TEST REPORT R72953- Supplementary Information

DYNAMIC FREQUENCY SELECTION (DFS) REQUIREMENTS

FCC Part 15 Subpart E (UNII)

Xirrus, Inc.

Model(s): XN16, XN8 and XN12

FCC ID(s):	SK6XN8, SK6XN12, SK6XN16
COMPANY:	Xirrus Inc. 2101 Corporate Center Drive Thousand Oaks, Ca. 91320
TEST SITE:	Elliott Laboratories 684 W. Maude Ave Sunnyvale, CA 94085
REPORT DATE:	February 20, 2009
FINAL TEST DATE:	February 17, 2009
TEST ENGINEER:	Wayne Fisher
AUTHORIZED SIGNATORY:	Mark Briggs Staff Engineer

REVISION HISTORY

Rev #	Date	Comments	Modified By
1.0	February 20, 2009	First release	-

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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 Xirrus Inc. models XN16 and XN8 in accordance with these standards.

Test data has been taken pursuant to the relevant DFS 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 Xirrus model XN8 and therefore apply only to the tested sample. The sample was selected and prepared by Steve Smith of Xirrus, Inc. Results from testing the XN8 are considered applicable to the three variants (XN8, XN16 and XN12) in the series based on previous testing on the models XN8 and XN16.

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.

DEVIATIONS FROM THE STANDARD

Testing was limited in scope to evaluate modifications in the detection algorithm to resolve issues of non-detection of bin 5 in the upper half of the 40MHz channel. Although the software changes were not considered to affect the detection probability results for the device operating in 20 MHz mode, limited tests were performed in that mode on all radar types to confirm this was the case.

All six radar types were evaluated for both 40-MHz and 20-MHz channel bandwidths, however the number of trials for radar types 1,2,3,4 and 5 was limited to a minimum of 10 provided the device detected at least 90% of those trials. The FCC test procedure requires a minimum of 30 trials. The purpose of testing was to confirm that the changes in detection algorithm improved detection of bin 5 waveforms across the entire radar detection bandwidth and to verify that the changes did not adversely affect the detection of the other radar waveforms as reported in Elliott test report R72593.

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Xirrus, Inc. models XN16, XN8 and XN12 are multi-radio 802.11abgn Access Points which are designed to act as a hub for a wireless local area network (WLAN). The electrical rating of the device is 100/240Vac, 50/60Hz, and 0.5-3A. They can be powered via an internal AC-DC adapter or via a PoE interface and dedicated PoE adapter (also sold with the device).

The model XN16 contains 16 separate transceivers. The radio interfaces are provided via four identical circuit boards. Each of the boards has one 802.11bgn radio and three 802.11an radios. Each radio connects to an internal antenna with a gain of 3dBi for the 802.11bgn radio and 6dBi for the 802.11an radio. Three radio boards can connect to an external antenna via a reverse polarity TNC coaxial connector. The external antenna offered for use is a ceiling mount antenna, model CM2-2400/5500, with a nominal gain of 2.5dBi for all bands and is used to support single-chain legacy modes. The internal antennas support single-chain legacy modes and 3x3 MIMO modes for 2.4GHz, 2x2 MIMO for 5GHz.

The XN8 and XN12 are both identical to the XN16 except that the rf board is depopulated.

1. In the XN8 there are only two transceivers on each radio board, one that can operate as abgn in both 2.4GHz and 5GHz bands and the other that can operate only in the 5GHz bands as an 802.11an radio. The XN8 has a total of 8 transceivers.

2. In the XN12 there are only three transceivers on each radio board, one that can operate as a bgn radio in the 2.4GHz band, the other two operate in the 5GHz bands as an 802.11an radio. The XN12 has a total of 12 transceivers.

The samples were received and tested on February 17, 2009. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number
Xirrus	XN8	802.11abgn access point	Prototype

ENCLOSURE

The enclosures for the XN16, XN12 and XN8 are identical. The enclosure is primarily constructed of plastic. It is circular with a diameter of 48 cm and a height of 10cm.

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.

The modifications made to the device between the original test sessions detailed in Elliott Test Report R72593 and the tests performed as detailed in this supplementary report were:

- A single register value was changed which should only have affected the bonded mode (40MHz channel) only.
- The change was applied only to Bin5 and only in bonded mode, thus not affecting the other detection of other bins relative to the previously measured/tested values.

SUPPORT EQUIPMENT

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

Manufacturer	Model	Description	Serial Number	FCC ID
IBM	*T60*	*Laptop*	*L3-CR350*	*DoC*
IBM	R51	Laptop	99-V4543	DoC

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 1	Laptop Ethernet	Cat 5	Unshielded	10.0
Console	USB Serial Adapter on Laptop	Cat 5	Unshielded	5.0
AC Power	EUT AC power	3 wire	Unshielded	1.5

EUT OPERATION

The EUT was operating with the following software. The software is secured by password protection and professional installation to prevent the user from disabling the DFS function.

Master Device: XS- 4.0-mad47 (engineering build)

The software was an engineering build that over-rode the non-occupancy mechanism (allowing return to the same channel) for the purposes of determining the probability of detection. This feature is not available in the software provided with the system to he end user.

The system was configured with a streaming video file from the master device (sourced by the PC connected to the master device via an Ethernet interface) to the client device. The streamed file was the "FCC" test file and the client device was using Windows Media Player Classic as required by FCC Part 15 Subpart E.

RADAR WAVEFORMS

Table 1 FCC Short Pulse Radar Test Waveforms					
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses / burst	Minimum Detection Percentage	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 (Radar Types 1-4)				80%	120

Table 2 FCC Long Pulse Radar Test Waveforms							
Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Pulses / burst	Number of *Bursts*	Minimum Detection Percentage	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 3 FCC Frequency Hopping Radar Test Waveforms							
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses / hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Detection Percentage	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

TEST RESULTS SUMMARY

<table>
<tr><th colspan="7">Table 4 FCC Part 15 Subpart E Master Device Test Result Summary XN16</th></tr>
<tr><td>Description</td><td>Radar Type</td><td>Radar Frequency</td><td>Measured Value</td><td>Requirement</td><td>Test Data</td><td>Status</td></tr>
<tr><td>Channel Availability Check (CAC) Time</td><td>Type 1</td><td colspan="5" rowspan="2">Not performed, the data reported in Elliott test report R72593 contains data demonstrating compliance with these requirements.</td></tr>
<tr><td>CAC Detection Threshold</td><td>Type 1</td></tr>
<tr><td>In-Service Monitoring Detection Threshold</td><td>Type 1
Type 2
Type 3
Type 4
Type 5
Type 6</td><td>5310MHz</td><td>-65 dBm (Note 2)</td><td>-64dBm (See note 2)</td><td>Appendix A</td><td>Pass</td></tr>
<tr><td>Bandwidth Detection</td><td>Type 1</td><td colspan="5" rowspan="4">Not performed, the data reported in Elliott test report R72593 contains data demonstrating compliance with these requirements.</td></tr>
<tr><td>Channel closing transmission time</td><td>Type 1
Type 5</td></tr>
<tr><td>Channel move time</td><td>Type 1
Type 5</td></tr>
<tr><td>Non-occupancy period</td><td>-</td></tr>
<tr><td colspan="7">1) Tests were performed using the radiated test method.
2) The measured detection threshold is based on testing the master device using the radiated test method when connected to an antenna with a nominal gain of 2.5 dBi. The limit is based on an eirp of more than 23 dBm.
3) The in-service monitoring detection threshold and detection probability measurements were made with the device operating in the 5250 – 5350 MHz band.</td></tr>
</table>

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
DFS Threshold (radiated)	dBm	1.6

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.

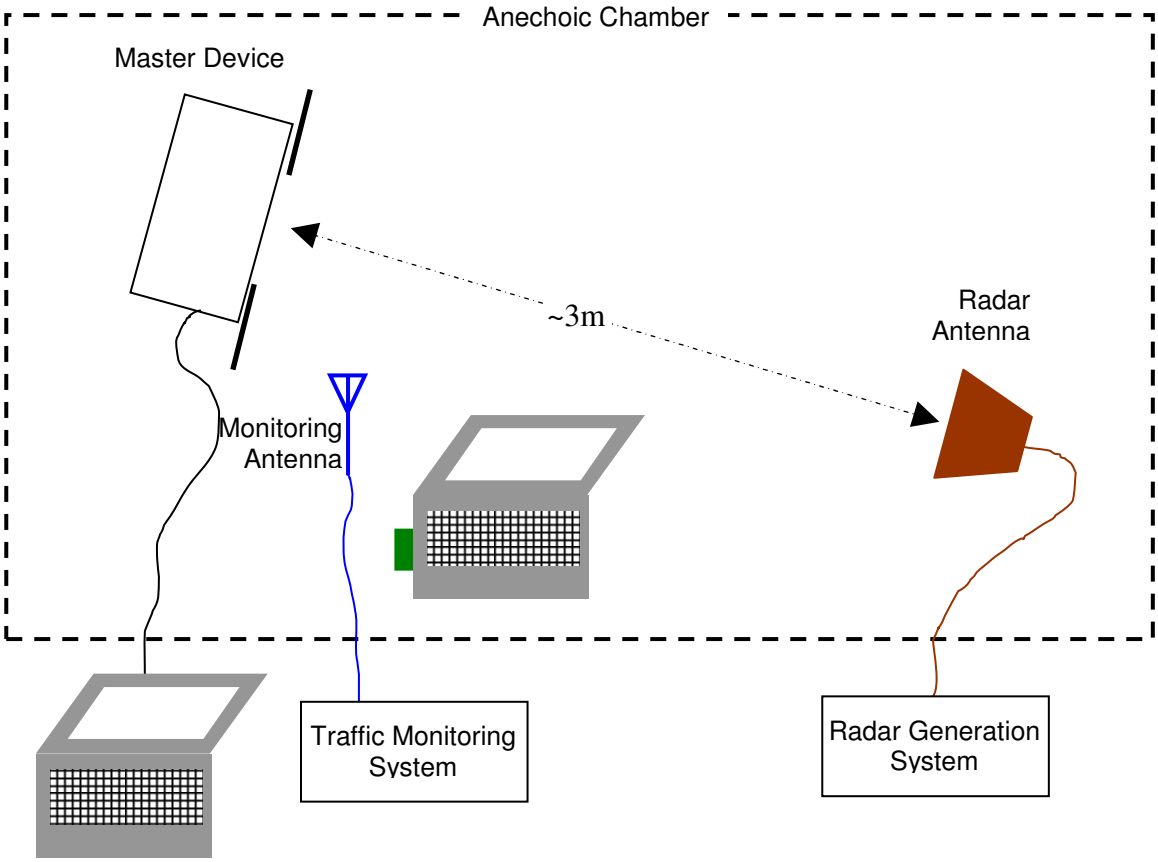

Figure 1 Test Configuration for radiated Measurement Method

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:

Applied level (dBm) = R – GREF + 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.

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 un-modulated 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 FCC radar waveform 1 and applying radar pulses at offsets 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 burst of radar 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 one of 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[1] – 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.

DFS – CHANNEL NON-OCCUPANCY AND VERIFICATION OF PASSIVE SCANNING

The channel that was in use prior to radar detection by the master is additionally monitored for 30 minutes to ensure no transmissions on the vacated channel over the required non-occupancy period. This is achieved by tuning the spectrum analyzer to the vacated channel in zero-span mode and connecting the IF output to an oscilloscope. The oscilloscope is triggered by the radar pulse and set to provide a single sweep (in peak detect mode) that lasts for at least 30 minutes after the end of the channel move time.

[1] This measurement method is used for MIC Table No. 45.

DFS CHANNEL AVAILABILITY CHECK TIME

It is preferred that the EUT report when it starts the radar channel availability 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.

To evaluate the channel availability check, a single burst of one radar type is applied within the first 2 seconds of the start of the channel availability check and it is verified that the device does not use the channel by continuing to monitor the channel for a period of at least 60 seconds. The test is repeated by applying a burst of radar in the last 2 seconds (i.e. between 58 and 60 seconds after the start of CAC) of the channel availability check.

UNIFORM LOADING

Compliance with the FCC's channel loading requirement is demonstrated through the manufacturer's operational description for the device under test.

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 Data Tables for Radar Detection Probability

The following testing was performed on a Xirrus XN8 after modifications were made to the detection algorithms for 40MHz mode. Testing was limited in scope to the 40MHz mode to confirm that the modifications resolved issues of non-detection of bin 5 in the lower half of the 40MHz channel.

Radar types 1,2,3,4 and 5 were applied at frequencies equal to the center frequency of the channel under test and at +/- 5MHz increments from the center of the channel across the detection bandwidth to ensure any detection issues across the channel would be observed.

Table 5 - Summary of All Results - 40MHz BW

Waveform Name	Pd (%)	Pd Required (%)	Number of Trials	Status
FCC Short Pulse Radar (Type 1)	100.0 %	60.0 %	20	Pass
FCC Short Pulse Radar (Type 2)	100.0 %	60.0 %	10	Pass
FCC Short Pulse Radar (Type 3)	90.0 %	60.0 %	10	Pass
FCC Short Pulse Radar (Type 4)	100.0 %	60.0 %	10	Pass
Aggregate of above results	97.5%	80.0 %	50	Pass
FCC frequency hopping radar (Type 6)	100.0 %	60.0 %	37	Pass
Long Sequence	100.0 %	60.0 %	20	Pass

Note – The purpose of testing was to validate the detection of radar in 40MHz mode after changes were made to the detection algorithm. All 6 radar types were applied with a minimum of 10 trials (37 trails for type 6 to ensure the radar was moved across the complete radar detection bandwidth).
The radar level was -65.0dBm as calibrated for a 0dBi EUT antenna. The required test level is -63dBm (1 dB above the -64dBm threshold level). A lower test level was used to ensure the device had some margin.
All measurements were made using the radiated test method.
Detailed results for this mode are given in pages 19 through 49.

Table 6 - Summary of All Results - 20MHz BW

Waveform Name	Pd (%)	Pd Required (%)	Number of Trials	Status
FCC Short Pulse Radar (Type 1)	>90.0%	60.0 %	10	Pass
FCC Short Pulse Radar (Type 2)	>90.0%	60.0 %	10	Pass
FCC Short Pulse Radar (Type 3)	>90.0%	60.0 %	10	Pass
FCC Short Pulse Radar (Type 4)	>90.0%	60.0 %	10	Pass
Aggregate of above results	>95.0%	80.0 %	40	Pass
FCC frequency hopping radar (Type 6)	>90.0%	60.0 %	10	Pass
Long Sequence	>90.0%	60.0 %	10	Pass

Note – The purpose of testing was to validate the detection of radar in 40MHz mode after changes were made to the detection algorithm. 10 trials with each radar type were performed with the device operating in the 20MHz mode to confirm that the software changes for the 40MHz (bonded channel) mode did not adversely affect detection rates in the 20 MHz operating mode.
The radar level was -65.0dBm as calibrated for a 0dBi EUT antenna. The required test level is -63dBm (1 dB above the threshold level of -64dBm). A lower test level was used to ensure the device had some margin.
All measurements were made using the radiated test method.
Detailed results for this mode were not recorded.

Table 7 - FCC Short Pulse Radar (Type 1) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
1	18	1.0	1428.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:38:04 PM)
2	18	1.0	1428.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:38:18 PM)
3	18	1.0	1428.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:38:29 PM)
4	18	1.0	1428.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:38:47 PM)
5	18	1.0	1428.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:38:56 PM)
6	18	1.0	1428.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:39:06 PM)
7	18	1.0	1428.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:39:15 PM)
8	18	1.0	1428.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:39:23 PM)
9	18	1.0	1428.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:39:33 PM)
10	18	1.0	1428.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:39:43 PM)
11	18	1.0	1428.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:40:28 PM)
12	18	1.0	1428.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:40:36 PM)
13	18	1.0	1428.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:40:45 PM)
14	18	1.0	1428.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:40:56 PM)
15	18	1.0	1428.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:41:04 PM)
16	18	1.0	1428.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:41:12 PM)
17	18	1.0	1428.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:41:35 PM)
18	18	1.0	1428.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:42:13 PM)
19	18	1.0	1428.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:42:26 PM)
20	18	1.0	1428.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:42:36 PM)

Table 8 - FCC Short Pulse Radar (Type 2) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
1	28	3.0	179.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:44:15 PM)
2	25	3.6	202.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:44:29 PM)
3	26	1.0	196.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:44:39 PM)
4	25	3.8	217.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:44:47 PM)
5	28	1.3	193.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:44:55 PM)
6	25	4.0	223.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:03 PM)
7	24	1.3	208.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:11 PM)
8	28	5.0	227.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:18 PM)
9	26	3.7	181.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:26 PM)
10	26	4.4	199.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:34 PM)

Table 9 - FCC Short Pulse Radar (Type 3) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
1	17	8.3	345.0	No	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:45:55 PM)
2	18	7.6	493.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:46:26 PM)
3	16	8.9	498.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:46:35 PM)
4	16	7.3	407.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:46:44 PM)
5	17	8.7	426.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:46:54 PM)
6	17	8.4	302.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:47:02 PM)
7	16	8.1	228.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:47:10 PM)
8	18	8.3	337.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:47:18 PM)
9	18	8.6	436.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:47:26 PM)
10	16	6.9	344.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:47:37 PM)

Table 10 - FCC Short Pulse Radar (Type 4) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
1	14	16.5	421.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:04 PM)
2	15	15.5	200.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:18 PM)
3	13	16.0	293.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:27 PM)
4	15	17.1	270.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:35 PM)
5	15	16.7	473.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:44 PM)
6	13	11.8	447.0	Yes	5310.0MHz, -65.0dBm	Single burst (02/17/2009 07:48:52 PM)
7	14	16.6	260.0	Yes	5305.0MHz, -65.0dBm	Single burst (02/17/2009 07:49:00 PM)
8	15	16.3	271.0	Yes	5300.0MHz, -65.0dBm	Single burst (02/17/2009 07:49:08 PM)
9	12	16.6	456.0	Yes	5320.0MHz, -65.0dBm	Single burst (02/17/2009 07:49:18 PM)
10	13	14.8	230.0	Yes	5315.0MHz, -65.0dBm	Single burst (02/17/2009 07:49:26 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
1	9	1.0	333.0	Yes	5327.0MHz, -65.0dBm	Hop sequence: 5306, 5331, 5385, 5324, 5421, 5392, 5337, 5265, 5405, 5301, 5340, 5373, 5443, 5313, 5287, 5466, 5271, 5360, 5369, 5413, 5310, 5444, 5431, 5323, 5368, 5330, 5367, 5412, 5333, 5454, 5401, 5309, 5255, 5435, 5358, 5346, 5307, 5457, 5423, 5328, 5339, 5422, 5338, 5366, 5260, 5465, 5252, 5387, 5326, 5427, 5415, 5433, 5383, 5469, 5380, 5394, 5437, 5291, 5384, 5268, 5275, 5262, 5399, 5308, 5379, 5264, 5352, 5321, 5407, 5464, 5296, 5361, 5424, 5417, 5398, 5263, 5284, 5390, 5406, 5274, 5468, 5440, 5314, 5270, 5458, 5396, 5410, 5403, 5316, 5303, 5382, 5356, 5416, 5318, 5375, 5439, 5315, 5429, 5254, 5404 (18 hits) (02/17/2009 07:55:32 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
2	9	1.0	333.0	Yes	5328.0MHz, -65.0dBm	Hop sequence: 5269, 5264, 5451, 5334, 5379, 5380, 5319, 5426, 5439, 5288, 5368, 5252, 5284, 5359, 5326, 5281, 5275, 5382, 5366, 5311, 5434, 5289, 5392, 5345, 5390, 5312, 5405, 5444, 5283, 5373, 5454, 5418, 5322, 5263, 5282, 5428, 5375, 5306, 5372, 5399, 5267, 5377, 5432, 5448, 5320, 5453, 5271, 5440, 5293, 5290, 5431, 5365, 5330, 5302, 5401, 5292, 5447, 5400, 5381, 5301, 5406, 5341, 5300, 5389, 5298, 5374, 5378, 5343, 5313, 5285, 5402, 5421, 5410, 5357, 5354, 5387, 5342, 5449, 5420, 5338, 5276, 5470, 5363, 5443, 5385, 5384, 5446, 5457, 5419, 5415, 5403, 5467, 5429, 5277, 5265, 5427, 5268, 5266, 5325, 5315 (16 hits) (02/17/2009 07:55:44 PM)
3	9	1.0	333.0	Yes	5292.0MHz, -65.0dBm	Hop sequence: 5346, 5262, 5402, 5427, 5451, 5388, 5352, 5293, 5350, 5282, 5376, 5359, 5353, 5429, 5455, 5313, 5284, 5440, 5433, 5360, 5399, 5379, 5323, 5465, 5301, 5263, 5288, 5331, 5312, 5264, 5252, 5410, 5463, 5390, 5432, 5316, 5265, 5335, 5343, 5306, 5315, 5305, 5398, 5311, 5371, 5405, 5443, 5397, 5462, 5400, 5319, 5381, 5470, 5386, 5366, 5289, 5300, 5370, 5298, 5273, 5380, 5378, 5439, 5413, 5269, 5333, 5368, 5327, 5318, 5349, 5287, 5406, 5258, 5431, 5423, 5363, 5393, 5250, 5450, 5295, 5407, 5310, 5385, 5277, 5369, 5461, 5441, 5365, 5351, 5338, 5257, 5459, 5348, 5460, 5308, 5454, 5321, 5325, 5367, 5254 (20 hits) (02/17/2009 07:55:54 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
4	9	1.0	333.0	Yes	5293.0MHz, -65.0dBm	Hop sequence: 5468, 5319, 5322, 5365, 5455, 5293, 5406, 5416, 5441, 5348, 5341, 5394, 5272, 5379, 5295, 5310, 5296, 5459, 5396, 5448, 5345, 5374, 5449, 5255, 5415, 5274, 5458, 5291, 5292, 5387, 5349, 5332, 5435, 5442, 5340, 5460, 5284, 5437, 5469, 5410, 5381, 5307, 5361, 5413, 5423, 5357, 5368, 5316, 5395, 5263, 5407, 5362, 5408, 5404, 5318, 5398, 5433, 5384, 5331, 5411, 5397, 5338, 5355, 5313, 5372, 5386, 5376, 5399, 5425, 5465, 5385, 5428, 5305, 5251, 5412, 5370, 5301, 5426, 5303, 5446, 5329, 5371, 5388, 5403, 5350, 5461, 5347, 5358, 5266, 5344, 5367, 5364, 5308, 5373, 5438, 5294, 5383, 5354, 5427, 5444 (16 hits) (02/17/2009 07:56:03 PM)
5	9	1.0	333.0	Yes	5294.0MHz, -65.0dBm	Hop sequence: 5331, 5432, 5383, 5366, 5365, 5297, 5413, 5460, 5361, 5285, 5393, 5287, 5269, 5435, 5309, 5434, 5326, 5463, 5428, 5276, 5451, 5291, 5420, 5411, 5372, 5317, 5417, 5392, 5329, 5279, 5311, 5337, 5347, 5399, 5450, 5407, 5284, 5444, 5271, 5404, 5345, 5397, 5298, 5273, 5300, 5356, 5408, 5353, 5344, 5251, 5278, 5313, 5352, 5270, 5390, 5431, 5387, 5318, 5402, 5427, 5405, 5386, 5384, 5414, 5325, 5362, 5358, 5355, 5296, 5369, 5348, 5340, 5454, 5394, 5299, 5262, 5368, 5275, 5426, 5430, 5375, 5389, 5462, 5336, 5323, 5424, 5403, 5378, 5342, 5310, 5343, 5418, 5422, 5292, 5272, 5268, 5438, 5371, 5461, 5280 (15 hits) (02/17/2009 07:56:13 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
6	9	1.0	333.0	Yes	5295.0MHz, -65.0dBm	Hop sequence: 5441, 5378, 5384, 5255, 5438, 5374, 5313, 5394, 5407, 5443, 5303, 5347, 5257, 5324, 5447, 5433, 5392, 5354, 5402, 5364, 5450, 5351, 5468, 5454, 5366, 5311, 5299, 5284, 5280, 5463, 5274, 5419, 5429, 5331, 5288, 5435, 5368, 5391, 5445, 5417, 5393, 5332, 5278, 5428, 5355, 5339, 5424, 5336, 5436, 5471, 5396, 5399, 5267, 5361, 5388, 5279, 5398, 5265, 5350, 5371, 5252, 5277, 5434, 5302, 5430, 5397, 5421, 5320, 5315, 5372, 5275, 5465, 5373, 5261, 5306, 5409, 5326, 5298, 5263, 5376, 5440, 5451, 5289, 5365, 5304, 5460, 5416, 5423, 5432, 5294, 5327, 5276, 5335, 5425, 5414, 5404, 5273, 5406, 5343, 5266 (14 hits) (02/17/2009 07:56:38 PM)
7	9	1.0	333.0	Yes	5296.0MHz, -65.0dBm	Hop sequence: 5315, 5387, 5291, 5384, 5311, 5378, 5437, 5388, 5275, 5349, 5364, 5347, 5260, 5409, 5350, 5467, 5374, 5435, 5411, 5302, 5342, 5440, 5272, 5376, 5361, 5316, 5389, 5343, 5392, 5263, 5370, 5450, 5295, 5307, 5399, 5258, 5431, 5319, 5460, 5318, 5359, 5320, 5459, 5426, 5259, 5327, 5287, 5410, 5429, 5393, 5462, 5412, 5252, 5443, 5283, 5257, 5251, 5314, 5269, 5356, 5332, 5345, 5363, 5366, 5436, 5447, 5273, 5377, 5353, 5312, 5414, 5423, 5383, 5425, 5398, 5274, 5280, 5362, 5452, 5379, 5281, 5466, 5298, 5292, 5299, 5297, 5294, 5422, 5453, 5322, 5441, 5396, 5394, 5449, 5372, 5333, 5270, 5381, 5253, 5305 (19 hits) (02/17/2009 07:56:56 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
8	9	1.0	333.0	Yes	5297.0MHz, -65.0dBm	Hop sequence: 5425, 5366, 5411, 5259, 5267, 5432, 5277, 5258, 5450, 5434, 5260, 5365, 5413, 5451, 5385, 5340, 5429, 5436, 5318, 5396, 5399, 5393, 5306, 5308, 5333, 5449, 5430, 5389, 5417, 5463, 5419, 5254, 5323, 5428, 5382, 5322, 5460, 5421, 5377, 5462, 5279, 5301, 5467, 5256, 5464, 5311, 5326, 5266, 5275, 5327, 5276, 5440, 5343, 5295, 5455, 5310, 5426, 5358, 5422, 5313, 5328, 5456, 5427, 5383, 5314, 5354, 5447, 5342, 5272, 5290, 5437, 5335, 5268, 5370, 5453, 5452, 5300, 5269, 5341, 5289, 5445, 5372, 5271, 5283, 5330, 5344, 5360, 5373, 5282, 5400, 5250, 5362, 5443, 5350, 5375, 5468, 5459, 5356, 5329, 5397 (15 hits) (02/17/2009 07:57:13 PM)
9	9	1.0	333.0	Yes	5298.0MHz, -65.0dBm	Hop sequence: 5421, 5341, 5270, 5408, 5332, 5321, 5407, 5309, 5277, 5430, 5295, 5399, 5256, 5307, 5428, 5363, 5304, 5317, 5457, 5380, 5409, 5350, 5367, 5311, 5426, 5425, 5398, 5462, 5378, 5390, 5432, 5273, 5328, 5458, 5404, 5315, 5389, 5318, 5443, 5357, 5345, 5415, 5388, 5322, 5360, 5324, 5352, 5308, 5339, 5376, 5319, 5346, 5402, 5435, 5343, 5416, 5282, 5310, 5303, 5410, 5364, 5338, 5436, 5366, 5423, 5463, 5373, 5279, 5427, 5278, 5358, 5469, 5281, 5296, 5448, 5441, 5422, 5337, 5336, 5465, 5459, 5403, 5306, 5450, 5300, 5397, 5391, 5331, 5284, 5349, 5344, 5330, 5361, 5291, 5418, 5372, 5297, 5266, 5466, 5334 (20 hits) (02/17/2009 07:57:34 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
10	9	1.0	333.0	Yes	5299.0MHz, -65.0dBm	Hop sequence: 5423, 5417, 5434, 5468, 5312, 5368, 5451, 5360, 5383, 5305, 5251, 5326, 5421, 5328, 5397, 5393, 5369, 5324, 5325, 5427, 5309, 5374, 5289, 5405, 5394, 5378, 5410, 5252, 5403, 5285, 5257, 5342, 5298, 5429, 5355, 5411, 5301, 5437, 5409, 5268, 5457, 5467, 5466, 5453, 5382, 5276, 5347, 5455, 5335, 5464, 5300, 5449, 5446, 5366, 5353, 5269, 5412, 5308, 5295, 5318, 5430, 5445, 5287, 5459, 5264, 5263, 5348, 5440, 5323, 5320, 5297, 5418, 5337, 5420, 5456, 5373, 5275, 5339, 5271, 5283, 5302, 5303, 5391, 5428, 5357, 5267, 5465, 5332, 5442, 5388, 5327, 5426, 5280, 5274, 5258, 5270, 5273, 5438, 5367, 5379 (19 hits) (02/17/2009 07:57:42 PM)
11	9	1.0	333.0	Yes	5300.0MHz, -65.0dBm	Hop sequence: 5253, 5429, 5361, 5440, 5281, 5316, 5441, 5464, 5408, 5331, 5327, 5299, 5432, 5367, 5286, 5295, 5470, 5381, 5418, 5389, 5279, 5255, 5410, 5267, 5334, 5437, 5345, 5335, 5264, 5291, 5321, 5288, 5317, 5444, 5266, 5371, 5368, 5428, 5318, 5435, 5462, 5369, 5323, 5377, 5284, 5427, 5296, 5290, 5382, 5416, 5423, 5397, 5453, 5341, 5354, 5413, 5469, 5366, 5294, 5407, 5431, 5272, 5433, 5324, 5276, 5308, 5449, 5396, 5342, 5425, 5391, 5257, 5359, 5310, 5355, 5283, 5443, 5332, 5383, 5446, 5434, 5270, 5293, 5348, 5280, 5304, 5362, 5374, 5409, 5274, 5461, 5468, 5424, 5419, 5336, 5455, 5325, 5301, 5363, 5448 (17 hits) (02/17/2009 07:58:09 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
12	9	1.0	333.0	Yes	5301.0MHz, -65.0dBm	Hop sequence: 5312, 5354, 5409, 5305, 5340, 5450, 5357, 5346, 5304, 5389, 5418, 5301, 5434, 5276, 5376, 5372, 5323, 5360, 5328, 5396, 5310, 5325, 5289, 5446, 5383, 5332, 5331, 5300, 5441, 5373, 5270, 5471, 5451, 5324, 5365, 5431, 5293, 5260, 5408, 5277, 5449, 5348, 5352, 5279, 5320, 5278, 5414, 5294, 5256, 5457, 5355, 5335, 5295, 5358, 5351, 5269, 5385, 5428, 5283, 5378, 5330, 5375, 5430, 5266, 5379, 5364, 5275, 5263, 5452, 5374, 5322, 5435, 5384, 5366, 5416, 5387, 5469, 5371, 5317, 5368, 5382, 5440, 5251, 5445, 5404, 5456, 5394, 5424, 5402, 5353, 5259, 5417, 5461, 5347, 5361, 5288, 5439, 5415, 5292, 5329 (17 hits) (02/17/2009 07:58:19 PM)
13	9	1.0	333.0	Yes	5302.0MHz, -65.0dBm	Hop sequence: 5410, 5328, 5451, 5370, 5471, 5306, 5331, 5377, 5289, 5305, 5412, 5261, 5330, 5419, 5307, 5355, 5274, 5394, 5398, 5356, 5315, 5430, 5349, 5382, 5310, 5454, 5444, 5397, 5293, 5466, 5340, 5381, 5464, 5269, 5383, 5369, 5304, 5324, 5338, 5286, 5431, 5262, 5441, 5292, 5416, 5319, 5278, 5283, 5438, 5418, 5462, 5321, 5297, 5339, 5368, 5359, 5380, 5281, 5337, 5353, 5284, 5408, 5400, 5267, 5448, 5257, 5387, 5393, 5372, 5455, 5365, 5436, 5433, 5423, 5409, 5282, 5429, 5446, 5375, 5390, 5427, 5450, 5268, 5250, 5411, 5428, 5323, 5442, 5458, 5271, 5276, 5336, 5391, 5376, 5456, 5445, 5358, 5413, 5420, 5266 (14 hits) (02/17/2009 07:58:27 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
14	9	1.0	333.0	Yes	5303.0MHz, -65.0dBm	Hop sequence: 5428, 5391, 5326, 5410, 5427, 5329, 5274, 5354, 5285, 5433, 5286, 5448, 5447, 5438, 5436, 5382, 5414, 5400, 5353, 5403, 5347, 5402, 5395, 5444, 5261, 5458, 5399, 5456, 5253, 5406, 5462, 5300, 5367, 5270, 5405, 5442, 5299, 5425, 5267, 5372, 5305, 5278, 5404, 5376, 5298, 5314, 5283, 5263, 5333, 5457, 5413, 5348, 5350, 5417, 5366, 5295, 5332, 5445, 5419, 5293, 5351, 5450, 5412, 5459, 5310, 5268, 5262, 5265, 5463, 5287, 5276, 5307, 5271, 5449, 5460, 5336, 5349, 5369, 5423, 5461, 5381, 5384, 5357, 5387, 5453, 5291, 5352, 5468, 5342, 5385, 5338, 5325, 5383, 5327, 5435, 5256, 5437, 5363, 5345, 5339 (12 hits) (02/17/2009 07:58:35 PM)
15	9	1.0	333.0	Yes	5304.0MHz, -65.0dBm	Hop sequence: 5375, 5459, 5451, 5297, 5309, 5468, 5365, 5348, 5341, 5465, 5340, 5301, 5396, 5449, 5415, 5425, 5466, 5295, 5386, 5421, 5305, 5367, 5298, 5363, 5354, 5353, 5342, 5268, 5418, 5286, 5424, 5351, 5369, 5437, 5395, 5324, 5358, 5388, 5371, 5278, 5274, 5452, 5264, 5316, 5289, 5416, 5303, 5441, 5462, 5431, 5253, 5326, 5372, 5400, 5417, 5313, 5335, 5311, 5390, 5255, 5429, 5440, 5428, 5285, 5467, 5296, 5336, 5329, 5433, 5266, 5275, 5349, 5263, 5438, 5328, 5343, 5413, 5315, 5385, 5271, 5391, 5276, 5378, 5360, 5307, 5381, 5325, 5260, 5288, 5456, 5361, 5262, 5306, 5408, 5319, 5359, 5346, 5404, 5460, 5251 (19 hits) (02/17/2009 07:58:43 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
16	9	1.0	333.0	Yes	5305.0MHz, -65.0dBm	Hop sequence: 5432, 5445, 5303, 5449, 5401, 5428, 5423, 5279, 5399, 5257, 5265, 5317, 5371, 5329, 5263, 5295, 5436, 5465, 5442, 5429, 5315, 5260, 5456, 5359, 5461, 5407, 5467, 5395, 5297, 5370, 5358, 5355, 5352, 5462, 5450, 5340, 5376, 5337, 5310, 5285, 5416, 5390, 5272, 5346, 5451, 5439, 5319, 5392, 5282, 5363, 5405, 5422, 5320, 5418, 5447, 5286, 5459, 5417, 5397, 5463, 5289, 5466, 5331, 5361, 5258, 5313, 5339, 5252, 5385, 5349, 5384, 5438, 5301, 5441, 5362, 5299, 5381, 5437, 5276, 5389, 5394, 5266, 5454, 5344, 5378, 5256, 5393, 5460, 5408, 5261, 5452, 5351, 5264, 5382, 5296, 5277, 5332, 5324, 5387, 5457 (13 hits) (02/17/2009 07:58:51 PM)
17	9	1.0	333.0	Yes	5306.0MHz, -65.0dBm	Hop sequence: 5409, 5281, 5348, 5410, 5382, 5416, 5326, 5376, 5353, 5300, 5344, 5321, 5318, 5430, 5408, 5438, 5390, 5275, 5294, 5253, 5268, 5370, 5308, 5362, 5264, 5261, 5302, 5373, 5330, 5319, 5363, 5412, 5329, 5378, 5471, 5374, 5461, 5277, 5273, 5271, 5464, 5466, 5459, 5357, 5445, 5421, 5350, 5436, 5414, 5427, 5337, 5283, 5257, 5418, 5468, 5251, 5366, 5424, 5407, 5447, 5267, 5439, 5377, 5305, 5454, 5260, 5399, 5335, 5405, 5352, 5356, 5338, 5292, 5453, 5469, 5280, 5415, 5442, 5276, 5455, 5397, 5402, 5297, 5314, 5443, 5383, 5432, 5266, 5265, 5380, 5334, 5306, 5340, 5315, 5434, 5316, 5417, 5287, 5448, 5359 (15 hits) (02/17/2009 07:58:58 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
18	9	1.0	333.0	Yes	5307.0MHz, -65.0dBm	Hop sequence: 5360, 5355, 5398, 5470, 5459, 5442, 5357, 5449, 5348, 5317, 5272, 5374, 5283, 5457, 5331, 5337, 5346, 5435, 5287, 5441, 5356, 5277, 5349, 5455, 5393, 5335, 5354, 5347, 5279, 5403, 5303, 5387, 5402, 5256, 5392, 5454, 5319, 5261, 5257, 5376, 5309, 5456, 5424, 5288, 5452, 5458, 5340, 5466, 5446, 5259, 5280, 5366, 5432, 5418, 5312, 5461, 5308, 5320, 5255, 5286, 5450, 5258, 5410, 5379, 5306, 5350, 5384, 5293, 5295, 5318, 5267, 5434, 5427, 5396, 5359, 5298, 5380, 5367, 5307, 5333, 5260, 5373, 5425, 5400, 5338, 5329, 5370, 5453, 5266, 5436, 5323, 5375, 5341, 5345, 5294, 5439, 5364, 5330, 5430, 5301 (16 hits) (02/17/2009 07:59:07 PM)
19	9	1.0	333.0	Yes	5308.0MHz, -65.0dBm	Hop sequence: 5369, 5441, 5397, 5305, 5312, 5331, 5325, 5460, 5352, 5321, 5319, 5455, 5362, 5439, 5374, 5365, 5418, 5448, 5385, 5395, 5386, 5363, 5324, 5323, 5442, 5342, 5314, 5444, 5467, 5382, 5383, 5338, 5339, 5376, 5351, 5443, 5291, 5437, 5373, 5370, 5270, 5326, 5293, 5378, 5456, 5316, 5432, 5430, 5408, 5274, 5318, 5412, 5372, 5287, 5344, 5276, 5414, 5330, 5391, 5254, 5283, 5425, 5280, 5264, 5409, 5289, 5275, 5426, 5406, 5252, 5356, 5381, 5375, 5405, 5428, 5458, 5423, 5269, 5411, 5366, 5299, 5255, 5461, 5371, 5450, 5410, 5446, 5309, 5311, 5306, 5470, 5350, 5303, 5310, 5263, 5258, 5260, 5298, 5265, 5300 (20 hits) (02/17/2009 07:59:15 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
20	9	1.0	333.0	Yes	5309.0MHz, -65.0dBm	Hop sequence: 5291, 5423, 5450, 5426, 5260, 5375, 5275, 5299, 5369, 5469, 5251, 5364, 5387, 5376, 5316, 5462, 5306, 5459, 5412, 5393, 5433, 5341, 5258, 5353, 5267, 5411, 5253, 5461, 5284, 5440, 5334, 5410, 5277, 5371, 5409, 5394, 5323, 5467, 5283, 5340, 5319, 5256, 5271, 5289, 5259, 5422, 5318, 5279, 5310, 5396, 5453, 5352, 5392, 5300, 5432, 5357, 5358, 5348, 5268, 5437, 5420, 5288, 5328, 5290, 5454, 5465, 5372, 5388, 5362, 5339, 5441, 5317, 5312, 5373, 5425, 5354, 5363, 5401, 5379, 5400, 5380, 5309, 5417, 5418, 5414, 5346, 5421, 5343, 5370, 5443, 5382, 5344, 5296, 5458, 5313, 5305, 5445, 5332, 5276, 5303 (16 hits) (02/17/2009 07:59:24 PM)
21	9	1.0	333.0	Yes	5310.0MHz, -65.0dBm	Hop sequence: 5410, 5349, 5436, 5266, 5262, 5395, 5391, 5342, 5305, 5381, 5364, 5420, 5422, 5344, 5438, 5444, 5405, 5421, 5264, 5455, 5316, 5303, 5313, 5306, 5406, 5411, 5362, 5283, 5461, 5366, 5308, 5284, 5384, 5361, 5464, 5435, 5267, 5433, 5462, 5431, 5358, 5339, 5373, 5400, 5343, 5285, 5403, 5279, 5385, 5458, 5309, 5402, 5271, 5268, 5355, 5287, 5272, 5293, 5434, 5424, 5376, 5414, 5357, 5301, 5397, 5338, 5454, 5252, 5451, 5328, 5261, 5447, 5346, 5382, 5396, 5463, 5415, 5298, 5251, 5265, 5445, 5337, 5387, 5258, 5274, 5311, 5254, 5371, 5423, 5332, 5367, 5428, 5320, 5289, 5359, 5270, 5322, 5273, 5460, 5277 (14 hits) (02/17/2009 07:59:35 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
22	9	1.0	333.0	Yes	5311.0MHz, -65.0dBm	Hop sequence: 5268, 5277, 5421, 5309, 5457, 5337, 5259, 5271, 5263, 5325, 5359, 5267, 5445, 5301, 5362, 5281, 5252, 5251, 5401, 5376, 5414, 5372, 5366, 5308, 5335, 5449, 5393, 5269, 5384, 5435, 5453, 5275, 5355, 5331, 5424, 5313, 5369, 5405, 5285, 5336, 5319, 5450, 5451, 5326, 5412, 5381, 5295, 5262, 5447, 5320, 5324, 5459, 5283, 5432, 5378, 5274, 5434, 5339, 5398, 5347, 5305, 5407, 5418, 5446, 5377, 5284, 5386, 5365, 5353, 5351, 5350, 5323, 5288, 5358, 5419, 5256, 5255, 5253, 5437, 5370, 5278, 5272, 5261, 5304, 5374, 5361, 5430, 5426, 5292, 5338, 5266, 5368, 5306, 5428, 5280, 5463, 5352, 5443, 5286, 5264 (15 hits) (02/17/2009 07:59:44 PM)
23	9	1.0	333.0	Yes	5312.0MHz, -65.0dBm	Hop sequence: 5411, 5432, 5270, 5459, 5468, 5275, 5399, 5428, 5304, 5336, 5330, 5348, 5377, 5467, 5343, 5379, 5364, 5251, 5449, 5303, 5374, 5256, 5421, 5320, 5445, 5401, 5466, 5293, 5372, 5324, 5291, 5415, 5346, 5452, 5430, 5435, 5469, 5384, 5334, 5319, 5337, 5253, 5417, 5252, 5405, 5265, 5463, 5457, 5308, 5366, 5353, 5453, 5347, 5262, 5258, 5444, 5431, 5263, 5266, 5306, 5422, 5273, 5271, 5317, 5344, 5398, 5410, 5316, 5464, 5447, 5272, 5397, 5458, 5351, 5450, 5288, 5423, 5358, 5294, 5329, 5414, 5354, 5407, 5387, 5362, 5440, 5424, 5361, 5313, 5328, 5310, 5408, 5412, 5455, 5325, 5255, 5363, 5403, 5349, 5404 (15 hits) (02/17/2009 07:59:51 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
24	9	1.0	333.0	Yes	5313.0MHz, -65.0dBm	Hop sequence: 5378, 5376, 5442, 5349, 5444, 5388, 5341, 5412, 5269, 5296, 5336, 5424, 5454, 5401, 5312, 5322, 5276, 5386, 5261, 5284, 5430, 5452, 5310, 5251, 5405, 5409, 5445, 5380, 5330, 5449, 5340, 5399, 5292, 5451, 5453, 5437, 5373, 5394, 5429, 5262, 5308, 5414, 5469, 5272, 5385, 5406, 5440, 5390, 5435, 5337, 5374, 5427, 5417, 5354, 5260, 5351, 5353, 5286, 5332, 5379, 5428, 5271, 5450, 5356, 5369, 5447, 5273, 5460, 5384, 5466, 5298, 5295, 5407, 5319, 5400, 5338, 5279, 5418, 5393, 5281, 5422, 5325, 5438, 5410, 5432, 5363, 5343, 5254, 5297, 5470, 5324, 5326, 5436, 5464, 5288, 5321, 5425, 5328, 5274, 5387 (15 hits) (02/17/2009 08:00:01 PM)
25	9	1.0	333.0	Yes	5314.0MHz, -65.0dBm	Hop sequence: 5269, 5287, 5252, 5405, 5357, 5356, 5402, 5416, 5466, 5404, 5293, 5467, 5437, 5296, 5320, 5332, 5371, 5309, 5445, 5286, 5420, 5429, 5438, 5338, 5433, 5304, 5448, 5306, 5369, 5435, 5276, 5409, 5271, 5341, 5365, 5454, 5406, 5446, 5274, 5382, 5273, 5254, 5447, 5400, 5425, 5423, 5268, 5301, 5351, 5278, 5350, 5265, 5272, 5440, 5388, 5266, 5298, 5312, 5344, 5417, 5353, 5426, 5463, 5459, 5414, 5368, 5470, 5263, 5288, 5413, 5335, 5279, 5281, 5323, 5383, 5285, 5407, 5442, 5424, 5327, 5408, 5331, 5422, 5431, 5452, 5427, 5457, 5308, 5465, 5322, 5355, 5412, 5354, 5428, 5443, 5455, 5391, 5324, 5432, 5469 (14 hits) (02/17/2009 08:00:09 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
26	9	1.0	333.0	Yes	5315.0MHz, -65.0dBm	Hop sequence: 5450, 5462, 5402, 5460, 5435, 5391, 5259, 5434, 5346, 5446, 5463, 5447, 5260, 5413, 5395, 5348, 5330, 5425, 5438, 5268, 5456, 5412, 5337, 5419, 5325, 5289, 5321, 5421, 5360, 5258, 5263, 5386, 5256, 5292, 5398, 5410, 5279, 5370, 5314, 5362, 5340, 5422, 5433, 5261, 5265, 5302, 5316, 5352, 5329, 5355, 5356, 5284, 5378, 5470, 5455, 5471, 5307, 5271, 5367, 5380, 5385, 5311, 5375, 5270, 5347, 5465, 5448, 5440, 5301, 5429, 5298, 5252, 5253, 5336, 5387, 5317, 5304, 5319, 5257, 5381, 5295, 5313, 5452, 5327, 5408, 5404, 5308, 5416, 5415, 5287, 5439, 5417, 5296, 5458, 5373, 5376, 5406, 5281, 5430, 5350 (18 hits) (02/17/2009 08:00:16 PM)
27	9	1.0	333.0	Yes	5316.0MHz, -65.0dBm	Hop sequence: 5355, 5350, 5443, 5310, 5412, 5360, 5450, 5311, 5370, 5441, 5304, 5470, 5280, 5267, 5287, 5309, 5254, 5255, 5341, 5437, 5250, 5466, 5461, 5447, 5404, 5320, 5285, 5372, 5365, 5463, 5293, 5303, 5281, 5279, 5374, 5251, 5317, 5292, 5458, 5428, 5326, 5328, 5446, 5306, 5388, 5342, 5427, 5468, 5294, 5453, 5314, 5455, 5384, 5449, 5414, 5347, 5399, 5352, 5363, 5432, 5389, 5408, 5297, 5469, 5393, 5429, 5381, 5407, 5275, 5321, 5398, 5271, 5346, 5318, 5262, 5396, 5259, 5382, 5295, 5415, 5300, 5456, 5319, 5391, 5335, 5276, 5277, 5357, 5327, 5332, 5274, 5385, 5395, 5266, 5323, 5256, 5392, 5377, 5252, 5366 (22 hits) (02/17/2009 08:00:24 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
28	9	1.0	333.0	Yes	5317.0MHz, -65.0dBm	Hop sequence: 5378, 5323, 5315, 5256, 5365, 5467, 5258, 5266, 5370, 5318, 5420, 5418, 5277, 5261, 5471, 5446, 5317, 5348, 5448, 5449, 5288, 5439, 5339, 5263, 5335, 5369, 5278, 5394, 5275, 5391, 5371, 5425, 5265, 5300, 5321, 5430, 5458, 5380, 5307, 5387, 5338, 5409, 5285, 5376, 5469, 5452, 5429, 5379, 5322, 5437, 5443, 5289, 5280, 5324, 5421, 5333, 5456, 5438, 5444, 5292, 5406, 5314, 5270, 5283, 5454, 5344, 5268, 5257, 5389, 5279, 5295, 5386, 5427, 5373, 5401, 5297, 5442, 5290, 5441, 5353, 5304, 5419, 5450, 5342, 5388, 5426, 5286, 5462, 5347, 5329, 5259, 5269, 5310, 5393, 5356, 5313, 5282, 5355, 5447, 5284 (16 hits) (02/17/2009 08:00:33 PM)
29	9	1.0	333.0	Yes	5318.0MHz, -65.0dBm	Hop sequence: 5314, 5426, 5313, 5311, 5423, 5326, 5446, 5284, 5392, 5449, 5401, 5323, 5288, 5369, 5286, 5315, 5285, 5447, 5427, 5458, 5348, 5464, 5406, 5359, 5430, 5298, 5345, 5372, 5337, 5251, 5327, 5451, 5265, 5262, 5277, 5420, 5413, 5418, 5309, 5463, 5365, 5466, 5442, 5456, 5261, 5350, 5375, 5334, 5440, 5267, 5403, 5270, 5342, 5417, 5470, 5416, 5316, 5445, 5393, 5306, 5459, 5382, 5333, 5363, 5398, 5402, 5266, 5361, 5371, 5387, 5450, 5292, 5317, 5310, 5351, 5469, 5339, 5296, 5439, 5340, 5324, 5376, 5274, 5368, 5441, 5276, 5366, 5290, 5336, 5300, 5453, 5257, 5370, 5271, 5384, 5467, 5379, 5396, 5432, 5425 (17 hits) (02/17/2009 08:00:41 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
30	9	1.0	333.0	Yes	5319.0MHz, -65.0dBm	Hop sequence: 5373, 5406, 5341, 5345, 5335, 5392, 5385, 5338, 5287, 5314, 5333, 5265, 5328, 5428, 5463, 5407, 5468, 5255, 5282, 5432, 5349, 5272, 5323, 5425, 5399, 5457, 5273, 5356, 5459, 5324, 5410, 5465, 5288, 5310, 5354, 5441, 5466, 5331, 5352, 5278, 5336, 5262, 5330, 5391, 5414, 5469, 5387, 5460, 5395, 5266, 5258, 5342, 5275, 5398, 5290, 5426, 5368, 5408, 5453, 5455, 5396, 5346, 5358, 5422, 5433, 5454, 5427, 5404, 5283, 5351, 5321, 5365, 5386, 5367, 5307, 5446, 5440, 5297, 5397, 5375, 5305, 5383, 5380, 5417, 5357, 5394, 5271, 5292, 5337, 5382, 5317, 5403, 5442, 5467, 5412, 5347, 5447, 5359, 5379, 5439 (11 hits) (02/17/2009 08:00:49 PM)
31	9	1.0	333.0	Yes	5320.0MHz, -65.0dBm	Hop sequence: 5277, 5397, 5332, 5455, 5334, 5353, 5452, 5299, 5255, 5434, 5344, 5385, 5268, 5276, 5324, 5278, 5261, 5285, 5288, 5279, 5430, 5296, 5437, 5414, 5444, 5439, 5386, 5351, 5331, 5399, 5363, 5443, 5294, 5417, 5300, 5340, 5284, 5372, 5431, 5345, 5352, 5304, 5370, 5336, 5309, 5283, 5467, 5440, 5315, 5459, 5260, 5357, 5339, 5429, 5310, 5432, 5412, 5383, 5402, 5316, 5359, 5387, 5390, 5466, 5381, 5295, 5264, 5302, 5346, 5460, 5287, 5322, 5320, 5286, 5253, 5377, 5369, 5314, 5451, 5341, 5347, 5257, 5282, 5289, 5401, 5356, 5438, 5436, 5375, 5275, 5396, 5250, 5456, 5463, 5464, 5317, 5426, 5428, 5409, 5256 (16 hits) (02/17/2009 08:00:57 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
32	9	1.0	333.0	Yes	5321.0MHz, -65.0dBm	Hop sequence: 5388, 5259, 5369, 5360, 5449, 5349, 5271, 5318, 5336, 5400, 5418, 5412, 5306, 5411, 5384, 5440, 5423, 5428, 5294, 5425, 5414, 5398, 5466, 5413, 5399, 5429, 5375, 5431, 5344, 5395, 5337, 5366, 5462, 5346, 5315, 5268, 5281, 5261, 5402, 5419, 5383, 5468, 5409, 5293, 5333, 5321, 5359, 5415, 5358, 5461, 5255, 5457, 5298, 5458, 5301, 5396, 5257, 5320, 5269, 5379, 5372, 5410, 5330, 5302, 5303, 5397, 5448, 5390, 5345, 5253, 5313, 5322, 5266, 5335, 5272, 5424, 5432, 5367, 5331, 5465, 5310, 5323, 5283, 5324, 5332, 5416, 5334, 5436, 5263, 5352, 5422, 5343, 5445, 5450, 5341, 5353, 5434, 5307, 5454, 5354 (17 hits) (02/17/2009 08:01:07 PM)
33	9	1.0	333.0	Yes	5322.0MHz, -65.0dBm	Hop sequence: 5440, 5254, 5265, 5372, 5395, 5328, 5430, 5470, 5412, 5445, 5304, 5411, 5442, 5315, 5353, 5365, 5370, 5465, 5403, 5258, 5340, 5382, 5387, 5295, 5437, 5419, 5294, 5466, 5338, 5410, 5366, 5348, 5273, 5369, 5375, 5299, 5272, 5325, 5407, 5327, 5266, 5253, 5318, 5432, 5267, 5359, 5420, 5408, 5454, 5427, 5368, 5302, 5422, 5363, 5456, 5256, 5462, 5283, 5255, 5389, 5376, 5314, 5413, 5311, 5400, 5320, 5274, 5367, 5342, 5396, 5289, 5453, 5471, 5270, 5277, 5347, 5429, 5276, 5259, 5329, 5361, 5324, 5409, 5457, 5263, 5310, 5322, 5278, 5293, 5358, 5418, 5326, 5460, 5332, 5438, 5343, 5354, 5333, 5435, 5415 (18 hits) (02/17/2009 08:01:15 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
34	9	1.0	333.0	Yes	5323.0MHz, -65.0dBm	Hop sequence: 5470, 5259, 5435, 5340, 5326, 5449, 5353, 5438, 5378, 5345, 5280, 5327, 5359, 5361, 5439, 5334, 5294, 5408, 5351, 5271, 5415, 5429, 5386, 5396, 5369, 5425, 5283, 5393, 5258, 5454, 5322, 5422, 5446, 5451, 5308, 5328, 5374, 5303, 5375, 5276, 5252, 5330, 5366, 5389, 5414, 5461, 5390, 5298, 5432, 5355, 5332, 5297, 5284, 5444, 5291, 5270, 5409, 5388, 5399, 5462, 5417, 5381, 5419, 5269, 5450, 5442, 5403, 5314, 5266, 5471, 5319, 5293, 5406, 5268, 5325, 5357, 5420, 5296, 5262, 5339, 5443, 5398, 5380, 5337, 5290, 5316, 5434, 5333, 5416, 5458, 5273, 5335, 5404, 5347, 5426, 5371, 5272, 5251, 5392, 5346 (15 hits) (02/17/2009 08:01:25 PM)
35	9	1.0	333.0	Yes	5324.0MHz, -65.0dBm	Hop sequence: 5258, 5421, 5351, 5269, 5423, 5420, 5428, 5326, 5297, 5430, 5357, 5307, 5340, 5443, 5322, 5442, 5251, 5393, 5332, 5408, 5431, 5353, 5298, 5418, 5359, 5361, 5402, 5290, 5254, 5394, 5373, 5329, 5448, 5264, 5469, 5429, 5312, 5401, 5277, 5440, 5328, 5370, 5455, 5278, 5413, 5403, 5355, 5327, 5388, 5467, 5308, 5384, 5279, 5374, 5274, 5291, 5318, 5330, 5341, 5348, 5335, 5461, 5454, 5460, 5311, 5257, 5320, 5424, 5425, 5295, 5362, 5333, 5410, 5262, 5343, 5352, 5456, 5391, 5284, 5437, 5336, 5250, 5380, 5422, 5438, 5253, 5406, 5354, 5447, 5395, 5360, 5383, 5414, 5385, 5276, 5372, 5371, 5268, 5265, 5407 (13 hits) (02/17/2009 08:01:33 PM)

Table 11 - FCC frequency hopping radar (Type 6) Results 40MHz BW						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Hop seq.
36	9	1.0	333.0	Yes	5325.0MHz, -65.0dBm	Hop sequence: 5333, 5356, 5355, 5363, 5437, 5449, 5295, 5316, 5464, 5367, 5382, 5465, 5425, 5326, 5346, 5344, 5343, 5289, 5459, 5424, 5469, 5455, 5431, 5340, 5260, 5411, 5323, 5466, 5352, 5357, 5388, 5446, 5434, 5271, 5375, 5387, 5251, 5262, 5313, 5368, 5309, 5468, 5268, 5354, 5294, 5264, 5371, 5365, 5278, 5317, 5351, 5376, 5324, 5417, 5410, 5285, 5360, 5318, 5404, 5401, 5374, 5308, 5373, 5380, 5250, 5395, 5419, 5391, 5453, 5342, 5292, 5280, 5429, 5444, 5339, 5452, 5432, 5273, 5423, 5315, 5312, 5450, 5427, 5370, 5416, 5413, 5396, 5414, 5303, 5454, 5297, 5322, 5433, 5394, 5255, 5288, 5349, 5287, 5377, 5397 (17 hits) (02/17/2009 08:01:44 PM)
37	9	1.0	333.0	Yes	5326.0MHz, -65.0dBm	Hop sequence: 5324, 5364, 5428, 5433, 5260, 5274, 5331, 5460, 5461, 5328, 5283, 5273, 5455, 5293, 5353, 5322, 5312, 5319, 5421, 5444, 5329, 5279, 5314, 5317, 5410, 5404, 5369, 5368, 5288, 5297, 5385, 5277, 5262, 5434, 5354, 5280, 5256, 5429, 5379, 5266, 5253, 5414, 5276, 5377, 5252, 5380, 5291, 5420, 5304, 5345, 5401, 5301, 5332, 5272, 5327, 5265, 5348, 5449, 5352, 5396, 5412, 5258, 5305, 5361, 5416, 5409, 5464, 5350, 5452, 5442, 5270, 5294, 5344, 5463, 5408, 5386, 5346, 5465, 5356, 5278, 5394, 5341, 5334, 5413, 5343, 5310, 5326, 5281, 5405, 5372, 5347, 5383, 5307, 5468, 5311, 5382, 5456, 5295, 5257, 5333 (19 hits) (02/17/2009 08:01:55 PM)

Table 12 - Long Sequence Waveform Summary 40MHz BW		
Long Sequence Trial	Result	Radar Frequency / Amplitude
Trial #1	Detected	5310.0MHz, -65.0dBm
Trial #2	Detected	5305.0MHz, -65.0dBm
Trial #3	Detected	5300.0MHz, -65.0dBm
Trial #4	Detected	5320.0MHz, -65.0dBm
Trial #5	Detected	5315.0MHz, -65.0dBm
Trial #6	Detected	5310.0MHz, -65.0dBm
Trial #7	Detected	5305.0MHz, -65.0dBm
Trial #8	Detected	5300.0MHz, -65.0dBm
Trial #9	Detected	5320.0MHz, -65.0dBm
Trial #10	Detected	5315.0MHz, -65.0dBm
Trial #11	Detected	5310.0MHz, -65.0dBm
Trial #12	Detected	5305.0MHz, -65.0dBm
Trial #13	Detected	5300.0MHz, -65.0dBm
Trial #14	Detected	5320.0MHz, -65.0dBm
Trial #15	Detected	5315.0MHz, -65.0dBm
Trial #16	Detected	5310.0MHz, -65.0dBm
Trial #17	Detected	5305.0MHz, -65.0dBm
Trial #18	Detected	5300.0MHz, -65.0dBm
Trial #19	Detected	5320.0MHz, -65.0dBm
Trial #20	Detected	5315.0MHz, -65.0dBm

Table 13 - 40MHz BW 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)
1	2	53.9	12	1675.0	-	0.741527
2	1	83.8	10	-	-	1.611728
3	2	62.7	15	1654.0	-	2.344625
4	3	61.7	5	1316.0	1599.0	3.906943
5	2	85.8	10	1352.0	-	5.100163
6	3	60.4	16	1217.0	1904.0	6.390688
7	2	64.2	9	1449.0	-	6.883632
8	2	82.5	19	1461.0	-	8.717297
9	2	66.0	11	1467.0	-	9.260844
10	2	89.6	16	1367.0	-	10.223167
11	3	52.2	20	1240.0	1158.0	11.848187

Table 14 - 40MHz BW 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)
1	2	83.1	9	1720.0	-	0.367823
2	1	98.1	16	-	-	0.915613
3	2	85.2	10	1174.0	-	1.638138
4	2	82.6	9	1032.0	-	2.338198
5	2	64.5	7	1267.0	-	3.019465
6	2	82.9	18	1038.0	-	3.573182
7	2	62.9	19	1827.0	-	4.811320
8	2	68.2	16	1310.0	-	5.563089
9	2	58.1	16	1391.0	-	6.263940
10	2	76.8	10	1077.0	-	6.556381
11	2	65.5	9	1665.0	-	7.177249
12	3	93.1	17	1474.0	1142.0	8.363448
13	3	67.0	19	1625.0	1355.0	8.957303
14	3	86.1	15	1102.0	1636.0	9.494730
15	2	98.1	19	1943.0	-	9.886159
16	1	70.8	10	-	-	10.666375
17	2	63.0	8	1324.0	-	11.892673

Table 15 - 40MHz BW 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)
1	2	75.4	6	1914.0	-	0.409158
2	2	97.6	10	1447.0	-	0.631794
3	2	84.4	10	1657.0	-	1.348435
4	2	50.8	13	1486.0	-	1.934369
5	1	85.9	11	-	-	3.120167
6	2	56.7	11	1153.0	-	3.517893
7	2	70.0	11	1631.0	-	4.072933
8	1	88.3	16	-	-	4.538913
9	3	95.9	15	1485.0	1092.0	5.163866
10	2	90.9	10	1596.0	-	5.798376
11	1	93.5	8	-	-	6.852195
12	2	57.3	16	1510.0	-	7.329916
13	2	88.8	16	1167.0	-	7.910184
14	2	90.6	8	1049.0	-	8.556481
15	2	62.3	15	1754.0	-	8.905291
16	2	97.7	13	1399.0	-	9.774374
17	2	68.3	19	1022.0	-	10.362500
18	1	66.3	14	-	-	10.861669
19	1	92.7	17	-	-	11.402239

Table 16 - 40MHz BW 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)
1	3	59.7	20	1543.0	1666.0	0.434140
2	2	79.8	14	1342.0	-	1.211637
3	3	74.0	9	1215.0	1595.0	1.449019
4	3	79.1	9	1674.0	1309.0	2.191325
5	3	86.6	7	1100.0	1739.0	3.130399
6	2	86.7	18	1853.0	-	3.905589
7	1	98.6	15	-	-	4.595689
8	3	74.5	18	1711.0	1756.0	5.051603
9	2	62.5	10	1583.0	-	5.957518
10	1	94.4	13	-	-	6.156050
11	1	51.9	9	-	-	7.153691
12	3	79.9	8	1587.0	1946.0	7.784499
13	3	76.4	14	1635.0	1409.0	8.038869
14	1	62.9	6	-	-	9.291555
15	2	74.1	7	1684.0	-	9.684168
16	1	99.1	13	-	-	10.237417
17	2	85.2	7	1188.0	-	11.052452
18	1	73.6	17	-	-	11.336585

Table 17 - 40MHz BW 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)
1	3	52.1	10	1071.0	1234.0	0.121892
2	1	76.8	20	-	-	1.352213
3	3	59.6	19	1725.0	1455.0	2.055147
4	2	82.2	20	1686.0	-	2.730061
5	2	78.6	5	1143.0	-	3.295756
6	2	93.2	6	1547.0	-	3.928209
7	1	80.3	19	-	-	4.679622
8	3	69.5	14	1043.0	1281.0	5.434237
9	2	92.8	16	1432.0	-	5.858856
10	2	61.3	17	1934.0	-	6.533190
11	3	58.1	9	1414.0	1359.0	7.200645
12	2	74.8	8	1223.0	-	8.040662
13	2	94.0	18	1435.0	-	8.915054
14	2	65.3	7	1430.0	-	9.581969
15	1	82.2	17	-	-	9.998439
16	2	91.8	9	1412.0	-	11.270113
17	1	57.9	18	-	-	11.909070

Table 18 - 40MHz BW 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)
1	2	60.8	9	1601.0	-	1.249930
2	1	76.7	19	-	-	2.481076
3	1	80.7	19	-	-	4.000483
4	1	94.8	17	-	-	4.951355
5	3	80.8	11	1944.0	1485.0	6.648815
6	2	88.5	17	1433.0	-	8.907829
7	1	78.7	9	-	-	9.693599
8	1	72.5	7	-	-	10.537103

Table 19 - 40MHz BW 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)
1	3	91.2	14	1830.0	1454.0	0.648993
2	1	64.9	7	-	-	1.318792
3	3	72.6	13	1325.0	1808.0	1.704450
4	2	85.5	13	1304.0	-	2.257543
5	2	54.1	11	1949.0	-	3.441592
6	1	83.0	7	-	-	3.980923
7	2	65.4	11	1217.0	-	4.709005
8	2	68.2	16	1651.0	-	5.256045
9	1	70.5	18	-	-	5.932976
10	1	79.8	13	-	-	6.773823
11	2	91.2	13	1782.0	-	7.707136
12	3	51.9	20	1486.0	1415.0	8.399712
13	2	76.9	8	1048.0	-	8.731736
14	2	71.6	14	1710.0	-	9.775265
15	2	98.7	19	1697.0	-	10.110027
16	2	76.8	8	1995.0	-	11.238069
17	2	75.5	14	1322.0	-	11.887835

Table 20 - 40MHz BW 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)
1	2	73.8	16	1402.0	-	0.239284
2	3	95.0	8	1892.0	1163.0	1.100451
3	2	83.2	9	1894.0	-	1.922886
4	2	87.6	5	1037.0	-	2.571429
5	3	72.3	18	1628.0	1393.0	3.437741
6	2	72.0	8	1780.0	-	4.192208
7	1	54.0	8	-	-	4.705474
8	1	95.7	10	-	-	5.068605
9	3	52.9	12	1834.0	1462.0	6.057909
10	2	74.5	14	1351.0	-	7.045665
11	3	93.3	15	1078.0	1810.0	7.322424
12	1	66.2	17	-	-	8.161060
13	3	90.6	12	1795.0	1619.0	8.991351
14	3	66.0	6	1796.0	1835.0	9.477035
15	2	74.5	10	1294.0	-	9.974860
16	2	70.7	5	1120.0	-	11.289786
17	3	75.1	6	1708.0	1200.0	11.331138

Table 21 - 40MHz BW 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)
1	2	83.2	20	1673.0	-	0.051571
2	2	91.4	8	1270.0	-	0.890447
3	2	70.5	8	1377.0	-	1.638853
4	3	73.1	18	1697.0	1978.0	2.257186
5	1	58.8	14	-	-	3.500325
6	2	69.0	5	1512.0	-	3.929374
7	2	60.0	7	1231.0	-	4.696314
8	3	66.7	5	1868.0	1124.0	5.469614
9	3	79.7	15	1284.0	1480.0	6.688921
10	3	78.0	15	1380.0	1464.0	7.416696
11	1	94.5	19	-	-	8.169902
12	2	97.7	10	1017.0	-	8.427188
13	2	94.1	12	1346.0	-	9.723453
14	1	67.5	16	-	-	10.139743
15	3	84.9	13	1690.0	1943.0	10.551359
16	2	99.7	18	1796.0	-	11.466687

Table 22 - 40MHz BW 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)
1	2	69.0	18	1392.0	-	0.671264
2	2	52.0	9	1334.0	-	1.264674
3	2	63.0	11	1277.0	-	2.622594
4	3	95.2	20	1436.0	1899.0	3.624423
5	2	85.1	15	1516.0	-	4.246595
6	2	67.1	9	1832.0	-	5.453573
7	1	90.4	12	-	-	5.725127
8	3	66.2	6	1876.0	1033.0	6.732968
9	2	73.3	17	1752.0	-	7.497835
10	3	78.3	19	1635.0	1947.0	8.567740
11	3	88.7	13	1733.0	1445.0	9.280671
12	1	63.5	17	-	-	10.711423
13	2	71.7	17	1910.0	-	11.448584

Table 23 - 40MHz BW 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)
1	2	79.0	8	1288.0	-	1.033839
2	1	50.1	10	-	-	1.566892
3	2	79.3	16	1890.0	-	3.040406
4	2	94.9	12	1667.0	-	3.642231
5	2	94.9	12	1720.0	-	5.049511
6	3	75.6	9	1178.0	1990.0	6.297940
7	1	80.6	12	-	-	7.309893
8	3	91.5	6	1152.0	1491.0	9.107524
9	2	68.6	11	1470.0	-	9.621576
10	1	98.6	17	-	-	11.549131

Table 24 - 40MHz BW 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)
1	2	54.9	16	1999.0	-	0.225675
2	2	77.4	19	1639.0	-	0.889140
3	3	86.9	19	1252.0	1625.0	1.450058
4	3	56.4	7	1364.0	1253.0	1.939045
5	3	60.3	20	1709.0	1651.0	2.785211
6	2	69.9	11	1035.0	-	3.203183
7	2	80.4	15	1508.0	-	3.803923
8	2	52.7	9	1956.0	-	4.630686
9	2	64.2	7	1470.0	-	5.161307
10	2	98.7	12	1343.0	-	5.750715
11	2	53.1	17	1925.0	-	6.669255
12	3	63.6	15	1667.0	1064.0	7.386528
13	2	68.9	10	1724.0	-	7.963432
14	2	55.5	11	1708.0	-	8.234071
15	2	84.0	7	1781.0	-	9.048335
16	2	70.2	8	1465.0	-	9.925784
17	3	69.5	19	1280.0	1109.0	10.540858
18	1	52.8	18	-	-	11.015259
19	2	65.9	8	1953.0	-	11.575754

Table 25 - 40MHz BW 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)
1	2	55.6	13	1973.0	-	0.069516
2	2	58.2	15	1702.0	-	1.171017
3	2	67.5	6	1674.0	-	1.752004
4	2	67.0	18	1741.0	-	2.064557
5	2	68.2	7	1725.0	-	3.250773
6	2	51.0	10	1201.0	-	3.392412
7	1	71.3	9	-	-	4.385951
8	3	91.3	18	1071.0	1689.0	5.035457
9	2	96.0	19	1013.0	-	5.546950
10	3	67.9	6	1098.0	1143.0	6.619453
11	2	64.0	7	1287.0	-	7.133644
12	2	63.1	10	1645.0	-	7.764583
13	2	64.5	13	1068.0	-	8.229183
14	1	93.2	17	-	-	8.948325
15	3	72.0	15	1022.0	1133.0	9.887420
16	2	58.4	9	1419.0	-	10.630718
17	1	66.7	16	-	-	11.226930
18	2	80.8	13	1355.0	-	11.457841

Table 26 - 40MHz BW 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)
1	2	63.0	20	1005.0	-	0.430871
2	1	91.5	11	-	-	1.614596
3	2	99.0	14	1396.0	-	2.482948
4	2	77.0	6	1268.0	-	2.767176
5	1	56.1	18	-	-	3.574359
6	2	77.9	16	1953.0	-	4.582654
7	2	56.4	17	1372.0	-	5.877242
8	3	94.0	19	1669.0	1123.0	6.631787
9	3	65.6	18	1580.0	1194.0	6.861924
10	3	93.7	13	1962.0	1285.0	7.902006
11	2	69.0	16	1091.0	-	8.655651
12	1	67.5	18	-	-	10.032923
13	1	52.7	11	-	-	10.421893
14	3	65.8	16	1315.0	1650.0	11.863916

Table 27 - 40MHz BW 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)
1	1	62.5	12	-	-	0.304988
2	2	52.5	16	1365.0	-	0.949451
3	1	84.8	14	-	-	1.598476
4	2	55.8	9	1419.0	-	2.453854
5	1	86.1	6	-	-	3.424735
6	2	95.6	12	1214.0	-	4.285107
7	3	93.5	15	1895.0	1148.0	4.736712
8	1	86.5	13	-	-	5.833681
9	1	66.4	10	-	-	6.482615
10	3	68.9	10	1850.0	1924.0	6.969803
11	2	53.3	20	1253.0	-	7.619785
12	3	63.8	19	1039.0	1077.0	8.969774
13	3	73.5	8	1408.0	1929.0	9.206257
14	2	82.0	12	1096.0	-	9.751452
15	3	76.0	15	1618.0	1844.0	11.063643
16	3	60.9	11	1399.0	1248.0	11.684322

Table 28 - 40MHz BW 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)
1	3	58.0	11	1705.0	1862.0	0.559447
2	1	75.9	13	-	-	1.551876
3	2	77.9	12	1916.0	-	1.848563
4	2	91.2	16	1720.0	-	3.202918
5	2	73.3	11	1923.0	-	3.992211
6	1	73.8	14	-	-	4.861319
7	1	66.9	15	-	-	5.580715
8	1	74.1	13	-	-	7.137854
9	1	83.7	18	-	-	8.053002
10	2	77.5	9	1348.0	-	8.815098
11	1	63.0	8	-	-	9.791070
12	2	93.4	10	1462.0	-	10.274956
13	3	64.5	17	1372.0	1979.0	11.097417

Table 29 - 40MHz BW 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)
1	3	99.8	17	1220.0	1481.0	0.865513
2	1	78.4	19	-	-	2.812941
3	3	53.0	19	1195.0	1961.0	3.721602
4	1	78.6	17	-	-	4.817243
5	1	89.4	13	-	-	6.533826
6	3	50.8	11	1183.0	1844.0	8.226461
7	1	55.8	15	-	-	10.451539
8	2	93.3	7	1081.0	-	11.905705

Table 30 - 40MHz BW 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)
1	2	73.3	20	1715.0	-	0.116755
2	3	59.6	20	1238.0	1029.0	0.938201
3	2	72.1	17	1635.0	-	1.658024
4	2	74.3	5	1039.0	-	2.988689
5	1	95.1	11	-	-	3.900150
6	3	95.6	10	1984.0	1165.0	4.539154
7	1	65.2	14	-	-	4.961648
8	1	84.1	14	-	-	5.824052
9	2	87.8	10	1521.0	-	7.160599
10	1	51.7	13	-	-	7.980897
11	3	53.2	13	1086.0	1001.0	8.437526
12	1	89.3	8	-	-	9.000991
13	2	66.9	11	1560.0	-	10.131954
14	1	83.8	7	-	-	10.648828
15	1	80.7	8	-	-	11.778891

Table 31 - 40MHz BW 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)
1	1	54.4	5	-	-	0.369794
2	1	54.9	12	-	-	1.271126
3	3	71.9	9	1243.0	1062.0	1.869002
4	1	95.5	14	-	-	2.129528
5	2	65.0	17	1841.0	-	2.931958
6	3	98.9	8	1943.0	1744.0	4.199941
7	2	93.9	14	1032.0	-	4.736177
8	1	78.2	9	-	-	4.943448
9	3	67.1	15	1565.0	1395.0	5.847902
10	2	58.8	10	1864.0	-	6.937018
11	1	54.4	10	-	-	7.513064
12	3	75.5	6	1373.0	1544.0	8.303937
13	2	72.3	7	1664.0	-	8.797665
14	3	68.1	10	1020.0	1668.0	9.210377
15	2	71.1	15	1035.0	-	10.505092
16	1	97.8	7	-	-	10.876194
17	2	54.8	14	1041.0	-	11.684574

Table 32 - 40MHz BW 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)
1	2	95.0	8	1009.0	-	0.733292
2	3	76.8	18	1962.0	1754.0	1.396266
3	2	85.4	8	1360.0	-	2.082779
4	2	77.0	11	1771.0	-	2.591889
5	1	82.4	19	-	-	3.542691
6	1	50.1	9	-	-	4.277790
7	3	91.4	7	1282.0	1585.0	5.557509
8	2	92.9	13	1301.0	-	6.371179
9	1	93.1	7	-	-	6.572050
10	2	54.8	6	1551.0	-	7.808113
11	3	82.7	16	1649.0	1355.0	8.582128
12	2	71.6	15	1838.0	-	8.813190
13	3	93.8	9	1793.0	1439.0	10.193740
14	2	97.9	9	1776.0	-	11.066858
15	1	87.1	6	-	-	11.421787

Appendix B Test Equipment Calibration Data

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	EMC Analyzer	8595EM	787	19-Feb-09
Tektronix	Oscilloscope	TDS 5104	1435	4-Apr-09
Agilent	PSG Vector Signal Generator	E8267C	1877	15-Feb-10
EMCO	1-18GHz Horn Antenna	3115	1561	10-Jun-10