1.098844
1	3	88.7	13	1307.0	1569.0	2.046780
2	3	59.7	16	1407.0	1184.0	3.472537
3	2	64.4	19	1568.0	-	4.514425
4	1	80.9	5	-	-	5.643610
5	2	99.5	15	1404.0	-	6.306352
6	2	80.9	20	1839.0	-	7.637201
7	2	62.9	13	1452.0	-	8.925808
8	2	94.0	6	1588.0	-	9.992852
9	3	98.8	11	1933.0	1460.0	11.515553

Table 23 - Long Sequence Waveform Trial#15 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	83.1	10	1569.0	-	0.986694
1	3	97.6	6	1354.0	1867.0	1.849814
2	2	68.7	5	1457.0	-	2.850993
3	2	68.5	5	1052.0	-	4.694502
4	2	99.7	9	1846.0	-	6.285550
5	2	96.3	13	1650.0	-	6.881063
6	2	75.1	16	1383.0	-	8.255349
7	2	67.5	8	1033.0	-	9.375215
8	2	75.0	6	1317.0	-	11.972112

Table 24 - Long Sequence Waveform Trial#16 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	87.0	14	1842.0	1898.0	0.102801
1	1	73.3	18	-	-	0.668455
2	1	82.9	19	-	-	1.427456
3	1	94.7	16	-	-	2.614743
4	3	60.5	17	1762.0	1950.0	2.982734
5	1	86.4	20	-	-	3.623323
6	3	75.7	15	1460.0	1948.0	4.195046
7	2	54.8	6	1369.0	-	5.307900
8	1	87.6	16	-	-	5.679220
9	1	67.3	15	-	-	6.460303
10	2	91.8	19	1429.0	-	6.751933
11	2	91.6	19	1445.0	-	7.533887
12	2	50.1	20	1909.0	-	8.122309
13	1	77.5	8	-	-	8.834491
14	1	83.3	19	-	-	9.427635
15	2	77.4	8	1057.0	-	10.233321
16	2	71.4	12	1927.0	-	11.310761
17	1	76.5	9	-	-	11.673121

Table 25 - Long Sequence Waveform Trial#17 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	93.8	10	1461.0	-	0.749335

1	2	88.8	16	1158.0	-	1.096378
2	2	65.4	13	1806.0	-	2.194094
3	2	63.7	16	1122.0	-	3.488058
4	2	77.5	7	1144.0	-	4.369528
5	2	61.7	15	1715.0	-	5.039392
6	1	60.1	16	-	-	5.978043
7	3	61.4	7	1946.0	1087.0	7.150504
8	2	72.8	16	1170.0	-	8.271126
9	3	92.9	9	1878.0	1934.0	8.424869
10	2	82.3	9	1241.0	-	9.384111
11	3	92.9	13	1919.0	1672.0	10.419570
12	2	79.1	16	1786.0	-	11.899878

Table 26 - Long Sequence Waveform Trial#18 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	55.6	16	-	-	0.534763
1	2	55.8	14	1946.0	-	1.204637
2	1	99.0	15	-	-	1.716010
3	2	92.1	6	1649.0	-	2.237433
4	2	62.8	14	1357.0	-	2.803067
5	2	91.0	17	1061.0	-	3.504312
6	2	64.6	14	1463.0	-	4.360214
7	1	52.1	18	-	-	4.883552
8	3	86.4	14	1616.0	1914.0	5.652437
9	1	69.3	17	-	-	6.156691
10	3	76.6	10	1909.0	1980.0	6.889751
11	3	68.7	12	1686.0	1754.0	7.419244
12	2	61.4	18	1158.0	-	7.950700
13	1	97.6	6	-	-	8.321405
14	3	65.6	15	1547.0	1545.0	9.277145
15	2	65.9	13	1317.0	-	9.632796
16	2	98.7	16	1196.0	-	10.140036
17	1	87.4	9	-	-	10.748870
18	2	64.2	8	1124.0	-	11.837514

Table 27 - Long Sequence Waveform Trial#19 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	67.2	15	1590.0	1815.0	0.755776
1	2	75.9	11	1246.0	-	1.447262
2	1	97.9	15	-	-	2.408371
3	3	79.8	19	1186.0	1782.0	3.295295
4	2	56.9	18	1462.0	-	3.863780
5	2	80.4	15	1059.0	-	4.690941
6	2	72.4	9	1212.0	-	6.305253
7	3	68.9	7	1681.0	1511.0	6.832356
8	2	86.7	12	1212.0	-	7.686411
9	2	62.4	20	1788.0	-	8.547582
10	1	64.6	11	-	-	9.258369
11	3	57.8	14	1157.0	1831.0	10.437208
12	2	64.0	7	1424.0	-	11.189989

Table 28 - Long Sequence Waveform Trial#20 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	50.2	15	1642.0	-	0.318807
1	2	59.5	12	1491.0	-	1.556516
2	3	73.5	12	1306.0	1297.0	1.714360
3	3	72.7	19	1393.0	1308.0	2.423807
4	2	52.0	6	1142.0	-	3.940468
5	2	98.6	18	1574.0	-	4.156341
6	3	99.8	8	1251.0	1953.0	5.441995
7	1	87.5	17	-	-	5.618222
8	2	80.2	18	1181.0	-	6.815625
9	2	87.4	11	1723.0	-	7.746081
10	3	51.3	10	1518.0	1039.0	8.091741
11	1	56.2	20	-	-	9.020534
12	3	53.3	13	1272.0	1664.0	10.322122
13	1	97.9	15	-	-	11.102468
14	2	70.0	19	1850.0	-	11.583537

Table 29 - Long Sequence Waveform Trial#21 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	96.3	17	1589.0	1596.0	0.726558
1	2	68.2	14	1906.0	-	1.672839
2	2	60.7	15	1822.0	-	2.271974
3	1	98.3	12	-	-	3.134343
4	1	97.6	8	-	-	4.562386
5	2	79.2	9	1131.0	-	4.638613
6	2	72.6	14	1610.0	-	6.004991
7	2	58.5	8	1651.0	-	6.568801
8	2	97.2	16	1025.0	-	7.822791
9	3	92.3	19	1587.0	1788.0	8.323119
10	2	57.4	18	1802.0	-	10.121648
11	2	67.2	6	1225.0	-	10.507678
12	2	94.4	6	1874.0	-	11.684231

Table 30 - Long Sequence Waveform Trial#22 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	98.6	15	-	-	0.530235
1	2	71.6	7	1362.0	-	1.077366
2	1	96.1	8	-	-	2.479325
3	1	85.3	18	-	-	3.222560
4	2	55.2	9	1841.0	-	4.848753
5	2	94.1	19	1327.0	-	5.058790
6	3	93.3	18	1315.0	1521.0	6.386719
7	2	58.4	11	1762.0	-	7.206881
8	3	93.0	10	1224.0	1052.0	8.292154
9	1	74.4	15	-	-	9.083450
10	2	66.4	10	1436.0	-	10.305416
11	3	91.6	15	1592.0	1157.0	11.332912

Table 31 - Long Sequence Waveform Trial#23 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	87.8	12	1494.0	1263.0	0.232978
1	2	63.3	12	1111.0	-	1.015173
2	3	91.3	11	1555.0	1523.0	2.109767
3	2	77.4	17	1844.0	-	2.988484
4	2	98.3	7	1015.0	-	3.946660
5	2	91.0	13	1164.0	-	4.557506
6	2	72.4	12	1531.0	-	5.371313
7	2	96.4	7	1261.0	-	6.365277
8	2	73.0	19	1432.0	-	7.080298
9	2	84.9	10	1564.0	-	7.880335
10	3	74.2	10	1858.0	1750.0	8.449371
11	2	68.6	15	1650.0	-	9.080717
12	2	77.7	5	1937.0	-	9.888910
13	3	89.0	8	1956.0	1654.0	10.558965
14	2	61.8	11	1082.0	-	11.596272

Table 32 - Long Sequence Waveform Trial#24 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	3	77.3	19	1989.0	1833.0	0.015079
1	2	57.9	17	1030.0	-	1.297565
2	3	95.2	12	1446.0	1220.0	1.642669
3	3	51.8	15	1334.0	1815.0	2.458193
4	3	82.2	17	1390.0	1253.0	3.290350
5	1	68.0	8	-	-	4.014459
6	2	74.3	10	1731.0	-	4.420148
7	2	93.0	13	1183.0	-	5.168019
8	1	61.8	13	-	-	6.309422
9	2	51.1	8	1790.0	-	6.994710
10	2	75.5	19	1103.0	-	7.557303
11	1	84.3	17	-	-	8.012437
12	1	77.2	14	-	-	9.038989
13	3	63.8	8	1104.0	1087.0	9.411229
14	2	80.5	14	1310.0	-	10.027727
15	2	51.7	8	1636.0	-	11.244484
16	3	86.3	6	1586.0	1821.0	11.681583

Table 33 - Long Sequence Waveform Trial#25 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	93.9	6	-	-	0.472580
1	2	52.9	18	1442.0	-	1.370461
2	3	87.9	6	1393.0	1673.0	2.525329
3	3	86.8	8	1433.0	1140.0	3.516041
4	2	74.5	6	1743.0	-	4.910655
5	1	96.7	10	-	-	5.086912
6	2	63.2	6	1238.0	-	6.321778
7	2	68.8	10	1725.0	-	7.215350
8	3	97.1	16	1438.0	1548.0	8.314247
9	2	55.8	5	1542.0	-	9.463709
10	3	77.9	17	1402.0	1023.0	10.493473

11	2	96.3	12	1444.0	-	11.148192
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Table 34 - Long Sequence Waveform Trial#26 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	92.0	13	1264.0	-	0.153879
1	1	59.3	14	-	-	0.833457
2	1	62.4	6	-	-	1.494262
3	3	75.9	15	1577.0	1395.0	1.933673
4	1	58.8	10	-	-	2.623683
5	2	69.7	15	1259.0	-	3.419098
6	2	68.6	15	1311.0	-	4.240531
7	2	59.5	8	1655.0	-	4.702164
8	2	56.9	10	1571.0	-	5.400989
9	3	71.0	6	1112.0	1929.0	6.055161
10	3	97.3	11	1578.0	1681.0	6.851409
11	2	50.6	6	1402.0	-	7.276774
12	3	66.7	13	1899.0	1774.0	7.894187
13	3	76.1	8	1955.0	1470.0	8.784022
14	2	84.8	11	1657.0	-	9.358412
15	1	85.9	5	-	-	9.504543
16	3	88.9	16	1914.0	1519.0	10.113198
17	1	99.8	5	-	-	10.958784
18	2	90.9	6	1559.0	-	11.818493

Table 35 - Long Sequence Waveform Trial#27 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	67.4	8	-	-	0.658176
1	2	64.7	8	1800.0	-	1.950992
2	3	53.5	20	1946.0	1369.0	2.971309
3	2	69.2	19	1719.0	-	3.075219
4	2	81.4	19	1053.0	-	4.701873
5	2	73.5	17	1023.0	-	5.656554
6	2	82.2	12	1436.0	-	6.000245
7	2	60.8	5	1083.0	-	7.698769
8	3	92.6	8	1368.0	1953.0	8.785558
9	3	50.5	19	1915.0	1015.0	9.142969
10	1	53.6	18	-	-	10.743383
11	2	71.9	7	1459.0	-	11.535952

Table 36 - Long Sequence Waveform Trial#28 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	1	78.9	12	-	-	0.131527
1	2	60.8	11	1838.0	-	1.116383
2	2	53.0	10	1212.0	-	1.899252
3	2	69.5	18	1718.0	-	2.424407
4	3	64.4	11	1345.0	1800.0	3.378247
5	2	67.3	13	1592.0	-	4.755977
6	2	64.0	17	1359.0	-	4.969840
7	3	74.2	20	1132.0	1410.0	5.772266
8	2	58.5	18	1437.0	-	6.683738

9	1	68.4	11	-	-	7.913653
10	2	71.2	10	1890.0	-	8.400446
11	3	87.0	17	1739.0	1727.0	9.440687
12	1	85.2	13	-	-	10.183767
13	2	91.3	9	1042.0	-	10.813581
14	1	70.1	17	-	-	11.553988

Table 37 - Long Sequence Waveform Trial#29 (Detected)

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	97.7	9	1589.0	-	0.113884
1	1	92.0	11	-	-	0.946154
2	1	69.9	17	-	-	1.721934
3	2	73.7	10	1975.0	-	1.959629
4	1	72.7	12	-	-	3.047005
5	1	74.9	16	-	-	3.339940
6	3	72.3	6	1729.0	1980.0	3.803605
7	1	50.1	20	-	-	4.880313
8	3	52.7	9	1500.0	1412.0	5.197337
9	2	65.3	10	1551.0	-	6.098152
10	2	95.4	12	1403.0	-	6.417145
11	2	50.4	7	1966.0	-	7.267196
12	3	53.3	16	1277.0	1661.0	7.986408
13	2	83.0	6	1276.0	-	8.354093
14	2	75.7	19	1761.0	-	8.909171
15	2	62.6	17	1313.0	-	9.774040
16	3	72.6	13	1346.0	1484.0	10.424928
17	3	68.9	14	1047.0	1549.0	11.240226
18	3	96.0	13	1948.0	1459.0	11.659828

Table 38 - Long Sequence Waveform Trial#30 (Detected)

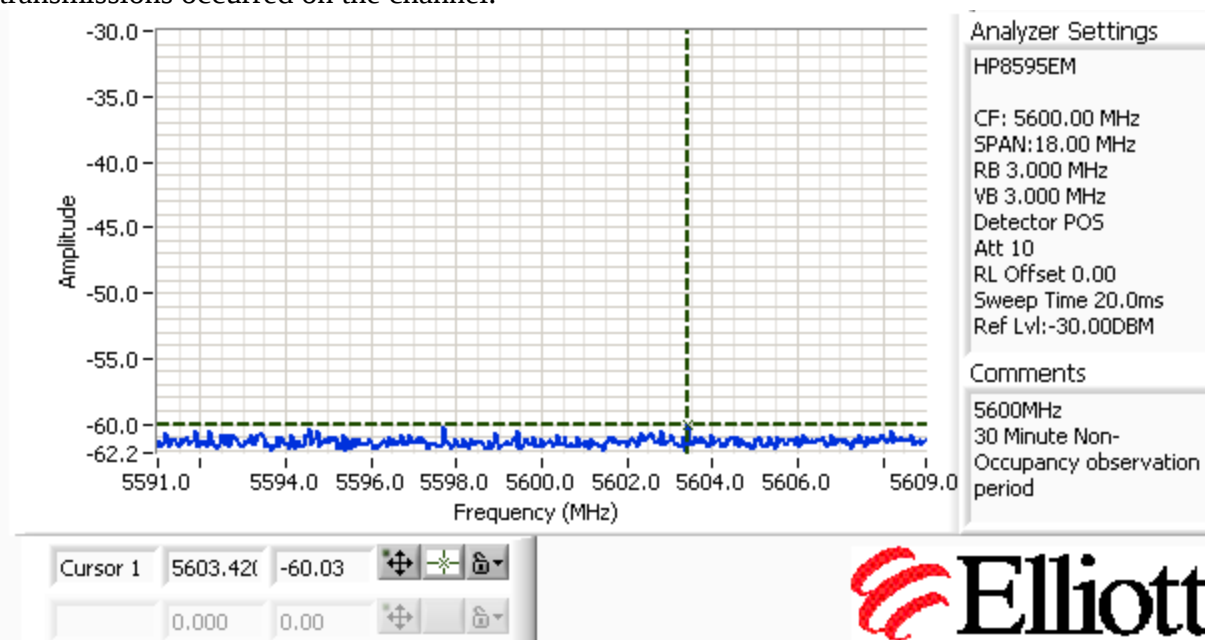
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (us)
0	2	59.6	17	1592.0	-	0.126288
1	3	74.2	17	1414.0	1125.0	1.193760
2	2	97.2	5	1646.0	-	1.772487
3	1	55.3	15	-	-	2.409457
4	3	74.8	13	1725.0	1549.0	3.594349
5	2	77.4	17	1290.0	-	4.735215
6	2	61.1	8	1821.0	-	4.900402
7	2	79.1	18	1954.0	-	5.917998
8	2	61.2	15	1367.0	-	6.406587
9	2	66.8	11	1613.0	-	7.677987
10	1	61.7	11	-	-	8.594940
11	2	56.1	9	1505.0	-	9.206528
12	2	52.9	10	1337.0	-	10.275971
13	2	66.0	19	1818.0	-	11.050691
14	2	61.7	10	1982.0	-	11.949066

Appendix C Test Data Tables and Plots for Channel Closing**FCC PART 15 SUBPART E DATA**

Waveform Type	Channel Closing Transmission Time ¹		Channel Move Time		Result
	Measured	Limit	Measured	Limit	
Radar Type 1	0	60 ms	21	10 s	Complies
Radar Type 5	0	60 ms	0	10 s	Complies

Table 39 - FCC Part 15 Subpart E Channel Closing Test Results

After the final channel closing test the channel was monitored for a further 30 minutes. No transmissions occurred on the channel.

**Figure 3 - 30 minute non occupancy observation plot**

¹ Channel closing time for FCC measurements is the aggregate transmission time starting from 200ms after the end of the radar signal to the completion of the channel move.

Elliott Timing Plots - Channel Closing

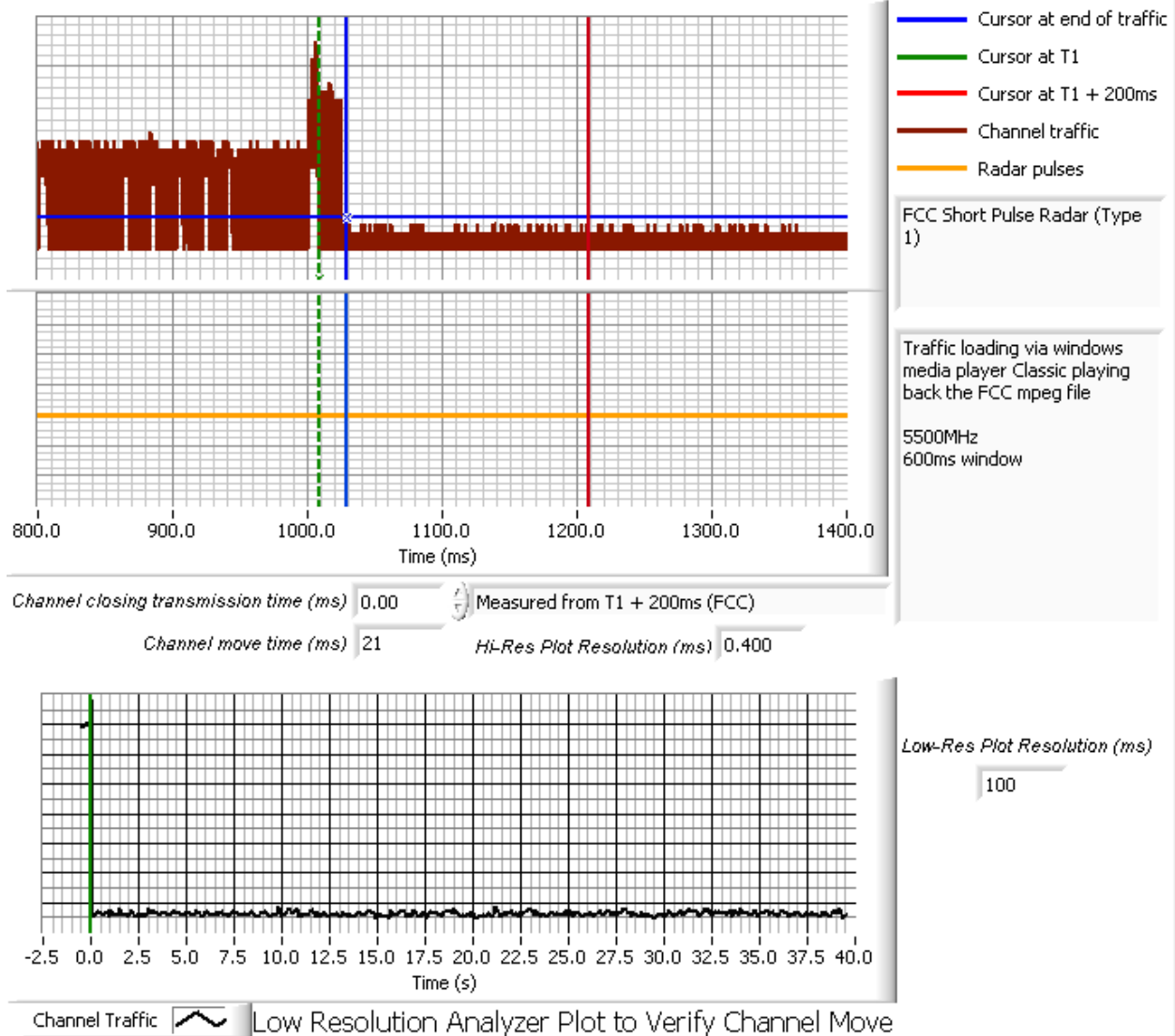


Figure 4 - Close and Move, Short Pulse, 600ms window

Elliott Timing Plots - Channel Closing

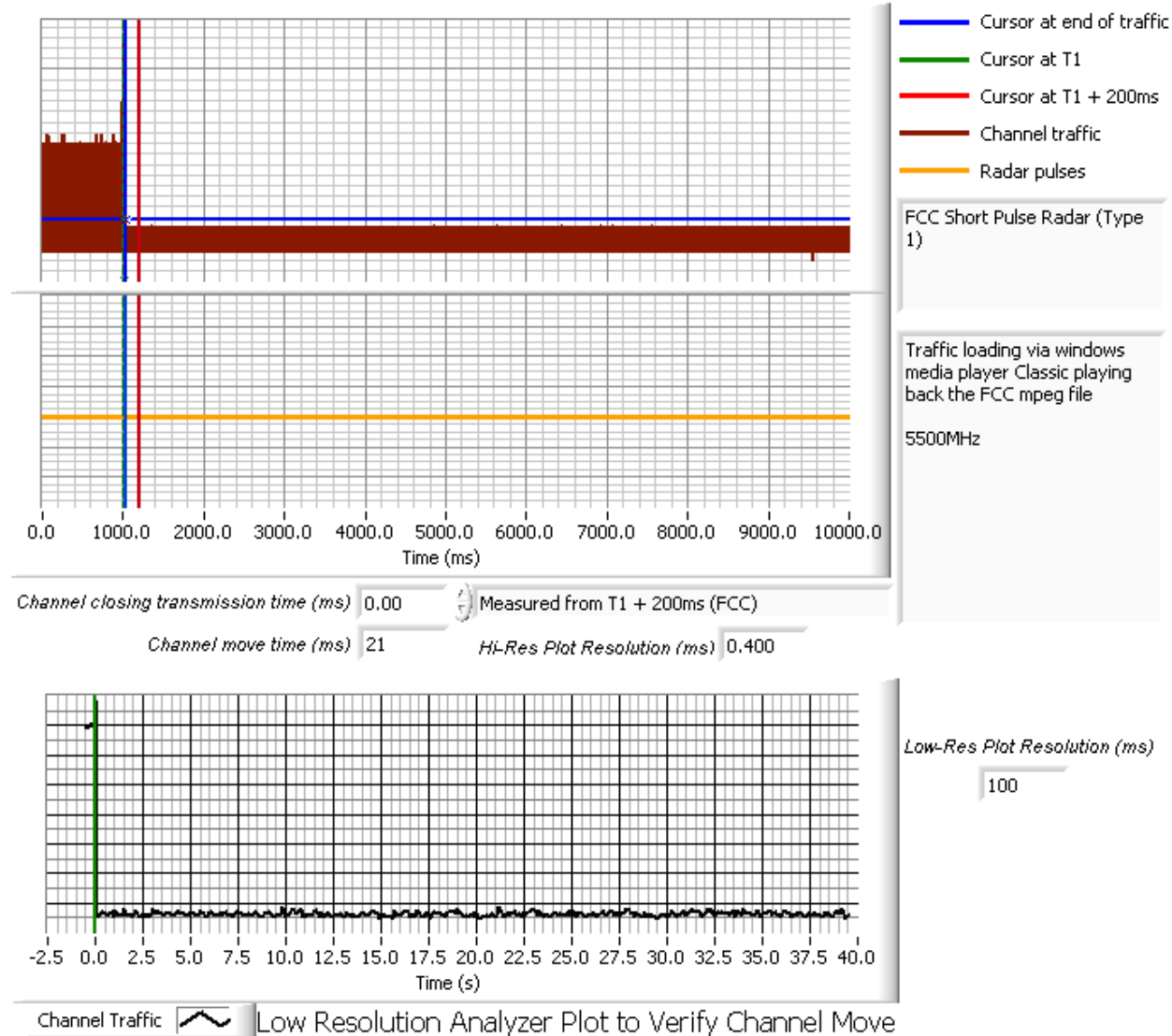


Figure 5 - Close and Move, Short Pulse

Elliott Timing Plots - Channel Closing

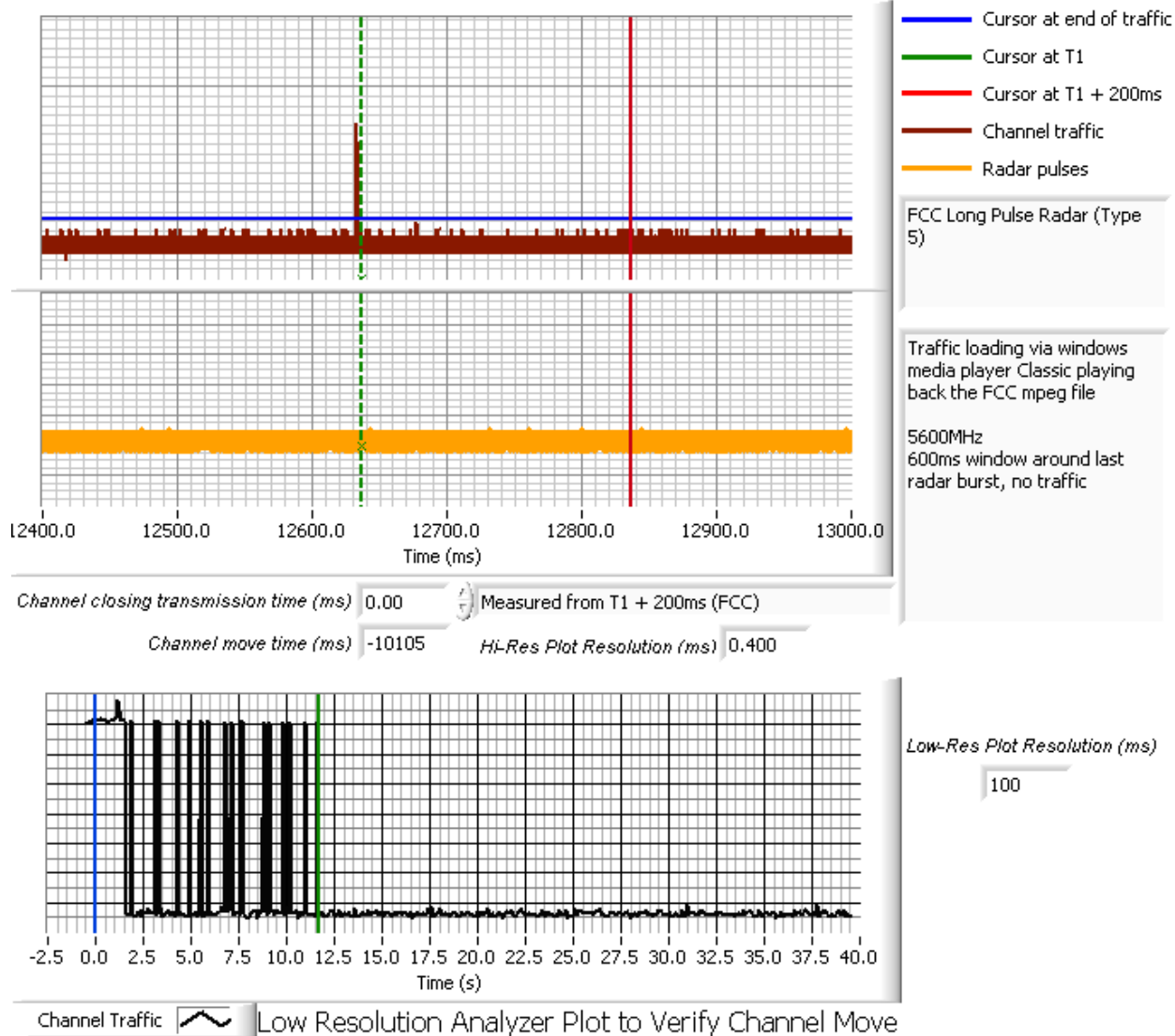


Figure 6 - Close and Move, Long Pulse, 600ms window

Elliott Timing Plots - Channel Closing

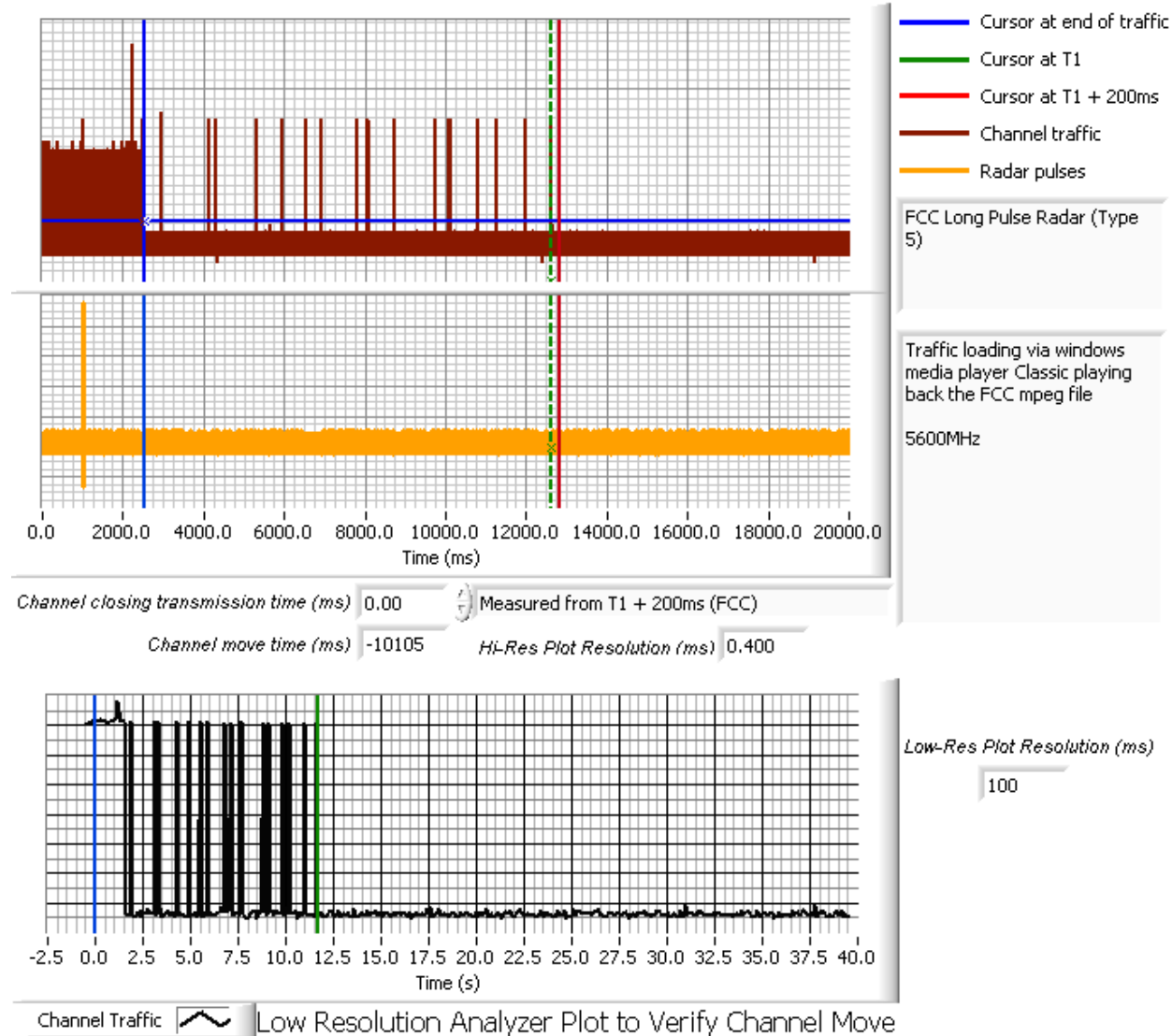


Figure 7 - Close and Move, Long Pulse

Appendix D Test Data – Channel Availability Check

The first plot shows the start of transmissions approximately 70s after the start of the CAC (no radar applied during the CAC).

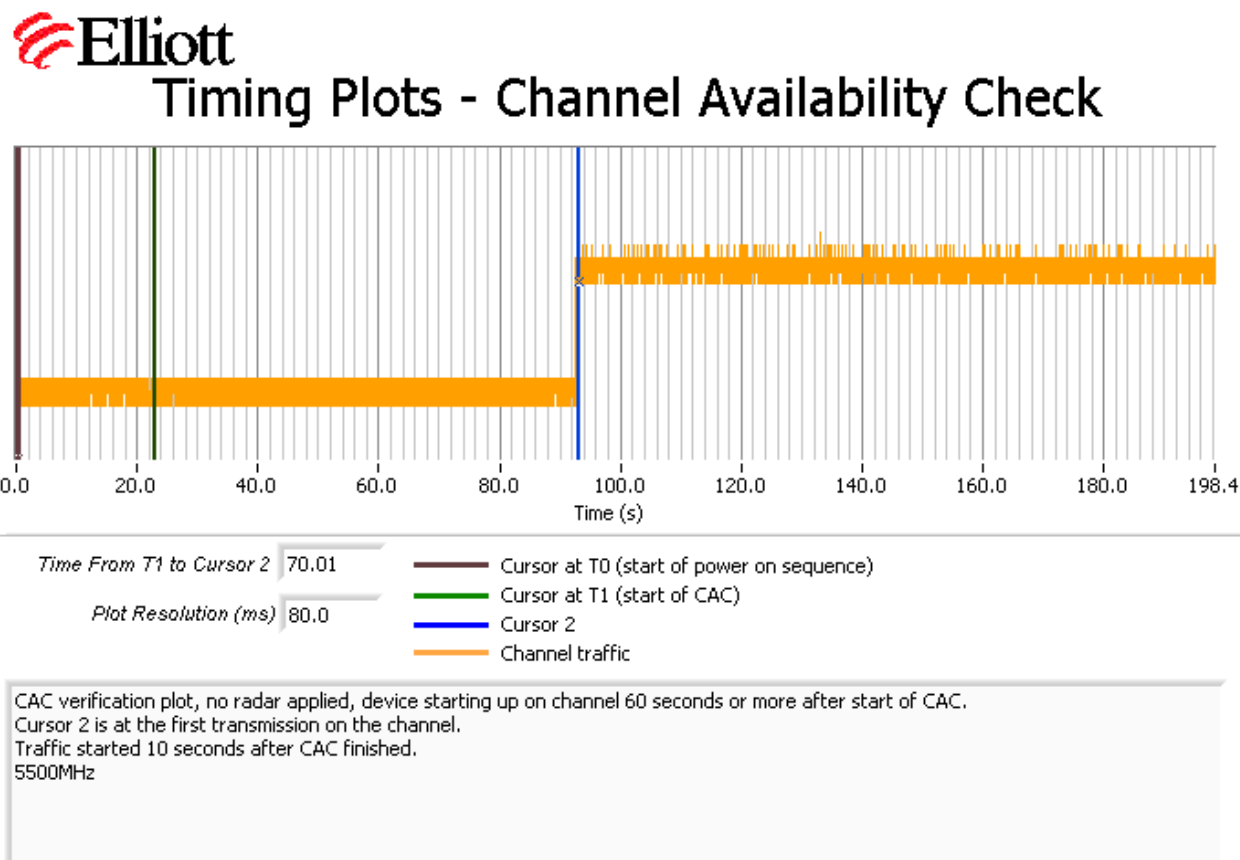


Figure 8 - Plot of EUT Start-Up After CAC

The channel availability check (CAC) was made by applying type 1 radar during either the first 6 seconds or last 6 seconds of the CAC period.

The level of the radar signal applied was -64dBm. Measurements were made on channel 100 (5500 MHz).

The start of each plot is the same for each of the plots and is set to coincide with the start of the Channel Availability Check period.

The plots show that there were no transmissions on the channel after the radar burst was applied during the CAC, and confirm that the CAC is at least 60 seconds. The description of “Channel Traffic” in the plot legend indicates the transmissions from both the radar system and the EUT on the start-up channel. In all cases only the radar burst is observed. The resolution of the plot is not fine enough to resolve the individual pulses within the burst.



Timing Plots - Channel Availability Check

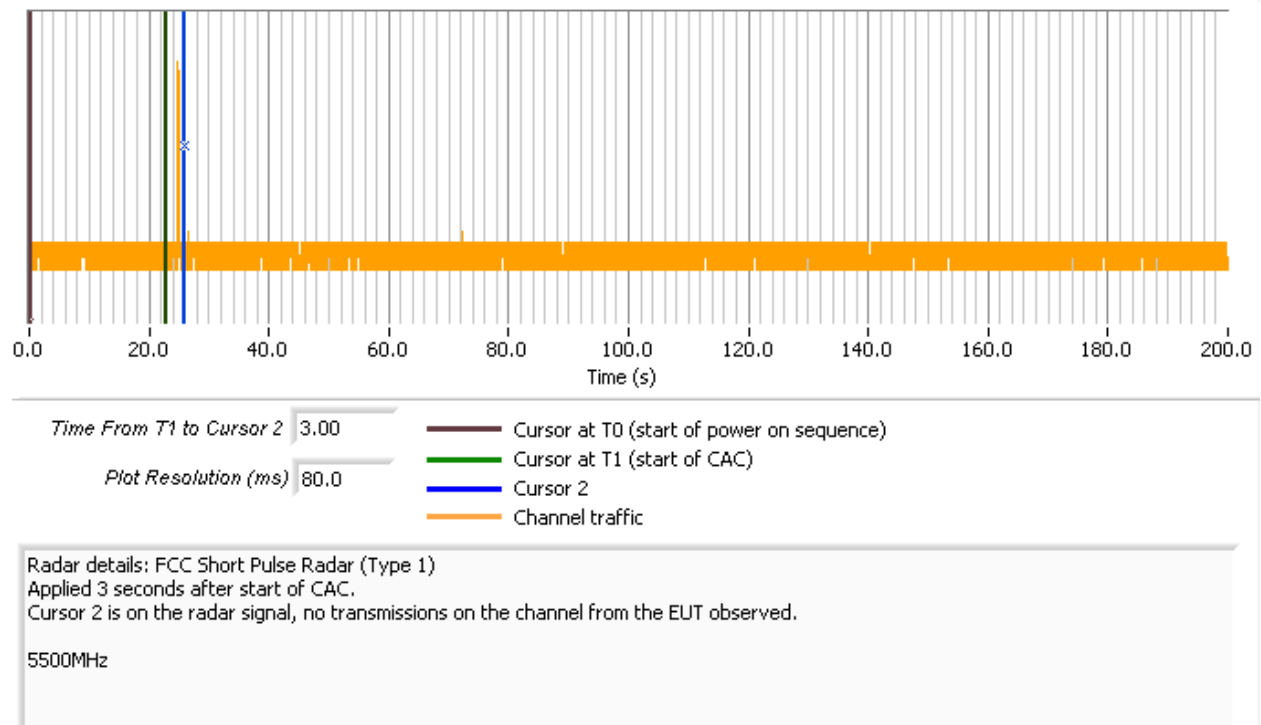


Figure 9 - Channel Availability Check, radar pulse at beginning of check



Timing Plots - Channel Availability Check

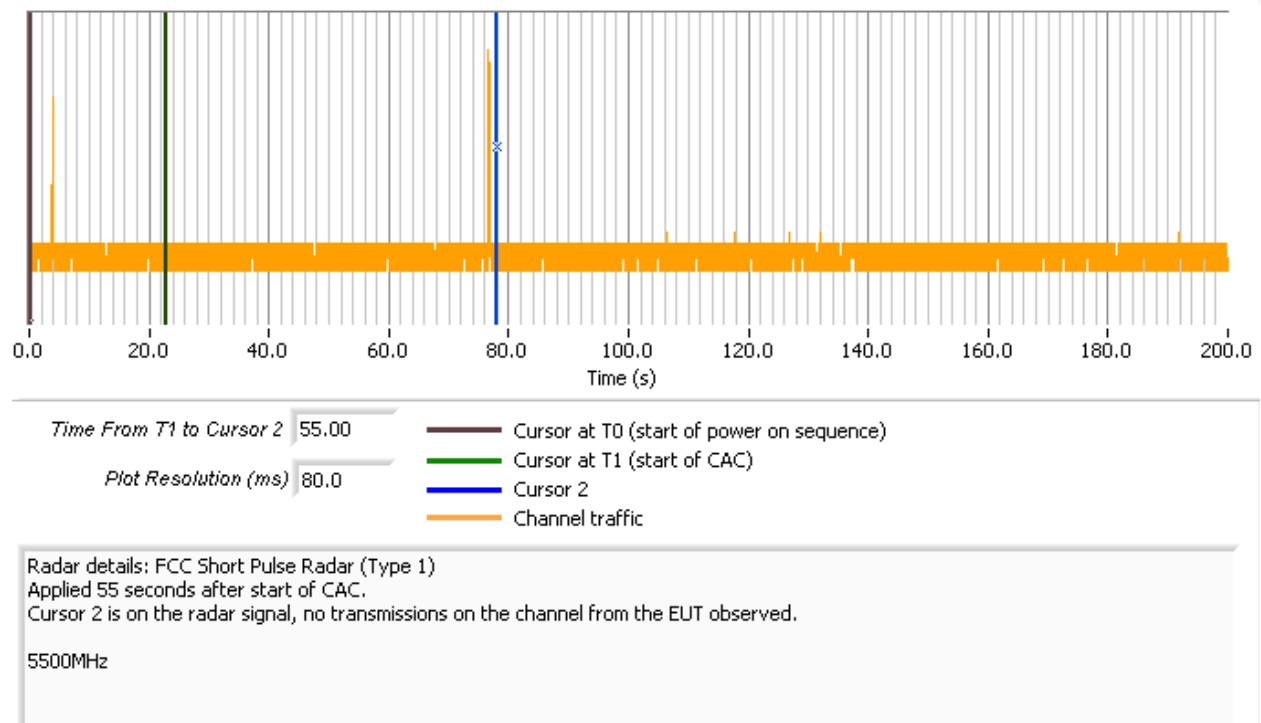


Figure 10 - Channel Availability Check, radar pulse at end of check

Appendix E – Antenna Specification Sheet

Antenna Specifications	Polarization	Vertical
	Gain, dBi (nominal) Beamwidth -3dB	16.5 ±0.5 dBi
	Horizontal Plane Beamwidth	60°
	Vertical Beamwidth -3 db	7°
	X-Polarization Rejection	15 dB Min.
	Front to Back	25 dB min.
	VSWR	1.5:1 Maximum
	Model #	CY-5204-8-60

Antenna Specifications	Polarization	Vertical
	Gain, dBi (nominal) Beamwidth -3dB	14.5 ±0.5 dBi
	Horizontal Plane Beamwidth	90°
	Vertical Beamwidth -3 db	7°
	X-Polarization Rejection	15 dB Min.
	Front to Back	25 dB
	VSWR	1.5 Maximum
	Model #	CY-5204-8-90

Antenna Specifications	Polarization	Vertical
	Gain, dBi (nominal) Beamwidth -3dB	14.5 ±0.5 dBi
	Horizontal Plane Beamwidth	120°
	Vertical Beamwidth -3 db	7°
	X-Polarization Rejection	15 dB Min.
	Front to Back	25 dB
	VSWR	1.5 Maximum
	Model #	CY-5204-8-120

Antenna Specifications	Polarization	Vertical
	Gain, dBi (nominal) Beamwidth -3dB	13.0 ±0.5 dBi
	Horizontal Plane Beamwidth	180°
	Vertical Beamwidth -3 db	7°
	X-Polarization Rejection	15 dB Min.
	Front to Back	20 dB min.
	VSWR	1.5:1 Maximum
	Model #	CY-5204-8-180

Antenna Specifications	Polarization	Vertical
	Gain, dBi (nominal) Beamwidth -3dB	10.0 dBi
	Horizontal Plane Beamwidth	360°
	Vertical Beamwidth -3 db	8.5°
	X-Polarization Rejection	23 dB Min.
	Electrical Downtilt	0°
	VSWR	1.5 Maximum
	Model #	CY-R380.600.200

Appendix F Test Configuration Photographs

