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TEST REPORT

Covering the DYNAMIC FREQUENCY SELECTION (DFS) REQUIREMENTS OF

FCC Part 15 Subpart E (UNII), RSS-210 Annex 9

Dragonwave Inc.
Model(s): Harmony Lite 5GHz

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SCOPE

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.
- RSS-210 Annex 9 Local Area Network Devices.

Tests were performed in accordance with these standards together with the current published versions of the basic standards referenced therein including FCC KDB 848637 and the appendix to FCC 06-96 MO&O as outlined in NTS Silicon Valley test procedures. The test results recorded herein are based on a single type test of the Dragonwave Inc. model Harmony Lite 5GHz and therefore apply only to the tested sample. The sample was selected and prepared by Wei-Smart Xie of Dragonwave Inc.

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 the Dragonwave Inc. model Harmony Lite 5GHz complied with the DFS requirements of FCC Part 15.407(h)(2), RSS-210 Annex 9.3.

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.

TEST RESULTS

TEST RESULTS SUMMARY – FCC Part 15, MASTER DEVICE

Table 1 - FCC Part 15 Subpart E Master Device Test Result Summary (802.11n 20MHz)

Description	Radar Type	EUT Frequency	Measured Value	Requirement	Test Data	Status
In-Service Monitoring Detection Threshold	Type 1 through Type 6	5520MHz	-64 dBm (note 2)	-64dBm (note 2)	Appendix B	Pass
Bandwidth Detection	Type 1	Varies	± 9MHz	80% of the 99% BW	Appendix B	Pass

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 19dBi. The limit is based on an EIRP of more than 23dBm.
3) The in-service monitoring detection threshold and detection probability measurements were made with the device operating in the 5500-5700 MHz band.

Table 2 - FCC Part 15 Subpart E Master Device Test Result Summary (802.11n 40MHz)

Description	Radar Type	EUT Frequency	Measured Value	Requirement	Test Data	Status
Channel Availability Check (CAC) Time	Type 1	5510MHz	67s	≥ 60s	Appendix D	Pass
CAC Detection Threshold	Type 1	5510MHz	-64dBm	-64dBm (See note 2)	Appendix D	Pass
In-Service Monitoring Detection Threshold	Type 1 through Type 6	5510MHz	-64dBm (note 2)	-64dBm (See note 2)	Appendix B	Pass
Bandwidth Detection	Type 1	Varies	± 20MHz	80% of the 99% BW	Appendix B	Pass
Channel closing transmission time	Type 1 Type 5	5510MHz	0ms 0ms	≤ 260ms	Appendix C	Pass
Channel move time	Type 1 Type 5	5510MHz	0.2s 0.0s	≤ 10s	Appendix C	Pass
Non-occupancy period	-	5510MHz	> 30 minutes	> 30 minutes	Appendix C	Pass
Uniform Loading		-	-	Uniform Loading	Refer to operational description	-

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 19dBi. The limit is based on an EIRP of more than 23dBm.
3) The in-service monitoring detection threshold and detection probability measurements were made with the device operating in the 5500-5700 MHz band.

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

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Dragonwave Inc. model Harmony Lite 5GHz is a point to point all-outdoor small cell backhaul with utilizes OFDM and MIMO technology. The EUT operates both in the 5250-5350MHz and 5475-5725MHz bands excluding 5600-5650MHz in both 20MHz and 40MHz bandwidths.

The Control Unit and Passive Unit are identical. A selection in the GUI sets the type of device to either Control or Passive. The Passive Unit performs all DFS functions except Channel Availability Checks (CAC). Only the Control Unit performs CAC. The Passive Unit will not utilize a DFS channel until a Control Unit instructs it after it determines the channel to use. Detection bandwidth and probabilities were performed only on to Control Unit since both units are identical. Close and Move test were performed with both units since the monitoring antenna records the communication between the units.

Per KDB 531801 (DFS multiple bandwidths), bandwidth detection and statistical tests were performed on each bandwidth, all other tests (Channel Availability Check, close and move and non-occupancy) were performed on the largest bandwidth.

The sample was received on August 4, 2014 and tested on August 4-15, 2014. The following products were tested:

Manufacturer	Model	Description	Serial Number
Dragonwave Inc	Harmony Lite 5GHz	Control Unit	F1003GHA0036
Dragonwave Inc	Harmony Lite 5GHz	Passive Unit	F1003GGL0031

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

Operating Modes (5250 – 5350 MHz, 5470 – 5725 MHz)

☒ Master Device 5250-5350 MHz

☒ Master Device 5470-5725 MHz (excluding 5600-5650 MHz)

Antenna Gains / EIRP (5250 – 5350 MHz, 5470 – 5725 MHz)

	5250 – 5350 MHz	5470 – 5725 MHz
Lowest Antenna Gain (dBi)	19.0	19.0
Highest Antenna Gain (dBi)	24.0	24.0
EIRP Output Power (dBm)	30.0	30.0

☒ Power can exceed 200mW eirp

Channel Protocol

☒ IP Based

ENCLOSURE

The EUT enclosure measures approximately 12x20x26 centimeters. It is primarily constructed of aluminum steel.

MODIFICATIONS

The EUT required the following modifications in order to comply with the requirements of the standard(s) referenced in this test report.

The firmware was upgraded from 1.5.32 to 1.5.39r4 (final version checksum: 2321779616). The firmware was spot checked for the tests that were performed with previous version and results showed no degradation in performance by upgrading the firmware (table 82 and 83).

SUPPORT EQUIPMENT

The following equipment was used as support equipment for testing:

Manufacturer	Model	Description	Serial Number	FCC ID
Hewlet Packard	6910p	Laptop	CND8280MD5	NA
Hewlet Packard	6530b	Laptop	CNU0060LPL	NA
Dragonwave	*Harmony Lite 5GHz*	*Passive Unit*	*F1003GGL0031*	*NA*

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)
PoE1 (Control Unit)	Laptop	Cat 5	Unshielded	10
PoE1 (Passive Unit)	Laptop	Cat 5	Unshielded	10

EUT OPERATION

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

Master Device: 1.5.39r4 (final version) – Checksum: 2321779616
Client Device: 1.5.39r4 (final version) – Checksum: 2321779616

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 was 65 seconds after the command to change channel was sent.

During the in-service monitoring detection probability and channel moving tests 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 3 - 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 4 - 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 5 - 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

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 which is oriented in vertical polarization.

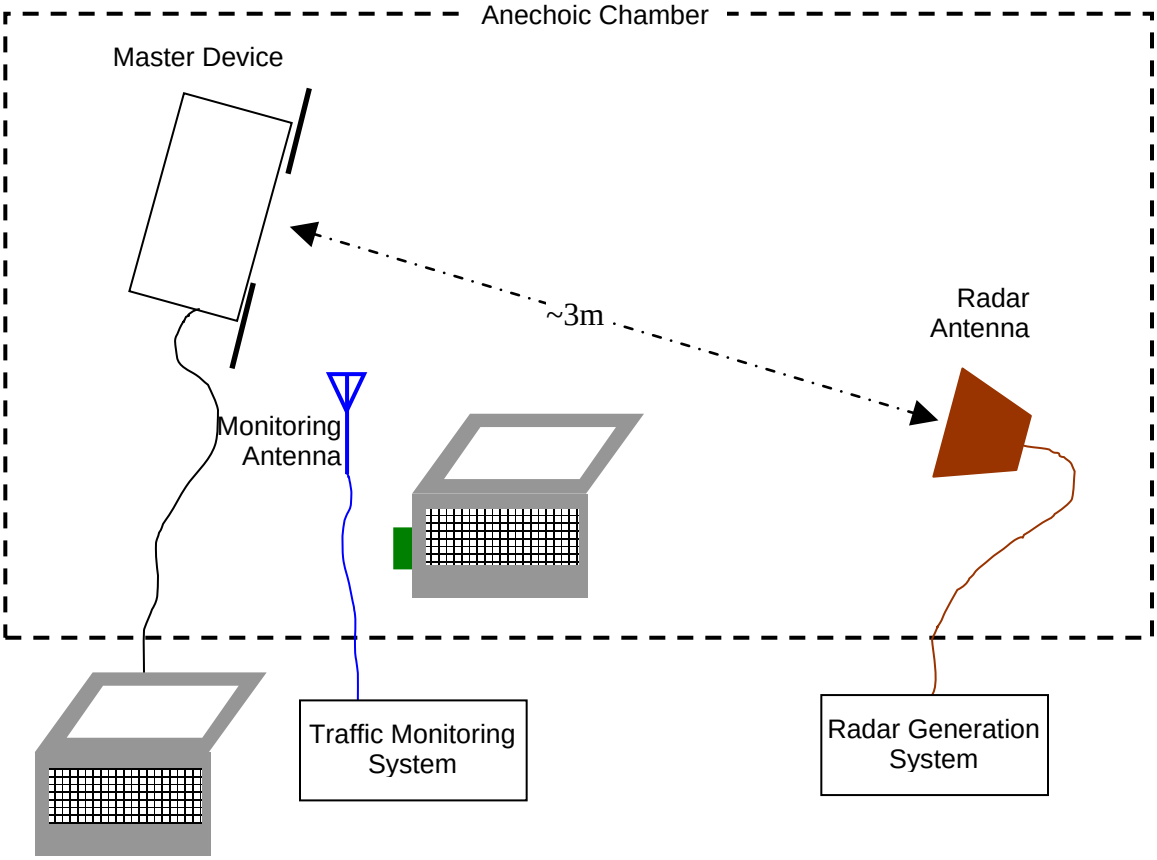

Figure 1 Test Configuration for radiated Measurement Method

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_{REF} (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:

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

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.

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 NTS Silicon Valley 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. The frequency is varied from trial to trial by stepping in 5MHz steps. For radar types with variable parameters, each detection probability trial is performed using a unique set of parameters obtained by a random selection with uniform distribution for each of the variable parameters.

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. The radar generating antenna (when used) is oriented for vertical polarization.

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.

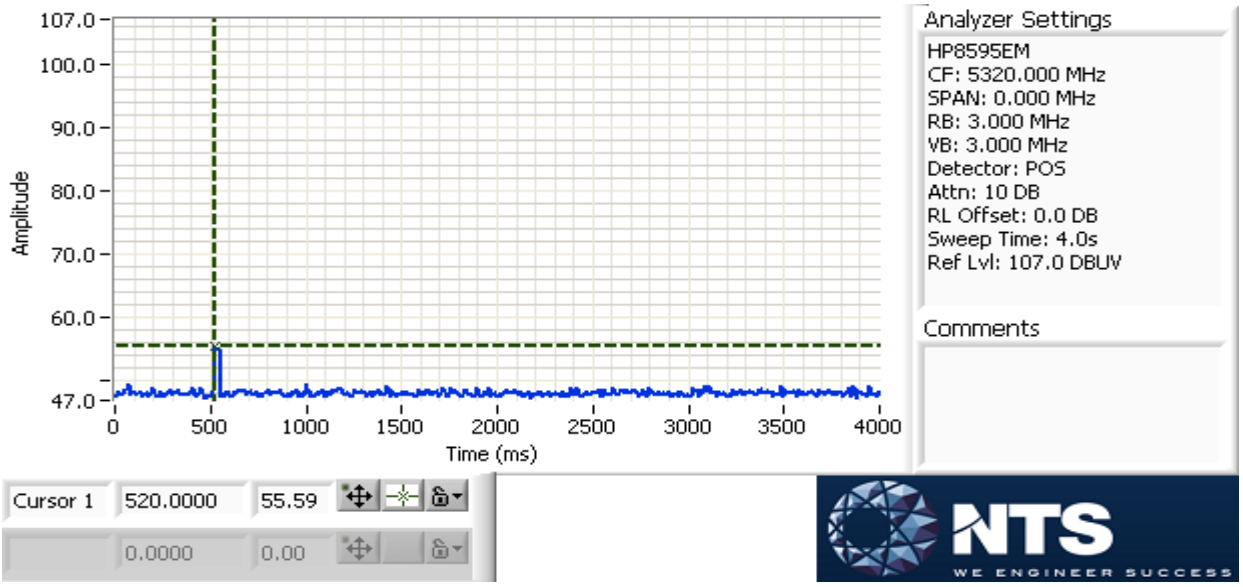

Figure 2 SA Noise Floor During Testing (radar shown at 520 ms)

RADAR GENERATOR PLOTS

The radar generator was connected to Spectrum Analyzer (SA) input, with the SA set to zero span, 3 MHz RBW, 3 MHz VBW. The SA IF output was connected to an oscilloscope to provide timing plots.

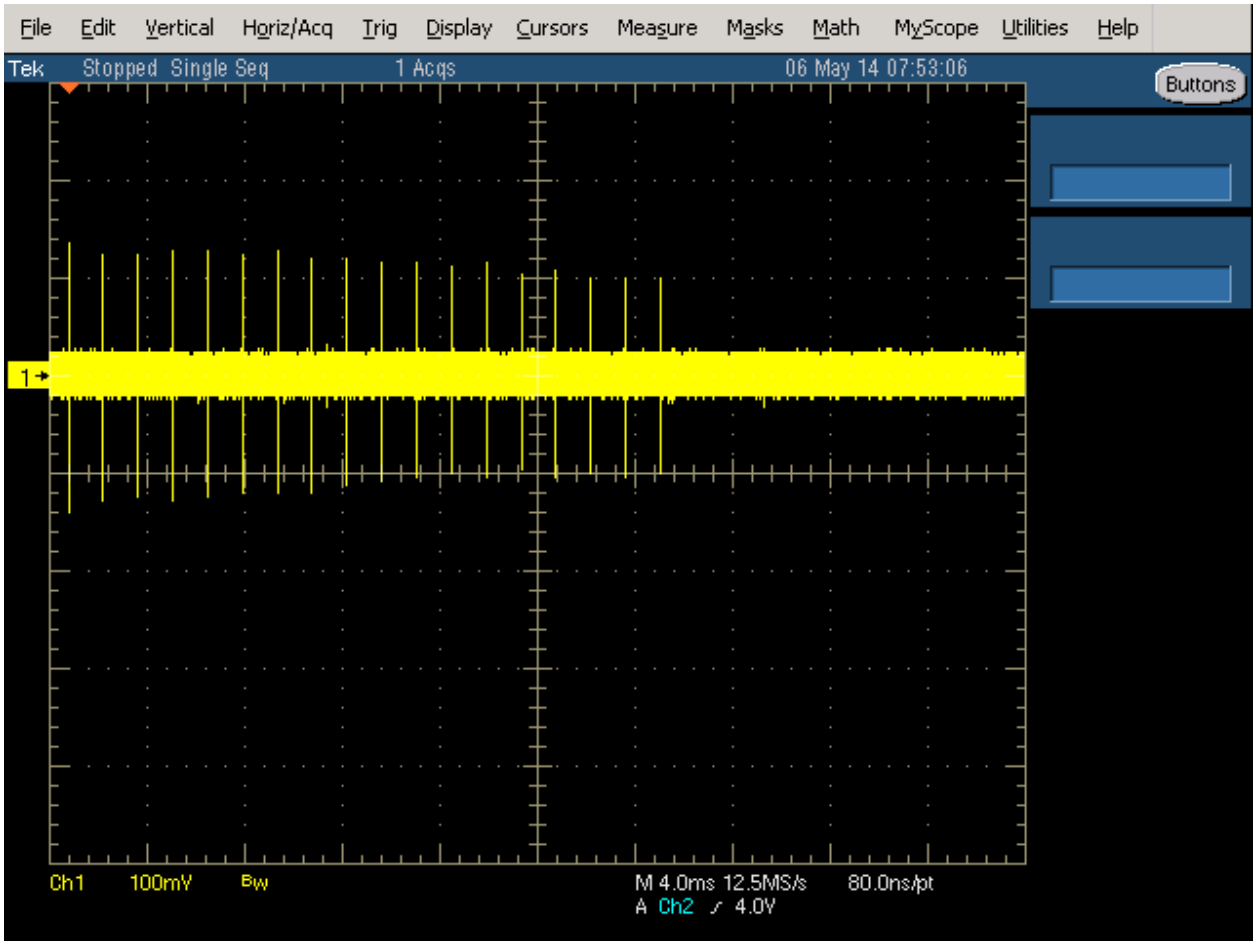

Figure 3 FCC Type 1 Radar (18 pulses)

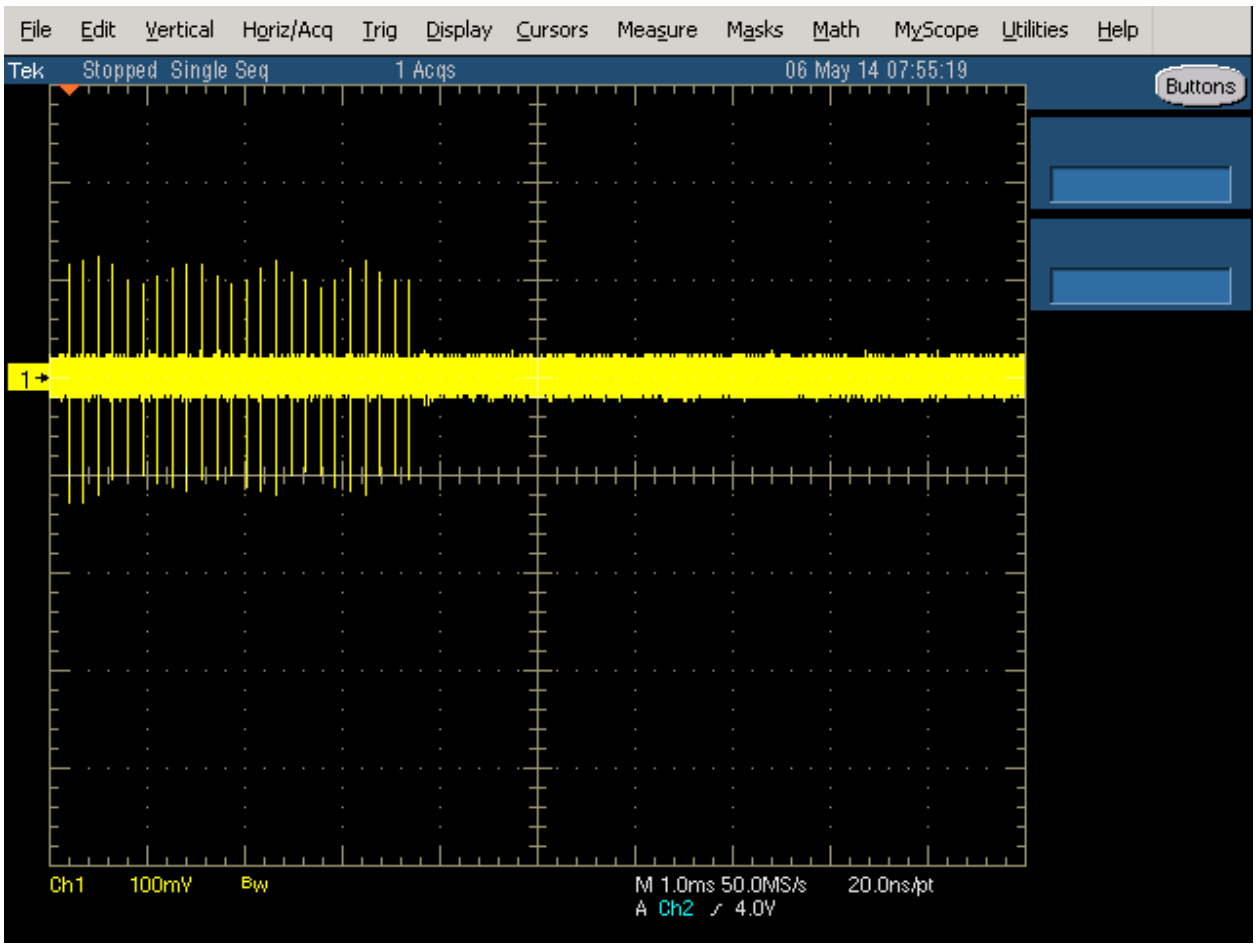

Figure 4 FCC Type 2 Radar (24 pulses)

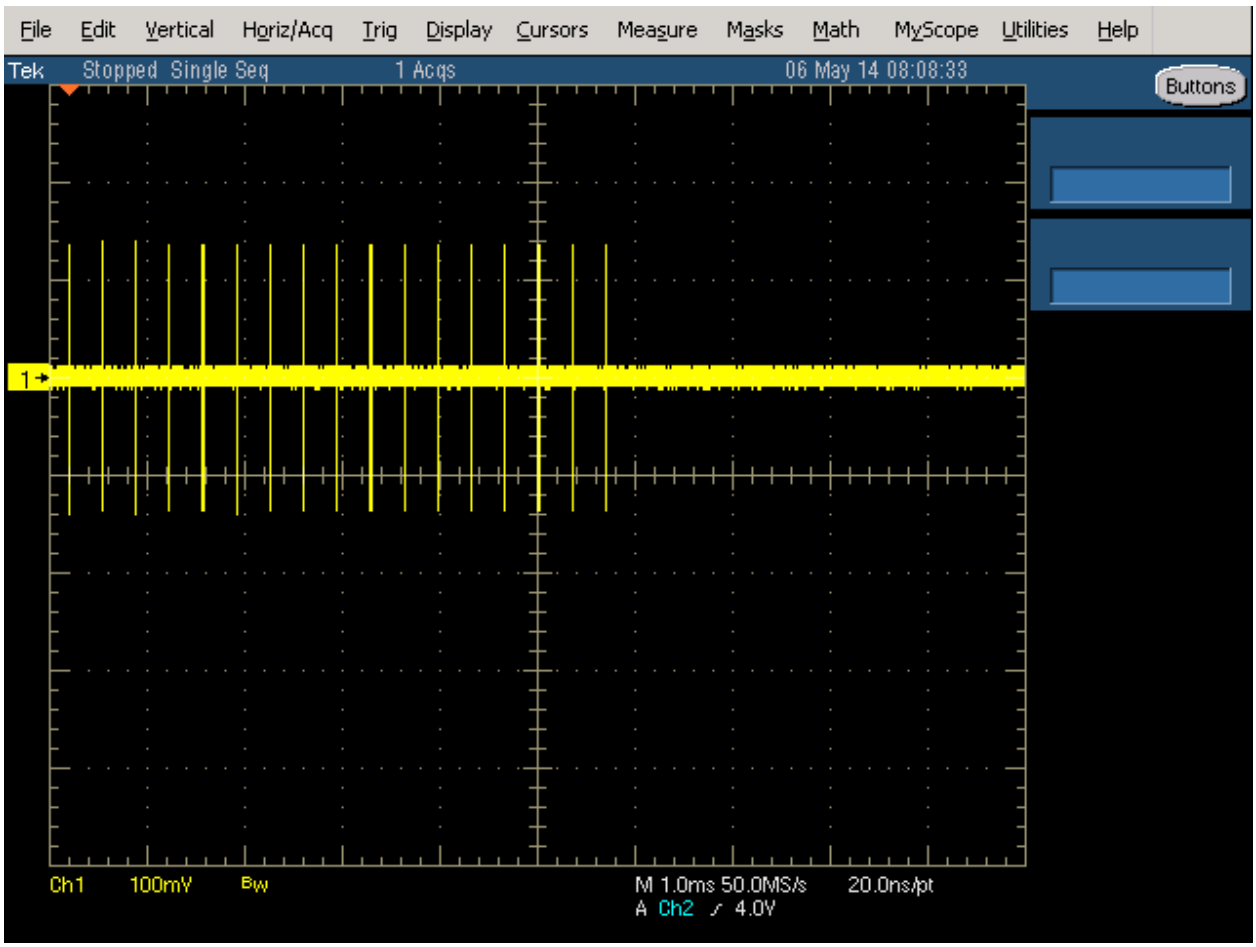

Figure 5 FCC Type 3 Radar (17 pulses)

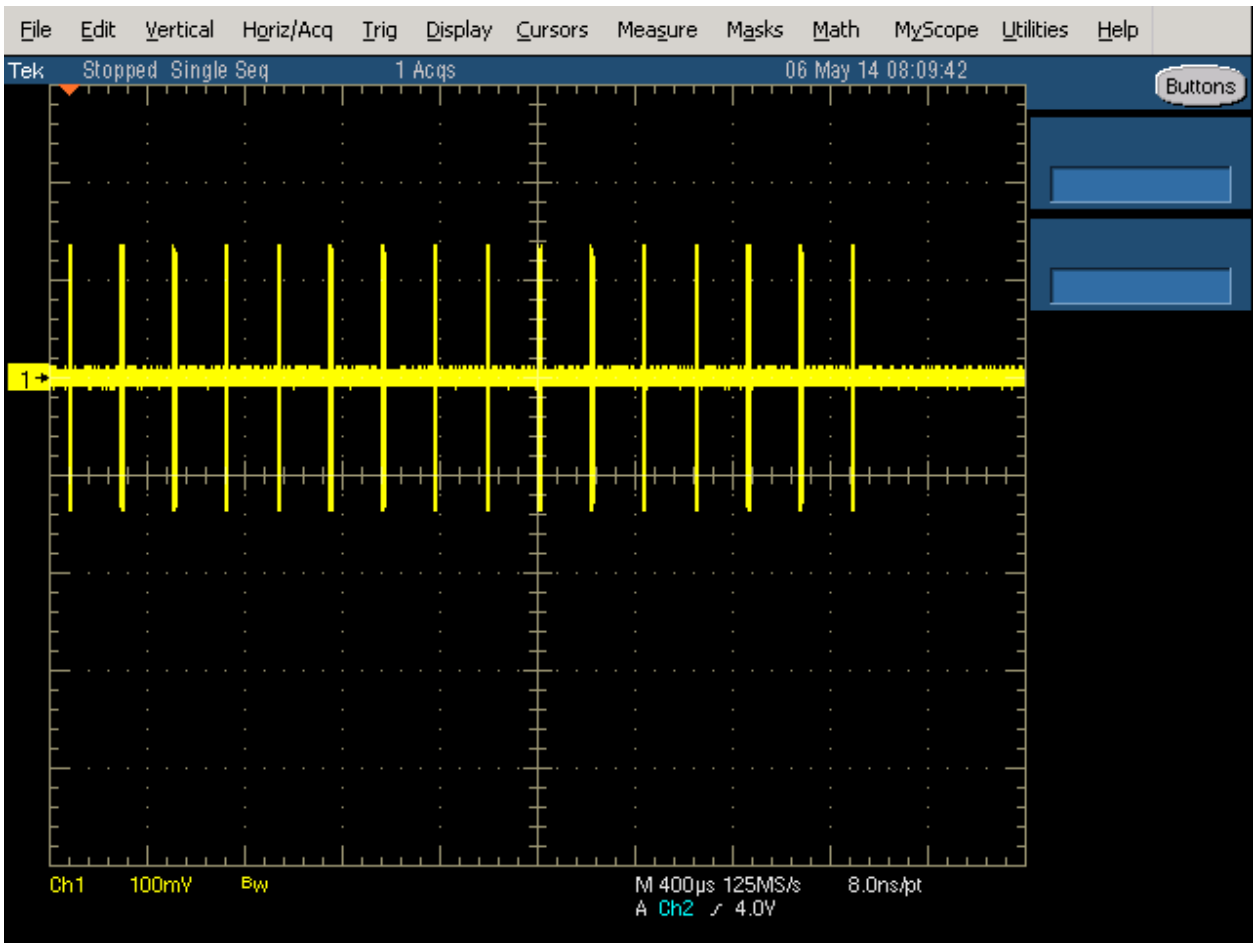

Figure 6 FCC Type 4 Radar (16 pulses)

Figure 7 FCC Type 5 Radar (burst with three pulses, 1650 µs first period)

The shape is round due to chirped frequency during pulse as the SA is in zero span with 3 MHz BW.

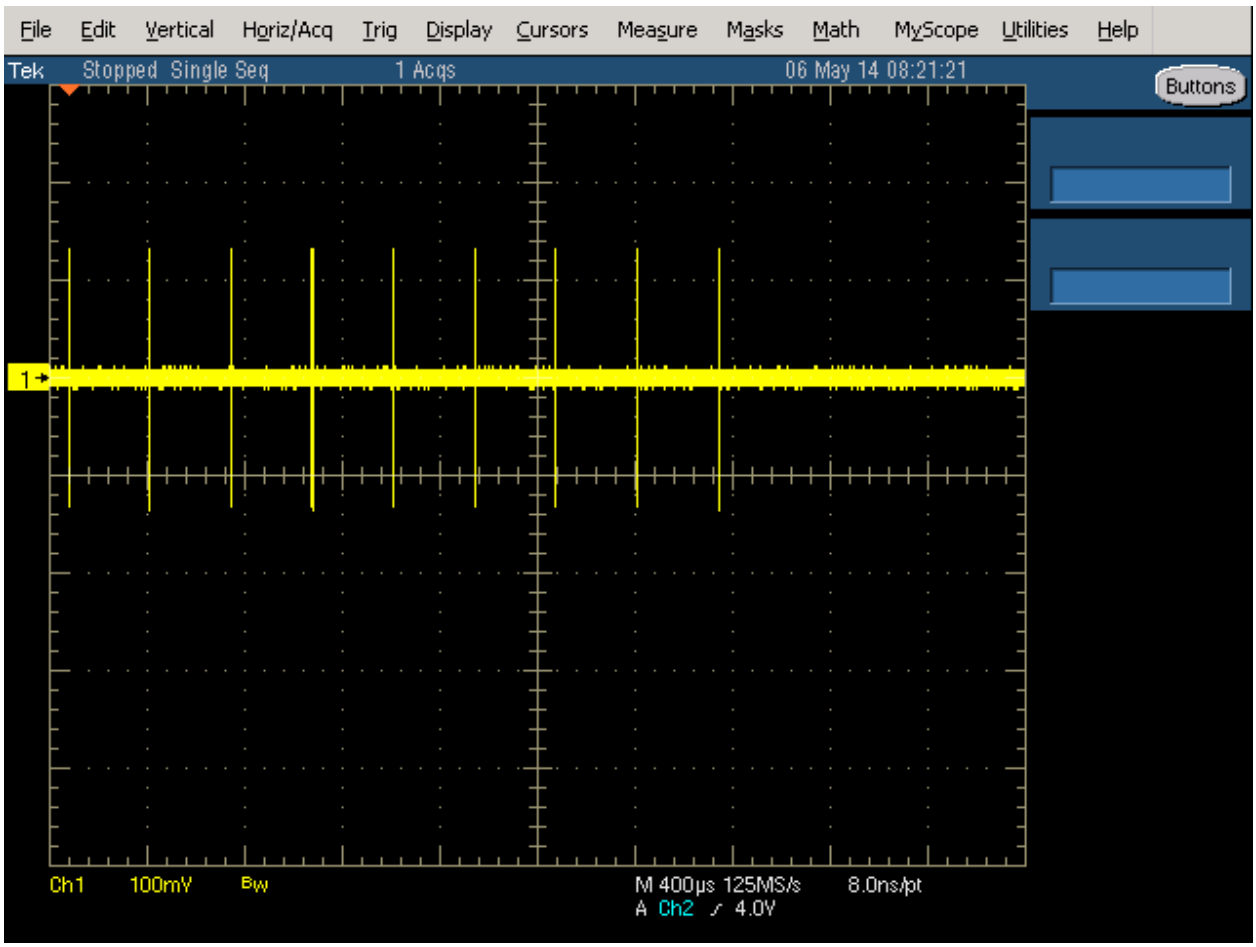

Figure 8 FCC Type 6 Radar (9 pulses in each burst)

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/KCC Notice No. 2010-48 – 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.

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.

For devices with a client-mode that are being evaluated against FCC rules the manufacturer must supply an attestation letter stating that the client device does not employ any active scanning techniques (i.e. does not transmit in the DFS bands without authorization from a Master device).

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 when evaluating a 60-second 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 Equipment Calibration Data

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	EMC Spectrum Analyzer, 9 KHz - 22 GHz	8593EM	1319	12-Dec-14
EMCO	Antenna, Horn, 1-18 GHz (SA40-Blu)	3115	1386	26-Sep-14
ETS Lindgren	Antenna, Horn, 1-18 GHz	3117	1662	04-Jun-16
Agilent Technologies	PSG Vector Signal Generator (250kHz - 20GHz)	E8267C	1877	19-Jun-15
Tektronix	500MHz, 2CH, 5GS/s Scope	TDS5052B	2118	23-Oct-14

Appendix B Test Data Tables for Radar Detection Probability

Table 6 - Detection Bandwidth Measurements (Bandwidth: ±9MHz) Control Unit - old FW 20MHz					
EUT Frequency	Radar Type	Radar Frequency	# Detected	# Not Detected	Success (%)
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5510.00 MHz	4	3	57
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5511.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5512.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5513.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5514.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5515.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5516.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5517.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5518.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5519.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5520.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5521.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5522.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5523.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5524.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5525.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5526.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5527.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5528.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5529.00 MHz	10	0	100
5520.00 MHz	FCC Short Pulse Radar (Type 1)	5530.00 MHz	1	3	25

Table 7 - Detection Bandwidth Measurements (Bandwidth: ±20MHz) Control Unit old FW 40MHz					
EUT Frequency	Radar Type	Radar Frequency	# Detected	# Not Detected	Success (%)
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5489.00 MHz	2	3	40
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5490.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5491.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5492.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5493.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5494.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5495.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5496.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5497.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5498.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5499.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5500.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5501.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5502.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5503.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5504.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5505.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5506.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5507.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5508.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5509.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5510.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5511.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5512.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5513.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5514.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5515.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5516.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5517.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5518.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5519.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5520.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5521.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5522.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5523.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5524.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5525.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5526.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5527.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5528.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5529.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5530.00 MHz	10	0	100
5510.00 MHz	FCC Short Pulse Radar (Type 1)	5531.00 MHz	4	3	57

Table 8 - Summary of All Results Control Unit - old FW 20MHz				
Waveform Name	Pd (%)	Pd Required (%)	Number of Trials	Status
FCC Short Pulse Radar (Type 1)	100.0 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 2)	93.3 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 3)	86.7 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 4)	93.3 %	60.0 %	30	PASSED
Aggregate of above results	93.3 %	80.0 %	120	PASSED
FCC frequency hopping radar (Type 6)	100.0 %	70.0 %	38	PASSED
Long Sequence	96.7 %	80.0 %	30	PASSED

Table 9 - FCC Short Pulse Radar (Type 1) Results Control Unit - old FW 20MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
2	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
3	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
4	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
5	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
6	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
7	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
8	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
9	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
10	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
11	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
12	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
13	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
16	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
17	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
18	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
19	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
20	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
21	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
22	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
23	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
24	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
25	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
26	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
27	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
28	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
29	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
30	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst

Table 10 - FCC Short Pulse Radar (Type 2) Results Control Unit - old FW 20MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	24	4.5	187.0	Yes	5520.0MHz, -64.0dBm	Single burst
2	27	1.4	171.0	Yes	5515.0MHz, -64.0dBm	Single burst
3	29	3.4	202.0	Yes	5525.0MHz, -64.0dBm	Single burst
4	24	1.5	201.0	Yes	5520.0MHz, -64.0dBm	Single burst
5	27	4.4	226.0	Yes	5515.0MHz, -64.0dBm	Single burst
6	28	1.7	199.0	Yes	5525.0MHz, -64.0dBm	Single burst
7	28	3.7	182.0	Yes	5520.0MHz, -64.0dBm	Single burst
8	24	2.1	178.0	Yes	5515.0MHz, -64.0dBm	Single burst
9	24	2.8	193.0	Yes	5525.0MHz, -64.0dBm	Single burst
10	25	3.0	153.0	No	5520.0MHz, -64.0dBm	Single burst
11	26	3.5	192.0	No	5515.0MHz, -64.0dBm	Single burst
12	25	3.7	158.0	Yes	5525.0MHz, -64.0dBm	Single burst
13	27	2.8	191.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	28	4.6	174.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	28	4.1	185.0	Yes	5525.0MHz, -64.0dBm	Single burst
16	27	4.6	175.0	Yes	5520.0MHz, -64.0dBm	Single burst
17	25	4.8	181.0	Yes	5515.0MHz, -64.0dBm	Single burst
18	27	5.0	156.0	Yes	5525.0MHz, -64.0dBm	Single burst
19	24	3.3	197.0	Yes	5520.0MHz, -64.0dBm	Single burst
20	29	2.5	216.0	Yes	5515.0MHz, -64.0dBm	Single burst
21	29	3.3	191.0	Yes	5525.0MHz, -64.0dBm	Single burst
22	23	4.9	186.0	Yes	5520.0MHz, -64.0dBm	Single burst
23	26	2.2	162.0	Yes	5515.0MHz, -64.0dBm	Single burst
24	24	2.0	151.0	Yes	5525.0MHz, -64.0dBm	Single burst
25	27	3.6	153.0	Yes	5520.0MHz, -64.0dBm	Single burst
26	27	1.7	177.0	Yes	5515.0MHz, -64.0dBm	Single burst
27	27	1.6	184.0	Yes	5525.0MHz, -64.0dBm	Single burst
28	25	3.4	213.0	Yes	5520.0MHz, -64.0dBm	Single burst
29	25	2.4	209.0	Yes	5515.0MHz, -64.0dBm	Single burst
30	26	4.2	159.0	Yes	5525.0MHz, -64.0dBm	Single burst

Table 11 - FCC Short Pulse Radar (Type 3) Results Control Unit - old FW 20MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	18	7.1	370.0	Yes	5520.0MHz, -64.0dBm	Single burst
2	18	9.9	483.0	Yes	5515.0MHz, -64.0dBm	Single burst
3	17	9.4	485.0	Yes	5525.0MHz, -64.0dBm	Single burst
4	16	9.6	238.0	No	5520.0MHz, -64.0dBm	Single burst
5	17	6.5	343.0	Yes	5515.0MHz, -64.0dBm	Single burst
6	17	9.3	401.0	No	5525.0MHz, -64.0dBm	Single burst
7	17	9.4	408.0	Yes	5520.0MHz, -64.0dBm	Single burst
8	17	8.3	360.0	Yes	5515.0MHz, -64.0dBm	Single burst
9	18	9.5	426.0	Yes	5525.0MHz, -64.0dBm	Single burst
10	18	6.9	374.0	Yes	5520.0MHz, -64.0dBm	Single burst
11	18	8.8	474.0	Yes	5515.0MHz, -64.0dBm	Single burst
12	17	6.8	277.0	No	5525.0MHz, -64.0dBm	Single burst
13	18	9.1	406.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	17	7.4	240.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	16	9.9	494.0	Yes	5525.0MHz, -64.0dBm	Single burst
16	16	9.8	469.0	Yes	5520.0MHz, -64.0dBm	Single burst
17	18	9.9	323.0	Yes	5515.0MHz, -64.0dBm	Single burst
18	17	7.3	450.0	Yes	5525.0MHz, -64.0dBm	Single burst
19	17	9.4	284.0	No	5520.0MHz, -64.0dBm	Single burst
20	16	8.8	251.0	Yes	5515.0MHz, -64.0dBm	Single burst
21	18	10.0	420.0	Yes	5525.0MHz, -64.0dBm	Single burst
22	17	9.9	209.0	Yes	5520.0MHz, -64.0dBm	Single burst
23	16	7.3	277.0	Yes	5515.0MHz, -64.0dBm	Single burst
24	17	9.0	492.0	Yes	5525.0MHz, -64.0dBm	Single burst
25	17	7.8	201.0	Yes	5520.0MHz, -64.0dBm	Single burst
26	18	8.2	302.0	Yes	5515.0MHz, -64.0dBm	Single burst
27	16	6.4	443.0	Yes	5525.0MHz, -64.0dBm	Single burst
28	16	8.5	204.0	Yes	5520.0MHz, -64.0dBm	Single burst
29	17	7.5	413.0	Yes	5515.0MHz, -64.0dBm	Single burst
30	16	8.6	341.0	Yes	5525.0MHz, -64.0dBm	Single burst

Table 12 - FCC Short Pulse Radar (Type 4) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	15	19.6	212.0	Yes	5520.0MHz, -64.0dBm	Single burst
2	12	14.4	437.0	Yes	5515.0MHz, -64.0dBm	Single burst
3	14	18.6	272.0	Yes	5525.0MHz, -64.0dBm	Single burst
4	15	11.5	426.0	Yes	5520.0MHz, -64.0dBm	Single burst
5	14	14.6	397.0	Yes	5515.0MHz, -64.0dBm	Single burst
6	14	19.0	450.0	Yes	5525.0MHz, -64.0dBm	Single burst
7	15	13.9	207.0	Yes	5520.0MHz, -64.0dBm	Single burst
8	14	15.7	252.0	Yes	5515.0MHz, -64.0dBm	Single burst
9	14	17.2	384.0	Yes	5525.0MHz, -64.0dBm	Single burst
10	15	12.8	480.0	Yes	5520.0MHz, -64.0dBm	Single burst
11	12	13.7	365.0	Yes	5515.0MHz, -64.0dBm	Single burst
12	15	18.5	483.0	Yes	5525.0MHz, -64.0dBm	Single burst
13	14	12.4	201.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	14	14.8	396.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	14	15.0	220.0	Yes	5525.0MHz, -64.0dBm	Single burst
16	15	12.8	309.0	Yes	5520.0MHz, -64.0dBm	Single burst
17	13	19.4	406.0	No	5515.0MHz, -64.0dBm	Single burst
18	14	11.0	415.0	Yes	5525.0MHz, -64.0dBm	Single burst
19	14	14.0	335.0	Yes	5520.0MHz, -64.0dBm	Single burst
20	13	14.7	398.0	Yes	5515.0MHz, -64.0dBm	Single burst
21	16	11.3	479.0	Yes	5525.0MHz, -64.0dBm	Single burst
22	14	18.9	381.0	Yes	5520.0MHz, -64.0dBm	Single burst
23	15	16.5	338.0	Yes	5515.0MHz, -64.0dBm	Single burst
24	16	15.2	352.0	Yes	5525.0MHz, -64.0dBm	Single burst
25	14	17.0	237.0	Yes	5520.0MHz, -64.0dBm	Single burst
26	14	17.0	317.0	Yes	5515.0MHz, -64.0dBm	Single burst
27	15	13.7	401.0	Yes	5525.0MHz, -64.0dBm	Single burst
28	13	15.9	307.0	No	5520.0MHz, -64.0dBm	Single burst
29	14	19.9	471.0	Yes	5515.0MHz, -64.0dBm	Single burst
30	13	16.2	213.0	Yes	5525.0MHz, -64.0dBm	Single burst

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	9	1.0	333.0	Yes	5528.0MHz, -64.0dBm	Hop sequence: 5725, 5724, 5256, 5351, 5651, 5710, 5358, 5703, 5454, 5326, 5453, 5251, 5626, 5250, 5302, 5428, 5392, 5298, 5624, 5402, 5723, 5657, 5677, 5705, 5489, 5386, 5721, 5556, 5398, 5669, 5533, 5364, 5347, 5682, 5253, 5268, 5308, 5702, 5552, 5507, 5572, 5655, 5582, 5722, 5408, 5680, 5312, 5404, 5357, 5287, 5643, 5389, 5562, 5478, 5314, 5516, 5607, 5695, 5374, 5410, 5259, 5472, 5640, 5467, 5463, 5610, 5699, 5286, 5397, 5435, 5530, 5317, 5311, 5650, 5290, 5369, 5681, 5544, 5561, 5261, 5475, 5375, 5334, 5362, 5590, 5584, 5616, 5319, 5380, 5683, 5377, 5271, 5343, 5498, 5635, 5510, 5642, 5586, 5617, 5352 (1 hits)
2	9	1.0	333.0	Yes	5529.0MHz, -64.0dBm	Hop sequence: 5670, 5569, 5595, 5296, 5457, 5645, 5706, 5643, 5499, 5451, 5633, 5489, 5572, 5551, 5447, 5418, 5482, 5553, 5664, 5320, 5325, 5713, 5579, 5307, 5523, 5468, 5430, 5661, 5560, 5513, 5510, 5318, 5270, 5269, 5550, 5689, 5703, 5701, 5295, 5441, 5443, 5570, 5427, 5659, 5493, 5693, 5350, 5300, 5408, 5571, 5533, 5285, 5549, 5638, 5678, 5720, 5672, 5466, 5409, 5384, 5552, 5635, 5348, 5708, 5366, 5446, 5641, 5622, 5395, 5691, 5626, 5699, 5688, 5671, 5687, 5668, 5640, 5674, 5263, 5297, 5256, 5714, 5371, 5723, 5339, 5548, 5346, 5306, 5264, 5541, 5291, 5396, 5349, 5407, 5398, 5492, 5562, 5615, 5685, 5709 (2 hits)
3	9	1.0	333.0	Yes	5511.0MHz, -64.0dBm	Hop sequence: 5583, 5354, 5677, 5469, 5658, 5500, 5499, 5371, 5506, 5642, 5473, 5563, 5503, 5568, 5332, 5615, 5417, 5284, 5286, 5250, 5523, 5416, 5527, 5448, 5315, 5653, 5274, 5477, 5346, 5339, 5456, 5411, 5705, 5544, 5549, 5279, 5632, 5381, 5569, 5299, 5565, 5487, 5309, 5331, 5344, 5387, 5525, 5281, 5369, 5294, 5645, 5611, 5725, 5383, 5649, 5654, 5683, 5270, 5361, 5537, 5573, 5285, 5425, 5349, 5390, 5451, 5475, 5382, 5454, 5364, 5717, 5598, 5509, 5674, 5508, 5591, 5641, 5392, 5457, 5574, 5709, 5555, 5566, 5570, 5277, 5288, 5388, 5429, 5596, 5581, 5679, 5472, 5493, 5622, 5452, 5465, 5476, 5712, 5661, 5664 (3 hits)
4	9	1.0	333.0	Yes	5512.0MHz, -64.0dBm	Hop sequence: 5595, 5365, 5620, 5487, 5614, 5361, 5703, 5515, 5436, 5267, 5666, 5441, 5281, 5654, 5586, 5702, 5449, 5392, 5378, 5353, 5715, 5550, 5405, 5505, 5391, 5426, 5687, 5388, 5403, 5650, 5621, 5690, 5383, 5672, 5437, 5303, 5280, 5461, 5359, 5669, 5632, 5477, 5330, 5397, 5348, 5428, 5358, 5588, 5254, 5258, 5466, 5576, 5696, 5381, 5310, 5285, 5708, 5257, 5265, 5583, 5619, 5305, 5279, 5272, 5309, 5647, 5393, 5720, 5256, 5589, 5612, 5722, 5663, 5629, 5509, 5401, 5450, 5521, 5411, 5438, 5456, 5497, 5608, 5640, 5333, 5288, 5410, 5592, 5677, 5342, 5523, 5675, 5469, 5606, 5568, 5493, 5670, 5293, 5362, 5725 (3 hits)
5	9	1.0	333.0	Yes	5513.0MHz, -64.0dBm	Hop sequence: 5696, 5563, 5569, 5509, 5595, 5645, 5376, 5339, 5293, 5424, 5469, 5462, 5298, 5256, 5718, 5698, 5640, 5514, 5367, 5715, 5576, 5371, 5609, 5505, 5416, 5344, 5398, 5596, 5582, 5476, 5693, 5612, 5463, 5440, 5559, 5442, 5526, 5382, 5374, 5684, 5710, 5309, 5297, 5348, 5276, 5483, 5554, 5450, 5530, 5266, 5666, 5302, 5531, 5433, 5513, 5575, 5418, 5588, 5548, 5564, 5301, 5608, 5449, 5618, 5278, 5653, 5506, 5707, 5675, 5627, 5394, 5372, 5445, 5384, 5591, 5291, 5534, 5253, 5345, 5685, 5493, 5295, 5459, 5458, 5465, 5703, 5669, 5280, 5353, 5357, 5352, 5307, 5437, 5328, 5409, 5713, 5700, 5565, 5665, 5667 (3 hits)
6	9	1.0	333.0	Yes	5514.0MHz,	Hop sequence: 5619, 5463, 5631, 5665, 5252, 5659, 5580, 5714, 5436, 5666, 5573, 5646, 5261,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
					-64.0dBm	5698, 5651, 5289, 5702, 5467, 5295, 5478, 5444, 5293, 5330, 5489, 5663, 5364, 5409, 5719, 5285, 5303, 5354, 5482, 5470, 5394, 5342, 5366, 5550, 5421, 5368, 5474, 5717, 5411, 5401, 5602, 5579, 5373, 5725, 5645, 5430, 5589, 5490, 5677, 5556, 5280, 5537, 5543, 5695, 5374, 5591, 5523, 5453, 5529, 5415, 5452, 5372, 5533, 5656, 5675, 5633, 5685, 5403, 5544, 5609, 5446, 5519, 5471, 5264, 5435, 5576, 5528, 5314, 5557, 5540, 5649, 5268, 5462, 5625, 5419, 5710, 5316, 5501, 5485, 5596, 5667, 5530, 5726, 5360, 5525, 5311, 5638 (5 hits)
7	9	1.0	333.0	Yes	5515.0MHz, -64.0dBm	Hop sequence: 5673, 5494, 5255, 5716, 5561, 5473, 5448, 5350, 5614, 5321, 5484, 5613, 5655, 5293, 5703, 5396, 5323, 5491, 5697, 5722, 5424, 5506, 5507, 5520, 5374, 5444, 5378, 5337, 5724, 5581, 5687, 5593, 5348, 5306, 5678, 5304, 5310, 5472, 5451, 5634, 5465, 5621, 5305, 5556, 5605, 5637, 5573, 5383, 5453, 5590, 5611, 5679, 5630, 5483, 5407, 5495, 5367, 5319, 5339, 5558, 5413, 5694, 5375, 5309, 5371, 5688, 5499, 5589, 5437, 5699, 5287, 5315, 5496, 5572, 5353, 5414, 5641, 5650, 5717, 5411, 5313, 5333, 5436, 5314, 5387, 5595, 5421, 5326, 5663, 5481, 5553, 5492, 5251, 5432, 5322, 5527, 5442, 5351, 5510, 5475 (2 hits)
8	9	1.0	333.0	Yes	5516.0MHz, -64.0dBm	Hop sequence: 5721, 5440, 5416, 5700, 5258, 5568, 5643, 5516, 5656, 5551, 5403, 5560, 5273, 5483, 5524, 5463, 5603, 5371, 5676, 5513, 5375, 5360, 5695, 5575, 5498, 5331, 5688, 5668, 5355, 5665, 5464, 5468, 5495, 5271, 5263, 5619, 5612, 5269, 5720, 5577, 5278, 5350, 5637, 5316, 5400, 5610, 5689, 5485, 5361, 5631, 5484, 5634, 5251, 5422, 5285, 5332, 5595, 5311, 5342, 5638, 5715, 5648, 5470, 5660, 5384, 5415, 5294, 5351, 5401, 5583, 5545, 5538, 5632, 5405, 5506, 5275, 5471, 5370, 5582, 5691, 5536, 5253, 5503, 5586, 5432, 5298, 5282, 5633, 5379, 5539, 5398, 5336, 5694, 5348, 5318, 5417, 5655, 5261, 5280, 5624 (3 hits)
9	9	1.0	333.0	Yes	5517.0MHz, -64.0dBm	Hop sequence: 5651, 5634, 5288, 5375, 5276, 5397, 5705, 5326, 5679, 5598, 5342, 5548, 5308, 5399, 5573, 5411, 5614, 5617, 5269, 5494, 5508, 5459, 5609, 5622, 5620, 5654, 5530, 5383, 5324, 5281, 5545, 5265, 5644, 5435, 5398, 5589, 5307, 5394, 5540, 5510, 5321, 5426, 5404, 5420, 5616, 5523, 5502, 5291, 5722, 5539, 5296, 5312, 5542, 5359, 5332, 5511, 5415, 5580, 5423, 5574, 5418, 5716, 5393, 5358, 5313, 5625, 5579, 5696, 5446, 5565, 5562, 5601, 5613, 5419, 5412, 5406, 5309, 5433, 5566, 5626, 5422, 5587, 5693, 5337, 5667, 5612, 5633, 5674, 5287, 5563, 5656, 5703, 5331, 5652, 5485, 5454, 5445, 5385, 5555, 5297 (2 hits)
10	9	1.0	333.0	Yes	5518.0MHz, -64.0dBm	Hop sequence: 5298, 5637, 5583, 5251, 5644, 5679, 5439, 5270, 5391, 5614, 5365, 5321, 5550, 5664, 5389, 5574, 5609, 5532, 5673, 5546, 5417, 5657, 5602, 5324, 5295, 5536, 5523, 5635, 5398, 5345, 5567, 5325, 5287, 5352, 5441, 5663, 5476, 5342, 5519, 5689, 5308, 5688, 5268, 5405, 5554, 5586, 5632, 5718, 5279, 5505, 5273, 5390, 5329, 5288, 5551, 5649, 5327, 5475, 5653, 5470, 5433, 5482, 5307, 5395, 5537, 5468, 5561, 5425, 5373, 5332, 5643, 5654, 5264, 5258, 5510, 5477, 5645, 5581, 5640, 5544, 5458, 5622, 5530, 5381, 5608, 5300, 5638, 5488, 5356, 5659, 5253, 5541, 5466, 5565, 5343, 5495, 5620, 5484, 5648, 5421 (2 hits)
11	9	1.0	333.0	Yes	5519.0MHz, -64.0dBm	Hop sequence: 5285, 5439, 5354, 5399, 5669, 5666, 5554, 5437, 5362, 5364, 5307, 5524, 5698, 5534, 5538, 5416, 5690, 5443, 5500, 5359, 5333, 5262, 5655, 5607, 5587, 5411, 5273, 5251, 5568, 5279, 5641, 5571, 5465, 5642, 5479, 5595, 5401,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5627, 5463, 5692, 5652, 5699, 5441, 5295, 5301, 5525, 5722, 5510, 5719, 5392, 5640, 5375, 5373, 5253, 5404, 5331, 5315, 5599, 5408, 5569, 5583, 5572, 5320, 5638, 5687, 5622, 5515, 5480, 5532, 5596, 5318, 5634, 5456, 5478, 5485, 5626, 5519, 5290, 5496, 5448, 5427, 5453, 5662, 5355, 5704, 5254, 5432, 5581, 5717, 5672, 5523, 5628, 5592, 5351, 5459, 5332, 5395, 5533, 5467, 5340 (5 hits)
12	9	1.0	333.0	Yes	5520.0MHz, -64.0dBm	Hop sequence: 5597, 5446, 5565, 5500, 5509, 5692, 5268, 5273, 5725, 5512, 5672, 5372, 5648, 5569, 5592, 5711, 5511, 5407, 5428, 5356, 5571, 5683, 5302, 5266, 5431, 5322, 5579, 5633, 5527, 5352, 5615, 5443, 5441, 5463, 5671, 5277, 5631, 5660, 5636, 5325, 5553, 5310, 5419, 5515, 5486, 5609, 5641, 5596, 5682, 5343, 5423, 5371, 5546, 5716, 5533, 5265, 5481, 5296, 5449, 5649, 5452, 5373, 5643, 5701, 5617, 5459, 5427, 5469, 5561, 5593, 5516, 5313, 5442, 5652, 5439, 5583, 5259, 5269, 5689, 5483, 5726, 5674, 5664, 5604, 5440, 5484, 5286, 5607, 5661, 5260, 5659, 5300, 5267, 5435, 5275, 5718, 5355, 5330, 5388, 5535 (5 hits)
13	9	1.0	333.0	Yes	5521.0MHz, -64.0dBm	Hop sequence: 5321, 5472, 5481, 5516, 5659, 5475, 5410, 5453, 5502, 5300, 5406, 5311, 5512, 5594, 5399, 5350, 5660, 5498, 5460, 5370, 5424, 5565, 5375, 5541, 5509, 5257, 5357, 5402, 5689, 5273, 5437, 5374, 5577, 5553, 5351, 5415, 5341, 5662, 5531, 5482, 5383, 5379, 5585, 5656, 5716, 5426, 5503, 5397, 5326, 5604, 5444, 5579, 5462, 5349, 5322, 5517, 5342, 5436, 5688, 5610, 5253, 5268, 5521, 5646, 5578, 5345, 5710, 5573, 5466, 5534, 5294, 5668, 5631, 5556, 5704, 5686, 5622, 5712, 5615, 5671, 5451, 5335, 5692, 5670, 5385, 5549, 5378, 5538, 5701, 5588, 5707, 5657, 5620, 5356, 5314, 5272, 5334, 5703, 5464, 5508 (4 hits) (08/05/2014 04:11:18 PM)
14	9	1.0	333.0	Yes	5522.0MHz, -64.0dBm	Hop sequence: 5526, 5341, 5388, 5440, 5259, 5651, 5616, 5334, 5425, 5272, 5336, 5627, 5291, 5471, 5309, 5354, 5580, 5324, 5412, 5403, 5581, 5519, 5379, 5261, 5408, 5331, 5286, 5472, 5674, 5422, 5723, 5263, 5335, 5629, 5340, 5307, 5633, 5661, 5435, 5518, 5464, 5552, 5426, 5275, 5506, 5496, 5463, 5516, 5297, 5349, 5645, 5430, 5522, 5688, 5442, 5250, 5274, 5315, 5477, 5467, 5322, 5296, 5711, 5538, 5676, 5401, 5720, 5505, 5478, 5372, 5394, 5431, 5646, 5684, 5493, 5316, 5708, 5694, 5304, 5420, 5590, 5578, 5656, 5575, 5262, 5389, 5568, 5641, 5682, 5427, 5283, 5719, 5702, 5295, 5269, 5622, 5586, 5436, 5649, 5569 (5 hits)
15	9	1.0	333.0	Yes	5523.0MHz, -64.0dBm	Hop sequence: 5381, 5481, 5372, 5664, 5258, 5618, 5635, 5594, 5305, 5627, 5685, 5476, 5498, 5715, 5364, 5268, 5584, 5552, 5482, 5336, 5334, 5622, 5467, 5624, 5264, 5563, 5450, 5533, 5365, 5437, 5304, 5510, 5325, 5595, 5508, 5473, 5314, 5688, 5582, 5386, 5709, 5390, 5459, 5255, 5572, 5605, 5692, 5378, 5672, 5403, 5430, 5648, 5456, 5598, 5293, 5419, 5704, 5295, 5619, 5294, 5555, 5455, 5623, 5442, 5656, 5263, 5281, 5361, 5668, 5725, 5583, 5708, 5269, 5432, 5647, 5306, 5497, 5327, 5631, 5702, 5678, 5547, 5589, 5551, 5261, 5382, 5663, 5443, 5632, 5525, 5707, 5384, 5590, 5557, 5703, 5565, 5276, 5262, 5676, 5466 (1 hits)
16	9	1.0	333.0	Yes	5524.0MHz, -64.0dBm	Hop sequence: 5614, 5654, 5602, 5468, 5539, 5354, 5587, 5274, 5662, 5297, 5677, 5416, 5309, 5418, 5610, 5382, 5261, 5391, 5352, 5318, 5639, 5673, 5429, 5660, 5287, 5606, 5476, 5387, 5621, 5514, 5413, 5671, 5547, 5568, 5433, 5298, 5534, 5628, 5640, 5425, 5532, 5492, 5353, 5358, 5385, 5258, 5303, 5419, 5516, 5403, 5657, 5437, 5273,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5706, 5432, 5341, 5537, 5313, 5375, 5689, 5629, 5624, 5401, 5620, 5644, 5707, 5681, 5549, 5398, 5336, 5669, 5265, 5255, 5540, 5488, 5365, 5373, 5338, 5575, 5605, 5503, 5708, 5634, 5350, 5551, 5480, 5502, 5630, 5716, 5579, 5326, 5674, 5668, 5574, 5638, 5372, 5463, 5315, 5256, 5672 (2 hits
17	9	1.0	333.0	Yes	5525.0MHz, -64.0dBm	Hop sequence: 5532, 5568, 5409, 5520, 5491, 5509, 5514, 5385, 5357, 5668, 5700, 5376, 5402, 5392, 5577, 5658, 5413, 5386, 5529, 5326, 5271, 5705, 5362, 5552, 5416, 5589, 5660, 5481, 5533, 5680, 5718, 5356, 5431, 5716, 5314, 5478, 5449, 5442, 5455, 5279, 5694, 5512, 5354, 5292, 5284, 5444, 5467, 5364, 5485, 5286, 5309, 5443, 5269, 5636, 5434, 5368, 5290, 5617, 5562, 5463, 5576, 5403, 5697, 5537, 5613, 5507, 5625, 5556, 5652, 5655, 5397, 5692, 5294, 5522, 5352, 5665, 5401, 5612, 5317, 5564, 5661, 5551, 5707, 5378, 5419, 5350, 5367, 5712, 5422, 5693, 5645, 5262, 5686, 5538, 5381, 5268, 5492, 5486, 5675, 5316 (5 hits)
18	9	1.0	333.0	Yes	5526.0MHz, -64.0dBm	Hop sequence: 5307, 5686, 5647, 5335, 5339, 5316, 5345, 5434, 5302, 5383, 5484, 5360, 5403, 5330, 5723, 5442, 5492, 5607, 5640, 5617, 5477, 5707, 5695, 5627, 5703, 5276, 5644, 5656, 5682, 5516, 5530, 5498, 5356, 5668, 5665, 5288, 5572, 5368, 5413, 5458, 5282, 5619, 5634, 5418, 5405, 5548, 5422, 5525, 5518, 5561, 5652, 5364, 5261, 5632, 5320, 5329, 5419, 5673, 5397, 5469, 5488, 5395, 5645, 5414, 5610, 5275, 5373, 5631, 5428, 5675, 5277, 5710, 5369, 5449, 5462, 5463, 5471, 5334, 5376, 5725, 5714, 5502, 5604, 5258, 5638, 5630, 5696, 5326, 5568, 5491, 5577, 5633, 5715, 5350, 5388, 5592, 5576, 5325, 5331, 5386 (3 hits)
19	9	1.0	333.0	Yes	5527.0MHz, -64.0dBm	Hop sequence: 5692, 5441, 5725, 5474, 5690, 5502, 5656, 5477, 5400, 5291, 5460, 5575, 5537, 5617, 5355, 5265, 5708, 5556, 5698, 5566, 5578, 5512, 5484, 5710, 5517, 5483, 5546, 5416, 5693, 5703, 5694, 5320, 5314, 5714, 5348, 5588, 5308, 5709, 5711, 5536, 5349, 5568, 5601, 5527, 5445, 5672, 5663, 5657, 5442, 5318, 5383, 5412, 5689, 5353, 5277, 5526, 5557, 5331, 5310, 5606, 5598, 5498, 5503, 5530, 5631, 5651, 5602, 5613, 5378, 5319, 5684, 5605, 5682, 5351, 5288, 5414, 5325, 5396, 5261, 5667, 5699, 5471, 5666, 5372, 5511, 5480, 5324, 5379, 5670, 5410, 5403, 5376, 5280, 5691, 5262, 5368, 5520, 5479, 5619, 5332 (6 hits)
20	9	1.0	333.0	Yes	5528.0MHz, -64.0dBm	Hop sequence: 5460, 5266, 5445, 5528, 5464, 5366, 5666, 5428, 5360, 5553, 5664, 5438, 5579, 5676, 5686, 5375, 5679, 5587, 5264, 5701, 5363, 5347, 5551, 5607, 5270, 5302, 5512, 5710, 5487, 5588, 5419, 5628, 5582, 5725, 5390, 5705, 5558, 5542, 5519, 5511, 5670, 5361, 5585, 5300, 5530, 5276, 5254, 5593, 5304, 5454, 5537, 5652, 5639, 5299, 5514, 5268, 5661, 5674, 5323, 5502, 5470, 5313, 5623, 5691, 5626, 5321, 5398, 5671, 5722, 5599, 5694, 5314, 5400, 5704, 5500, 5294, 5696, 5292, 5533, 5327, 5429, 5515, 5405, 5609, 5578, 5646, 5333, 5332, 5286, 5362, 5311, 5271, 5650, 5420, 5391, 5252, 5382, 5399, 5516, 5441 (7 hits)
21	9	1.0	333.0	Yes	5529.0MHz, -64.0dBm	Hop sequence: 5606, 5367, 5686, 5437, 5614, 5722, 5506, 5553, 5706, 5548, 5394, 5668, 5550, 5473, 5564, 5529, 5465, 5613, 5492, 5570, 5558, 5446, 5503, 5324, 5500, 5640, 5724, 5284, 5523, 5518, 5311, 5638, 5436, 5301, 5677, 5513, 5318, 5347, 5665, 5331, 5454, 5342, 5537, 5545, 5304, 5595, 5507, 5587, 5511, 5502, 5363, 5321, 5414, 5510, 5362, 5308, 5673, 5559, 5627, 5312, 5534, 5663, 5721, 5565, 5637, 5281, 5546, 5661, 5430, 5719, 5636, 5508, 5515, 5662, 5447, 5679, 5596,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5634, 5478, 5457, 5530, 5588, 5601, 5307, 5397, 5330, 5562, 5326, 5295, 5287, 5639, 5488, 5389, 5707, 5704, 5432, 5468, 5580, 5386, 5416 (6 hits)
22	9	1.0	333.0	Yes	5511.0MHz, -64.0dBm	Hop sequence: 5624, 5602, 5376, 5591, 5324, 5530, 5704, 5675, 5441, 5706, 5292, 5552, 5661, 5694, 5312, 5444, 5562, 5435, 5322, 5529, 5601, 5480, 5533, 5272, 5509, 5506, 5465, 5421, 5353, 5343, 5574, 5395, 5715, 5279, 5697, 5445, 5488, 5330, 5557, 5345, 5344, 5329, 5577, 5300, 5429, 5720, 5457, 5338, 5532, 5463, 5440, 5531, 5629, 5380, 5396, 5654, 5719, 5404, 5656, 5407, 5399, 5565, 5368, 5417, 5648, 5337, 5679, 5341, 5568, 5547, 5682, 5479, 5486, 5637, 5705, 5378, 5599, 5519, 5660, 5423, 5275, 5283, 5578, 5349, 5296, 5393, 5671, 5571, 5649, 5524, 5425, 5408, 5326, 5527, 5563, 5291, 5655, 5722, 5477, 5580 (4 hits)
23	9	1.0	333.0	Yes	5512.0MHz, -64.0dBm	Hop sequence: 5297, 5377, 5524, 5709, 5278, 5332, 5374, 5642, 5467, 5369, 5256, 5347, 5321, 5438, 5633, 5528, 5701, 5483, 5670, 5534, 5562, 5382, 5379, 5560, 5325, 5546, 5417, 5495, 5456, 5536, 5430, 5694, 5375, 5425, 5422, 5540, 5619, 5547, 5541, 5389, 5510, 5298, 5583, 5471, 5306, 5573, 5342, 5252, 5516, 5637, 5364, 5640, 5441, 5429, 5677, 5494, 5613, 5349, 5556, 5569, 5674, 5610, 5529, 5336, 5286, 5404, 5322, 5604, 5387, 5520, 5440, 5565, 5479, 5589, 5481, 5345, 5511, 5561, 5407, 5514, 5653, 5660, 5354, 5281, 5290, 5684, 5690, 5679, 5361, 5415, 5614, 5703, 5443, 5719, 5542, 5445, 5502, 5384, 5526, 5315 (8 hits)
24	9	1.0	333.0	Yes	5513.0MHz, -64.0dBm	Hop sequence: 5319, 5604, 5293, 5377, 5396, 5255, 5302, 5504, 5601, 5365, 5513, 5638, 5467, 5708, 5440, 5621, 5632, 5252, 5386, 5363, 5645, 5494, 5312, 5265, 5691, 5502, 5693, 5609, 5695, 5636, 5404, 5450, 5659, 5550, 5417, 5641, 5724, 5558, 5338, 5709, 5280, 5565, 5395, 5535, 5276, 5475, 5445, 5476, 5501, 5296, 5259, 5426, 5548, 5704, 5421, 5465, 5297, 5269, 5555, 5300, 5603, 5517, 5289, 5270, 5560, 5647, 5306, 5483, 5720, 5488, 5340, 5625, 5506, 5373, 5694, 5490, 5330, 5298, 5699, 5564, 5713, 5342, 5602, 5382, 5304, 5524, 5346, 5343, 5612, 5462, 5498, 5568, 5540, 5682, 5473, 5719, 5400, 5378, 5553, 5387 (3 hits)
25	9	1.0	333.0	Yes	5514.0MHz, -64.0dBm	Hop sequence: 5470, 5468, 5342, 5521, 5629, 5624, 5662, 5408, 5446, 5714, 5500, 5257, 5655, 5707, 5639, 5538, 5715, 5697, 5604, 5343, 5543, 5294, 5554, 5331, 5719, 5668, 5619, 5432, 5378, 5451, 5414, 5635, 5480, 5301, 5721, 5633, 5626, 5605, 5272, 5404, 5545, 5583, 5512, 5712, 5667, 5645, 5533, 5367, 5319, 5508, 5327, 5422, 5703, 5634, 5561, 5698, 5397, 5391, 5377, 5302, 5443, 5573, 5599, 5251, 5363, 5595, 5276, 5656, 5262, 5338, 5450, 5385, 5558, 5608, 5456, 5403, 5271, 5297, 5612, 5691, 5339, 5609, 5424, 5636, 5289, 5399, 5388, 5622, 5349, 5495, 5266, 5591, 5527, 5540, 5497, 5579, 5557, 5374, 5464, 5625 (3 hits)
26	9	1.0	333.0	Yes	5515.0MHz, -64.0dBm	Hop sequence: 5610, 5685, 5562, 5542, 5253, 5599, 5704, 5668, 5519, 5611, 5251, 5589, 5377, 5506, 5714, 5289, 5365, 5708, 5405, 5373, 5301, 5339, 5311, 5280, 5701, 5721, 5493, 5537, 5403, 5269, 5461, 5445, 5574, 5290, 5332, 5603, 5379, 5456, 5408, 5307, 5498, 5617, 5333, 5723, 5283, 5568, 5629, 5511, 5476, 5475, 5533, 5652, 5257, 5440, 5544, 5690, 5552, 5385, 5588, 5627, 5434, 5297, 5582, 5314, 5502, 5469, 5594, 5532, 5612, 5343, 5402, 5303, 5331, 5268, 5535, 5252, 5298, 5606, 5355, 5682, 5368, 5309, 5387, 5346, 5676, 5322, 5700, 5598, 5523, 5433, 5680, 5285, 5705, 5361, 5587, 5255, 5265, 5696, 5274, 5631 (3 hits)

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
27	9	1.0	333.0	Yes	5516.0MHz, -64.0dBm	Hop sequence: 5444, 5509, 5683, 5483, 5291, 5691, 5336, 5307, 5655, 5618, 5565, 5491, 5253, 5688, 5323, 5531, 5667, 5506, 5448, 5393, 5585, 5264, 5252, 5523, 5641, 5607, 5320, 5392, 5508, 5522, 5548, 5651, 5724, 5648, 5558, 5300, 5270, 5347, 5698, 5629, 5430, 5441, 5356, 5521, 5710, 5297, 5620, 5363, 5318, 5544, 5552, 5304, 5600, 5267, 5459, 5343, 5266, 5464, 5387, 5471, 5518, 5657, 5638, 5644, 5675, 5370, 5439, 5367, 5379, 5372, 5566, 5378, 5374, 5283, 5457, 5639, 5587, 5545, 5578, 5627, 5504, 5546, 5706, 5577, 5458, 5615, 5486, 5660, 5526, 5583, 5368, 5650, 5595, 5645, 5637, 5716, 5511, 5452, 5413, 5492 (6 hits)
28	9	1.0	333.0	Yes	5517.0MHz, -64.0dBm	Hop sequence: 5348, 5257, 5664, 5435, 5522, 5654, 5695, 5254, 5412, 5292, 5548, 5699, 5657, 5479, 5506, 5592, 5406, 5305, 5575, 5294, 5337, 5511, 5491, 5280, 5290, 5322, 5373, 5710, 5394, 5483, 5526, 5706, 5721, 5457, 5364, 5402, 5612, 5504, 5709, 5704, 5263, 5554, 5445, 5346, 5455, 5314, 5587, 5340, 5252, 5685, 5673, 5297, 5381, 5641, 5461, 5586, 5328, 5303, 5559, 5484, 5663, 5395, 5385, 5590, 5436, 5438, 5678, 5372, 5601, 5573, 5570, 5339, 5545, 5451, 5349, 5725, 5596, 5636, 5293, 5589, 5276, 5670, 5635, 5538, 5539, 5448, 5630, 5557, 5597, 5580, 5416, 5396, 5711, 5530, 5427, 5392, 5705, 5588, 5669, 5606 (3 hits)
29	9	1.0	333.0	Yes	5518.0MHz, -64.0dBm	Hop sequence: 5696, 5376, 5608, 5580, 5279, 5334, 5326, 5548, 5672, 5327, 5265, 5364, 5661, 5275, 5665, 5510, 5552, 5439, 5462, 5291, 5689, 5363, 5394, 5465, 5715, 5515, 5647, 5592, 5384, 5304, 5717, 5420, 5371, 5359, 5345, 5266, 5513, 5623, 5641, 5489, 5562, 5404, 5699, 5392, 5260, 5631, 5545, 5419, 5256, 5407, 5688, 5273, 5595, 5713, 5451, 5410, 5678, 5527, 5533, 5602, 5479, 5386, 5366, 5437, 5501, 5709, 5554, 5722, 5497, 5454, 5537, 5340, 5522, 5280, 5271, 5664, 5551, 5302, 5507, 5391, 5365, 5542, 5484, 5455, 5278, 5624, 5609, 5526, 5283, 5724, 5605, 5589, 5332, 5651, 5471, 5426, 5590, 5490, 5325, 5292 (5 hits)
30	9	1.0	333.0	Yes	5519.0MHz, -64.0dBm	Hop sequence: 5366, 5253, 5724, 5493, 5447, 5542, 5345, 5308, 5655, 5363, 5606, 5560, 5668, 5262, 5610, 5291, 5646, 5429, 5532, 5509, 5422, 5630, 5410, 5725, 5335, 5597, 5593, 5658, 5384, 5272, 5549, 5266, 5341, 5687, 5336, 5576, 5680, 5527, 5675, 5430, 5665, 5482, 5623, 5499, 5642, 5389, 5572, 5279, 5713, 5371, 5311, 5342, 5589, 5491, 5710, 5678, 5695, 5368, 5359, 5252, 5489, 5340, 5587, 5671, 5471, 5497, 5583, 5526, 5571, 5649, 5448, 5387, 5667, 5626, 5409, 5304, 5412, 5517, 5561, 5378, 5702, 5298, 5358, 5531, 5450, 5398, 5460, 5416, 5408, 5376, 5719, 5559, 5523, 5455, 5321, 5278, 5670, 5614, 5582, 5444 (4 hits)
31	9	1.0	333.0	Yes	5520.0MHz, -64.0dBm	Hop sequence: 5570, 5571, 5297, 5417, 5368, 5450, 5564, 5309, 5496, 5465, 5342, 5559, 5597, 5646, 5392, 5522, 5257, 5435, 5558, 5723, 5481, 5334, 5590, 5653, 5284, 5539, 5617, 5654, 5529, 5725, 5441, 5664, 5335, 5400, 5692, 5371, 5321, 5305, 5543, 5554, 5420, 5661, 5316, 5624, 5388, 5507, 5615, 5448, 5547, 5344, 5700, 5709, 5299, 5439, 5476, 5516, 5304, 5630, 5466, 5485, 5449, 5589, 5602, 5678, 5324, 5680, 5604, 5497, 5701, 5416, 5720, 5644, 5526, 5616, 5518, 5356, 5714, 5639, 5579, 5415, 5471, 5697, 5711, 5413, 5553, 5350, 5374, 5422, 5613, 5353, 5694, 5369, 5585, 5451, 5346, 5652, 5272, 5410, 5294, 5337 (5 hits)
32	9	1.0	333.0	Yes	5521.0MHz, -64.0dBm	Hop sequence: 5619, 5414, 5689, 5422, 5290, 5583, 5720, 5530, 5504, 5562, 5472, 5269, 5664, 5456, 5621, 5677, 5425, 5454, 5687, 5428, 5492,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5343, 5611, 5493, 5577, 5294, 5487, 5624, 5383, 5672, 5331, 5722, 5273, 5555, 5599, 5394, 5592, 5663, 5325, 5286, 5579, 5415, 5581, 5314, 5439, 5449, 5420, 5376, 5693, 5384, 5509, 5634, 5324, 5418, 5542, 5416, 5358, 5605, 5690, 5626, 5387, 5595, 5557, 5520, 5483, 5500, 5282, 5305, 5521, 5409, 5334, 5312, 5615, 5284, 5604, 5369, 5688, 5541, 5547, 5710, 5597, 5632, 5251, 5629, 5567, 5544, 5266, 5477, 5680, 5534, 5437, 5400, 5353, 5485, 5526, 5582, 5291, 5276, 5566, 5304 (3 hits)
33	9	1.0	333.0	Yes	5522.0MHz, -64.0dBm	Hop sequence: 5371, 5709, 5725, 5693, 5457, 5316, 5568, 5253, 5567, 5314, 5503, 5694, 5417, 5614, 5540, 5558, 5306, 5542, 5482, 5365, 5550, 5451, 5669, 5528, 5259, 5386, 5353, 5647, 5347, 5595, 5280, 5631, 5505, 5269, 5572, 5312, 5640, 5688, 5518, 5724, 5405, 5692, 5434, 5658, 5569, 5357, 5489, 5663, 5300, 5325, 5420, 5718, 5375, 5258, 5612, 5678, 5305, 5277, 5382, 5639, 5593, 5394, 5559, 5302, 5711, 5331, 5521, 5450, 5324, 5465, 5363, 5329, 5691, 5590, 5418, 5632, 5621, 5510, 5588, 5460, 5642, 5402, 5679, 5432, 5423, 5297, 5368, 5557, 5261, 5362, 5584, 5613, 5416, 5664, 5448, 5299, 5708, 5389, 5361, 5576 (3 hits)
34	9	1.0	333.0	Yes	5523.0MHz, -64.0dBm	Hop sequence: 5554, 5638, 5604, 5347, 5431, 5277, 5312, 5446, 5502, 5512, 5693, 5412, 5368, 5384, 5379, 5407, 5317, 5562, 5494, 5326, 5331, 5377, 5657, 5515, 5298, 5507, 5694, 5258, 5705, 5491, 5264, 5306, 5631, 5536, 5633, 5369, 5375, 5537, 5481, 5516, 5680, 5706, 5520, 5576, 5621, 5476, 5589, 5463, 5300, 5309, 5427, 5649, 5405, 5613, 5403, 5432, 5284, 5315, 5696, 5569, 5380, 5509, 5643, 5356, 5329, 5644, 5393, 5581, 5410, 5409, 5527, 5276, 5450, 5605, 5541, 5553, 5439, 5523, 5611, 5480, 5499, 5556, 5282, 5447, 5267, 5493, 5478, 5653, 5340, 5697, 5616, 5634, 5498, 5475, 5620, 5497, 5362, 5724, 5618, 5501 (6 hits)
35	9	1.0	333.0	Yes	5524.0MHz, -64.0dBm	Hop sequence: 5531, 5712, 5491, 5647, 5416, 5324, 5669, 5343, 5576, 5278, 5424, 5287, 5381, 5504, 5487, 5501, 5551, 5538, 5637, 5347, 5354, 5668, 5310, 5384, 5341, 5720, 5338, 5377, 5626, 5581, 5660, 5665, 5281, 5710, 5574, 5622, 5609, 5367, 5254, 5689, 5270, 5603, 5299, 5619, 5661, 5397, 5514, 5685, 5588, 5383, 5532, 5349, 5577, 5651, 5334, 5608, 5376, 5702, 5555, 5484, 5436, 5264, 5511, 5680, 5708, 5311, 5480, 5594, 5332, 5283, 5616, 5456, 5586, 5418, 5410, 5444, 5715, 5591, 5493, 5650, 5516, 5393, 5257, 5303, 5711, 5601, 5252, 5611, 5714, 5290, 5655, 5374, 5488, 5361, 5403, 5718, 5643, 5722, 5378, 5723 (3 hits)
36	9	1.0	333.0	Yes	5525.0MHz, -64.0dBm	Hop sequence: 5663, 5283, 5251, 5516, 5454, 5282, 5612, 5517, 5323, 5268, 5272, 5609, 5336, 5723, 5567, 5330, 5502, 5408, 5287, 5261, 5274, 5366, 5320, 5616, 5702, 5445, 5711, 5485, 5393, 5598, 5475, 5664, 5296, 5715, 5692, 5427, 5526, 5422, 5577, 5407, 5644, 5586, 5513, 5679, 5318, 5527, 5291, 5461, 5493, 5615, 5396, 5701, 5697, 5383, 5724, 5364, 5448, 5662, 5640, 5442, 5255, 5293, 5671, 5726, 5346, 5623, 5292, 5277, 5510, 5680, 5551, 5478, 5369, 5348, 5593, 5631, 5343, 5698, 5384, 5267, 5602, 5425, 5305, 5389, 5289, 5650, 5515, 5570, 5504, 5497, 5716, 5585, 5402, 5542, 5271, 5669, 5401, 5519, 5403, 5638 (7 hits)
37	9	1.0	333.0	Yes	5526.0MHz, -64.0dBm	Hop sequence: 5712, 5508, 5667, 5641, 5654, 5644, 5442, 5581, 5565, 5384, 5342, 5279, 5368, 5496, 5521, 5692, 5624, 5613, 5637, 5541, 5309, 5388, 5647, 5513, 5542, 5472, 5324, 5576, 5567, 5672, 5543, 5538, 5555, 5266, 5690, 5406, 5301, 5276, 5367, 5331, 5292, 5341, 5355, 5455, 5595,

Table 13 - FCC frequency hopping radar (Type 6) Results Control Unit - old FW 20MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5303, 5703, 5379, 5608, 5343, 5390, 5590, 5616, 5387, 5560, 5310, 5512, 5717, 5360, 5375, 5453, 5480, 5366, 5404, 5440, 5671, 5392, 5563, 5262, 5280, 5478, 5318, 5373, 5668, 5657, 5362, 5286, 5492, 5389, 5626, 5412, 5486, 5678, 5369, 5664, 5584, 5340, 5332, 5683, 5694, 5673, 5570, 5670, 5325, 5441, 5494, 5476, 5329, 5556, 5562 (3 hits)
38	9	1.0	333.0	Yes	5527.0MHz, -64.0dBm	Hop sequence: 5260, 5665, 5589, 5718, 5633, 5504, 5308, 5508, 5332, 5684, 5538, 5280, 5657, 5652, 5379, 5387, 5403, 5362, 5366, 5619, 5549, 5683, 5649, 5264, 5608, 5269, 5631, 5420, 5371, 5609, 5700, 5583, 5341, 5585, 5565, 5618, 5251, 5680, 5564, 5541, 5577, 5671, 5561, 5271, 5254, 5456, 5489, 5337, 5572, 5441, 5396, 5524, 5369, 5554, 5493, 5691, 5654, 5627, 5267, 5300, 5637, 5405, 5416, 5482, 5720, 5386, 5258, 5475, 5335, 5586, 5321, 5570, 5551, 5404, 5328, 5462, 5390, 5434, 5500, 5344, 5711, 5496, 5445, 5535, 5632, 5356, 5330, 5315, 5522, 5692, 5651, 5450, 5372, 5457, 5544, 5610, 5548, 5519, 5395, 5397 (3 hits)

Table 14 - Long Sequence Waveform Summary Control Unit - old FW 20MHz

Long Sequence Trial	Result	Radar Frequency / Amplitude
Trial #1	Detected	5520.0MHz, -64.0dBm
Trial #2	Detected	5515.0MHz, -64.0dBm
Trial #3	Detected	5525.0MHz, -64.0dBm
Trial #4	Detected	5520.0MHz, -64.0dBm
Trial #5	Detected	5515.0MHz, -64.0dBm
Trial #6	Detected	5525.0MHz, -64.0dBm
Trial #7	Detected	5520.0MHz, -64.0dBm
Trial #8	NOT Detected	5515.0MHz, -64.0dBm
Trial #9	Detected	5525.0MHz, -64.0dBm
Trial #10	Detected	5520.0MHz, -64.0dBm
Trial #11	Detected	5515.0MHz, -64.0dBm
Trial #12	Detected	5525.0MHz, -64.0dBm
Trial #13	Detected	5520.0MHz, -64.0dBm
Trial #14	Detected	5515.0MHz, -64.0dBm
Trial #15	Detected	5525.0MHz, -64.0dBm
Trial #16	Detected	5520.0MHz, -64.0dBm
Trial #17	Detected	5515.0MHz, -64.0dBm
Trial #18	Detected	5525.0MHz, -64.0dBm
Trial #19	Detected	5520.0MHz, -64.0dBm
Trial #20	Detected	5515.0MHz, -64.0dBm
Trial #21	Detected	5525.0MHz, -64.0dBm
Trial #22	Detected	5520.0MHz, -64.0dBm
Trial #23	Detected	5515.0MHz, -64.0dBm
Trial #24	Detected	5525.0MHz, -64.0dBm
Trial #25	Detected	5520.0MHz, -64.0dBm
Trial #26	Detected	5515.0MHz, -64.0dBm
Trial #27	Detected	5525.0MHz, -64.0dBm
Trial #28	Detected	5520.0MHz, -64.0dBm
Trial #29	Detected	5515.0MHz, -64.0dBm
Trial #30	Detected	5525.0MHz, -64.0dBm

Table 15 - Long Sequence Waveform Trial#1 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	64.8	8	1750.0	1482.0	0.261219
2	1	84.4	7	-	-	1.027392
3	1	97.1	15	-	-	2.171906
4	2	77.1	19	1677.0	-	2.805667
5	3	76.0	16	1633.0	1524.0	4.072643
6	2	92.2	14	1874.0	-	4.302507
7	2	56.3	5	1389.0	-	5.915415
8	2	79.0	9	1231.0	-	6.550608
9	1	93.5	8	-	-	7.496608
10	3	58.1	19	1769.0	1968.0	8.160053
11	2	51.3	6	1344.0	-	9.389744
12	2	52.4	18	1283.0	-	9.762255
13	2	70.7	10	1064.0	-	11.047846
14	1	91.6	10	-	-	11.533089

Table 16 - Long Sequence Waveform Trial#2 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	71.7	8	-	-	0.343229
2	1	86.4	19	-	-	1.629294
3	2	91.0	12	1431.0	-	2.513824
4	1	95.9	14	-	-	3.393101
5	2	83.1	15	1028.0	-	4.580826
6	1	94.8	7	-	-	5.556270
7	1	79.8	20	-	-	6.571464
8	3	98.8	13	1700.0	1241.0	7.681950
9	2	62.5	5	1710.0	-	9.602636
10	3	63.5	14	1100.0	1135.0	10.067770
11	1	90.1	16	-	-	11.987618

Table 17 - Long Sequence Waveform Trial#3 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	89.3	19	1718.0	1193.0	1.290646
2	2	53.3	14	1358.0	-	2.332178
3	2	52.9	8	1190.0	-	3.515468
4	2	73.7	6	1876.0	-	4.680871
5	3	52.6	14	1226.0	1539.0	7.454524
6	3	80.7	15	1516.0	1910.0	8.349328
7	2	62.4	6	1760.0	-	9.358893
8	3	92.8	18	1189.0	1030.0	11.671309

Table 18 - Long Sequence Waveform Trial#4 (Detected) Control Unit - old F 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	96.9	16	1332.0	-	0.519041
2	1	81.4	16	-	-	1.113303
3	3	72.4	5	1285.0	1535.0	2.015024
4	2	67.1	7	1130.0	-	2.636452
5	2	73.8	17	1207.0	-	3.044247
6	2	87.0	19	1597.0	-	3.959126
7	3	84.0	10	1841.0	1258.0	4.749838
8	1	64.2	17	-	-	5.445085
9	2	65.0	9	1386.0	-	5.913681
10	3	67.5	15	1994.0	1862.0	6.659488
11	1	79.9	16	-	-	7.412298
12	3	66.8	13	1567.0	1073.0	8.198103
13	2	87.0	5	1926.0	-	8.585917
14	1	60.7	6	-	-	9.709545
15	2	51.6	12	1669.0	-	10.001170
16	2	51.4	9	1761.0	-	11.170063
17	3	58.0	11	1371.0	1031.0	11.653653

Table 19 - Long Sequence Waveform Trial#5 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	85.2	17	1702.0	-	0.699418
2	1	77.9	9	-	-	2.144170
3	2	74.6	14	1705.0	-	4.218723
4	2	90.1	12	1181.0	-	5.710349
5	3	85.5	6	1469.0	1499.0	6.315067
6	2	55.2	7	1645.0	-	8.606305
7	2	53.2	15	1297.0	-	10.417479
8	1	80.5	17	-	-	10.796337

Table 20 - Long Sequence Waveform Trial#6 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	89.3	6	-	-	0.457559
2	2	83.1	11	1228.0	-	1.282536
3	2	86.0	14	1924.0	-	1.542213
4	2	89.1	14	1134.0	-	2.556196
5	1	90.4	7	-	-	3.281638
6	1	89.4	11	-	-	3.702465
7	3	90.3	6	1115.0	1243.0	4.304031
8	1	70.4	11	-	-	5.251864
9	2	62.5	14	1378.0	-	5.604374
10	3	57.1	13	1458.0	1465.0	6.510377
11	3	83.1	13	1870.0	1720.0	7.211473
12	3	50.1	16	1642.0	1435.0	7.625345
13	2	93.1	20	1315.0	-	8.499864
14	2	88.5	10	1688.0	-	9.099675
15	2	96.6	8	1828.0	-	9.718946
16	3	96.5	9	1821.0	1052.0	10.254865
17	2	57.0	9	1306.0	-	10.859947
18	3	93.1	17	1731.0	1061.0	11.836679

Table 21 - Long Sequence Waveform Trial#7 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	70.9	17	1771.0	-	0.530577
2	2	82.5	15	1768.0	-	1.393573
3	1	89.3	19	-	-	1.752836
4	1	51.3	9	-	-	2.930150
5	2	79.0	13	1564.0	-	3.249160
6	2	79.0	7	1433.0	-	4.038786
7	1	93.7	16	-	-	4.775818
8	1	88.6	9	-	-	5.517997
9	2	52.5	13	1176.0	-	6.667685
10	3	96.5	17	1963.0	1502.0	6.822493
11	1	78.8	13	-	-	7.916786
12	3	89.5	16	1247.0	1160.0	8.492785
13	2	77.5	10	1940.0	-	9.616732
14	1	67.0	13	-	-	10.312408
15	3	52.8	19	1770.0	1139.0	10.799123
16	1	63.6	19	-	-	11.473990

Table 22 - Long Sequence Waveform Trial#8 (NOT Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	80.7	13	1106.0	1111.0	0.120727
2	3	99.3	9	1122.0	1342.0	1.152379
3	2	72.6	20	1710.0	-	1.975343
4	1	87.8	18	-	-	2.659923
5	2	85.4	20	1604.0	-	3.038104
6	1	78.3	11	-	-	4.166827
7	3	62.2	18	1038.0	1391.0	4.832657
8	2	74.3	18	1793.0	-	5.333201
9	3	70.4	10	1556.0	1277.0	6.321249
10	2	75.4	15	1083.0	-	6.788201
11	2	95.9	13	1461.0	-	7.909648
12	1	97.7	15	-	-	8.542809
13	2	67.5	5	1389.0	-	9.370926
14	2	95.2	20	1026.0	-	10.202788
15	1	89.5	13	-	-	11.025979
16	2	70.0	19	1051.0	-	11.564575

Table 23 - Long Sequence Waveform Trial#9 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	76.6	12	1827.0	-	0.148390
2	1	95.2	11	-	-	1.634157
3	2	52.9	8	1216.0	-	2.151961
4	1	98.3	14	-	-	2.824128
5	2	79.7	9	1051.0	-	3.869958
6	1	90.8	20	-	-	4.661493
7	2	88.3	10	1780.0	-	5.977001
8	3	58.6	8	1121.0	1995.0	6.059274
9	2	79.5	13	1508.0	-	7.632125
10	1	87.8	12	-	-	8.173872
11	3	77.9	10	1991.0	1869.0	9.375447
12	2	50.3	12	1526.0	-	9.453254
13	3	85.6	10	1847.0	1200.0	10.830556
14	3	91.9	14	1941.0	1311.0	11.978830

Table 24 - Long Sequence Waveform Trial#10 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	63.9	10	1610.0	1466.0	0.214729
2	2	57.6	8	1229.0	-	1.325949
3	2	59.0	12	1287.0	-	2.217511
4	2	88.0	17	1254.0	-	2.789449
5	1	67.9	13	-	-	3.596882
6	2	74.8	9	1234.0	-	4.430602
7	2	61.3	20	1823.0	-	4.947379
8	1	90.0	20	-	-	5.553377
9	1	53.0	8	-	-	6.564721
10	2	68.0	14	1104.0	-	7.144284
11	3	74.2	8	1956.0	1053.0	7.692442
12	2	63.2	11	1509.0	-	8.632181
13	2	59.4	19	1907.0	-	9.200729
14	1	74.7	20	-	-	10.446162
15	2	91.9	15	1943.0	-	11.141047
16	1	56.6	13	-	-	11.286945

Table 25 - Long Sequence Waveform Trial#11 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	61.6	17	1923.0	1198.0	0.091102
2	1	63.6	19	-	-	1.691279
3	3	56.9	17	1226.0	1246.0	2.101741
4	2	76.8	13	1544.0	-	3.540002
5	3	50.5	19	1871.0	1756.0	4.401109
6	2	89.5	16	1242.0	-	5.084152
7	2	95.3	13	1241.0	-	6.133143
8	2	81.2	7	1654.0	-	6.648113
9	1	86.8	14	-	-	8.235382
10	3	93.1	13	1561.0	1416.0	8.791014
11	2	63.0	13	1827.0	-	9.888632
12	2	78.6	8	1319.0	-	10.772024
13	2	90.8	18	1522.0	-	11.699134

Table 26 - Long Sequence Waveform Trial#12 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	95.1	15	1266.0	-	0.297516
2	2	85.7	8	1460.0	-	2.547099
3	1	71.7	18	-	-	2.881594
4	2	69.4	13	1199.0	-	4.268596
5	1	96.9	11	-	-	5.999496
6	3	64.5	5	1586.0	1879.0	7.912927
7	2	96.3	16	1230.0	-	9.235691
8	1	50.0	11	-	-	10.104281
9	2	77.3	17	1297.0	-	11.153095

Table 27 - Long Sequence Waveform Trial#13 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	71.7	20	1275.0	-	0.673729
2	3	83.9	17	1191.0	1927.0	1.235621
3	1	97.9	15	-	-	3.013920
4	2	84.1	18	1895.0	-	3.471512
5	2	92.6	7	1877.0	-	4.752109
6	3	74.0	18	1646.0	1145.0	5.494527
7	2	63.9	19	1652.0	-	7.003859
8	2	60.8	5	1395.0	-	8.544788
9	2	72.5	10	1635.0	-	8.740394
10	3	89.2	17	1453.0	1079.0	10.901109
11	3	54.7	15	1066.0	1683.0	11.076592

Table 28 - Long Sequence Waveform Trial#14 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	52.8	7	-	-	0.306843
2	3	62.2	18	1248.0	1308.0	1.532621
3	1	98.0	7	-	-	2.247491
4	2	62.1	7	1254.0	-	2.725187
5	2	91.0	19	1726.0	-	3.698167
6	1	74.1	19	-	-	4.377451
7	1	70.1	18	-	-	5.121398
8	3	87.1	16	1433.0	1330.0	5.898851
9	2	50.8	20	1052.0	-	6.566073
10	3	66.6	7	1883.0	1696.0	7.380651
11	3	90.0	17	1184.0	1492.0	8.262886
12	2	89.0	20	1677.0	-	9.211789
13	2	74.7	18	1453.0	-	10.087671
14	3	91.2	19	1803.0	1223.0	11.100250
15	2	81.6	16	1416.0	-	11.446136

Table 29 - Long Sequence Waveform Trial#15 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	91.7	10	1267.0	-	0.110624
2	3	87.4	20	1526.0	1882.0	2.592872
3	2	85.2	19	1345.0	-	3.190494
4	2	95.1	15	1117.0	-	5.252431
5	3	96.6	8	1309.0	1415.0	6.138057
6	1	94.3	5	-	-	7.878914
7	1	85.3	17	-	-	9.214327
8	3	86.3	13	1053.0	1914.0	9.523227
9	2	70.2	17	1623.0	-	11.383920

Table 30 - Long Sequence Waveform Trial#16 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	75.3	6	1576.0	1822.0	0.367225
2	1	68.5	9	-	-	1.492842
3	3	95.0	5	1807.0	1072.0	1.918140
4	2	52.4	11	1553.0	-	2.940071
5	2	55.7	11	1878.0	-	3.644135
6	2	74.4	14	1562.0	-	4.909464
7	2	56.5	14	1980.0	-	5.264330
8	3	66.3	17	1460.0	1082.0	6.209719
9	3	75.0	6	1162.0	1208.0	7.115318
10	3	97.7	6	1604.0	1245.0	7.986891
11	1	62.6	14	-	-	8.844994
12	2	61.5	14	1976.0	-	10.025461
13	2	72.4	16	1746.0	-	10.309295
14	3	59.6	17	1558.0	1630.0	11.711253

Table 31 - Long Sequence Waveform Trial#17 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	93.8	16	1156.0	-	0.553347
2	3	67.5	11	1820.0	1538.0	1.729742
3	3	56.4	10	1305.0	1469.0	3.203925
4	3	57.4	6	1823.0	1735.0	4.519605
5	1	97.1	19	-	-	5.389051
6	2	59.1	19	1964.0	-	6.699154
7	2	93.9	14	1928.0	-	7.597640
8	1	96.1	9	-	-	8.609869
9	2	98.0	7	1847.0	-	10.376839
10	1	86.5	16	-	-	11.322420

Table 32 - Long Sequence Waveform Trial#18 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	63.7	11	1790.0	-	0.186690
2	2	77.2	7	1084.0	-	1.118314
3	1	66.6	13	-	-	1.716201
4	3	92.3	10	1349.0	1491.0	2.307570
5	1	65.6	17	-	-	3.474606
6	2	66.0	8	1316.0	-	4.072347
7	1	55.0	14	-	-	4.656676
8	1	87.5	11	-	-	5.669312
9	2	67.2	12	1357.0	-	6.134649
10	2	76.8	9	1908.0	-	7.398226
11	2	66.2	9	1107.0	-	7.512266
12	3	90.1	6	1581.0	1060.0	8.818198
13	2	64.4	13	1818.0	-	9.226243
14	2	64.8	13	1621.0	-	10.437616
15	2	84.2	6	1809.0	-	11.045520
16	2	60.8	9	1619.0	-	11.732964

Table 33 - Long Sequence Waveform Trial#19 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	69.6	12	1755.0	-	0.778050
2	2	66.8	11	1494.0	-	1.613830
3	3	60.4	8	1113.0	1413.0	2.631792
4	3	69.9	19	1120.0	1723.0	3.448836
5	3	66.0	7	1343.0	1130.0	4.802966
6	2	74.4	19	1334.0	-	5.996971
7	2	72.7	14	1610.0	-	6.853903
8	3	59.4	15	1273.0	1109.0	7.881332
9	1	94.1	7	-	-	8.186872
10	1	95.6	8	-	-	9.911562
11	2	89.4	17	1189.0	-	10.165216
12	2	78.6	20	1658.0	-	11.081077

Table 34 - Long Sequence Waveform Trial#20 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	86.5	9	1515.0	-	0.094321
2	3	54.3	5	1022.0	1008.0	1.476149
3	2	97.2	9	1069.0	-	1.817927
4	3	70.7	10	1969.0	1439.0	2.436900
5	2	80.9	10	1654.0	-	3.607353
6	2	88.7	6	1670.0	-	4.292704
7	3	54.0	14	1420.0	1987.0	5.537345
8	3	70.6	18	1204.0	1521.0	5.614892
9	2	98.1	9	1728.0	-	6.662048
10	2	58.5	14	1447.0	-	7.608956
11	2	77.8	6	1388.0	-	8.785576
12	2	53.6	11	1448.0	-	9.139484
13	2	50.4	16	1963.0	-	10.243124
14	2	68.6	12	1264.0	-	10.581492
15	1	76.7	10	-	-	11.693416

Table 35 - Long Sequence Waveform Trial#21 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	53.9	18	-	-	0.146378
2	2	84.7	10	1218.0	-	1.634951
3	1	62.1	17	-	-	2.430980
4	2	70.9	19	1432.0	-	2.771965
5	2	54.1	6	1698.0	-	3.519977
6	3	73.9	16	1557.0	1811.0	4.866476
7	3	65.1	8	1907.0	1698.0	5.207256
8	3	60.7	10	1756.0	1146.0	6.572904
9	2	79.0	14	1036.0	-	7.507860
10	1	84.8	18	-	-	8.292597
11	3	88.8	18	1118.0	1505.0	8.634532
12	3	50.9	13	1696.0	1464.0	9.823800
13	2	59.2	16	1595.0	-	10.723787
14	3	70.0	11	1804.0	1619.0	11.185334

Table 36 - Long Sequence Waveform Trial#22 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	73.8	11	1247.0	1775.0	0.369893
2	1	70.0	11	-	-	2.344360
3	2	79.4	9	1186.0	-	3.196913
4	2	88.0	13	1197.0	-	4.295596
5	2	98.4	19	1537.0	-	5.986995
6	2	84.1	12	1997.0	-	6.733343
7	2	72.5	15	1337.0	-	7.299083
8	2	83.0	17	1443.0	-	8.632044
9	3	70.5	15	1696.0	1447.0	9.843997
10	3	59.6	12	1638.0	1390.0	10.975286

Table 37 - Long Sequence Waveform Trial#23 (Detected) Control Unit - old FW 20MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	59.5	18	-	-	0.109203
2	2	85.5	18	1613.0	-	1.154004
3	2	92.5	11	1479.0	-	1.677458
4	2	57.5	10	1755.0	-	3.027637
5	1	59.0	12	-	-	3.217387
6	3	72.4	19	1809.0	1904.0	4.540067
7	2	66.6	11	1483.0	-	5.561201
8	1	53.2	12	-	-	6.246999
9	2	77.4	15	1439.0	-	6.509162
10	3	83.5	17	1560.0	1199.0	7.581113
11	1	50.4	19	-	-	8.238876
12	3	78.2	14	1689.0	1239.0	9.196379
13	3	89.6	8	1097.0	1757.0	10.239007
14	3	81.5	13	1306.0	1087.0	10.722372
15	2	93.2	19	1103.0	-	11.335046

Table 38 - Long Sequence Waveform Trial#24 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	57.8	7	1520.0	-	0.571153
2	2	80.2	13	1440.0	-	1.096060
3	1	85.6	17	-	-	1.981341
4	2	50.2	7	1186.0	-	2.391214
5	2	91.7	19	1097.0	-	2.682579
6	1	54.5	11	-	-	3.857436
7	1	72.5	18	-	-	4.452679
8	2	70.3	18	1887.0	-	4.680017
9	1	79.5	12	-	-	5.992205
10	1	58.5	18	-	-	6.560052
11	1	99.1	16	-	-	6.851493
12	1	58.9	17	-	-	7.428721
13	2	74.7	6	1149.0	-	8.365737
14	2	52.7	8	1224.0	-	8.987437
15	1	97.2	15	-	-	9.706810
16	1	64.3	12	-	-	10.333824
17	1	65.5	9	-	-	11.070369
18	2	90.3	9	1799.0	-	11.683412

Table 39 - Long Sequence Waveform Trial#25 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	58.7	19	1391.0	-	0.328464
2	2	90.0	7	1318.0	-	1.617136
3	2	91.4	7	1374.0	-	2.281491
4	3	98.2	14	1378.0	1653.0	2.737706
5	3	65.6	15	1916.0	1611.0	3.514617
6	1	79.1	19	-	-	5.132834
7	2	98.7	12	1176.0	-	5.143475
8	1	64.0	19	-	-	6.503146
9	1	71.0	9	-	-	7.676085
10	2	94.0	20	1011.0	-	7.795605
11	3	68.8	17	1733.0	1484.0	8.955613
12	1	86.1	19	-	-	9.745404
13	2	74.0	18	1267.0	-	10.917764
14	3	67.2	7	1447.0	1854.0	11.672259

Table 40 - Long Sequence Waveform Trial#26 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	78.2	15	1348.0	1318.0	0.350754
2	1	58.6	7	-	-	0.696676
3	2	91.8	18	1062.0	-	1.637957
4	2	94.8	14	1992.0	-	2.251978
5	3	93.0	10	1223.0	1960.0	2.989806
6	2	86.0	8	1348.0	-	3.645782
7	2	67.9	8	1674.0	-	4.351791
8	1	55.9	15	-	-	4.990812
9	2	67.2	14	1882.0	-	5.366255
10	3	89.3	17	1570.0	1764.0	6.199158
11	3	89.4	8	1816.0	1426.0	6.446767
12	2	97.3	6	1312.0	-	7.386481
13	3	79.6	8	1776.0	1714.0	7.869750
14	3	73.8	11	1986.0	1592.0	8.249725
15	2	94.6	8	1660.0	-	8.899723
16	2	87.6	11	1442.0	-	9.993568
17	1	79.0	8	-	-	10.409408
18	3	91.5	16	1957.0	1910.0	11.081288
19	1	67.1	18	-	-	11.966999

Table 41 - Long Sequence Waveform Trial#27 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	72.3	18	-	-	0.070928
2	3	85.3	11	1954.0	1904.0	1.696437
3	1	78.2	15	-	-	2.427108
4	3	96.4	8	1182.0	1049.0	3.565936
5	1	68.3	13	-	-	4.031644
6	3	55.9	16	1904.0	1895.0	4.988100
7	2	59.6	7	1187.0	-	5.894143
8	2	99.2	20	1682.0	-	7.134312
9	2	73.8	15	1948.0	-	8.284017
10	2	97.0	20	1166.0	-	8.859522
11	1	95.7	17	-	-	9.836515
12	1	82.7	16	-	-	10.715366
13	1	77.7	5	-	-	11.971924

Table 42 - Long Sequence Waveform Trial#28 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	54.5	11	1605.0	1698.0	0.144722
2	3	94.2	15	1999.0	1725.0	0.845278
3	3	65.3	5	1702.0	1057.0	1.443769
4	2	76.2	18	1730.0	-	2.276912
5	3	57.5	8	1480.0	1573.0	3.102510
6	2	52.9	10	1949.0	-	3.477650
7	3	70.5	9	1131.0	1672.0	3.920962
8	2	77.2	17	1506.0	-	4.606148
9	2	99.6	15	1471.0	-	5.380960
10	2	94.8	15	1200.0	-	6.277675
11	2	96.8	7	1406.0	-	6.929473
12	1	89.8	6	-	-	7.129941
13	1	50.8	6	-	-	7.908073
14	2	85.1	8	1772.0	-	8.489645
15	2	62.7	17	1178.0	-	8.942070
16	1	50.4	16	-	-	9.934301
17	3	58.3	18	1282.0	1990.0	10.658991
18	1	69.4	12	-	-	10.928508
19	1	85.6	14	-	-	11.395575

Table 43 - Long Sequence Waveform Trial#29 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	99.8	6	-	-	0.211338
2	2	58.7	18	1144.0	-	0.883097
3	3	66.2	12	1407.0	1384.0	1.525328
4	2	61.7	11	1971.0	-	2.401306
5	2	97.2	13	1102.0	-	3.125857
6	2	51.4	13	1263.0	-	3.226777
7	2	61.2	17	1082.0	-	4.268079
8	1	66.2	17	-	-	4.831212
9	3	65.6	15	1652.0	1367.0	5.244844
10	2	53.0	17	1270.0	-	6.292686
11	3	99.3	14	1143.0	1029.0	6.763834
12	1	91.8	8	-	-	7.114986
13	1	90.9	11	-	-	8.066290
14	3	82.3	10	1241.0	1915.0	8.764371
15	1	75.6	14	-	-	9.029793
16	1	50.5	9	-	-	10.067068
17	3	58.2	15	1841.0	1474.0	10.154489
18	1	73.7	14	-	-	11.362322
19	1	92.9	10	-	-	11.472987

Table 44 - Long Sequence Waveform Trial#30 (Detected) Control Unit - old FW 20MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	66.9	11	1976.0	1507.0	0.415304
2	2	54.0	14	1763.0	-	0.966776
3	2	67.0	17	1331.0	-	1.817536
4	1	85.9	8	-	-	2.416257
5	3	66.6	15	1631.0	1083.0	3.640160
6	2	85.5	17	1948.0	-	4.259241
7	1	60.1	7	-	-	4.866671
8	3	99.7	6	1069.0	1729.0	6.334267
9	2	82.8	9	1669.0	-	6.709528
10	1	59.4	16	-	-	7.226054
11	3	90.4	14	1700.0	1415.0	8.770267
12	2	89.7	18	1480.0	-	9.319438
13	3	54.7	14	1305.0	1596.0	9.725403
14	2	52.7	9	1271.0	-	10.713375
15	2	96.4	15	1033.0	-	11.734520

Table 45 - Summary of All Results Control Unit old FW 40MHz				
Waveform Name	Pd (%)	Pd Required (%)	Number of Trials	Status
FCC Short Pulse Radar (Type 1)	100.0 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 2)	100.0 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 3)	93.3 %	60.0 %	30	PASSED
FCC Short Pulse Radar (Type 4)	100.0 %	60.0 %	30	PASSED
Aggregate of above results	98.3 %	80.0 %	120	PASSED
FCC frequency hopping radar (Type 6)	100.0 %	70.0 %	41	PASSED
Long Sequence	100.0 %	80.0 %	30	PASSED

Table 46 - FCC Short Pulse Radar (Type 1) Results Control Unit old FW 40MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	18	1.0	1428.0	Yes	5505.0MHz, -64.0dBm	Single burst
2	18	1.0	1428.0	Yes	5500.0MHz, -64.0dBm	Single burst
3	18	1.0	1428.0	Yes	5495.0MHz, -64.0dBm	Single burst
4	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
5	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
6	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
7	18	1.0	1428.0	Yes	5510.0MHz, -64.0dBm	Single burst
8	18	1.0	1428.0	Yes	5505.0MHz, -64.0dBm	Single burst
9	18	1.0	1428.0	Yes	5500.0MHz, -64.0dBm	Single burst
10	18	1.0	1428.0	Yes	5495.0MHz, -64.0dBm	Single burst
11	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
12	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
13	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
14	18	1.0	1428.0	Yes	5510.0MHz, -64.0dBm	Single burst
15	18	1.0	1428.0	Yes	5505.0MHz, -64.0dBm	Single burst
16	18	1.0	1428.0	Yes	5500.0MHz, -64.0dBm	Single burst
17	18	1.0	1428.0	Yes	5495.0MHz, -64.0dBm	Single burst
18	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
19	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
20	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
21	18	1.0	1428.0	Yes	5510.0MHz, -64.0dBm	Single burst
22	18	1.0	1428.0	Yes	5505.0MHz, -64.0dBm	Single burst
23	18	1.0	1428.0	Yes	5500.0MHz, -64.0dBm	Single burst
24	18	1.0	1428.0	Yes	5495.0MHz, -64.0dBm	Single burst
25	18	1.0	1428.0	Yes	5525.0MHz, -64.0dBm	Single burst
26	18	1.0	1428.0	Yes	5520.0MHz, -64.0dBm	Single burst
27	18	1.0	1428.0	Yes	5515.0MHz, -64.0dBm	Single burst
28	18	1.0	1428.0	Yes	5510.0MHz, -64.0dBm	Single burst
29	18	1.0	1428.0	Yes	5505.0MHz, -64.0dBm	Single burst
30	18	1.0	1428.0	Yes	5500.0MHz, -64.0dBm	Single burst

Table 47 - FCC Short Pulse Radar (Type 2) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	26	4.9	206.0	Yes	5510.0MHz, -64.0dBm	Single burst
2	24	3.1	228.0	Yes	5505.0MHz, -64.0dBm	Single burst
3	29	4.2	157.0	Yes	5500.0MHz, -64.0dBm	Single burst
4	25	4.8	194.0	Yes	5495.0MHz, -64.0dBm	Single burst
5	25	1.5	204.0	Yes	5525.0MHz, -64.0dBm	Single burst
6	25	3.4	200.0	Yes	5520.0MHz, -64.0dBm	Single burst
7	24	2.2	152.0	Yes	5515.0MHz, -64.0dBm	Single burst
8	29	4.8	174.0	Yes	5510.0MHz, -64.0dBm	Single burst
9	24	3.5	186.0	Yes	5505.0MHz, -64.0dBm	Single burst
10	25	4.5	183.0	Yes	5500.0MHz, -64.0dBm	Single burst
11	23	1.9	184.0	Yes	5495.0MHz, -64.0dBm	Single burst
12	26	2.6	174.0	Yes	5525.0MHz, -64.0dBm	Single burst
13	25	1.7	194.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	27	3.3	223.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	28	3.8	189.0	Yes	5510.0MHz, -64.0dBm	Single burst
16	26	1.8	213.0	Yes	5505.0MHz, -64.0dBm	Single burst
17	26	3.4	176.0	Yes	5500.0MHz, -64.0dBm	Single burst
18	24	2.2	200.0	Yes	5495.0MHz, -64.0dBm	Single burst
19	29	4.2	179.0	Yes	5525.0MHz, -64.0dBm	Single burst
20	27	2.7	200.0	Yes	5520.0MHz, -64.0dBm	Single burst
21	24	1.5	195.0	Yes	5515.0MHz, -64.0dBm	Single burst
22	28	2.5	209.0	Yes	5510.0MHz, -64.0dBm	Single burst
23	28	4.4	220.0	Yes	5505.0MHz, -64.0dBm	Single burst
24	25	2.0	206.0	Yes	5500.0MHz, -64.0dBm	Single burst
25	23	2.6	212.0	Yes	5495.0MHz, -64.0dBm	Single burst
26	23	4.5	156.0	Yes	5525.0MHz, -64.0dBm	Single burst
27	23	2.4	183.0	Yes	5520.0MHz, -64.0dBm	Single burst
28	25	2.2	201.0	Yes	5515.0MHz, -64.0dBm	Single burst
29	27	4.2	182.0	Yes	5510.0MHz, -64.0dBm	Single burst
30	26	2.4	172.0	Yes	5505.0MHz, -64.0dBm	Single burst

Table 48 - FCC Short Pulse Radar (Type 3) Results Control Unit old FW 40MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	18	9.5	294.0	Yes	5510.0MHz, -64.0dBm	Single burst
2	17	8.2	281.0	Yes	5505.0MHz, -64.0dBm	Single burst
3	16	8.1	342.0	Yes	5500.0MHz, -64.0dBm	Single burst
4	17	6.6	396.0	Yes	5495.0MHz, -64.0dBm	Single burst
5	16	9.3	452.0	Yes	5525.0MHz, -64.0dBm	Single burst
6	16	6.8	312.0	Yes	5520.0MHz, -64.0dBm	Single burst
7	18	9.8	391.0	Yes	5515.0MHz, -64.0dBm	Single burst
8	17	7.1	421.0	Yes	5510.0MHz, -64.0dBm	Single burst
9	17	9.7	271.0	Yes	5505.0MHz, -64.0dBm	Single burst
10	17	6.5	423.0	Yes	5500.0MHz, -64.0dBm	Single burst
11	16	9.6	361.0	No	5495.0MHz, -64.0dBm	Single burst
12	16	7.3	499.0	No	5525.0MHz, -64.0dBm	Single burst
13	17	8.3	416.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	17	6.5	226.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	18	7.3	474.0	Yes	5510.0MHz, -64.0dBm	Single burst
16	17	6.1	278.0	Yes	5505.0MHz, -64.0dBm	Single burst
17	17	9.3	441.0	Yes	5500.0MHz, -64.0dBm	Single burst
18	16	7.3	321.0	Yes	5495.0MHz, -64.0dBm	Single burst
19	16	9.5	384.0	Yes	5525.0MHz, -64.0dBm	Single burst
20	16	8.1	368.0	Yes	5520.0MHz, -64.0dBm	Single burst
21	17	7.8	364.0	Yes	5515.0MHz, -64.0dBm	Single burst
22	17	6.2	270.0	Yes	5510.0MHz, -64.0dBm	Single burst
23	18	7.0	451.0	Yes	5505.0MHz, -64.0dBm	Single burst
24	17	8.6	423.0	Yes	5500.0MHz, -64.0dBm	Single burst
25	17	6.4	327.0	Yes	5495.0MHz, -64.0dBm	Single burst
26	16	6.1	419.0	Yes	5525.0MHz, -64.0dBm	Single burst
27	18	6.6	390.0	Yes	5520.0MHz, -64.0dBm	Single burst
28	17	7.6	331.0	Yes	5515.0MHz, -64.0dBm	Single burst
29	17	9.2	220.0	Yes	5510.0MHz, -64.0dBm	Single burst
30	17	8.8	260.0	Yes	5505.0MHz, -64.0dBm	Single burst

Table 49 - FCC Short Pulse Radar (Type 4) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	12	11.0	386.0	Yes	5510.0MHz, -64.0dBm	Single burst
2	15	19.4	323.0	Yes	5505.0MHz, -64.0dBm	Single burst
3	15	17.0	483.0	Yes	5500.0MHz, -64.0dBm	Single burst
4	14	14.5	218.0	Yes	5495.0MHz, -64.0dBm	Single burst
5	13	14.6	224.0	Yes	5525.0MHz, -64.0dBm	Single burst
6	12	11.3	462.0	Yes	5520.0MHz, -64.0dBm	Single burst
7	13	13.5	321.0	Yes	5515.0MHz, -64.0dBm	Single burst
8	14	16.6	259.0	Yes	5510.0MHz, -64.0dBm	Single burst
9	15	18.8	440.0	Yes	5505.0MHz, -64.0dBm	Single burst
10	14	17.6	383.0	Yes	5500.0MHz, -64.0dBm	Single burst
11	13	18.2	461.0	Yes	5495.0MHz, -64.0dBm	Single burst
12	15	14.8	370.0	Yes	5525.0MHz, -64.0dBm	Single burst
13	15	11.2	243.0	Yes	5520.0MHz, -64.0dBm	Single burst
14	12	19.1	493.0	Yes	5515.0MHz, -64.0dBm	Single burst
15	15	19.5	314.0	Yes	5510.0MHz, -64.0dBm	Single burst
16	14	13.8	294.0	Yes	5505.0MHz, -64.0dBm	Single burst
17	14	19.4	227.0	Yes	5500.0MHz, -64.0dBm	Single burst
18	16	17.7	257.0	Yes	5495.0MHz, -64.0dBm	Single burst
19	13	16.7	493.0	Yes	5525.0MHz, -64.0dBm	Single burst
20	16	13.7	249.0	Yes	5520.0MHz, -64.0dBm	Single burst
21	15	18.8	270.0	Yes	5515.0MHz, -64.0dBm	Single burst
22	15	17.1	204.0	Yes	5510.0MHz, -64.0dBm	Single burst
23	14	19.8	301.0	Yes	5505.0MHz, -64.0dBm	Single burst
24	14	16.1	299.0	Yes	5500.0MHz, -64.0dBm	Single burst
25	13	17.8	477.0	Yes	5495.0MHz, -64.0dBm	Single burst
26	15	19.6	468.0	Yes	5525.0MHz, -64.0dBm	Single burst
27	13	12.9	259.0	Yes	5520.0MHz, -64.0dBm	Single burst
28	13	12.3	486.0	Yes	5515.0MHz, -64.0dBm	Single burst
29	13	12.5	428.0	Yes	5510.0MHz, -64.0dBm	Single burst
30	13	16.7	365.0	Yes	5505.0MHz, -64.0dBm	Single burst

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	9	1.0	333.0	Yes	5529.0MHz, -64.0dBm	Hop sequence: 5497, 5502, 5692, 5441, 5323, 5301, 5348, 5413, 5688, 5351, 5271, 5539, 5403, 5315, 5511, 5593, 5669, 5546, 5310, 5656, 5599, 5368, 5507, 5646, 5575, 5597, 5260, 5326, 5334, 5540, 5264, 5569, 5473, 5691, 5677, 5424, 5680, 5393, 5714, 5518, 5704, 5328, 5376, 5460, 5682, 5725, 5686, 5679, 5709, 5683, 5421, 5282, 5270, 5582, 5333, 5611, 5320, 5644, 5367, 5509, 5549, 5583, 5645, 5512, 5345, 5395, 5294, 5648, 5571, 5698, 5529, 5466, 5557, 5522, 5568, 5579, 5342, 5632, 5685, 5397, 5303, 5454, 5338, 5406, 5469, 5255, 5350, 5324, 5476, 5311, 5717, 5257, 5293, 5633, 5300, 5459, 5695, 5520, 5275, 5411 (10 hits)
2	9	1.0	333.0	Yes	5530.0MHz, -64.0dBm	Hop sequence: 5264, 5592, 5372, 5310, 5669, 5484, 5615, 5412, 5422, 5270, 5425, 5626, 5417, 5294, 5443, 5364, 5621, 5501, 5438, 5287, 5356, 5642, 5612, 5465, 5349, 5658, 5624, 5471, 5468, 5519, 5491, 5525, 5381, 5725, 5523, 5709, 5640, 5283, 5591, 5407, 5664, 5696, 5603, 5330, 5666, 5538, 5318, 5531, 5555, 5710, 5472, 5257, 5509, 5721, 5660, 5616, 5622, 5548, 5644, 5581, 5673, 5554, 5636, 5544, 5444, 5437, 5606, 5700, 5396, 5589, 5676, 5575, 5661, 5392, 5529, 5540, 5573, 5684, 5446, 5541, 5348, 5252, 5551, 5379, 5511, 5629, 5724, 5293, 5619, 5265, 5267, 5398, 5488, 5547, 5301, 5675, 5388, 5662, 5418, 5648 (8 hits)
3	9	1.0	333.0	Yes	5490.0MHz, -64.0dBm	Hop sequence: 5301, 5348, 5535, 5690, 5407, 5557, 5266, 5422, 5497, 5279, 5569, 5297, 5417, 5585, 5448, 5384, 5562, 5334, 5304, 5252, 5452, 5474, 5365, 5413, 5640, 5505, 5532, 5319, 5272, 5697, 5493, 5396, 5262, 5312, 5411, 5369, 5576, 5404, 5263, 5514, 5255, 5491, 5318, 5329, 5566, 5361, 5391, 5269, 5462, 5682, 5280, 5482, 5593, 5457, 5538, 5597, 5441, 5366, 5305, 5558, 5565, 5677, 5529, 5399, 5261, 5509, 5478, 5605, 5526, 5346, 5414, 5528, 5561, 5609, 5536, 5636, 5540, 5662, 5617, 5451, 5375, 5282, 5347, 5494, 5631, 5419, 5423, 5402, 5650, 5724, 5250, 5267, 5376, 5614, 5295, 5628, 5629, 5669, 5374, 5511 (11 hits)
4	9	1.0	333.0	Yes	5491.0MHz, -64.0dBm	Hop sequence: 5604, 5553, 5320, 5442, 5339, 5690, 5360, 5438, 5548, 5416, 5506, 5591, 5378, 5333, 5329, 5375, 5322, 5274, 5468, 5563, 5265, 5644, 5264, 5341, 5306, 5547, 5684, 5629, 5303, 5497, 5469, 5363, 5355, 5501, 5546, 5307, 5509, 5440, 5429, 5525, 5697, 5388, 5610, 5377, 5478, 5420, 5601, 5582, 5453, 5357, 5458, 5606, 5704, 5431, 5471, 5675, 5455, 5340, 5667, 5404, 5434, 5351, 5451, 5725, 5720, 5296, 5430, 5669, 5462, 5409, 5327, 5698, 5446, 5316, 5256, 5533, 5530, 5603, 5313, 5337, 5460, 5500, 5593, 5494, 5383, 5575, 5524, 5607, 5609, 5472, 5681, 5273, 5564, 5596, 5589, 5612, 5482, 5402, 5324, 5305 (9 hits)
5	9	1.0	333.0	Yes	5492.0MHz, -64.0dBm	Hop sequence: 5696, 5489, 5518, 5575, 5604, 5447, 5680, 5655, 5434, 5528, 5275, 5700, 5475, 5461, 5284, 5591, 5592, 5593, 5621, 5387, 5533, 5497, 5644, 5470, 5658, 5453, 5303, 5707, 5610, 5706, 5325, 5251, 5686, 5555, 5649, 5279, 5718, 5508, 5282, 5354, 5264, 5412, 5410, 5389, 5406, 5388, 5295, 5650, 5504, 5458, 5597, 5698, 5552, 5675, 5590, 5511, 5294, 5288, 5712, 5662, 5369, 5255, 5349, 5302, 5270, 5724, 5473, 5660, 5709, 5690, 5370, 5582, 5454, 5562, 5395, 5567, 5331, 5725, 5488, 5608, 5579, 5532, 5603, 5514, 5612, 5265, 5506, 5523, 5688, 5345, 5527, 5481, 5496, 5526, 5494, 5684, 5581, 5615, 5547, 5705 (13 hits)

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
6	9	1.0	333.0	Yes	5493.0MHz, -64.0dBm	Hop sequence: 5603, 5388, 5702, 5700, 5380, 5446, 5630, 5687, 5280, 5575, 5270, 5499, 5366, 5322, 5641, 5273, 5674, 5429, 5610, 5488, 5541, 5486, 5359, 5377, 5369, 5475, 5601, 5524, 5474, 5326, 5506, 5477, 5379, 5271, 5255, 5463, 5513, 5683, 5570, 5516, 5566, 5252, 5376, 5269, 5667, 5649, 5321, 5668, 5482, 5708, 5415, 5709, 5312, 5632, 5658, 5466, 5345, 5384, 5279, 5331, 5400, 5676, 5635, 5459, 5469, 5378, 5276, 5662, 5684, 5325, 5399, 5450, 5382, 5714, 5502, 5392, 5706, 5297, 5721, 5561, 5374, 5555, 5320, 5343, 5577, 5396, 5461, 5711, 5485, 5578, 5520, 5267, 5719, 5661, 5678, 5503, 5295, 5462, 5408, 5441 (8 hits)
7	9	1.0	333.0	Yes	5494.0MHz, -64.0dBm	Hop sequence: 5582, 5351, 5363, 5543, 5376, 5584, 5521, 5579, 5317, 5466, 5707, 5420, 5594, 5320, 5292, 5517, 5537, 5586, 5671, 5430, 5475, 5433, 5449, 5607, 5300, 5666, 5641, 5266, 5287, 5502, 5664, 5390, 5444, 5455, 5561, 5395, 5600, 5635, 5254, 5282, 5532, 5424, 5414, 5441, 5322, 5616, 5289, 5684, 5312, 5601, 5514, 5685, 5326, 5262, 5250, 5284, 5546, 5700, 5576, 5404, 5506, 5545, 5557, 5650, 5480, 5417, 5637, 5709, 5614, 5611, 5541, 5591, 5622, 5261, 5662, 5347, 5410, 5528, 5656, 5427, 5516, 5598, 5484, 5510, 5267, 5448, 5603, 5697, 5657, 5675, 5298, 5278, 5399, 5381, 5327, 5699, 5488, 5559, 5725, 5503 (9 hits)
8	9	1.0	333.0	Yes	5495.0MHz, -64.0dBm	Hop sequence: 5400, 5253, 5517, 5485, 5634, 5309, 5449, 5271, 5456, 5707, 5441, 5670, 5542, 5710, 5458, 5387, 5333, 5689, 5453, 5523, 5599, 5532, 5683, 5554, 5659, 5275, 5567, 5443, 5408, 5582, 5494, 5713, 5317, 5677, 5533, 5442, 5438, 5372, 5597, 5630, 5328, 5520, 5685, 5676, 5719, 5668, 5606, 5277, 5588, 5631, 5329, 5511, 5537, 5571, 5699, 5263, 5616, 5489, 5472, 5282, 5706, 5589, 5414, 5373, 5712, 5335, 5358, 5280, 5561, 5254, 5507, 5355, 5592, 5407, 5370, 5436, 5324, 5334, 5311, 5341, 5627, 5353, 5526, 5439, 5640, 5516, 5331, 5283, 5398, 5540, 5660, 5581, 5405, 5376, 5576, 5325, 5632, 5648, 5614, 5269 (8 hits)
9	9	1.0	333.0	Yes	5496.0MHz, -64.0dBm	Hop sequence: 5574, 5273, 5326, 5298, 5561, 5467, 5493, 5592, 5626, 5480, 5580, 5481, 5266, 5341, 5603, 5668, 5380, 5544, 5297, 5655, 5303, 5547, 5369, 5504, 5414, 5687, 5427, 5575, 5565, 5503, 5403, 5314, 5311, 5577, 5557, 5264, 5585, 5724, 5497, 5649, 5583, 5354, 5598, 5684, 5387, 5506, 5546, 5533, 5275, 5712, 5589, 5452, 5327, 5410, 5356, 5482, 5612, 5285, 5613, 5364, 5431, 5371, 5519, 5563, 5500, 5460, 5713, 5436, 5652, 5350, 5286, 5450, 5349, 5507, 5461, 5475, 5440, 5305, 5595, 5424, 5408, 5660, 5658, 5406, 5551, 5255, 5469, 5299, 5677, 5457, 5329, 5438, 5446, 5605, 5690, 5691, 5596, 5456, 5569, 5458 (8 hits) (08/05/2014 01:32:49 PM)
10	9	1.0	333.0	Yes	5497.0MHz, -64.0dBm	Hop sequence: 5681, 5405, 5690, 5311, 5463, 5500, 5413, 5373, 5397, 5341, 5467, 5615, 5608, 5505, 5721, 5531, 5336, 5707, 5696, 5519, 5354, 5303, 5546, 5666, 5717, 5522, 5296, 5668, 5628, 5590, 5579, 5533, 5532, 5268, 5345, 5379, 5672, 5333, 5571, 5622, 5564, 5724, 5503, 5504, 5510, 5609, 5547, 5703, 5412, 5447, 5398, 5445, 5544, 5671, 5403, 5475, 5512, 5346, 5670, 5464, 5442, 5582, 5453, 5715, 5277, 5548, 5434, 5585, 5472, 5416, 5251, 5459, 5401, 5678, 5356, 5685, 5680, 5657, 5455, 5421, 5566, 5390, 5702, 5718, 5363, 5621, 5480, 5256, 5602, 5552, 5338, 5391, 5419, 5661, 5376, 5669, 5330, 5630, 5478, 5322 (8 hits)
11	9	1.0	333.0	Yes	5498.0MHz,	Hop sequence: 5685, 5309, 5654, 5328, 5503,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
					-64.0dBm	5312, 5287, 5578, 5608, 5602, 5305, 5552, 5389, 5665, 5682, 5298, 5609, 5710, 5509, 5701, 5336, 5553, 5259, 5420, 5369, 5560, 5501, 5401, 5583, 5551, 5531, 5486, 5677, 5272, 5339, 5358, 5402, 5338, 5382, 5406, 5617, 5667, 5723, 5622, 5481, 5398, 5277, 5352, 5404, 5483, 5464, 5611, 5567, 5361, 5271, 5526, 5427, 5633, 5410, 5423, 5354, 5285, 5385, 5562, 5471, 5589, 5555, 5373, 5687, 5267, 5254, 5362, 5446, 5443, 5296, 5438, 5511, 5341, 5711, 5566, 5517, 5579, 5380, 5502, 5417, 5581, 5289, 5377, 5263, 5708, 5694, 5450, 5363, 5624, 5604, 5640, 5316, 5448, 5445, 5621 (7 hits) (08/05/2014 01:33:12 PM)
12	9	1.0	333.0	Yes	5499.0MHz, -64.0dBm	Hop sequence: 5392, 5582, 5496, 5417, 5599, 5450, 5259, 5416, 5364, 5633, 5269, 5700, 5271, 5348, 5506, 5252, 5317, 5280, 5650, 5466, 5380, 5516, 5691, 5383, 5518, 5437, 5311, 5715, 5674, 5347, 5618, 5600, 5480, 5720, 5363, 5566, 5254, 5454, 5643, 5636, 5477, 5547, 5510, 5649, 5330, 5486, 5567, 5289, 5475, 5472, 5724, 5695, 5260, 5583, 5624, 5585, 5423, 5670, 5463, 5690, 5412, 5468, 5342, 5402, 5684, 5287, 5576, 5589, 5478, 5571, 5388, 5275, 5551, 5608, 5498, 5319, 5394, 5346, 5648, 5703, 5667, 5545, 5298, 5577, 5725, 5689, 5641, 5304, 5654, 5263, 5334, 5459, 5362, 5316, 5284, 5668, 5326, 5426, 5502, 5308 (7 hits)
13	9	1.0	333.0	Yes	5500.0MHz, -64.0dBm	Hop sequence: 5289, 5412, 5253, 5563, 5505, 5616, 5307, 5452, 5467, 5648, 5498, 5355, 5497, 5365, 5321, 5323, 5409, 5396, 5429, 5324, 5487, 5310, 5372, 5566, 5666, 5271, 5301, 5591, 5725, 5540, 5696, 5723, 5422, 5617, 5333, 5329, 5524, 5590, 5624, 5317, 5714, 5713, 5595, 5724, 5700, 5572, 5376, 5626, 5277, 5501, 5564, 5292, 5431, 5499, 5541, 5698, 5308, 5441, 5482, 5629, 5480, 5573, 5641, 5401, 5551, 5257, 5278, 5670, 5447, 5258, 5585, 5539, 5491, 5535, 5360, 5565, 5513, 5554, 5373, 5448, 5652, 5477, 5708, 5676, 5571, 5423, 5267, 5597, 5675, 5312, 5722, 5685, 5642, 5300, 5455, 5350, 5528, 5362, 5610, 5575 (9 hits)
14	9	1.0	333.0	Yes	5501.0MHz, -64.0dBm	Hop sequence: 5328, 5704, 5497, 5511, 5451, 5344, 5383, 5576, 5691, 5253, 5375, 5565, 5654, 5254, 5557, 5354, 5394, 5508, 5483, 5296, 5708, 5490, 5442, 5397, 5358, 5364, 5286, 5283, 5268, 5525, 5269, 5377, 5595, 5469, 5678, 5393, 5513, 5359, 5292, 5637, 5251, 5264, 5507, 5474, 5658, 5526, 5580, 5468, 5403, 5284, 5458, 5366, 5297, 5368, 5402, 5390, 5335, 5486, 5488, 5320, 5635, 5649, 5577, 5648, 5425, 5311, 5324, 5713, 5305, 5417, 5426, 5385, 5449, 5612, 5686, 5372, 5404, 5313, 5662, 5479, 5629, 5487, 5541, 5428, 5690, 5259, 5302, 5720, 5710, 5440, 5590, 5478, 5706, 5616, 5316, 5338, 5567, 5585, 5522, 5266 (9 hits)
15	9	1.0	333.0	Yes	5502.0MHz, -64.0dBm	Hop sequence: 5696, 5425, 5442, 5701, 5265, 5493, 5702, 5484, 5597, 5586, 5370, 5679, 5301, 5556, 5310, 5418, 5655, 5719, 5254, 5334, 5602, 5278, 5257, 5432, 5544, 5589, 5290, 5486, 5348, 5346, 5687, 5565, 5677, 5559, 5261, 5688, 5439, 5398, 5594, 5438, 5413, 5406, 5653, 5421, 5393, 5475, 5459, 5639, 5718, 5390, 5400, 5354, 5604, 5408, 5489, 5557, 5318, 5323, 5511, 5634, 5523, 5636, 5503, 5516, 5525, 5615, 5443, 5542, 5487, 5253, 5481, 5591, 5333, 5568, 5539, 5321, 5629, 5552, 5579, 5671, 5353, 5285, 5665, 5625, 5384, 5381, 5405, 5548, 5471, 5599, 5275, 5530, 5411, 5452, 5383, 5621, 5501, 5537, 5514, 5444 (9 hits)
16	9	1.0	333.0	Yes	5503.0MHz, -64.0dBm	Hop sequence: 5457, 5473, 5635, 5465, 5381, 5365, 5312, 5534, 5516, 5714, 5319, 5291, 5668,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5726, 5276, 5662, 5307, 5388, 5463, 5305, 5550, 5688, 5355, 5283, 5672, 5487, 5482, 5367, 5675, 5502, 5603, 5525, 5504, 5449, 5527, 5558, 5614, 5279, 5547, 5630, 5258, 5396, 5464, 5562, 5459, 5269, 5573, 5566, 5300, 5267, 5698, 5713, 5425, 5568, 5427, 5454, 5496, 5450, 5484, 5328, 5670, 5503, 5508, 5712, 5680, 5638, 5317, 5667, 5685, 5644, 5501, 5404, 5706, 5515, 5711, 5563, 5337, 5517, 5532, 5406, 5401, 5458, 5342, 5389, 5551, 5462, 5622, 5686, 5429, 5512, 5605, 5700, 5598, 5349, 5361, 5677, 5284, 5360, 5579, 5447 (12 hits)
17	9	1.0	333.0	Yes	5504.0MHz, -64.0dBm	Hop sequence: 5340, 5381, 5602, 5490, 5696, 5377, 5546, 5351, 5549, 5292, 5522, 5475, 5623, 5520, 5304, 5423, 5593, 5506, 5561, 5470, 5590, 5405, 5380, 5251, 5648, 5683, 5382, 5668, 5488, 5503, 5565, 5712, 5567, 5390, 5264, 5544, 5418, 5547, 5310, 5678, 5393, 5645, 5603, 5354, 5284, 5265, 5543, 5689, 5454, 5374, 5388, 5568, 5425, 5457, 5502, 5586, 5456, 5258, 5315, 5421, 5348, 5707, 5461, 5709, 5448, 5471, 5578, 5655, 5519, 5486, 5684, 5401, 5713, 5319, 5373, 5489, 5545, 5686, 5717, 5595, 5559, 5659, 5361, 5349, 5446, 5308, 5422, 5635, 5604, 5492, 5573, 5336, 5663, 5419, 5639, 5314, 5594, 5703, 5509, 5334 (9 hits)
18	9	1.0	333.0	Yes	5505.0MHz, -64.0dBm	Hop sequence: 5358, 5635, 5252, 5518, 5485, 5352, 5710, 5336, 5580, 5698, 5576, 5614, 5530, 5434, 5275, 5448, 5604, 5371, 5666, 5341, 5631, 5625, 5256, 5575, 5662, 5319, 5670, 5461, 5637, 5334, 5311, 5541, 5593, 5719, 5522, 5322, 5499, 5351, 5298, 5645, 5320, 5387, 5567, 5515, 5555, 5520, 5296, 5573, 5282, 5300, 5505, 5476, 5603, 5328, 5681, 5517, 5706, 5557, 5656, 5270, 5444, 5412, 5652, 5632, 5404, 5705, 5553, 5503, 5451, 5344, 5332, 5466, 5468, 5659, 5608, 5340, 5726, 5458, 5594, 5313, 5291, 5651, 5599, 5278, 5646, 5350, 5535, 5469, 5459, 5521, 5454, 5375, 5559, 5463, 5563, 5513, 5307, 5384, 5471, 5415 (11 hits) (08/05/2014 01:36:13 PM)
19	9	1.0	333.0	Yes	5506.0MHz, -64.0dBm	Hop sequence: 5265, 5589, 5473, 5357, 5290, 5677, 5335, 5406, 5680, 5392, 5305, 5646, 5624, 5273, 5691, 5294, 5495, 5483, 5319, 5590, 5698, 5393, 5583, 5317, 5526, 5687, 5518, 5668, 5579, 5334, 5428, 5694, 5448, 5302, 5369, 5329, 5619, 5670, 5536, 5563, 5507, 5351, 5395, 5449, 5285, 5557, 5675, 5288, 5361, 5488, 5550, 5551, 5368, 5490, 5385, 5356, 5419, 5524, 5638, 5667, 5431, 5685, 5315, 5587, 5278, 5314, 5322, 5379, 5665, 5640, 5475, 5466, 5450, 5427, 5454, 5658, 5251, 5657, 5426, 5347, 5705, 5291, 5548, 5570, 5400, 5365, 5566, 5336, 5472, 5632, 5299, 5567, 5631, 5301, 5461, 5682, 5607, 5430, 5501, 5531 (7 hits)
20	9	1.0	333.0	Yes	5507.0MHz, -64.0dBm	Hop sequence: 5383, 5584, 5537, 5396, 5630, 5662, 5475, 5535, 5298, 5487, 5629, 5539, 5471, 5673, 5682, 5698, 5579, 5644, 5516, 5365, 5446, 5520, 5675, 5334, 5308, 5702, 5392, 5723, 5276, 5337, 5332, 5330, 5261, 5394, 5301, 5640, 5632, 5333, 5468, 5285, 5399, 5648, 5485, 5722, 5578, 5647, 5614, 5462, 5256, 5461, 5265, 5304, 5328, 5410, 5634, 5432, 5284, 5309, 5422, 5426, 5672, 5628, 5503, 5352, 5500, 5572, 5335, 5581, 5307, 5726, 5280, 5681, 5678, 5390, 5549, 5646, 5643, 5384, 5318, 5663, 5455, 5519, 5624, 5546, 5321, 5570, 5348, 5583, 5650, 5712, 5554, 5389, 5355, 5622, 5699, 5601, 5490, 5715, 5425, 5658 (6 hits)
21	9	1.0	333.0	Yes	5508.0MHz, -64.0dBm	Hop sequence: 5687, 5540, 5376, 5325, 5268, 5587, 5411, 5589, 5706, 5275, 5662, 5528, 5718, 5422, 5261, 5577, 5658, 5705, 5459, 5427, 5530,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5388, 5447, 5590, 5547, 5670, 5677, 5274, 5580, 5322, 5583, 5404, 5497, 5454, 5270, 5593, 5679, 5324, 5342, 5557, 5576, 5464, 5615, 5676, 5623, 5715, 5426, 5472, 5484, 5516, 5346, 5417, 5405, 5264, 5561, 5550, 5423, 5645, 5389, 5712, 5605, 5507, 5599, 5480, 5572, 5296, 5694, 5402, 5468, 5495, 5498, 5513, 5312, 5473, 5514, 5693, 5607, 5609, 5594, 5571, 5254, 5492, 5558, 5302, 5466, 5578, 5494, 5251, 5524, 5499, 5506, 5256, 5657, 5552, 5357, 5387, 5431, 5535, 5442, 5433 (14 hits)
22	9	1.0	333.0	Yes	5509.0MHz, -64.0dBm	Hop sequence: 5584, 5337, 5415, 5699, 5473, 5685, 5268, 5639, 5553, 5516, 5451, 5380, 5434, 5696, 5347, 5640, 5652, 5525, 5726, 5667, 5335, 5498, 5669, 5432, 5718, 5441, 5399, 5327, 5394, 5290, 5392, 5308, 5505, 5354, 5269, 5613, 5602, 5386, 5650, 5355, 5573, 5631, 5306, 5654, 5333, 5406, 5326, 5476, 5512, 5592, 5414, 5397, 5704, 5295, 5502, 5530, 5583, 5442, 5387, 5301, 5596, 5367, 5286, 5283, 5567, 5556, 5492, 5490, 5383, 5716, 5302, 5315, 5481, 5294, 5267, 5586, 5629, 5546, 5689, 5540, 5618, 5400, 5470, 5307, 5422, 5263, 5338, 5374, 5571, 5404, 5589, 5459, 5670, 5585, 5683, 5444, 5340, 5515, 5284, 5519 (11 hits)
23	9	1.0	333.0	Yes	5510.0MHz, -64.0dBm	Hop sequence: 5298, 5436, 5564, 5455, 5654, 5384, 5427, 5265, 5699, 5555, 5549, 5281, 5306, 5412, 5420, 5403, 5290, 5572, 5429, 5705, 5344, 5617, 5550, 5526, 5392, 5378, 5484, 5373, 5337, 5631, 5397, 5394, 5568, 5513, 5477, 5540, 5261, 5457, 5328, 5465, 5618, 5663, 5317, 5492, 5576, 5380, 5719, 5590, 5336, 5687, 5466, 5287, 5583, 5548, 5650, 5520, 5708, 5288, 5723, 5438, 5413, 5300, 5327, 5437, 5372, 5677, 5698, 5644, 5263, 5609, 5375, 5544, 5500, 5422, 5278, 5592, 5286, 5374, 5383, 5724, 5706, 5680, 5391, 5647, 5525, 5607, 5364, 5608, 5347, 5594, 5348, 5479, 5407, 5711, 5720, 5269, 5321, 5659, 5415, 5418 (6 hits)
24	9	1.0	333.0	Yes	5511.0MHz, -64.0dBm	Hop sequence: 5486, 5540, 5327, 5575, 5491, 5259, 5379, 5512, 5250, 5481, 5302, 5609, 5399, 5283, 5410, 5337, 5488, 5330, 5397, 5710, 5605, 5658, 5424, 5258, 5321, 5307, 5293, 5265, 5595, 5510, 5352, 5578, 5529, 5712, 5342, 5588, 5639, 5256, 5586, 5669, 5584, 5713, 5542, 5477, 5311, 5699, 5304, 5313, 5336, 5401, 5413, 5262, 5535, 5277, 5475, 5619, 5704, 5537, 5648, 5633, 5522, 5444, 5274, 5685, 5550, 5715, 5601, 5314, 5697, 5454, 5665, 5666, 5370, 5441, 5334, 5323, 5569, 5698, 5429, 5365, 5478, 5487, 5492, 5502, 5683, 5579, 5518, 5297, 5446, 5466, 5462, 5557, 5332, 5264, 5490, 5647, 5459, 5388, 5649, 5383 (9 hits)
25	9	1.0	333.0	Yes	5512.0MHz, -64.0dBm	Hop sequence: 5716, 5638, 5315, 5534, 5563, 5614, 5330, 5476, 5333, 5654, 5598, 5364, 5686, 5367, 5695, 5260, 5469, 5436, 5399, 5276, 5601, 5646, 5621, 5671, 5271, 5551, 5431, 5392, 5505, 5719, 5432, 5377, 5301, 5291, 5434, 5427, 5510, 5708, 5284, 5645, 5596, 5462, 5464, 5406, 5689, 5542, 5493, 5400, 5491, 5357, 5628, 5644, 5521, 5701, 5288, 5302, 5566, 5585, 5650, 5535, 5361, 5314, 5273, 5419, 5562, 5692, 5726, 5688, 5382, 5316, 5526, 5668, 5488, 5593, 5421, 5385, 5533, 5416, 5252, 5553, 5479, 5261, 5540, 5522, 5514, 5611, 5472, 5613, 5296, 5559, 5337, 5704, 5303, 5661, 5543, 5568, 5700, 5649, 5605, 5641 (8 hits)
26	9	1.0	333.0	Yes	5513.0MHz, -64.0dBm	Hop sequence: 5457, 5700, 5308, 5255, 5313, 5548, 5565, 5389, 5557, 5359, 5269, 5453, 5320, 5702, 5561, 5515, 5273, 5455, 5621, 5384, 5471, 5620, 5467, 5519, 5364, 5684, 5485, 5573, 5583, 5635, 5541, 5500, 5563, 5649, 5524, 5270, 5533,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5486, 5354, 5603, 5445, 5451, 5530, 5525, 5422, 5712, 5365, 5267, 5498, 5332, 5409, 5348, 5678, 5252, 5417, 5431, 5390, 5523, 5685, 5701, 5566, 5643, 5579, 5586, 5254, 5325, 5538, 5461, 5347, 5490, 5591, 5640, 5464, 5575, 5581, 5278, 5692, 5622, 5437, 5340, 5423, 5402, 5369, 5650, 5330, 5539, 5477, 5331, 5654, 5350, 5293, 5658, 5559, 5636, 5659, 5510, 5482, 5274, 5392, 5632 (10 hits)
27	9	1.0	333.0	Yes	5514.0MHz, -64.0dBm	Hop sequence: 5264, 5254, 5438, 5430, 5715, 5625, 5457, 5566, 5721, 5600, 5292, 5386, 5421, 5664, 5491, 5368, 5605, 5663, 5713, 5589, 5301, 5692, 5364, 5595, 5626, 5450, 5725, 5401, 5647, 5588, 5682, 5472, 5393, 5318, 5410, 5262, 5284, 5590, 5561, 5524, 5521, 5252, 5278, 5700, 5679, 5554, 5423, 5659, 5439, 5291, 5594, 5447, 5371, 5513, 5495, 5473, 5714, 5277, 5483, 5313, 5356, 5683, 5402, 5591, 5545, 5705, 5541, 5346, 5720, 5274, 5408, 5293, 5486, 5297, 5636, 5701, 5288, 5435, 5319, 5687, 5710, 5436, 5474, 5303, 5409, 5326, 5359, 5509, 5535, 5669, 5537, 5335, 5330, 5544, 5352, 5382, 5383, 5310, 5680, 5380 (6 hits) (08/05/2014 01:40:32 PM)
28	9	1.0	333.0	Yes	5515.0MHz, -64.0dBm	Hop sequence: 5616, 5351, 5424, 5670, 5378, 5586, 5335, 5615, 5677, 5412, 5307, 5604, 5306, 5656, 5505, 5537, 5379, 5531, 5679, 5688, 5407, 5562, 5721, 5719, 5361, 5576, 5489, 5524, 5326, 5259, 5340, 5329, 5465, 5536, 5658, 5596, 5332, 5389, 5601, 5268, 5438, 5619, 5503, 5639, 5271, 5516, 5526, 5297, 5573, 5471, 5282, 5490, 5720, 5687, 5647, 5279, 5339, 5582, 5631, 5564, 5309, 5618, 5347, 5331, 5473, 5304, 5386, 5577, 5371, 5603, 5336, 5380, 5498, 5257, 5447, 5414, 5726, 5423, 5291, 5593, 5300, 5545, 5263, 5711, 5617, 5701, 5663, 5665, 5579, 5255, 5470, 5475, 5440, 5644, 5377, 5454, 5588, 5718, 5717, 5613 (7 hits) (08/05/2014 01:41:06 PM)
29	9	1.0	333.0	Yes	5516.0MHz, -64.0dBm	Hop sequence: 5576, 5451, 5589, 5706, 5314, 5391, 5543, 5437, 5378, 5655, 5689, 5540, 5591, 5290, 5436, 5574, 5507, 5390, 5496, 5636, 5278, 5521, 5438, 5557, 5419, 5276, 5420, 5570, 5654, 5348, 5469, 5459, 5499, 5595, 5323, 5564, 5429, 5704, 5674, 5510, 5569, 5597, 5450, 5310, 5430, 5402, 5725, 5389, 5330, 5254, 5347, 5478, 5514, 5335, 5297, 5608, 5414, 5583, 5477, 5302, 5380, 5629, 5639, 5603, 5383, 5536, 5360, 5662, 5695, 5410, 5547, 5370, 5582, 5596, 5453, 5351, 5324, 5568, 5669, 5377, 5671, 5675, 5349, 5428, 5642, 5465, 5369, 5684, 5439, 5539, 5594, 5713, 5417, 5355, 5381, 5717, 5579, 5361, 5598, 5627 (6 hits)
30	9	1.0	333.0	Yes	5517.0MHz, -64.0dBm	Hop sequence: 5279, 5413, 5641, 5431, 5328, 5475, 5387, 5583, 5382, 5562, 5460, 5339, 5256, 5334, 5535, 5417, 5607, 5414, 5498, 5508, 5255, 5489, 5352, 5702, 5269, 5622, 5515, 5659, 5488, 5395, 5359, 5592, 5384, 5678, 5372, 5491, 5478, 5632, 5513, 5474, 5629, 5449, 5343, 5370, 5358, 5422, 5383, 5490, 5585, 5697, 5429, 5661, 5499, 5563, 5691, 5411, 5669, 5350, 5402, 5260, 5281, 5257, 5323, 5326, 5696, 5317, 5424, 5568, 5715, 5646, 5309, 5555, 5314, 5546, 5349, 5560, 5439, 5261, 5355, 5597, 5623, 5348, 5330, 5259, 5613, 5264, 5506, 5289, 5442, 5403, 5388, 5391, 5409, 5291, 5572, 5569, 5292, 5615, 5565, 5612 (8 hits) (08/05/2014 01:43:07 PM)
31	9	1.0	333.0	Yes	5518.0MHz, -64.0dBm	Hop sequence: 5291, 5577, 5572, 5297, 5723, 5534, 5372, 5421, 5598, 5492, 5355, 5303, 5394, 5379, 5425, 5289, 5547, 5325, 5526, 5412, 5281, 5690, 5307, 5483, 5528, 5366, 5709, 5689, 5578,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz

Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5641, 5684, 5586, 5406, 5277, 5665, 5552, 5488, 5387, 5493, 5638, 5373, 5272, 5418, 5300, 5701, 5296, 5428, 5256, 5654, 5714, 5479, 5546, 5717, 5305, 5474, 5693, 5646, 5330, 5617, 5508, 5587, 5636, 5257, 5485, 5360, 5544, 5697, 5464, 5345, 5323, 5687, 5313, 5710, 5455, 5482, 5262, 5675, 5499, 5416, 5396, 5318, 5590, 5579, 5522, 5252, 5657, 5269, 5403, 5706, 5407, 5285, 5290, 5525, 5429, 5375, 5405, 5490, 5535, 5441, 5614 (9 hits)
32	9	1.0	333.0	Yes	5519.0MHz, -64.0dBm	Hop sequence: 5520, 5609, 5636, 5444, 5412, 5529, 5275, 5450, 5661, 5656, 5635, 5380, 5343, 5699, 5456, 5603, 5524, 5608, 5703, 5290, 5363, 5697, 5680, 5454, 5331, 5464, 5413, 5543, 5518, 5286, 5280, 5425, 5698, 5342, 5647, 5708, 5377, 5644, 5310, 5498, 5292, 5582, 5553, 5660, 5458, 5639, 5414, 5671, 5272, 5598, 5264, 5645, 5263, 5586, 5684, 5537, 5360, 5495, 5663, 5694, 5556, 5418, 5295, 5526, 5658, 5409, 5649, 5407, 5451, 5394, 5408, 5678, 5593, 5422, 5665, 5393, 5322, 5442, 5446, 5305, 5531, 5527, 5549, 5366, 5294, 5648, 5695, 5474, 5629, 5255, 5288, 5532, 5467, 5457, 5341, 5419, 5561, 5602, 5324, 5392 (8 hits)
33	9	1.0	333.0	Yes	5520.0MHz, -64.0dBm	Hop sequence: 5445, 5571, 5493, 5505, 5367, 5715, 5638, 5574, 5401, 5651, 5492, 5648, 5355, 5414, 5338, 5383, 5465, 5543, 5655, 5447, 5423, 5526, 5560, 5400, 5468, 5689, 5607, 5418, 5392, 5415, 5567, 5498, 5413, 5486, 5624, 5680, 5522, 5633, 5521, 5293, 5619, 5268, 5336, 5724, 5339, 5705, 5563, 5321, 5352, 5654, 5641, 5440, 5502, 5627, 5437, 5305, 5258, 5606, 5323, 5515, 5316, 5330, 5390, 5622, 5625, 5366, 5276, 5300, 5532, 5480, 5376, 5402, 5284, 5718, 5643, 5698, 5663, 5319, 5544, 5598, 5690, 5670, 5699, 5283, 5469, 5324, 5477, 5635, 5597, 5306, 5353, 5595, 5596, 5385, 5659, 5322, 5664, 5692, 5601, 5467 (9 hits)
34	9	1.0	333.0	Yes	5521.0MHz, -64.0dBm	Hop sequence: 5560, 5491, 5504, 5611, 5349, 5365, 5482, 5333, 5555, 5579, 5626, 5393, 5633, 5708, 5265, 5410, 5695, 5449, 5282, 5667, 5503, 5322, 5519, 5441, 5321, 5381, 5382, 5411, 5648, 5362, 5435, 5372, 5437, 5606, 5588, 5351, 5423, 5422, 5723, 5566, 5721, 5342, 5299, 5305, 5501, 5310, 5557, 5704, 5671, 5696, 5252, 5415, 5312, 5268, 5691, 5431, 5453, 5517, 5345, 5585, 5307, 5622, 5336, 5319, 5387, 5448, 5363, 5466, 5414, 5655, 5646, 5445, 5552, 5462, 5420, 5584, 5546, 5663, 5406, 5309, 5398, 5308, 5295, 5280, 5475, 5527, 5625, 5259, 5404, 5638, 5515, 5687, 5253, 5434, 5477, 5340, 5659, 5587, 5326, 5396 (8 hits)
35	9	1.0	333.0	Yes	5522.0MHz, -64.0dBm	Hop sequence: 5564, 5432, 5615, 5272, 5688, 5392, 5263, 5635, 5634, 5520, 5325, 5274, 5691, 5463, 5538, 5449, 5594, 5558, 5537, 5388, 5526, 5442, 5347, 5372, 5647, 5270, 5705, 5351, 5492, 5494, 5697, 5616, 5681, 5540, 5380, 5583, 5536, 5415, 5528, 5510, 5393, 5613, 5716, 5278, 5607, 5574, 5603, 5556, 5713, 5323, 5435, 5612, 5397, 5273, 5369, 5374, 5253, 5411, 5587, 5402, 5437, 5336, 5282, 5443, 5601, 5303, 5708, 5699, 5292, 5446, 5517, 5586, 5358, 5679, 5652, 5550, 5427, 5298, 5373, 5280, 5638, 5696, 5690, 5663, 5379, 5445, 5661, 5722, 5462, 5293, 5324, 5518, 5453, 5418, 5483, 5328, 5516, 5611, 5255, 5343 (9 hits)
36	9	1.0	333.0	Yes	5523.0MHz, -64.0dBm	Hop sequence: 5397, 5254, 5528, 5439, 5543, 5683, 5588, 5627, 5638, 5625, 5531, 5376, 5635, 5599, 5536, 5449, 5313, 5320, 5602, 5652, 5682, 5272, 5665, 5414, 5458, 5623, 5709, 5660, 5268, 5714, 5464, 5297, 5569, 5422, 5551, 5473, 5700, 5692, 5446, 5262, 5689, 5479, 5460, 5711, 5383,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5656, 5722, 5429, 5298, 5669, 5558, 5539, 5294, 5393, 5432, 5498, 5384, 5535, 5402, 5643, 5516, 5544, 5672, 5499, 5684, 5630, 5540, 5426, 5306, 5403, 5448, 5667, 5478, 5450, 5577, 5454, 5253, 5653, 5377, 5399, 5488, 5604, 5501, 5624, 5424, 5461, 5293, 5595, 5275, 5508, 5442, 5658, 5359, 5415, 5436, 5616, 5438, 5621, 5547, 5600 (6 hits)
37	9	1.0	333.0	Yes	5524.0MHz, -64.0dBm	Hop sequence: 5267, 5592, 5388, 5564, 5319, 5713, 5474, 5637, 5712, 5645, 5499, 5415, 5698, 5540, 5681, 5601, 5369, 5287, 5650, 5271, 5701, 5594, 5568, 5338, 5516, 5659, 5716, 5541, 5298, 5297, 5455, 5696, 5495, 5314, 5305, 5390, 5269, 5683, 5364, 5288, 5346, 5512, 5461, 5493, 5405, 5449, 5603, 5639, 5458, 5317, 5690, 5697, 5616, 5342, 5420, 5370, 5573, 5402, 5399, 5717, 5475, 5333, 5291, 5429, 5380, 5307, 5368, 5437, 5296, 5674, 5406, 5654, 5685, 5658, 5361, 5496, 5509, 5517, 5377, 5375, 5583, 5531, 5302, 5367, 5286, 5575, 5430, 5494, 5497, 5303, 5371, 5294, 5435, 5416, 5563, 5301, 5489, 5646, 5469, 5625 (10 hits)
38	9	1.0	333.0	Yes	5525.0MHz, -64.0dBm	Hop sequence: 5475, 5716, 5502, 5702, 5335, 5263, 5304, 5545, 5652, 5254, 5700, 5313, 5322, 5443, 5259, 5365, 5327, 5496, 5397, 5655, 5508, 5643, 5529, 5305, 5695, 5706, 5275, 5534, 5628, 5631, 5623, 5306, 5640, 5717, 5671, 5488, 5430, 5594, 5483, 5642, 5690, 5566, 5526, 5657, 5277, 5713, 5295, 5341, 5294, 5410, 5512, 5384, 5565, 5290, 5333, 5375, 5256, 5520, 5597, 5723, 5497, 5421, 5651, 5648, 5255, 5683, 5711, 5557, 5668, 5366, 5673, 5724, 5352, 5346, 5676, 5289, 5385, 5470, 5362, 5606, 5298, 5562, 5688, 5542, 5635, 5686, 5402, 5300, 5319, 5620, 5674, 5485, 5268, 5503, 5478, 5685, 5476, 5626, 5653, 5320 (9 hits)
39	9	1.0	333.0	Yes	5526.0MHz, -64.0dBm	Hop sequence: 5281, 5423, 5286, 5670, 5633, 5616, 5619, 5634, 5289, 5419, 5332, 5710, 5295, 5531, 5501, 5617, 5692, 5418, 5568, 5343, 5543, 5350, 5478, 5519, 5620, 5371, 5457, 5482, 5425, 5345, 5285, 5573, 5602, 5338, 5666, 5709, 5659, 5460, 5293, 5723, 5305, 5506, 5481, 5720, 5694, 5352, 5342, 5370, 5331, 5277, 5324, 5267, 5439, 5325, 5724, 5392, 5682, 5386, 5320, 5663, 5722, 5354, 5381, 5667, 5454, 5570, 5316, 5688, 5263, 5326, 5487, 5452, 5687, 5587, 5567, 5490, 5312, 5300, 5520, 5556, 5540, 5372, 5671, 5424, 5400, 5712, 5613, 5604, 5427, 5707, 5593, 5524, 5529, 5635, 5705, 5675, 5528, 5318, 5610, 5466 (8 hits)
40	9	1.0	333.0	Yes	5527.0MHz, -64.0dBm	Hop sequence: 5329, 5279, 5442, 5678, 5488, 5498, 5416, 5401, 5541, 5545, 5712, 5324, 5394, 5342, 5523, 5275, 5327, 5367, 5419, 5554, 5605, 5439, 5286, 5606, 5522, 5615, 5463, 5308, 5251, 5649, 5644, 5379, 5655, 5285, 5414, 5313, 5533, 5425, 5448, 5360, 5527, 5319, 5328, 5624, 5684, 5537, 5396, 5374, 5441, 5380, 5651, 5337, 5466, 5270, 5531, 5349, 5273, 5475, 5291, 5339, 5619, 5341, 5487, 5637, 5350, 5659, 5672, 5701, 5518, 5338, 5502, 5263, 5524, 5591, 5257, 5707, 5435, 5309, 5601, 5700, 5295, 5271, 5599, 5378, 5627, 5468, 5297, 5301, 5250, 5276, 5647, 5698, 5724, 5641, 5638, 5602, 5387, 5368, 5274, 5445 (7 hits)
41	9	1.0	333.0	Yes	5528.0MHz, -64.0dBm	Hop sequence: 5298, 5377, 5313, 5460, 5254, 5349, 5296, 5360, 5271, 5405, 5409, 5677, 5395, 5428, 5352, 5372, 5333, 5323, 5625, 5401, 5331, 5602, 5324, 5564, 5590, 5378, 5272, 5608, 5659, 5536, 5411, 5600, 5389, 5554, 5347, 5476, 5623, 5707, 5487, 5661, 5329, 5545, 5263, 5556, 5414, 5565, 5348, 5251, 5687, 5441, 5491, 5512, 5416, 5607, 5443, 5489, 5484, 5704, 5361, 5400, 5549,

Table 50 - FCC frequency hopping radar (Type 6) Results Control Unit old FW 40MHz						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
						5468, 5567, 5508, 5427, 5368, 5291, 5311, 5433, 5445, 5599, 5675, 5579, 5552, 5559, 5712, 5412, 5418, 5371, 5320, 5636, 5624, 5488, 5649, 5658, 5492, 5325, 5495, 5373, 5283, 5650, 5438, 5503, 5451, 5666, 5665, 5591, 5595, 5321, 5262 (6 hits)

Table 51 - Long Sequence Waveform Summary Control Unit old FW 40MHz		
Long Sequence Trial	Result	Radar Frequency / Amplitude
Trial #1	Detected	5510.0MHz, -64.0dBm
Trial #2	Detected	5505.0MHz, -64.0dBm
Trial #3	Detected	5500.0MHz, -64.0dBm
Trial #4	Detected	5495.0MHz, -64.0dBm
Trial #5	Detected	5525.0MHz, -64.0dBm
Trial #6	Detected	5520.0MHz, -64.0dBm
Trial #7	Detected	5515.0MHz, -64.0dBm
Trial #8	Detected	5510.0MHz, -64.0dBm
Trial #9	Detected	5505.0MHz, -64.0dBm
Trial #10	Detected	5500.0MHz, -64.0dBm
Trial #11	Detected	5495.0MHz, -64.0dBm
Trial #12	Detected	5525.0MHz, -64.0dBm
Trial #13	Detected	5520.0MHz, -64.0dBm
Trial #14	Detected	5515.0MHz, -64.0dBm
Trial #15	Detected	5510.0MHz, -64.0dBm
Trial #16	Detected	5505.0MHz, -64.0dBm
Trial #17	Detected	5500.0MHz, -64.0dBm
Trial #18	Detected	5495.0MHz, -64.0dBm
Trial #19	Detected	5525.0MHz, -64.0dBm
Trial #20	Detected	5520.0MHz, -64.0dBm
Trial #21	Detected	5515.0MHz, -64.0dBm
Trial #22	Detected	5510.0MHz, -64.0dBm
Trial #23	Detected	5505.0MHz, -64.0dBm
Trial #24	Detected	5500.0MHz, -64.0dBm
Trial #25	Detected	5495.0MHz, -64.0dBm
Trial #26	Detected	5525.0MHz, -64.0dBm
Trial #27	Detected	5520.0MHz, -64.0dBm
Trial #28	Detected	5515.0MHz, -64.0dBm
Trial #29	Detected	5510.0MHz, -64.0dBm
Trial #30	Detected	5505.0MHz, -64.0dBm

Table 52 - Long Sequence Waveform Trial#1 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	76.9	7	1029.0	1112.0	0.309328
2	3	69.1	6	1686.0	1450.0	1.061845
3	1	54.4	14	-	-	1.814300
4	1	82.5	6	-	-	2.556031
5	2	63.1	11	1440.0	-	3.277741
6	2	68.1	17	1611.0	-	3.341854
7	2	79.8	10	1465.0	-	4.653377
8	1	96.3	16	-	-	4.686177
9	3	61.8	13	1568.0	1821.0	5.616901
10	2	61.6	9	1406.0	-	6.358599
11	1	79.2	6	-	-	7.116889
12	3	92.4	16	1162.0	1143.0	7.807057
13	3	68.3	12	1898.0	1988.0	8.154467
14	2	59.5	5	1595.0	-	8.798356
15	2	83.5	5	1051.0	-	9.859737
16	2	99.8	15	1742.0	-	10.262052
17	2	79.7	17	1257.0	-	11.045682
18	2	95.4	15	1194.0	-	11.727051

Table 53 - Long Sequence Waveform Trial#2 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	93.6	8	1300.0	1470.0	0.534169
2	3	83.9	13	1574.0	1037.0	1.168391
3	2	97.4	14	1754.0	-	2.058284
4	1	76.7	18	-	-	2.739312
5	2	94.9	12	1473.0	-	3.892458
6	1	52.8	12	-	-	4.332741
7	1	92.2	13	-	-	5.300753
8	2	83.2	15	1891.0	-	5.664680
9	3	62.2	15	1010.0	1025.0	6.643001
10	2	75.6	7	1030.0	-	7.403413
11	2	57.2	9	1036.0	-	8.065919
12	1	62.2	18	-	-	9.520117
13	3	73.1	20	1118.0	1664.0	10.190834
14	2	90.0	5	1943.0	-	10.603747
15	1	61.2	15	-	-	11.846547

Table 54 - Long Sequence Waveform Trial#3 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	99.9	14	-	-	0.194364
2	2	63.3	15	1559.0	-	0.799049
3	2	81.9	12	1778.0	-	1.321876
4	2	78.3	17	1393.0	-	2.202668
5	2	92.9	19	1652.0	-	2.993474
6	2	60.1	11	1966.0	-	3.344276
7	3	68.0	5	1934.0	1107.0	3.937069
8	2	72.9	8	1223.0	-	4.462500
9	2	95.5	9	1788.0	-	4.933139
10	3	85.0	12	1674.0	1824.0	5.550919
11	3	61.2	9	1283.0	1183.0	6.472269
12	3	86.5	7	1817.0	1163.0	6.863279
13	3	65.7	11	1792.0	1399.0	7.793175
14	1	86.2	8	-	-	7.968904
15	3	98.4	19	1220.0	1611.0	8.705214
16	1	59.5	14	-	-	9.531623
17	1	66.0	20	-	-	10.199688
18	2	69.3	18	1370.0	-	10.370221
19	3	50.8	9	1392.0	1484.0	10.931803
20	3	85.5	7	1540.0	1715.0	11.534118

Table 55 - Long Sequence Waveform Trial#4 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	56.7	10	1932.0	-	0.486020
2	2	98.2	14	1564.0	-	0.923381
3	1	83.1	13	-	-	2.211963
4	2	91.5	16	1446.0	-	3.010181
5	2	70.1	6	1715.0	-	3.950626
6	2	94.3	11	1997.0	-	4.927579
7	3	98.6	14	1112.0	1885.0	5.991511
8	1	71.8	17	-	-	6.838410
9	1	58.1	15	-	-	7.873329
10	2	76.8	17	1249.0	-	8.704091
11	2	61.4	6	1666.0	-	9.857012
12	1	60.0	9	-	-	10.892489
13	1	65.7	16	-	-	11.481690

Table 56 - Long Sequence Waveform Trial#5 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	95.5	13	1279.0	-	0.166694
2	2	70.9	8	1956.0	-	1.020784
3	2	97.2	17	1585.0	-	1.445583
4	2	60.7	18	1424.0	-	2.534564
5	2	54.9	17	1964.0	-	3.334045
6	2	63.4	20	1618.0	-	3.939290
7	2	73.5	9	1032.0	-	4.903603
8	2	69.8	11	1146.0	-	5.594634
9	3	59.0	13	1062.0	1521.0	6.008027
10	3	54.1	15	1959.0	1376.0	6.891404
11	2	77.2	15	1332.0	-	7.442892
12	3	60.5	12	1406.0	1152.0	8.298087
13	2	99.5	8	1059.0	-	8.526018
14	2	63.6	11	1209.0	-	9.278915
15	3	59.6	13	1175.0	1439.0	10.407531
16	3	73.4	19	1420.0	1361.0	10.713129
17	2	98.7	15	1460.0	-	11.926022

Table 57 - Long Sequence Waveform Trial#6 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	69.0	5	1931.0	-	0.191403
2	2	72.5	6	1899.0	-	0.920087
3	2	53.4	12	1563.0	-	1.830206
4	1	83.0	11	-	-	2.042295
5	3	63.5	5	1693.0	1802.0	2.791338
6	2	82.5	8	1387.0	-	3.550016
7	2	97.1	19	1974.0	-	3.918958
8	1	98.8	6	-	-	4.767251
9	3	54.4	18	1811.0	1443.0	5.521718
10	2	66.2	9	1277.0	-	6.005392
11	2	98.0	8	1778.0	-	6.710246
12	1	52.0	17	-	-	7.377976
13	2	99.7	10	1277.0	-	7.799567
14	1	59.5	9	-	-	8.650206
15	2	72.7	9	1035.0	-	9.376123
16	3	60.4	18	1639.0	1386.0	9.979444
17	3	64.1	15	1395.0	1461.0	10.660894
18	3	93.1	19	1504.0	1603.0	10.763573
19	2	68.4	10	1812.0	-	11.595008

Table 58 - Long Sequence Waveform Trial#7 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	72.9	11	1393.0	-	0.604855
2	3	80.5	11	1467.0	1355.0	0.795774
3	2	63.1	11	1655.0	-	1.843206
4	3	55.2	6	1432.0	1249.0	2.124313
5	1	78.9	6	-	-	2.852695
6	1	51.2	7	-	-	3.805299
7	2	88.3	18	1019.0	-	4.612376
8	2	55.7	9	1417.0	-	5.330659
9	3	55.3	15	1966.0	1909.0	5.740015
10	3	93.9	10	1633.0	1087.0	6.564462
11	2	78.8	7	1020.0	-	6.826650
12	2	98.5	20	1416.0	-	7.816848
13	3	91.2	14	1974.0	1653.0	8.433390
14	1	85.5	8	-	-	9.266151
15	3	72.4	12	1321.0	1772.0	9.717644
16	2	86.0	7	1656.0	-	10.100141
17	2	78.1	17	1594.0	-	10.772285
18	2	93.2	17	1184.0	-	11.362444

Table 59 - Long Sequence Waveform Trial#8 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	87.6	5	1557.0	-	0.713715
2	3	83.2	5	1468.0	1575.0	1.958577
3	2	71.6	12	1897.0	-	2.314127
4	3	83.8	9	1052.0	1787.0	3.498476
5	2	98.0	9	1523.0	-	4.497487
6	3	85.2	7	1508.0	1539.0	5.256536
7	1	83.3	5	-	-	6.234393
8	3	71.2	12	1549.0	1548.0	7.533450
9	3	52.9	8	1381.0	1139.0	8.588308
10	2	93.2	12	1509.0	-	9.247989
11	2	64.9	18	1529.0	-	10.185955
12	3	60.3	7	1626.0	1994.0	11.727168

Table 60 - Long Sequence Waveform Trial#9 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	56.3	13	1102.0	1911.0	0.992767
2	3	64.6	12	1733.0	1784.0	2.024188
3	2	93.9	9	1360.0	-	2.507813
4	2	88.2	18	1665.0	-	3.927941
5	2	75.5	18	1885.0	-	4.513953
6	2	89.3	10	1206.0	-	5.487518
7	2	52.7	18	1261.0	-	7.002935
8	3	57.0	20	1610.0	1244.0	8.723367
9	3	56.1	17	1051.0	1466.0	8.985553
10	2	94.9	11	1003.0	-	10.234375
11	1	75.4	13	-	-	11.122064

Table 61 - Long Sequence Waveform Trial#10 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	97.1	19	-	-	0.333325
2	1	97.4	16	-	-	1.137978
3	2	61.9	16	1403.0	-	1.304294
4	3	56.3	12	1513.0	1600.0	2.189854
5	3	94.3	11	1016.0	1499.0	3.077590
6	3	79.7	6	1417.0	1291.0	3.780211
7	3	79.1	5	1200.0	1259.0	4.117613
8	3	99.7	8	1658.0	1415.0	4.517862
9	3	71.7	7	1983.0	1056.0	5.393597
10	2	56.2	15	1044.0	-	5.933298
11	1	53.5	17	-	-	6.764675
12	2	89.6	9	1452.0	-	7.123964
13	3	98.7	10	1333.0	1985.0	8.037839
14	2	93.3	6	1810.0	-	8.712176
15	2	87.3	13	1402.0	-	8.976907
16	3	54.9	16	1292.0	1026.0	9.498352
17	2	75.5	13	1063.0	-	10.578533
18	1	92.0	14	-	-	10.971467
19	1	54.1	9	-	-	11.814589

Table 62 - Long Sequence Waveform Trial#11 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	56.8	18	1950.0	1047.0	1.042116
2	2	70.7	14	1616.0	-	2.613202
3	2	61.1	5	1110.0	-	2.717415
4	2	89.9	12	1945.0	-	4.500875
5	3	87.6	12	1572.0	1479.0	6.562853
6	2	51.4	11	1889.0	-	7.767805
7	2	82.5	18	1220.0	-	8.744955
8	2	72.9	6	1318.0	-	9.640655
9	2	90.3	17	1917.0	-	11.171086

Table 63 - Long Sequence Waveform Trial#12 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	57.7	9	1069.0	-	0.771919
2	1	50.8	7	-	-	1.216003
3	1	87.4	17	-	-	2.331244
4	2	68.9	16	1796.0	-	4.116037
5	2	75.5	19	1826.0	-	4.835256
6	2	74.3	12	1408.0	-	5.750734
7	2	61.0	18	1419.0	-	7.324645
8	3	55.9	8	1883.0	1069.0	8.473657
9	1	78.5	7	-	-	9.370961
10	1	71.0	16	-	-	9.931199
11	3	77.2	17	1285.0	1750.0	11.562415

Table 64 - Long Sequence Waveform Trial#13 (Detected) Control Unit old FW 40MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	76.2	15	1392.0	-	0.360797
2	2	76.4	15	1298.0	-	0.733562
3	2	78.8	17	1578.0	-	1.363015
4	2	96.3	9	1804.0	-	2.366334
5	2	90.4	5	1269.0	-	2.784231
6	1	63.8	10	-	-	3.357071
7	2	82.1	11	1457.0	-	3.731086
8	3	60.7	17	1311.0	1981.0	4.668880
9	3	89.8	5	1175.0	1640.0	4.925925
10	2	89.9	18	1681.0	-	5.818399
11	1	63.7	13	-	-	6.529005
12	2	87.6	10	1051.0	-	6.676058
13	3	96.7	14	1686.0	1540.0	7.270350
14	1	63.7	15	-	-	8.387215
15	2	71.2	19	1315.0	-	8.816111
16	1	84.1	5	-	-	9.042272
17	3	80.0	14	1447.0	1525.0	9.834114
18	2	70.1	17	1309.0	-	10.214175
19	3	77.2	15	1872.0	1027.0	11.250548
20	2	54.8	15	1881.0	-	11.404718

Table 65 - Long Sequence Waveform Trial#14 (Detected) Control Unit old FW 40MHz

Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	50.3	5	1568.0	-	0.790372
2	2	64.7	15	1212.0	-	1.005671
3	2	65.5	11	1934.0	-	2.096491
4	2	76.9	7	1024.0	-	3.110567
5	3	80.3	8	1315.0	1477.0	4.163267
6	1	55.2	9	-	-	4.960664
7	2	80.5	12	1100.0	-	5.528918
8	2	76.8	19	1966.0	-	6.075291
9	2	58.1	9	1073.0	-	7.358099
10	2	93.6	14	1763.0	-	7.781638
11	2	99.4	6	1389.0	-	9.053561
12	1	70.3	19	-	-	9.579072
13	3	68.6	11	1664.0	1939.0	10.873975
14	3	92.5	6	1552.0	1193.0	11.587648

Table 66 - Long Sequence Waveform Trial#15 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	50.3	15	-	-	0.109222
2	2	51.2	17	1213.0	-	2.383438
3	1	54.3	6	-	-	3.442342
4	1	66.4	7	-	-	4.596211
5	1	67.5	11	-	-	6.593099
6	1	55.4	7	-	-	7.769076
7	1	79.0	15	-	-	8.963291
8	2	82.7	11	1943.0	-	9.616920
9	2	78.6	12	1912.0	-	10.727300

Table 67 - Long Sequence Waveform Trial#16 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	93.9	11	1028.0	1156.0	1.184271
2	3	54.6	11	1401.0	1543.0	1.627565
3	2	74.4	7	1884.0	-	3.279645
4	3	92.8	7	1440.0	1842.0	4.399649
5	2	57.6	11	1605.0	-	5.145784
6	1	61.2	7	-	-	7.091300
7	2	59.6	18	1532.0	-	8.174713
8	2	84.4	14	1639.0	-	8.977208
9	1	60.6	11	-	-	10.182818
10	1	85.7	6	-	-	11.457341

Table 68 - Long Sequence Waveform Trial#17 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	56.3	19	-	-	0.442900
2	2	98.7	8	1327.0	-	0.727676
3	1	62.9	8	-	-	1.671439
4	2	89.9	8	1192.0	-	2.224352
5	3	85.0	8	1375.0	1993.0	3.149541
6	3	54.3	8	1003.0	1197.0	3.571699
7	2	73.5	9	1572.0	-	4.613939
8	1	78.1	8	-	-	4.853329
9	2	92.2	6	1090.0	-	5.950239
10	1	50.5	13	-	-	6.603795
11	1	52.5	10	-	-	7.155597
12	2	90.4	8	1665.0	-	7.513314
13	2	80.6	18	1528.0	-	8.479572
14	1	73.0	15	-	-	8.798425
15	1	80.8	14	-	-	9.624543
16	1	85.4	14	-	-	10.142494
17	1	58.8	18	-	-	10.888406
18	2	63.7	16	1895.0	-	11.473893

Table 69 - Long Sequence Waveform Trial#18 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	62.2	7	1381.0	-	0.403449
2	1	76.0	17	-	-	1.337470
3	2	74.3	14	1856.0	-	1.857934
4	2	74.8	18	1487.0	-	3.628795
5	1	87.3	14	-	-	4.545242
6	3	61.1	17	1352.0	1114.0	5.375469
7	2	75.4	7	1989.0	-	6.355861
8	3	77.4	19	1812.0	1789.0	6.493732
9	1	57.8	17	-	-	8.062101
10	1	61.2	9	-	-	9.192660
11	3	96.7	14	1175.0	1089.0	9.288042
12	1	64.3	19	-	-	10.381905
13	3	93.8	14	1326.0	1271.0	11.105302

Table 70 - Long Sequence Waveform Trial#19 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	96.9	15	1804.0	-	0.696335
2	1	90.7	8	-	-	1.004720
3	1	94.2	15	-	-	2.266806
4	2	54.1	12	1369.0	-	3.099309
5	2	50.9	20	1121.0	-	3.925909
6	2	91.9	10	1589.0	-	4.288087
7	3	89.9	5	1706.0	1923.0	5.216212
8	2	60.4	8	1509.0	-	6.359981
9	2	57.7	12	1383.0	-	7.184788
10	2	75.4	16	1425.0	-	8.091210
11	2	65.7	12	1202.0	-	8.874961
12	3	56.4	10	1369.0	1753.0	9.447804
13	3	50.2	9	1989.0	1719.0	10.866426
14	2	97.5	19	1058.0	-	11.666908

Table 71 - Long Sequence Waveform Trial#20 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	51.8	9	1801.0	1812.0	0.407775
2	3	50.5	11	1662.0	1645.0	1.317912
3	1	72.6	12	-	-	1.795386
4	1	70.9	8	-	-	2.468436
5	1	90.4	20	-	-	2.996979
6	3	89.1	6	1353.0	1473.0	3.984105
7	1	52.1	7	-	-	4.309460
8	3	66.2	6	1242.0	1314.0	4.860801
9	3	73.2	13	1124.0	1476.0	5.594398
10	1	83.8	17	-	-	6.133688
11	1	73.4	19	-	-	7.258597
12	3	50.2	18	1505.0	1824.0	7.486781
13	1	89.8	10	-	-	8.428110
14	2	82.9	7	1802.0	-	9.211062
15	2	56.9	18	1277.0	-	9.346858
16	3	94.3	19	1806.0	1261.0	10.007855
17	2	63.7	15	1584.0	-	11.322717
18	1	75.1	5	-	-	11.749642

Table 72 - Long Sequence Waveform Trial#21 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	94.3	11	1660.0	-	0.687569
2	2	67.3	13	1697.0	-	1.963036
3	2	88.7	14	1287.0	-	3.298264
4	2	74.4	7	1829.0	-	3.927082
5	2	87.6	6	1093.0	-	5.546263
6	2	85.8	19	1835.0	-	6.314738
7	2	66.7	13	1041.0	-	7.711410
8	2	97.3	17	1094.0	-	9.208400
9	1	68.0	6	-	-	10.787796
10	2	85.7	17	1073.0	-	11.407806

Table 73 - Long Sequence Waveform Trial#22 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	83.0	5	1895.0	-	0.259693
2	3	78.5	14	1216.0	1228.0	1.384283
3	2	98.7	13	1380.0	-	2.905903
4	2	91.4	17	1750.0	-	5.186122
5	2	71.1	8	1674.0	-	6.525503
6	3	78.9	15	1347.0	1668.0	7.598107
7	1	87.8	12	-	-	8.258300
8	2	85.2	18	1994.0	-	10.484006
9	1	51.0	7	-	-	10.702098

Table 74 - Long Sequence Waveform Trial#23 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	95.5	5	1431.0	-	0.136351
2	3	87.1	5	1930.0	1030.0	2.425038
3	2	91.6	5	1283.0	-	4.464504
4	2	90.6	17	1829.0	-	5.091023
5	2	53.3	15	1941.0	-	6.468177
6	3	56.1	17	1321.0	1021.0	7.745542
7	2	98.6	6	1322.0	-	9.325675
8	1	52.0	18	-	-	10.918397

Table 75 - Long Sequence Waveform Trial#24 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	97.6	5	1833.0	1276.0	0.161822
2	3	73.8	16	1938.0	1869.0	1.878384
3	2	67.8	18	1088.0	-	2.573871
4	2	56.1	12	1162.0	-	4.131184
5	1	80.4	12	-	-	4.742144
6	2	84.5	9	1252.0	-	6.394277
7	1	85.0	8	-	-	6.665729
8	3	82.3	8	1277.0	1829.0	7.710017
9	2	97.7	16	1450.0	-	9.320345
10	3	77.2	13	1089.0	1040.0	10.293325
11	2	59.2	15	1049.0	-	11.436034

Table 76 - Long Sequence Waveform Trial#25 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	86.2	8	1584.0	1729.0	0.526670
2	2	59.4	6	1402.0	-	1.251738
3	2	96.3	19	1133.0	-	1.326182
4	3	63.9	5	1146.0	1483.0	2.135552
5	3	60.2	17	1859.0	1485.0	2.979724
6	1	67.8	16	-	-	3.695854
7	2	55.4	16	1888.0	-	4.312691
8	2	97.0	10	1966.0	-	5.040676
9	3	96.1	12	1043.0	1638.0	5.443555
10	3	98.2	14	1275.0	1694.0	5.864094
11	3	96.6	5	1890.0	1876.0	6.390673
12	2	77.2	9	1316.0	-	7.017679
13	3	60.7	7	1205.0	1897.0	7.794421
14	2	77.4	11	1076.0	-	8.755498
15	1	69.5	10	-	-	9.124652
16	1	72.7	12	-	-	9.756839
17	3	63.6	19	1829.0	1327.0	10.596819
18	2	69.7	9	1538.0	-	11.056979
19	3	79.7	19	1940.0	1346.0	11.718982

Table 77 - Long Sequence Waveform Trial#26 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	74.3	5	1691.0	-	0.755014
2	3	67.0	12	1512.0	1801.0	2.142065
3	2	76.6	10	1340.0	-	2.577394
4	2	58.1	19	1810.0	-	3.838895
5	3	65.2	19	1373.0	1464.0	4.786375
6	2	52.5	16	1356.0	-	6.242835
7	1	78.5	17	-	-	7.383726
8	2	54.6	17	1496.0	-	8.140842
9	2	88.5	12	1401.0	-	8.733444
10	2	53.2	6	1778.0	-	10.879622
11	3	89.8	19	1949.0	1444.0	11.138002

Table 78 - Long Sequence Waveform Trial#27 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	3	74.7	19	1335.0	1353.0	0.319283
2	2	98.2	13	1678.0	-	1.476189
3	2	80.2	20	1552.0	-	2.862607
4	2	76.1	10	1649.0	-	5.222806
5	2	74.5	15	1482.0	-	6.059543
6	2	56.9	9	1106.0	-	7.243622
7	2	78.9	6	1779.0	-	8.219241
8	1	70.5	6	-	-	10.061337
9	3	66.0	13	1626.0	1120.0	11.047200

Table 79 - Long Sequence Waveform Trial#28 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	60.9	12	-	-	0.033097
2	3	86.5	19	1618.0	1628.0	1.485509
3	3	72.5	13	1448.0	1865.0	2.042366
4	3	64.9	14	1460.0	1476.0	2.953189
5	2	90.4	18	1970.0	-	4.270039
6	1	51.5	14	-	-	4.779613
7	3	79.0	19	1631.0	1185.0	5.866591
8	1	84.1	12	-	-	6.649688
9	3	95.2	15	1134.0	1142.0	7.662568
10	1	87.1	6	-	-	8.778753
11	2	63.1	7	1112.0	-	9.587722
12	1	85.4	18	-	-	10.487725
13	3	69.8	14	1370.0	1816.0	11.607800

Table 80 - Long Sequence Waveform Trial#29 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	1	72.4	6	-	-	0.457113
2	1	63.6	7	-	-	0.877669
3	2	71.5	17	1696.0	-	1.510394
4	3	90.4	19	1323.0	1844.0	2.140526
5	2	97.6	6	1839.0	-	2.456200
6	1	50.6	7	-	-	3.050783
7	2	58.9	10	1795.0	-	4.072255
8	3	65.0	10	1074.0	1932.0	4.244020
9	2	93.4	16	1934.0	-	5.164983
10	3	87.6	18	1701.0	1780.0	5.461240
11	3	84.4	15	1165.0	1507.0	6.107587
12	3	91.9	12	1459.0	1716.0	6.739997
13	2	53.2	10	1074.0	-	7.236203
14	1	85.9	17	-	-	8.104666
15	2	69.6	12	1704.0	-	8.491737
16	3	54.7	6	1622.0	1314.0	9.584960
17	2	52.4	16	1719.0	-	9.717229
18	1	90.0	14	-	-	10.649587
19	2	53.1	14	1928.0	-	11.126714
20	3	99.3	18	1901.0	1314.0	11.768376

Table 81 - Long Sequence Waveform Trial#30 (Detected) Control Unit old FW 40MHz						
Burst #	# Pulses	Pulse Width (us)	Chirp (MHz)	Interval 1 to 2 (us)	Interval 2 to 3 (us)	Start time (s)
1	2	82.3	8	1626.0	-	0.673054
2	3	51.6	13	1034.0	1625.0	1.555607
3	2	61.4	17	1474.0	-	2.862146
4	1	53.9	5	-	-	4.300258
5	2	76.6	12	1108.0	-	5.347924
6	1	84.9	5	-	-	6.380466
7	2	79.6	8	1651.0	-	6.904912
8	3	96.3	18	1804.0	1372.0	7.885524
9	2	66.2	11	1341.0	-	9.394286
10	1	93.2	6	-	-	10.562026
11	1	61.5	14	-	-	11.108018

Table 82 - Summary of All Results 802.11n 20MHz Control Unit (Final FW)				
Waveform Name	Pd (%)	Pd Required (%)	Number of Trials	Status
FCC Short Pulse Radar (Type 3)	100.0 %	60.0 %	30	PASSED

Table 83 - FCC Short Pulse Radar (Type 3) Results 802.11n 20MHz Control Unit (Final FW)						
Trial #	Pulses/ Burst	Pulse Width (us)	PRI (us)	Detected	Fr (MHz) and level (dBm)	Burst Information
1	17	8.1	439.0	Yes	5500.0MHz, -64.0dBm	Single burst
2	17	9.0	322.0	Yes	5495.0MHz, -64.0dBm	Single burst
3	17	7.6	347.0	Yes	5505.0MHz, -64.0dBm	Single burst
4	18	9.9	297.0	Yes	5500.0MHz, -64.0dBm	Single burst
5	17	9.8	257.0	Yes	5495.0MHz, -64.0dBm	Single burst
6	17	9.6	435.0	Yes	5505.0MHz, -64.0dBm	Single burst
7	18	9.3	374.0	Yes	5500.0MHz, -64.0dBm	Single burst
8	17	6.2	488.0	Yes	5495.0MHz, -64.0dBm	Single burst
9	18	6.0	399.0	Yes	5505.0MHz, -64.0dBm	Single burst
10	17	6.8	267.0	Yes	5500.0MHz, -64.0dBm	Single burst
11	17	7.5	206.0	Yes	5495.0MHz, -64.0dBm	Single burst
12	17	8.7	324.0	Yes	5505.0MHz, -64.0dBm	Single burst
13	18	6.4	392.0	Yes	5500.0MHz, -64.0dBm	Single burst
14	18	6.3	469.0	Yes	5495.0MHz, -64.0dBm	Single burst
15	16	9.5	304.0	Yes	5505.0MHz, -64.0dBm	Single burst
16	16	7.5	437.0	Yes	5500.0MHz, -64.0dBm	Single burst
17	16	9.4	499.0	Yes	5495.0MHz, -64.0dBm	Single burst
18	18	8.7	304.0	Yes	5505.0MHz, -64.0dBm	Single burst
19	18	8.0	258.0	Yes	5500.0MHz, -64.0dBm	Single burst
20	17	6.6	466.0	Yes	5495.0MHz, -64.0dBm	Single burst
21	16	8.8	492.0	Yes	5505.0MHz, -64.0dBm	Single burst
22	17	9.8	287.0	Yes	5500.0MHz, -64.0dBm	Single burst
23	17	9.0	394.0	Yes	5495.0MHz, -64.0dBm	Single burst
24	18	9.3	428.0	Yes	5505.0MHz, -64.0dBm	Single burst
25	17	7.0	274.0	Yes	5500.0MHz, -64.0dBm	Single burst
26	17	9.4	293.0	Yes	5495.0MHz, -64.0dBm	Single burst
27	17	9.7	475.0	Yes	5505.0MHz, -64.0dBm	Single burst
28	17	6.7	256.0	Yes	5500.0MHz, -64.0dBm	Single burst
29	17	8.1	371.0	Yes	5495.0MHz, -64.0dBm	Single burst
30	17	9.9	206.0	Yes	5505.0MHz, -64.0dBm	Single burst

Appendix C Test Data Tables and Plots for Channel Closing

FCC PART 15 SUBPART E Channel Closing Measurements

Table 84 - FCC Part 15 Subpart E Channel Closing Test Results					
Waveform Type	Channel Closing Transmission Time [1]		Channel Move Time		Result
	Measured	Limit	Measured	Limit	
Radar Type 1	0	60 ms	0.2 s	10 s	Pass
Radar Type 5	0	60 ms	0.0 s	10 s	Pass

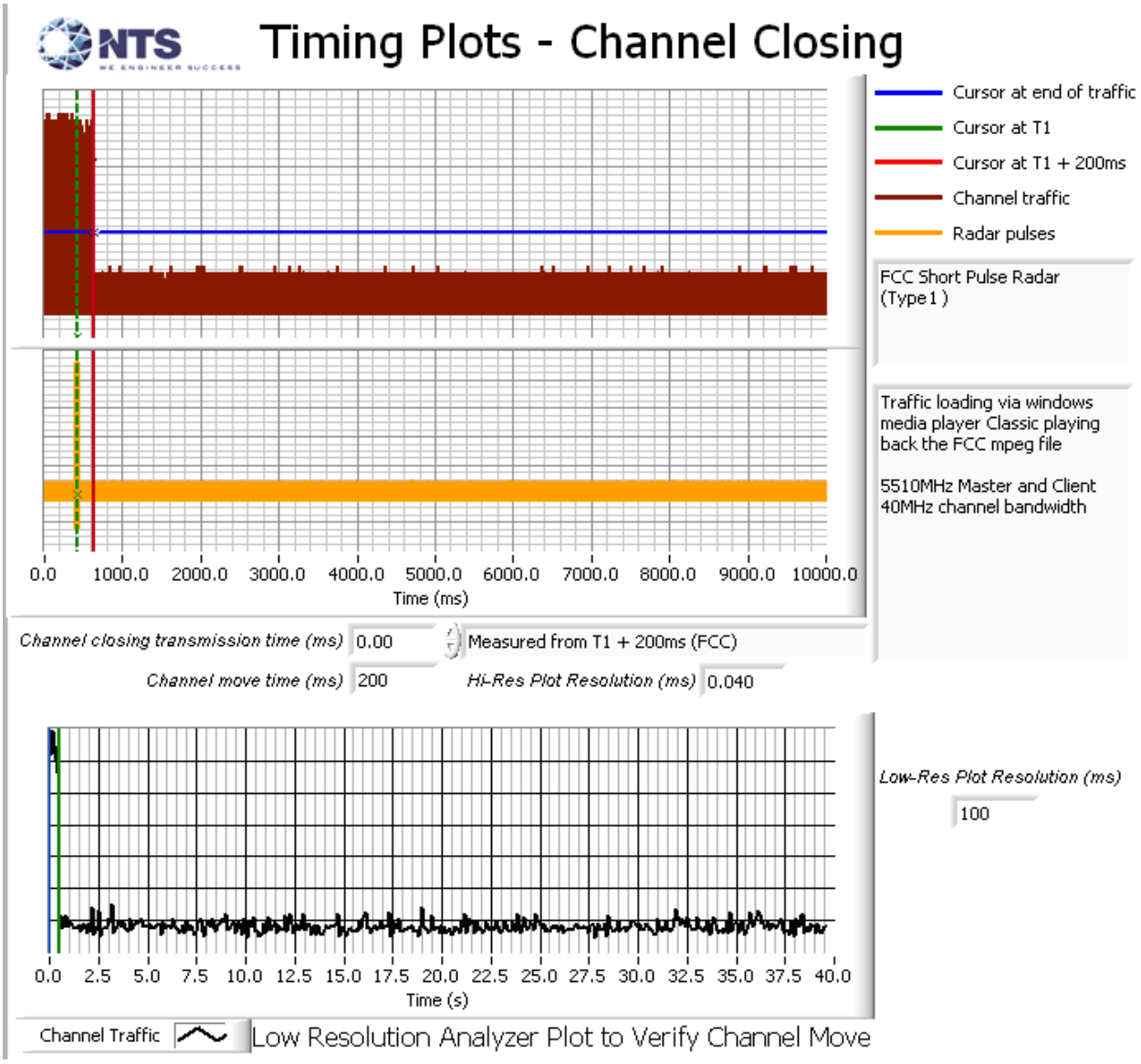

Figure 9 Channel Closing Time and Channel Move Time (n40 mode) – 40 second plot

[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.

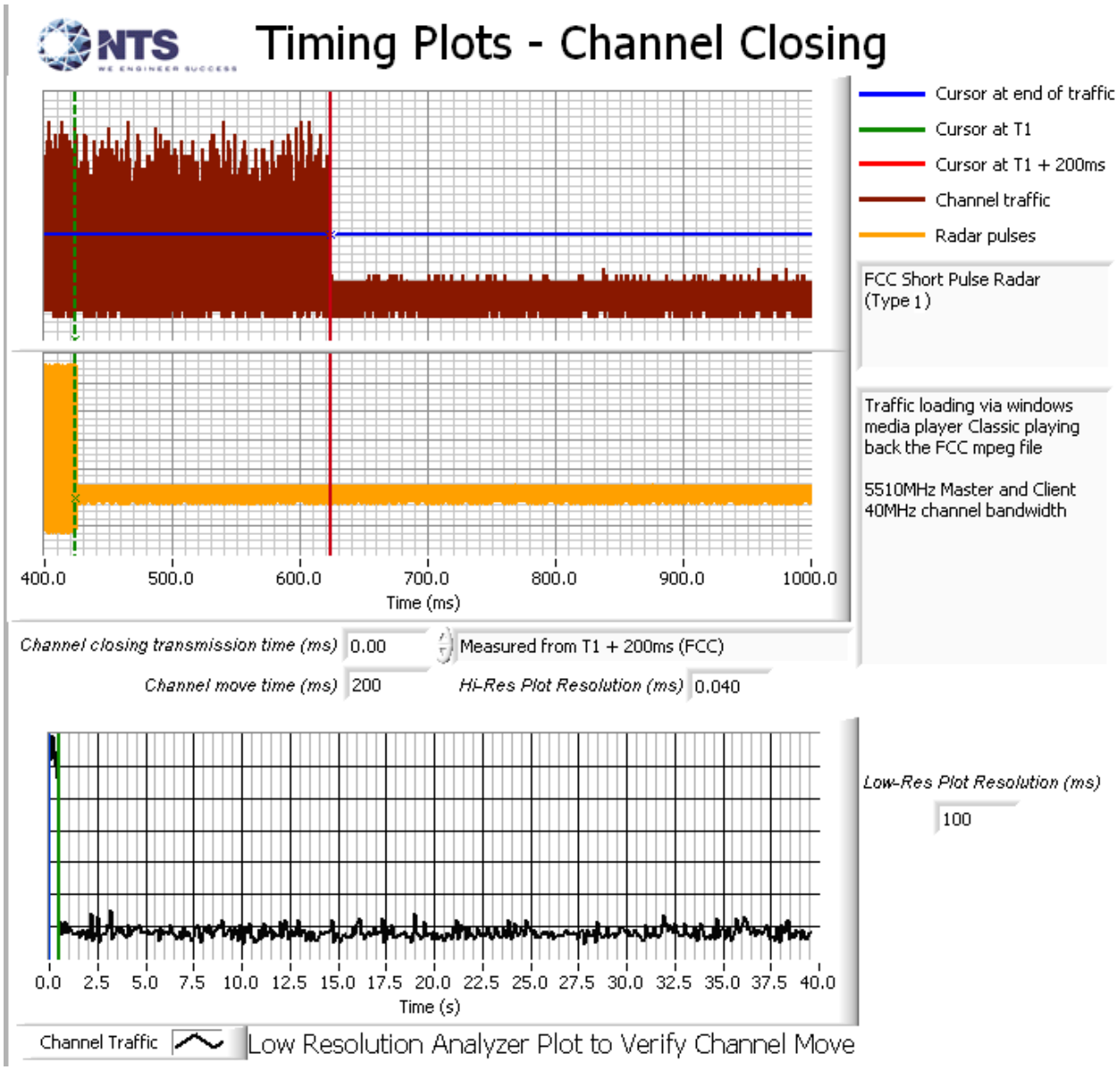

Figure 10 Close-Up of Transmissions Occurring More Than 200ms After The End of Radar (n40 mode)

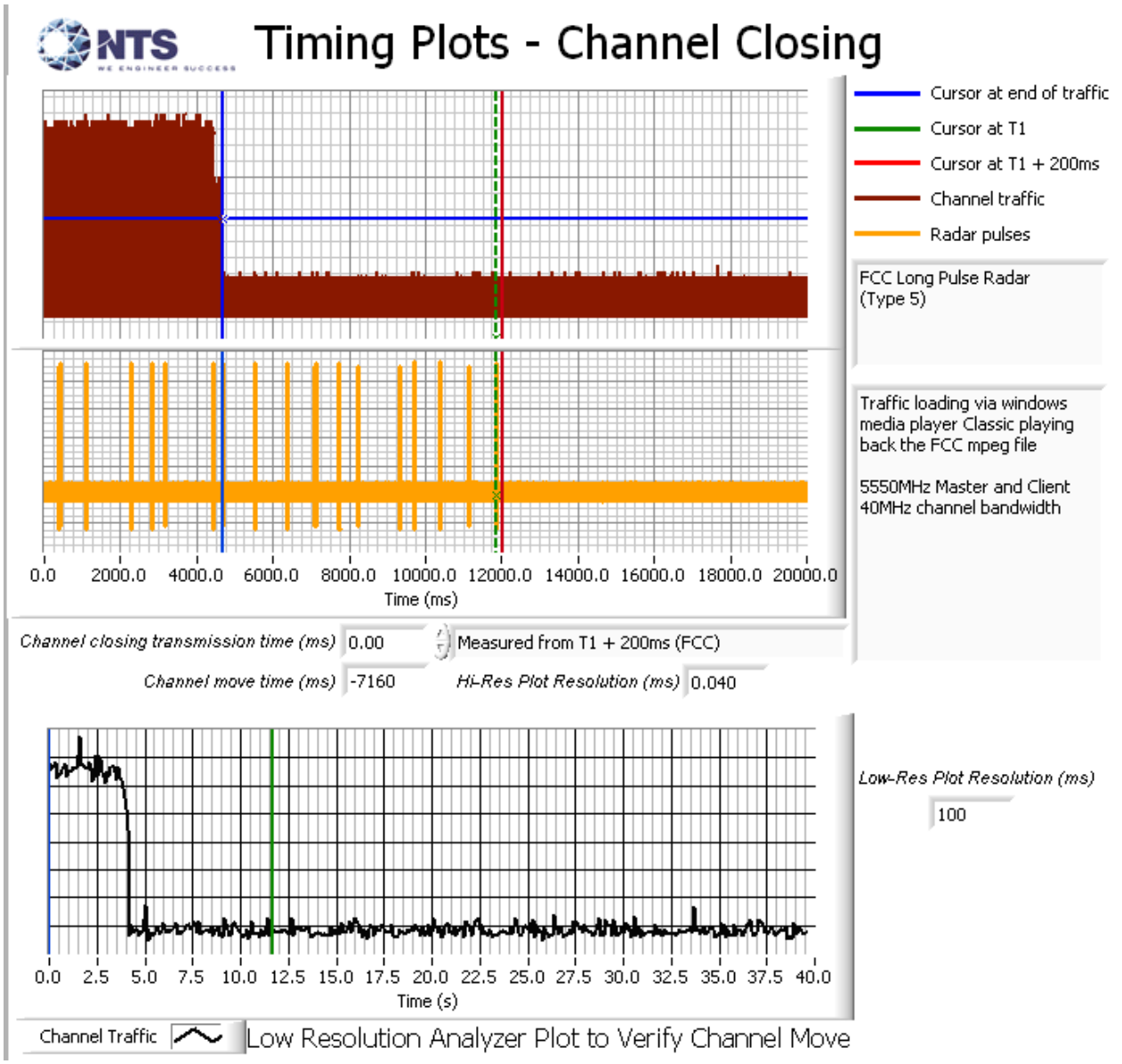

Figure 11 Channel Closing Time and Channel Move Time (n40 mode) – 40 second plot

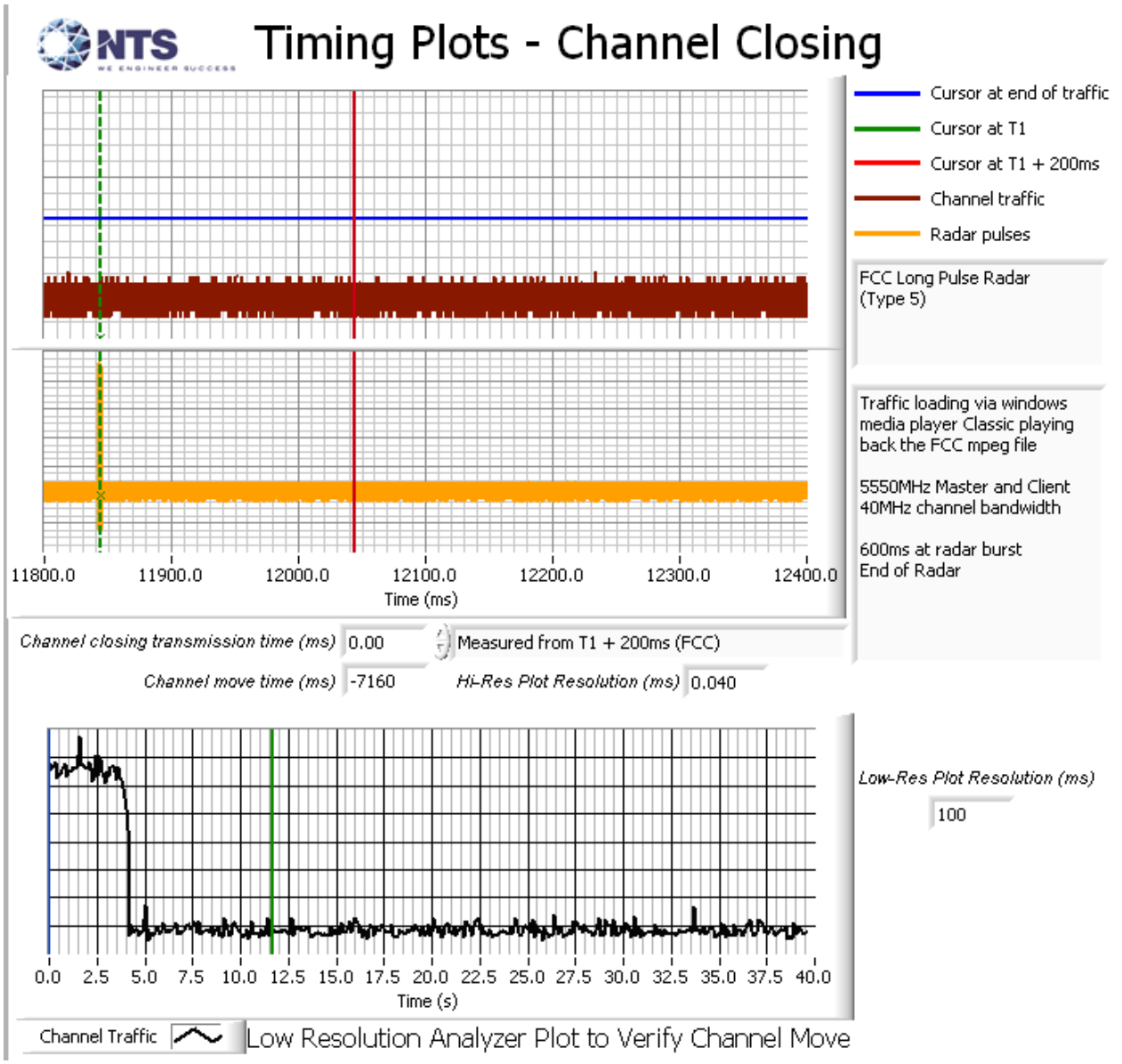

Figure 12 Close-Up of Transmissions Occurring More Than 200ms After The End of Radar (n40 mode)

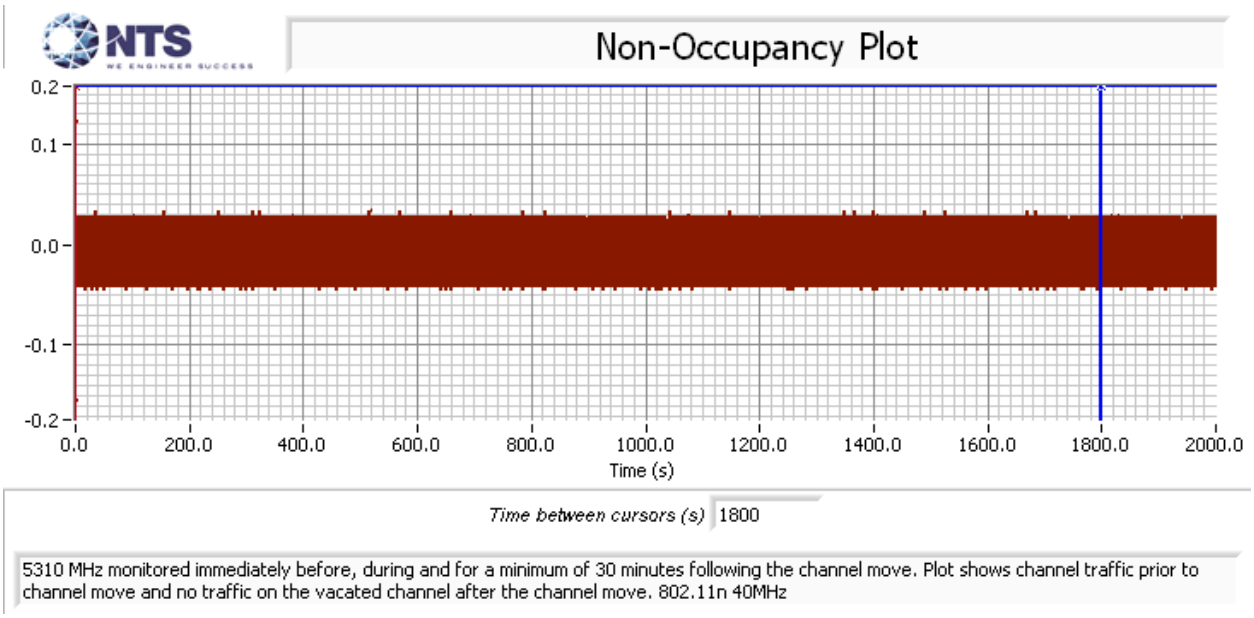

Figure 13 Radar Channel Non-Occupancy Plot (mode)

The non-occupancy plot was made over a 30-minute time period following the channel move time with the analyzer IF output connected to the scope and tuned to the vacated channel. No transmissions were observed on the vacated channel after the channel move had been completed.

After the channel move the client device stopped transmitting on the vacated channel.

Appendix D Test Data – Channel Availability Check

5250- 5350 MHz, 5470 – 5725 MHz

The first plot shows the first transmissions on a channel after restarting/power cycling the master device, with no radar applied during the CAC. The start of CAC is assumed to be 60 seconds before the first transmission as indicated by the green cursor line.

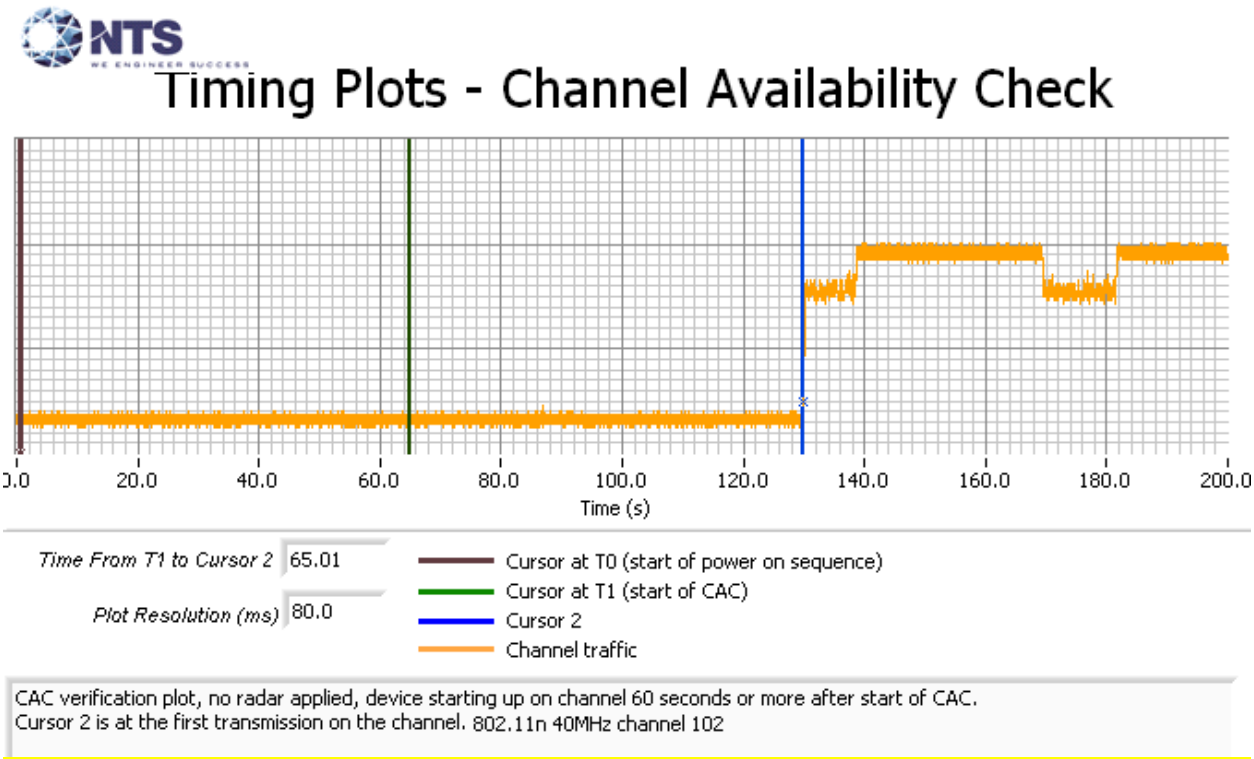

Figure 14 Plot of EUT Start-Up After CAC

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 102 (5510 MHz).

The start time is the same for each of the plots and the green cursor is positioned to coincide with the start of the Channel Availability Check period based on the plot taken with no radar applied during the CAC.

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.

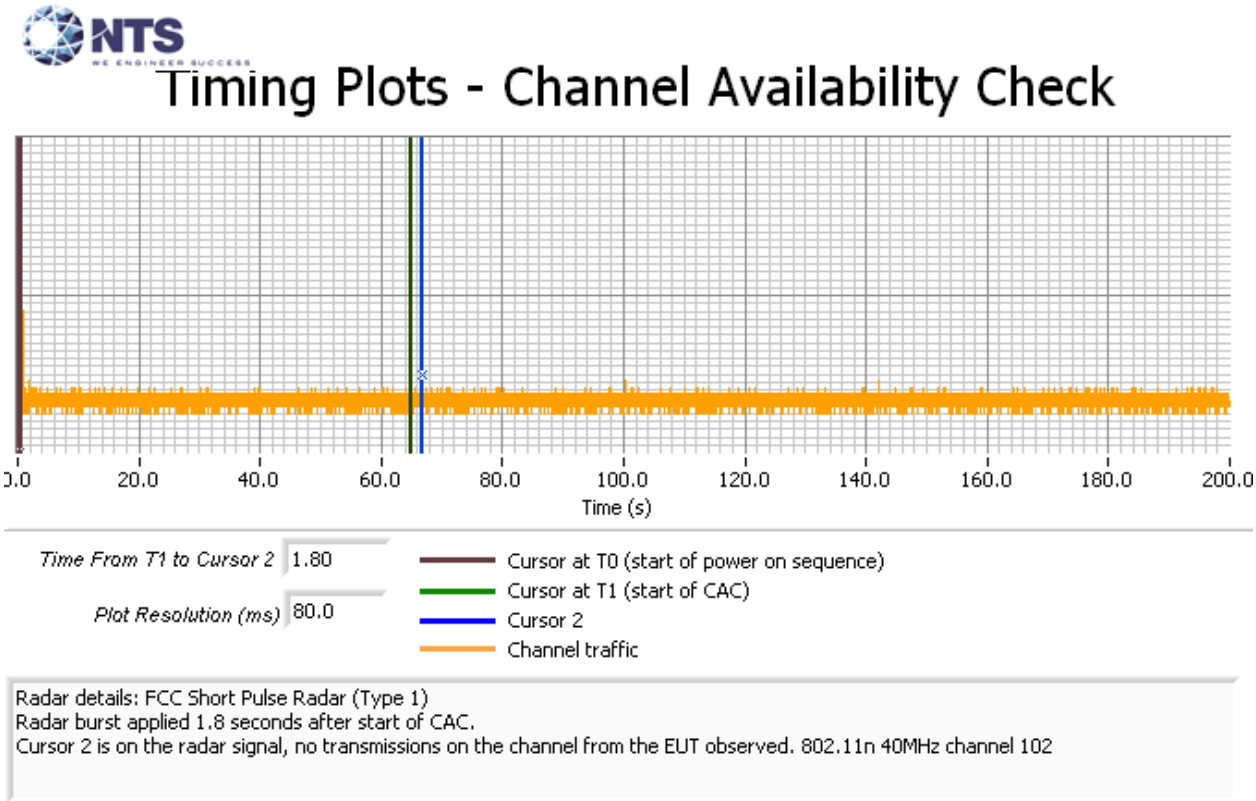

Figure 15 Radar Applied At Start of CAC

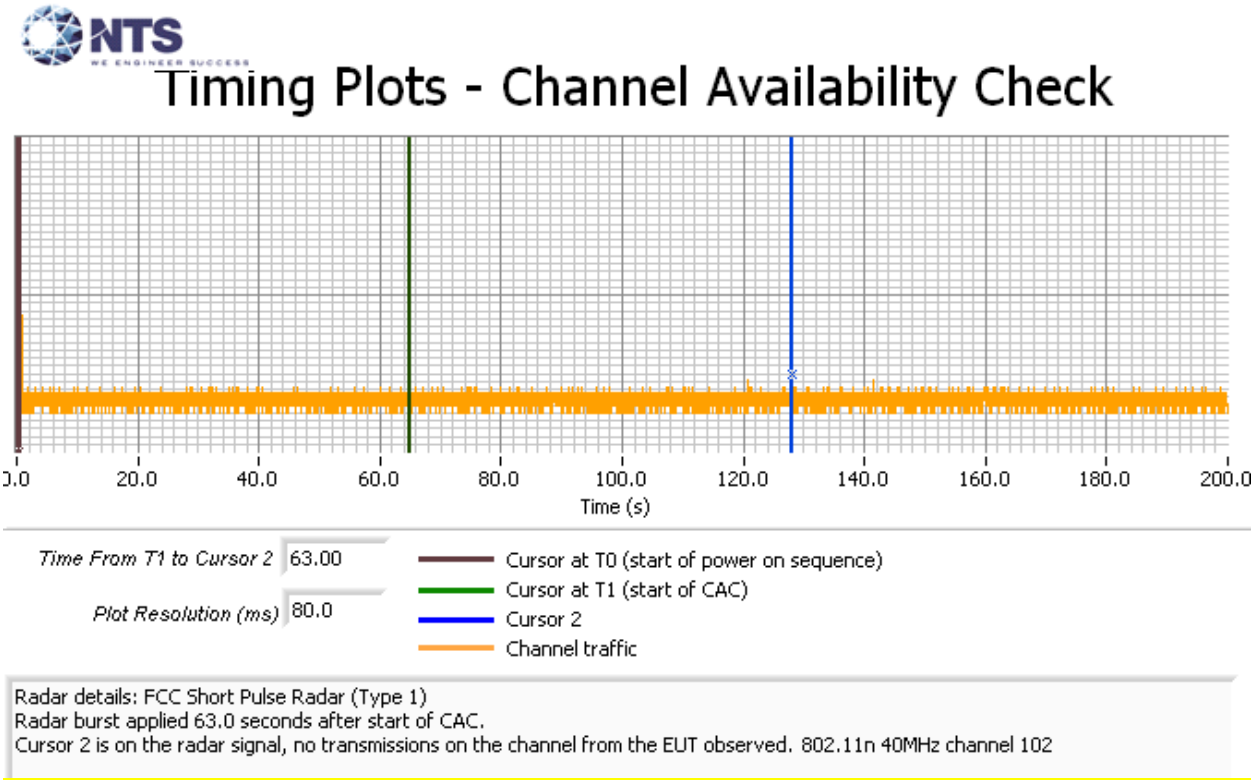

Figure 16 Radar Applied At End of CAC

Appendix E Antenna Specification

Product Specifications

Rosenberger

S-Wave 51-17-19D

DUAL POLARIZATION DIRECTIONAL ANTENNA

Main Features

- Low weight and low profile
- High reliability
- Simple installation

Electrical Specifications

Frequency	5150-5725 MHz	5725-5875MHz
Gain	19±0.5 dBi	19.5±0.5 dBi
VSWR	1.5 : 1 (typ), 1.7:1 (max)	
Polarization	Dual Linear (Vertical and Horizontal)	
Horizontal Half Power Beamwidth	17°（typ）	
Vertical Half Power Beamwidth	17°（typ）	
Horizontal Sidelobe	10 dB	
Vertical Sidelobe	10 dB	
Cross Polarization	20 dB（typ）	
Front-to-back ratio	30 dB	
Isolation, Between ports	30 dB	
Impedance	50 Ω	
Power Handling	6 W	

Environmental Specifications

Operating temperature range	-40°C to +65°C
Storage temperature range	-55°C to +70°C

Mechanical Specifications

Input	2 x SMA R/A Female
Lightning Protection	DC Ground
Dimensions	190 x 190x 30.5 mm
Weight	0.7 kg
Maximum Wind Velocity	200 km/h
Reflector Material	Aluminum
Radome Material	PP

A130410V905239

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电子邮箱：info@rosenbergerap.com

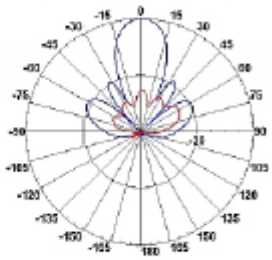
Product Specifications

Rosenberger

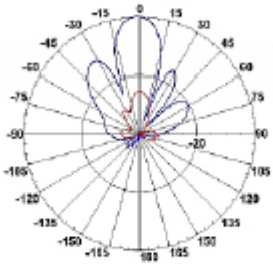
S-Wave 51-17-19D

DUAL POLARIZATION DIRECTIONAL ANTENNA

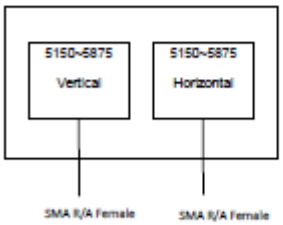
Patterns



Horizontal Pattern



Vertical Pattern



A130410V905239

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网址: www.rosenbergerap.com
电子邮箱: info@rosenbergerap.com

Appendix F Test Configuration Photograph(s)

DragonWave
www.dragonwaveinc.com
Harmony Lite 5.x GHz
Integrated
T561LT5G190.00
F1003GGL0031
0168
TÜV
SÜD
NRTL
IP65
11 2013
Assembled in China

DragonWave
www.dragonwaveinc.com
Harmony Lite 5.x GHz
Integrated
T561LT5G190.00
F1003GHA0036
0168
TÜV
SÜD
C
NRTL
US
IP66
Jan 2014
Assembled in China

End of Report

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