DFS Portion of FCC CFR47 PART 15 SUBPART E
DFS Portion of INDUSTRY CANADA RSS-210 ISSUE 7

CERTIFICATION TEST REPORT

FOR

SUMMIT FS848 MASTER MODULE (WHEELER 2.04)

MODEL NUMBER: 444-2203

FCC ID: UA9100
IC: 9129A-100

REPORT NUMBER: 10U13441-1

ISSUE DATE: OCTOBER 22, 2010

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	10/22/10	Initial Issue	M. Heckrotte

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Summit Semiconductor LLC
22867 NW Bennett St. Suite 200
Hillsboro, Oregon 97124, U.S.A

EUT DESCRIPTION: Summit FS848 Master Module (Wheeler 2.04)

MODEL: 444-2203

SERIAL NUMBER: 028A

DATE TESTED: October 18 to 19, 2010

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
DFS Portion of CFR 47 Part 15 Subpart E	Pass
DFS Portion of INDUSTRY CANADA RSS-210 Issue 7 Annex 9	Pass

Compliance Certification Services (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

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UL CCS

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Douglas Anderson

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EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 15, FCC 06-96, RSS-210 Issue 7 and KDB Inquiry 437887.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. DYNAMIC FREQUENCY SELECTION

5.1. OVERVIEW

5.1.1. LIMITS

INDUSTRY CANADA

IC RSS-210 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-210 Issue 7 A9.4 (b) (ii) **Channel Availability Check Time:** …

Additional requirements for the band 5600-5650 MHz: Until further notice, devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

RSS-210 Issue 7 A9.4 (b) (iv) **Channel closing time:** the maximum channel closing time is 260 ms.

FCC

§15.407 (h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
Uniform Spreading	Yes	Not required	Not required

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode		
	Master	Client **(without DFS)**	Client **(with DFS)**
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes

Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

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

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds
Channel Closing Transmission Time	200 milliseconds + approx. 60 milliseconds over remaining 10 second period
The instant that the *Channel Move Time* and the *Channel Closing Transmission Time* begins is as follows: For the Short pulse radar Test Signals this instant is the end of the *Burst*. For the Frequency Hopping radar Test Signal, this instant is the end of the last radar burst generated. For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission. The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.	

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (Microseconds)	PRI (Microseconds)	Pulses	Minimum Percentage of Successful Detection	Minimum 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 6 – Long Pulse Radar Test Signal

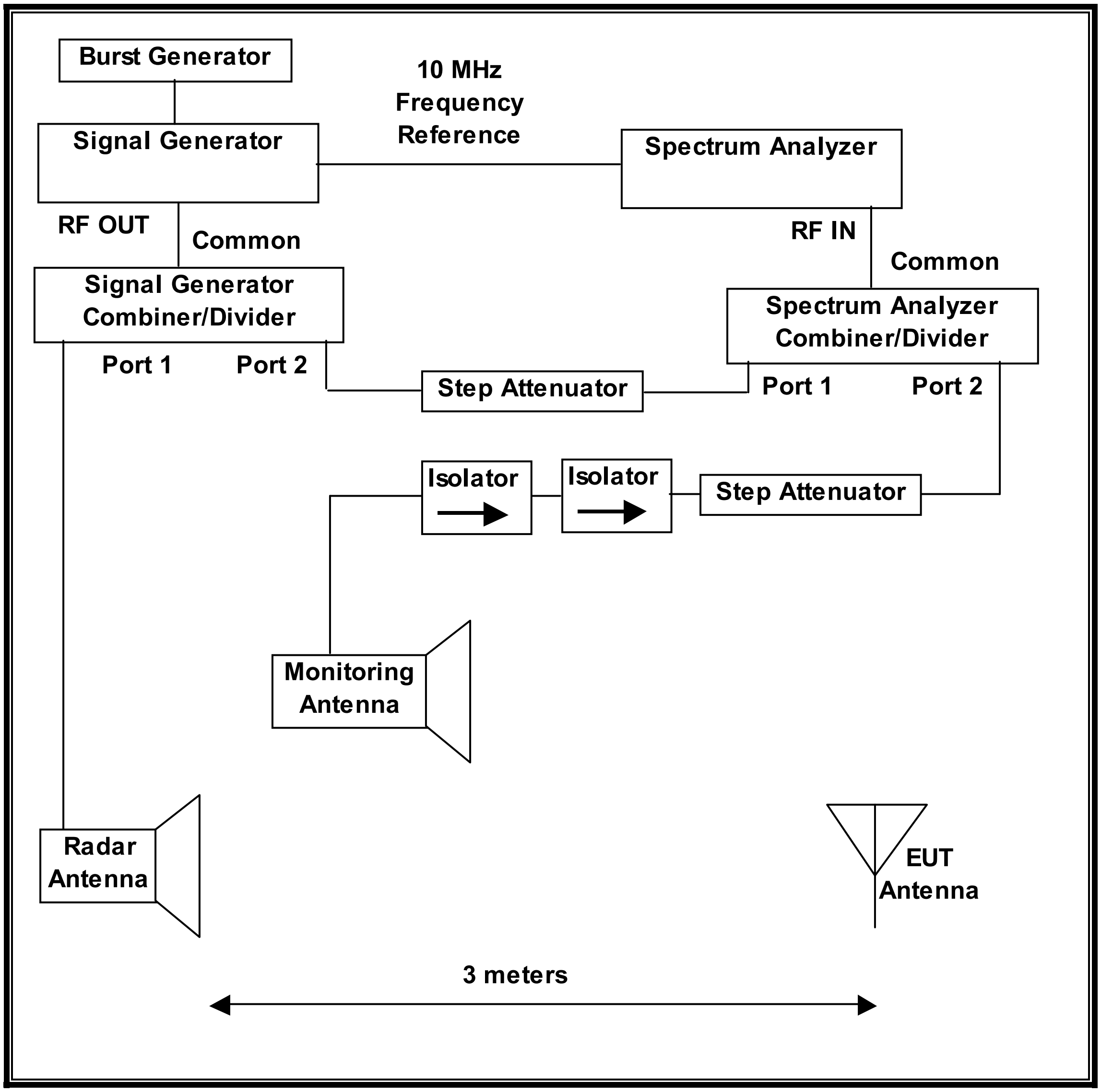
Radar Waveform	Bursts	Pulses per Burst	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Minimum Percentage of Successful Detection	Minimum Trials
5	8-20	1-3	50-100	5-20	1000-2000	80%	30

Table 7 – Frequency Hopping Radar Test Signal

Radar Waveform	Pulse Width (µsec)	PRI (µsec)	Burst Length (ms)	Pulses per Hop	Hopping Rate (kHz)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	300	9	.333	70%	30

5.1.2. TEST AND MEASUREMENT SYSTEM

RADIATED METHOD SYSTEM BLOCK DIAGRAM



SYSTEM OVERVIEW

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Freqeuncy Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from F_L to F_H for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

SYSTEM CALIBRATION

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The audio test file is streamed to generate network traffic. The monitoring antenna is adjusted so that the traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

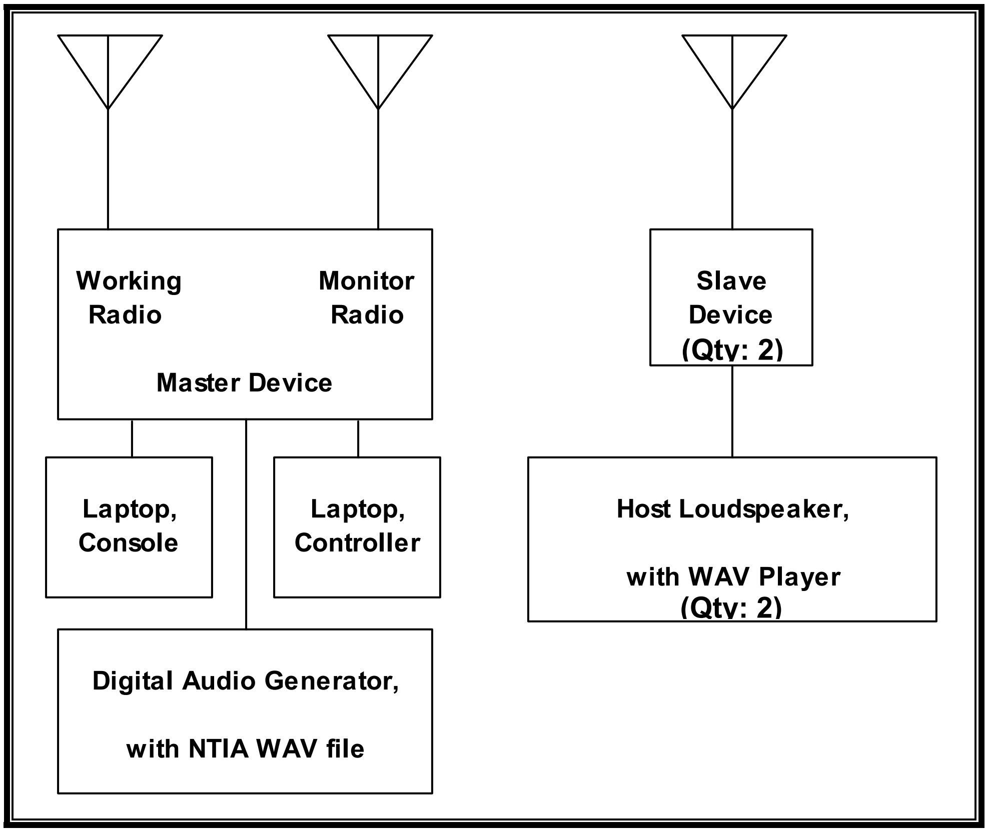
TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the DFS tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset Number**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	09/03/11
Vector signal generator, 20GHz	Agilent / HP	E8267C	C01066	11/16/10
Arbitrary Waveform Generator	Agilent / HP	33220A	C01146	05/13/12

5.1.3. SETUP OF EUT

RADIATED METHOD EUT TEST SETUP



The orientation of the Master Device is set up and maintained in accordance with KDB 437887 during the entire test.

SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter (Master EUT)	Danyang Chenyang Tech Electron Co.,	CYSB15-120125	02116	DoC
Notebook PC (Console)	Dell	PP04X	17911087201	DoC
AC Adapter (Console PC)	Delta Electronics	DA90PS0-00	CN-0XD757-48661-63I-5CFI	DoC
Notebook PC (Controller)	Dell	PP18L	34220464525	DoC
AC Adapter (Controller PC)	Delta Electronics	DA90PS1-00	CN-0MM545-48661-84G-7U4R	DoC
Digital Audio Signal Generator	NTI	G2D-DEMZV-C1	02117	DoC
AC Adapter (Audio S/G)	Jameco	DDU075110	02115	DoC
Slave Device (Qty: 2)	Summit Semiconductor	444-2196	02EA11000181 and 02EA11000171	UA92196 (Pending)
Compact 2-Way Loudspeaker (Slave	JBL	Control 1 Pro	M-908-070630-A and M-908-070630-	DoC

5.1.4. DESCRIPTION OF EUT

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges, excluding operation in the 5600 to 5650 MHz band.

The EUT is a Master Device, consisting of a Working Radio, Monitor Radio and Control System. The Monitor Radio is a receive-only device incorporating CAC and In-Service Monitoring. The Working Radio is a transceiver incorporating In-Service Monitoring. Operational DFS functions such as Channel selection and Non-Occupancy are managed by the Control System.

By design the minimum frequency separation between the Monitor Radio and the Working Radio is 40 MHz to prevent Working Radio transmissions from overloading or saturating the Monitor Radio.

The highest power level within these bands is 14.5 dBm EIRP in the 5250-5350 MHz band and 15 dBm EIRP in the 5470-5725 MHz band.

The lowest antenna assembly gain utilized with the EUT has a gain of 2.2 dBi. The highest antenna assembly gain utilized with the EUT has a gain of 4.6 dBi.

The Working Radio and Monitor Radio utilize identical antennas.

The rated output power of the Master unit is < 23dBm (EIRP). Therefore the required interference threshold level is –62 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is -62 + 1 = -61 dBm.

The Working Radio uses one transmitter/receiver chain, connected to a minimum gain (2.2 dBi) antenna to perform radiated tests.

The Monitor Radio uses one receive-only chain, connected to a minimum gain (2.2 dBi) antenna to perform radiated tests.

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

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

The EUT utilizes a proprietary frame-based architecture. One nominal channel bandwidth, 20 MHz, is implemented.

Three network frame rates are implemented, corresponding to audio sampling rates of 32, 44.1 and 48 kHz. The worst-case network frame rate with respect to the talk/listen ratio is with an audio sampling rate of 48 kHz.

Traffic is generated by streaming the audio file “5_GHz_Audio_Test_file.WAV” from the Master to the Slave. This WAV file is based on a 44.1 kHz sampling rate. The digital audio signal generator is used to convert the sampling rate to generate audio at the 48 kHz sampling rate.

The DFS software installed in the radio is DFS Firmware Version 1.0.

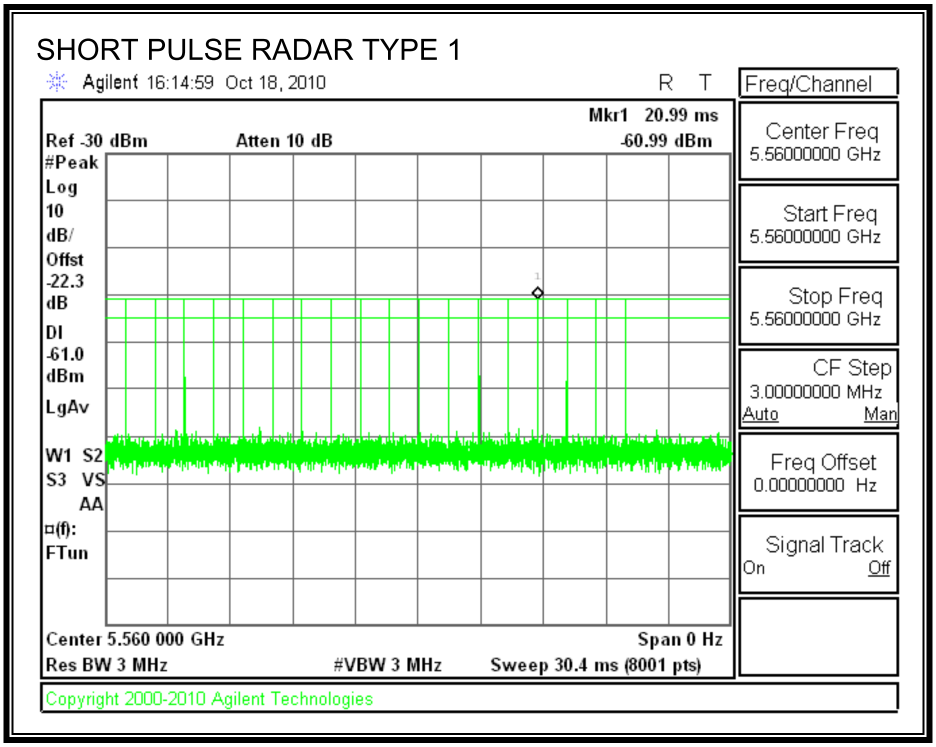
MANUFACTURER'S STATEMENT REGARDING UNIFORM CHANNEL SPREADING

This statement is in a separate document.

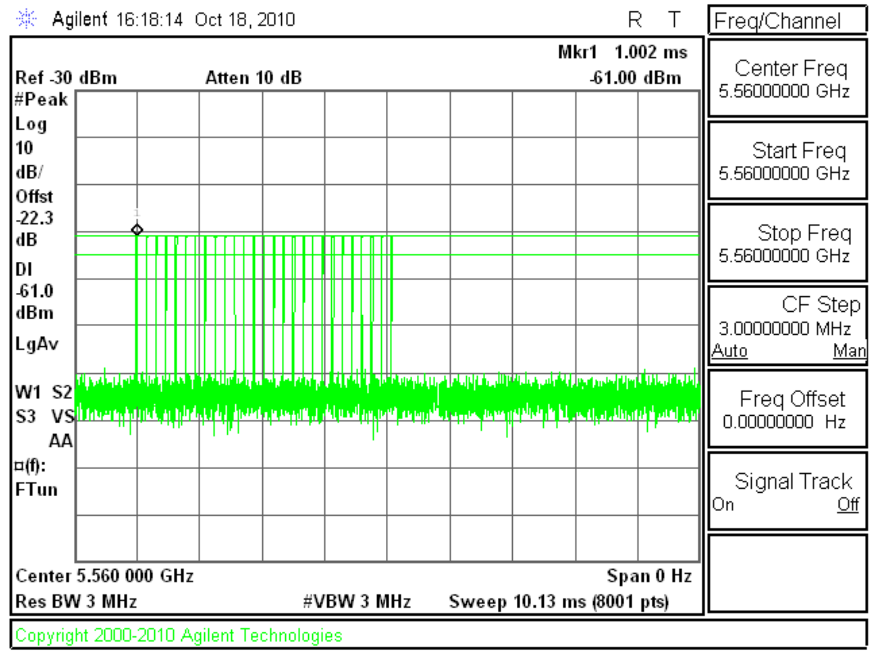
5.2. RADAR WAVEFORMS AND TRAFFIC

5.2.1. RADAR WAVEFORMS

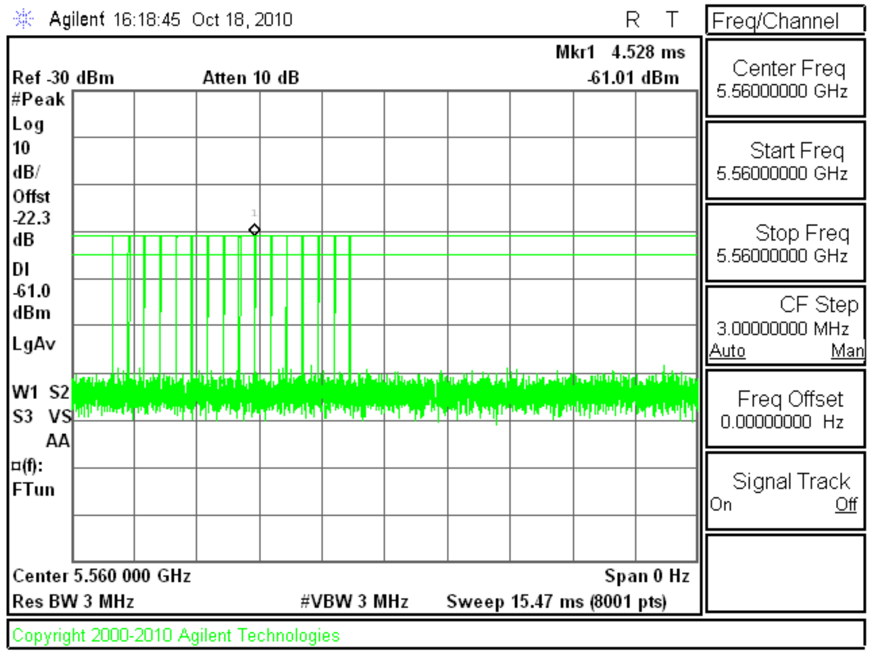
RADAR WAVEFORMS

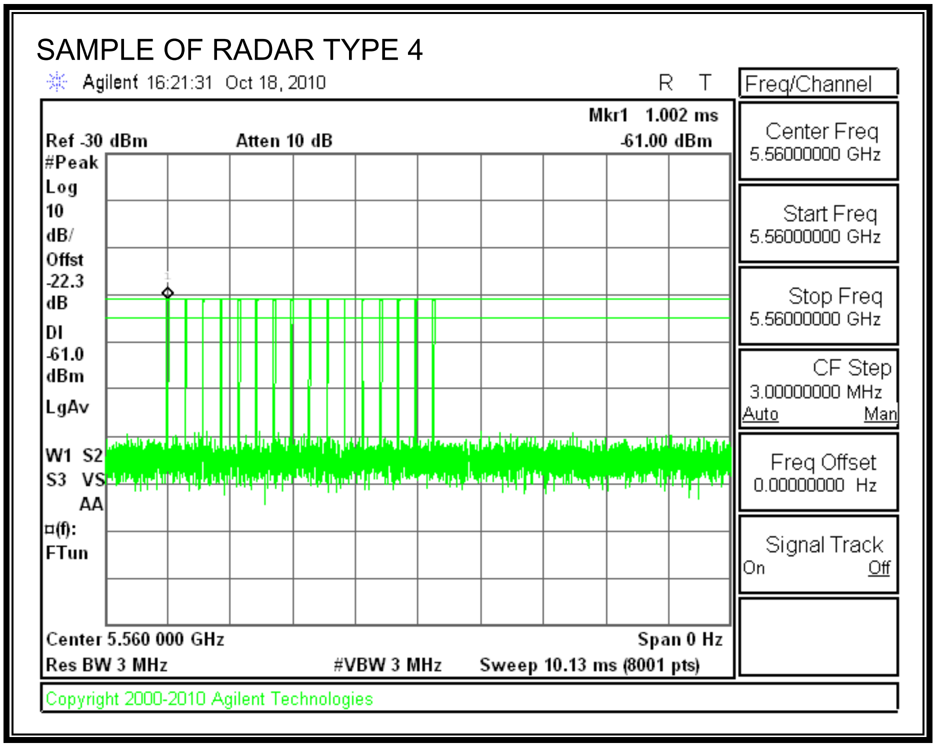


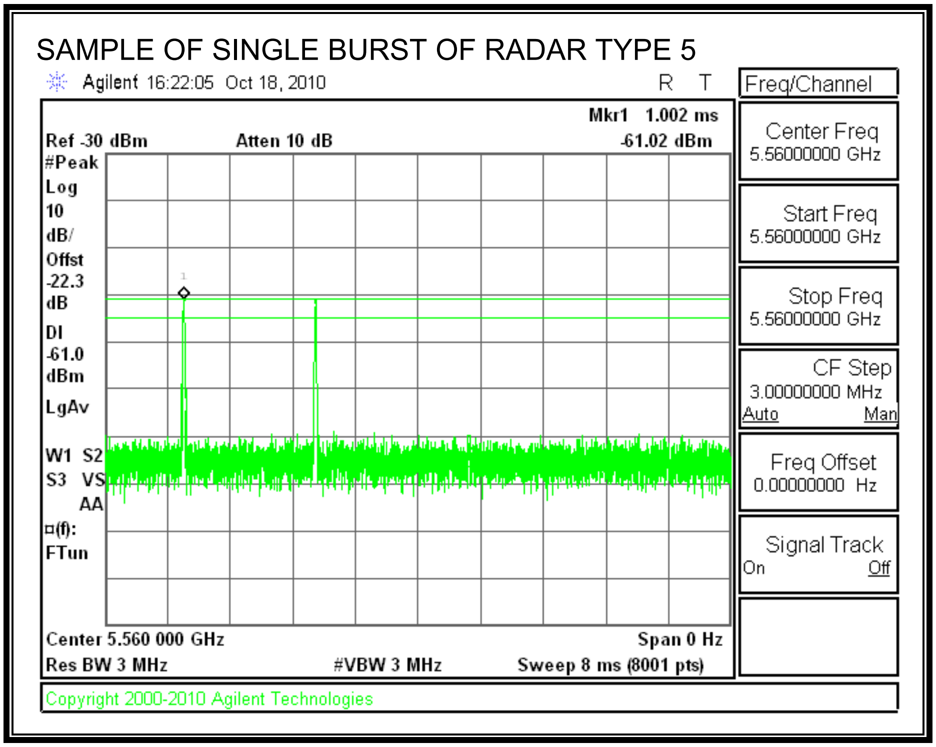
SAMPLE OF RADAR TYPE 2



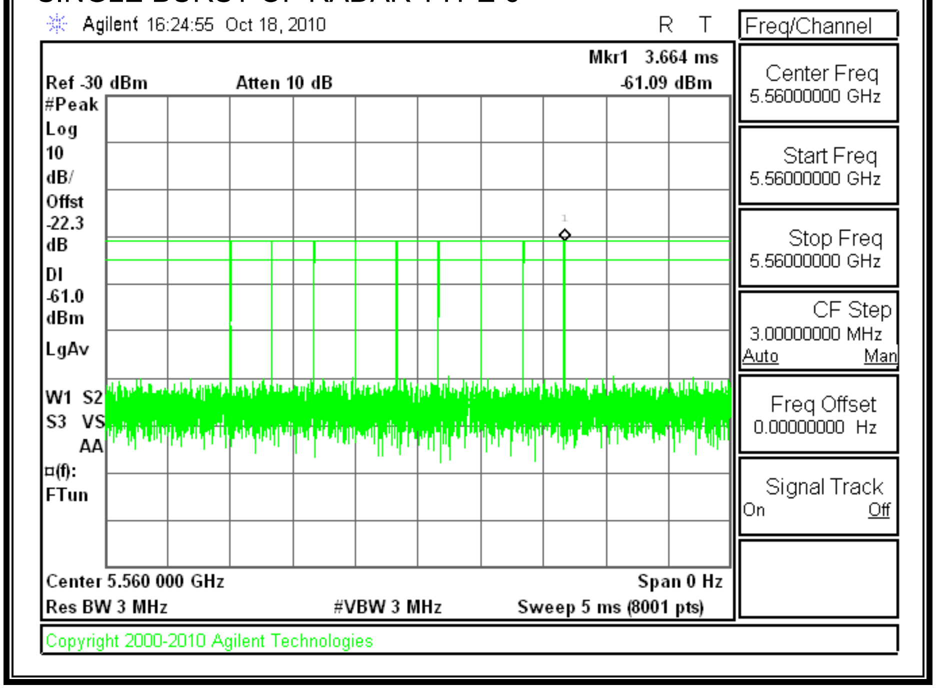
SAMPLE OF RADAR TYPE 3




SAMPLE OF RADAR TYPE 4
Agilent 16:21:31 Oct 18, 2010
R T
Freq/Channel
Mkr1 1.002 ms
Ref -30 dBm
Atten 10 dB
-61.00 dBm
#Peak
Log
10
dB/
Offst
-22.3
dB
Dl
-61.0
dBm
LgAv
W1 S2
S3 VS
AA
FTun
Center 5.560 000 GHz
Span 0 Hz
Res BW 3 MHz
#VBW 3 MHz
Sweep 10.13 ms (8001 pts)
Center Freq
5.56000000 GHz
Start Freq
5.56000000 GHz
Stop Freq
5.56000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2010 Agilent Technologies

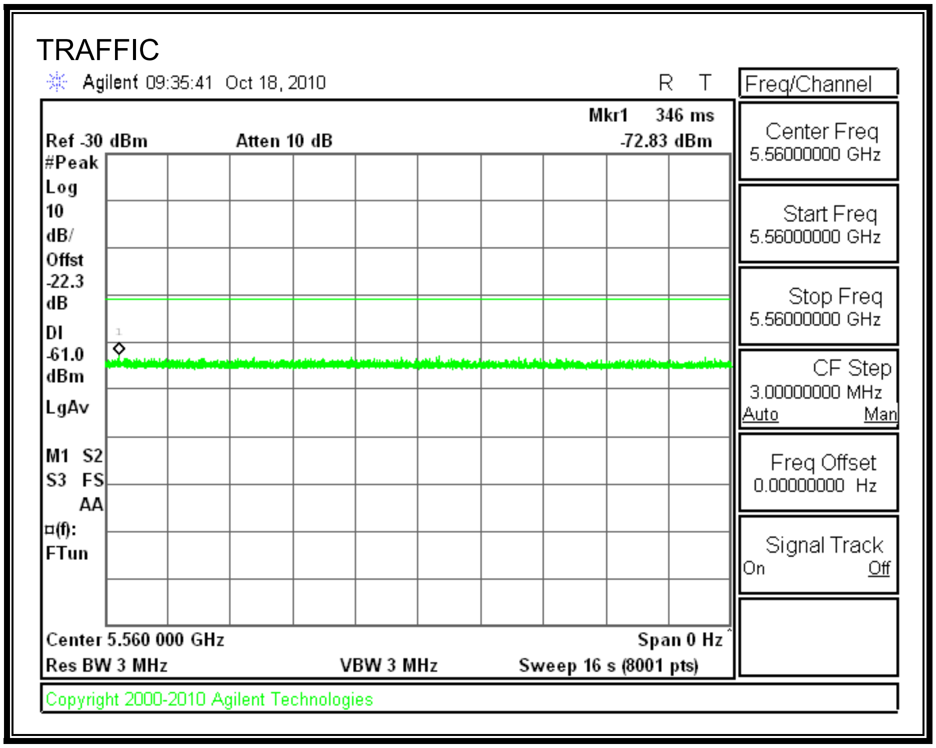

SAMPLE OF SINGLE BURST OF RADAR TYPE 5
Agilent 16:22:05 Oct 18, 2010
R T
Freq/Channel
Mkr1 1.002 ms
Ref -30 dBm
Atten 10 dB
-61.02 dBm
#Peak
Log
10
dB/
Offst
-22.3
dB
Dl
-61.0
dBm
LgAv
W1 S2
S3 VS
AA
FTun
Center Freq
5.56000000 GHz
Start Freq
5.56000000 GHz
Stop Freq
5.56000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 5.560 000 GHz
Span 0 Hz
Res BW 3 MHz
#VBW 3 MHz
Sweep 8 ms (8001 pts)
Copyright 2000-2010 Agilent Technologies

SINGLE BURST OF RADAR TYPE 6



5.2.2. WORKING RADIO TRAFFIC

WORKING RADIO TRAFFIC

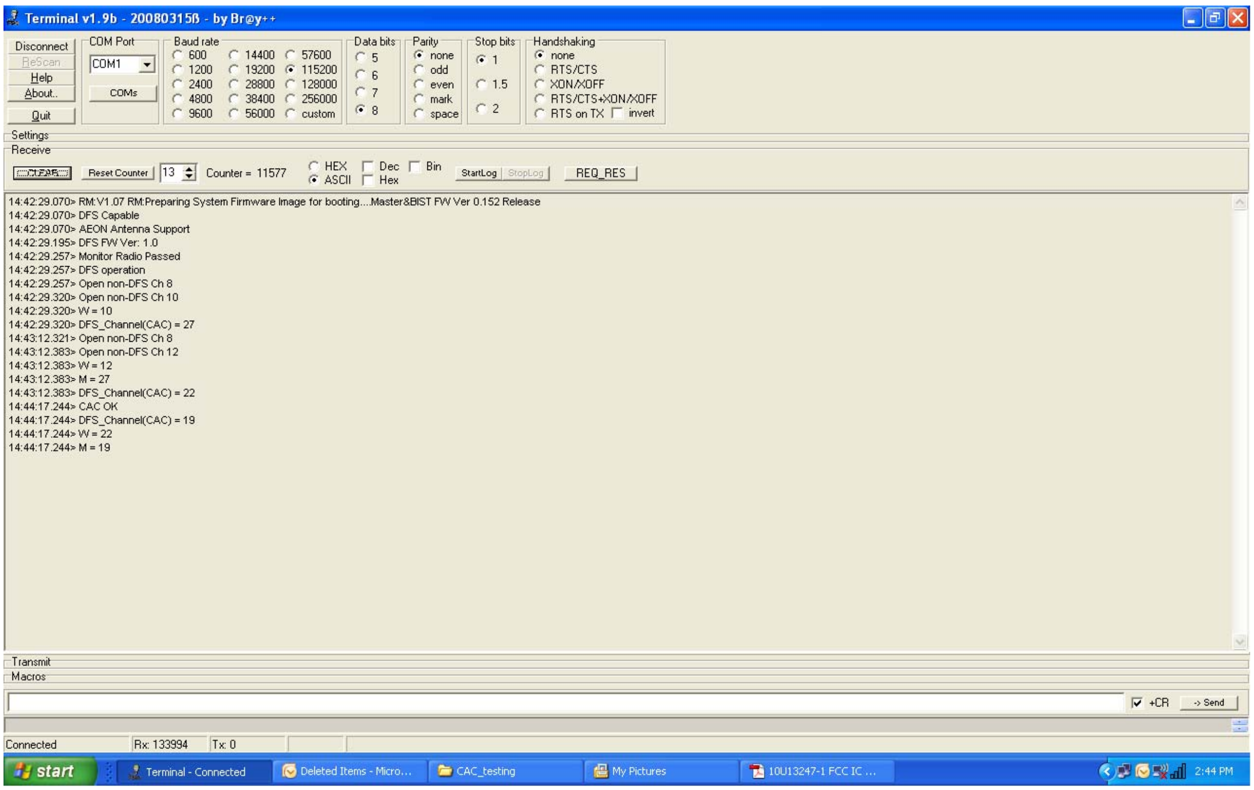


5.3. MONITOR RADIO TEST RESULTS

5.3.1. MONITOR RADIO FUNCTIONAL CHECK

<u>EUT TEST MODE LOG FILE FOR FUNCTIONAL OPERATIONAL CONDITION</u>

The EUT operates normally during this functional check.



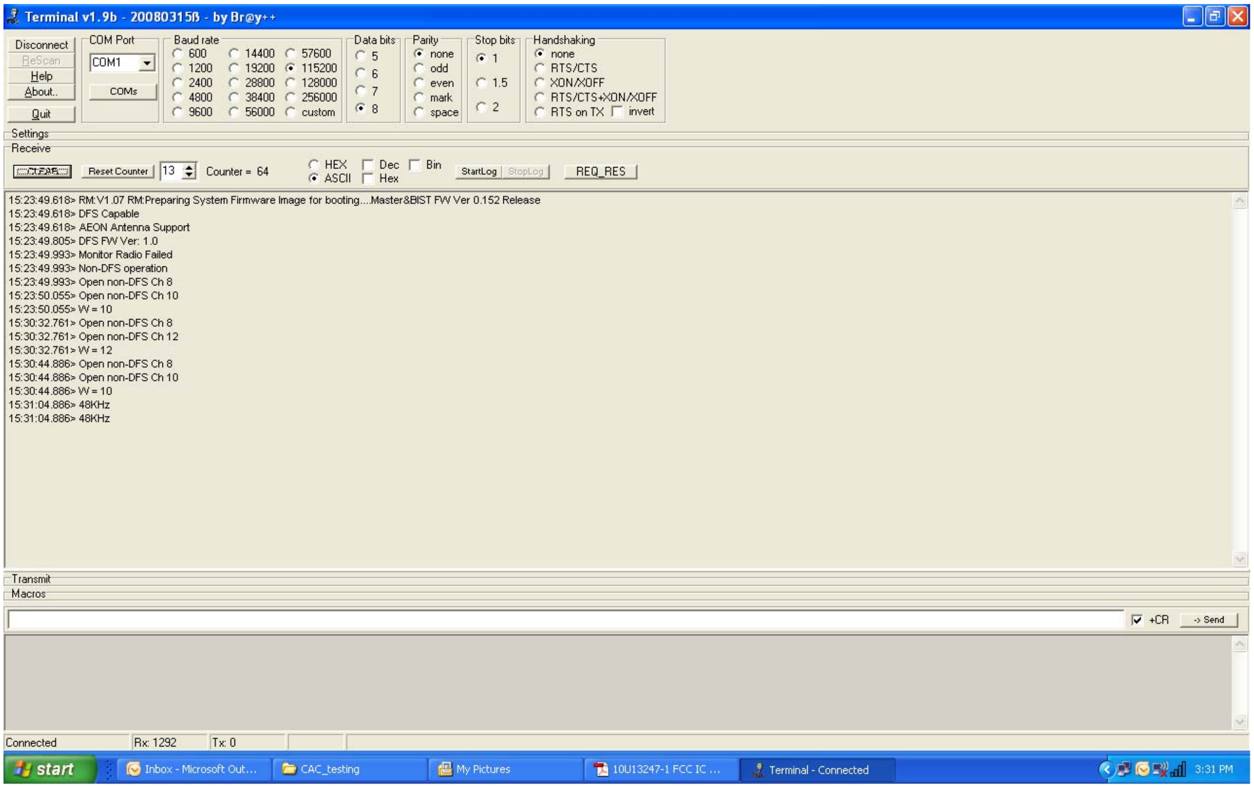
Time stamp 14:42:29.257 shows that the functional check was performed on a non-DFS channel and was successful. While the Monitor Radio was performing a CAC on Ch 27 (5660 MH) the Working Radio was tuned to Ch 10 (5200 MHz).

At 14:43:12.383 a network is established on the current Working Radio at a frequency of Ch 12 (5220 MHz). This forces the Monitor Radio to start a CAC on Ch 22 (5560 MHz).

At 14:44:17.244 the CAC on 5560 MHz is completed and the Working Radio network is moved to Ch 22 (5560 MH); then the Monitor Radio begins a CAC on Ch 19 (5500 MHz).

EUT TEST MODE LOG FILE FOR NON-FUNCTIONAL OPERATIONAL CONDITION

The Working Radio RF output and Monitor Radio RF input are temporarily degraded by disconnecting both antennas during this functional check to simulate a problem with the Monitor Radio.



Time stamp 15:23:49.993 shows that the functional check is performed on a non-DFS channel and is not successful. The Working Radio establishes a network on Ch 10 (5200 MHz).

Since the functional test indicated a problem with the Monitor Radio, nothing else happens: the Monitor Radio neither tunes to a DFS channel nor starts a CAC, and no further entries would normally be made in the log file. Some commands were issued a few minutes later and time stamps at and later than 15:30:32.761 show that the log file would record any events if they were to occur. All events that did occur in response to the deliberate commands were on non-DFS channels.

5.3.2. CHANNEL AVAILABILITY CHECK TIME

PROCEDURE TO DETERMINE NEW CHANNEL CYCLE TIME

The Monitor Radio completes a CAC on an initial channel, at which time the Working Radio establishes a network on the initial channel and the Monitor Radio starts a CAC on the intended channel.

Within a few seconds of the Monitor Radio completing the CAC on the initial channel a radar signal was triggered on the initial channel. In response the Working Radio moves the network to a non-DFS channel. These actions will force the network to move to the intended channel upon successful completion of the CAC on the intended channel.

The time from the radar burst on the intended channel to the initialization of traffic (by the Working Radio) on the intended channel was measured as the approximate New Channel Cycle Time. The approximation is a function of the actual time between the completion of the CAC on the initial channel and the timing of the two radar bursts (initial channel and intended channel); only the burst on the intended channel is displayed on the spectrum analyzer.

The EUT Test Mode Log File also records the timing of these events. The time from the detection of radar (by the Working Radio) on the initial channel to the initialization of traffic (by the Working Radio) on the intended channel was measured as the New Channel Cycle Time.

PROCEDURE FOR TIMING OF RADAR BURST

The Monitor Radio completes a CAC on an initial channel, at which time the Working Radio establishes a network on this initial channel and the Monitor Radio starts a CAC on the intended channel.

Within a few seconds of the Monitor Radio completing the CAC on the initial channel a radar signal was triggered on the initial channel. In response the Working Radio moves the network to a non-DFS channel. These actions will force the network to move to the intended channel upon successful completion of the CAC on the intended channel.

A radar signal was triggered on the intended channel within 0 to 6 seconds after the beginning of the CAC on the intended channel and transmissions on the intended channel were monitored on the spectrum analyzer.

The time from the radar burst on the initial channel to the radar burst on the intended channel was measured as the approximate relative time from the start of the CAC. The approximation is a function of the actual time between the completion of the CAC on the initial channel and the timing of the two radar bursts (initial channel and intended channel); only the burst on the intended channel is displayed on the spectrum analyzer.

The EUT Test Mode Log File also records the timing of these events. The time from the beginning of the CAC (by the Monitor Radio) on the intended channel to the detection of the radar burst on the intended channel (by the Monitor Radio) was measured as the timing of the radar burst.

The above procedure was repeated for the 54 to 60 second window time.

APPROXIMATE QUANTITATIVE RESULTS BASED ON RF MARKERS

NO RADAR TRIGGERED ON INTENDED CHANNEL

The time from the radar burst on the initial channel to the initialization of traffic (by the Working Radio) on the intended channel was measured as the approximate New Channel Cycle Time.

RADAR TRIGGERED ON INTENDED CHANNEL

The time from the radar burst on the initial channel to the radar burst on the intended channel was measured as the approximate relative time from the start of the CAC.

No Radar Triggered

Timing of 5560 MHz Radar and Start of CAC on 5500 MHz (sec)	Start of Traffic on 5500 MHz (sec)	New Channel Cycle Time (sec)
65	129.80	64.80

Radar Near Beginning of CAC

Timing of 5560 MHz Radar and Start of CAC on 5500 MHz (sec)	Timing of Radar Burst on 5500 MHz (sec)	Radar Relative to Start of CAC on 5500 MHz (sec)
65	68.10	3.10

Radar Near End of CAC

Timing of 53560 MHz Radar and Start of CAC on 5500 MHz (sec)	Timing of Radar Burst on 5500 MHz (sec)	Radar Relative to Start of CAC on 5500 MHz (sec)
65	122.80	57.80

PRECISE QUANTITATIVE RESULTS BASED ON EUT TEST MODE LOG FILE TIME STAMPS

No Radar Triggered

Detection of Radar on 5560 MHz (hh:mm:ss)	Start of Traffic on 5500 MHz (hh:mm:ss)	New Channel Cycle Time (hh:mm:ss)
13:50:41.045	13:51:45.791	00:01:04.746

Radar Near Beginning of CAC

Start of CAC on 5500 MHz (hh:mm:ss)	Radar Detected on 5500 MHz (hh:mm:ss)	Radar Relative to Start of CAC (hh:mm:ss)
14:03:50.904	14:03:55.279	00:00:04.375

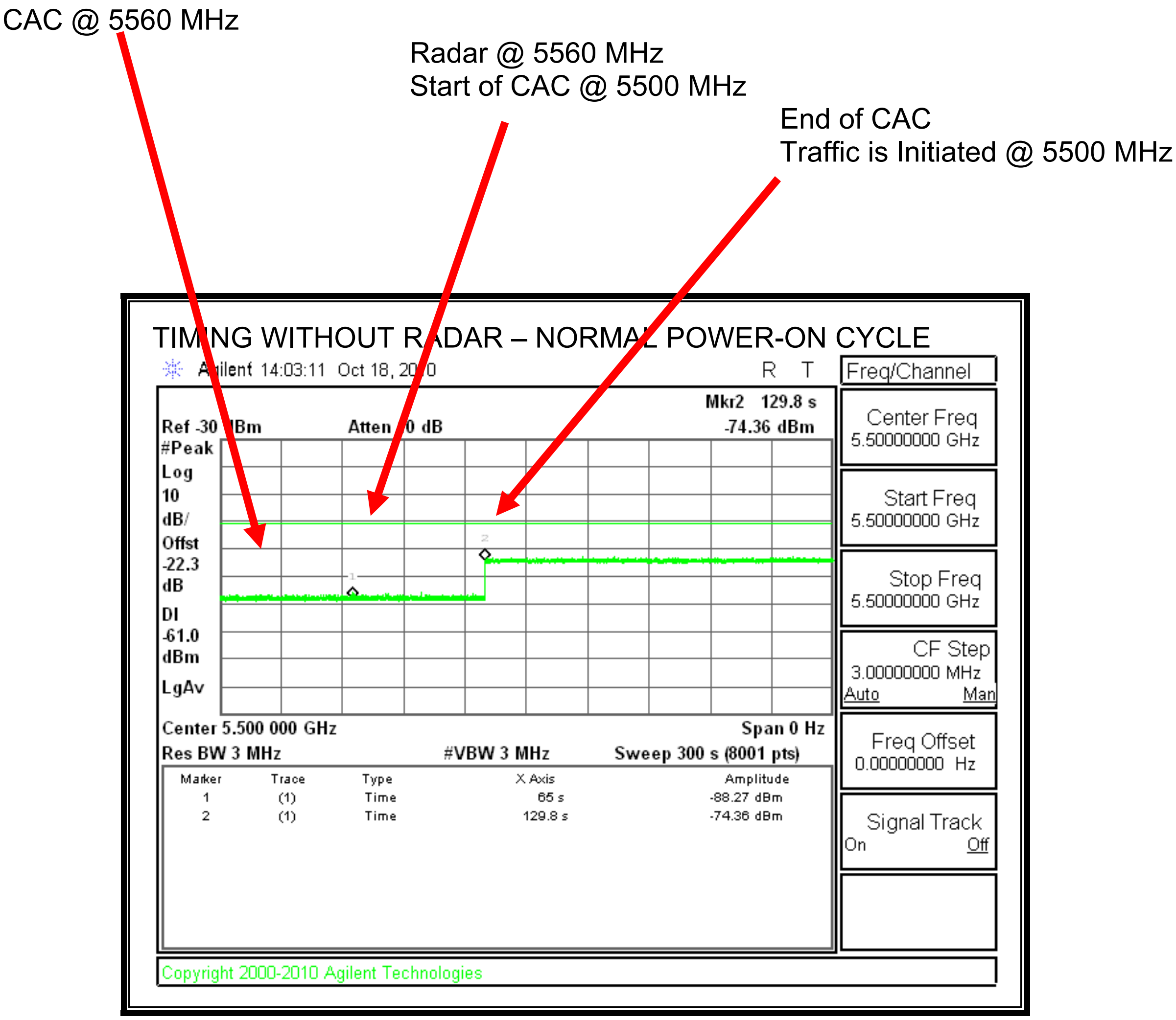
Radar Near End of CAC

Start of CAC on 5500 MHz (hh:mm:ss)	Radar Detected on 5500 MHz (hh:mm:ss)	Radar Relative to Start of CAC (hh:mm:ss)
14:14:03.867	14:15:02.181	00:00:58.314

QUALITATIVE RESULTS

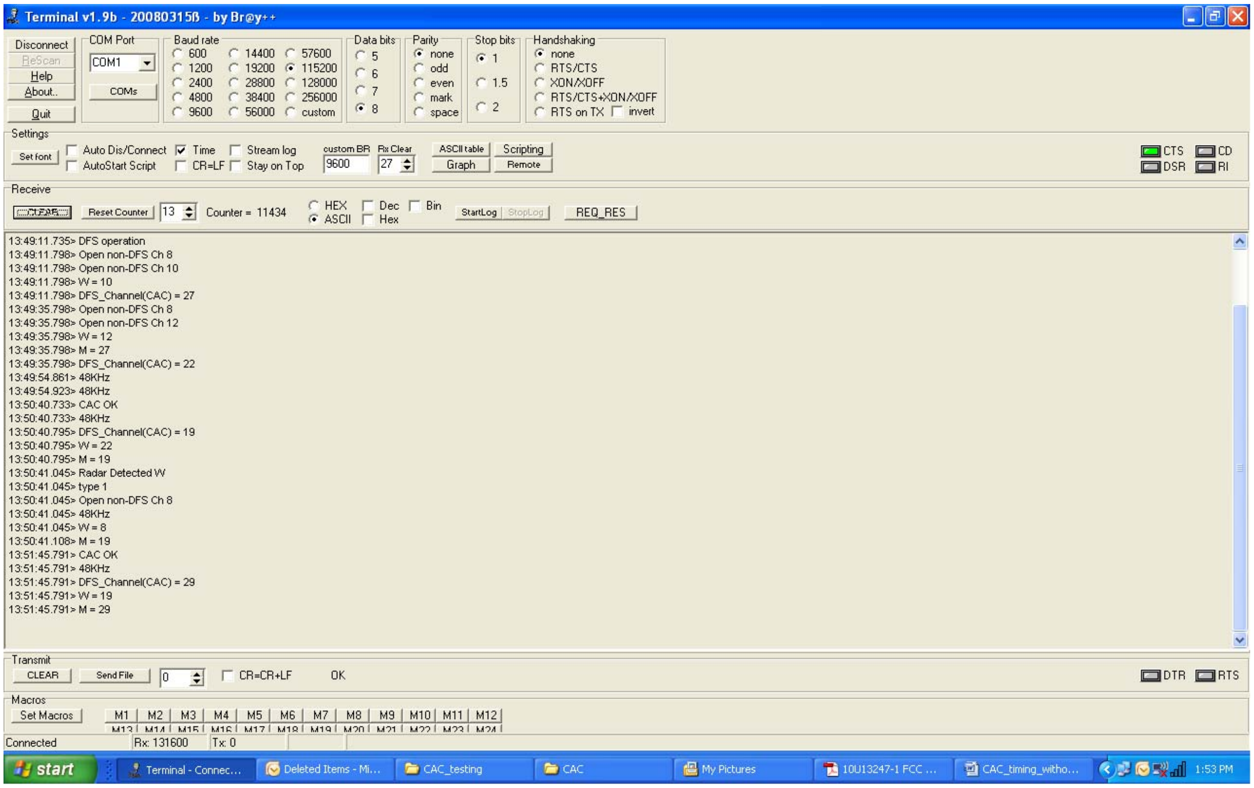
Timing of Radar Burst	Display on Control Computer	Spectrum Analyzer Display
No Radar Triggered	EUT marks Channel as active	Transmissions begin on channel after completion of the CAC
Within 0 to 6 second window	EUT indicates radar detected	No transmissions on channel
Within 54 to 60 second window	EUT indicates radar detected	No transmissions on channel

TIMING WITHOUT RADAR DURING CAC

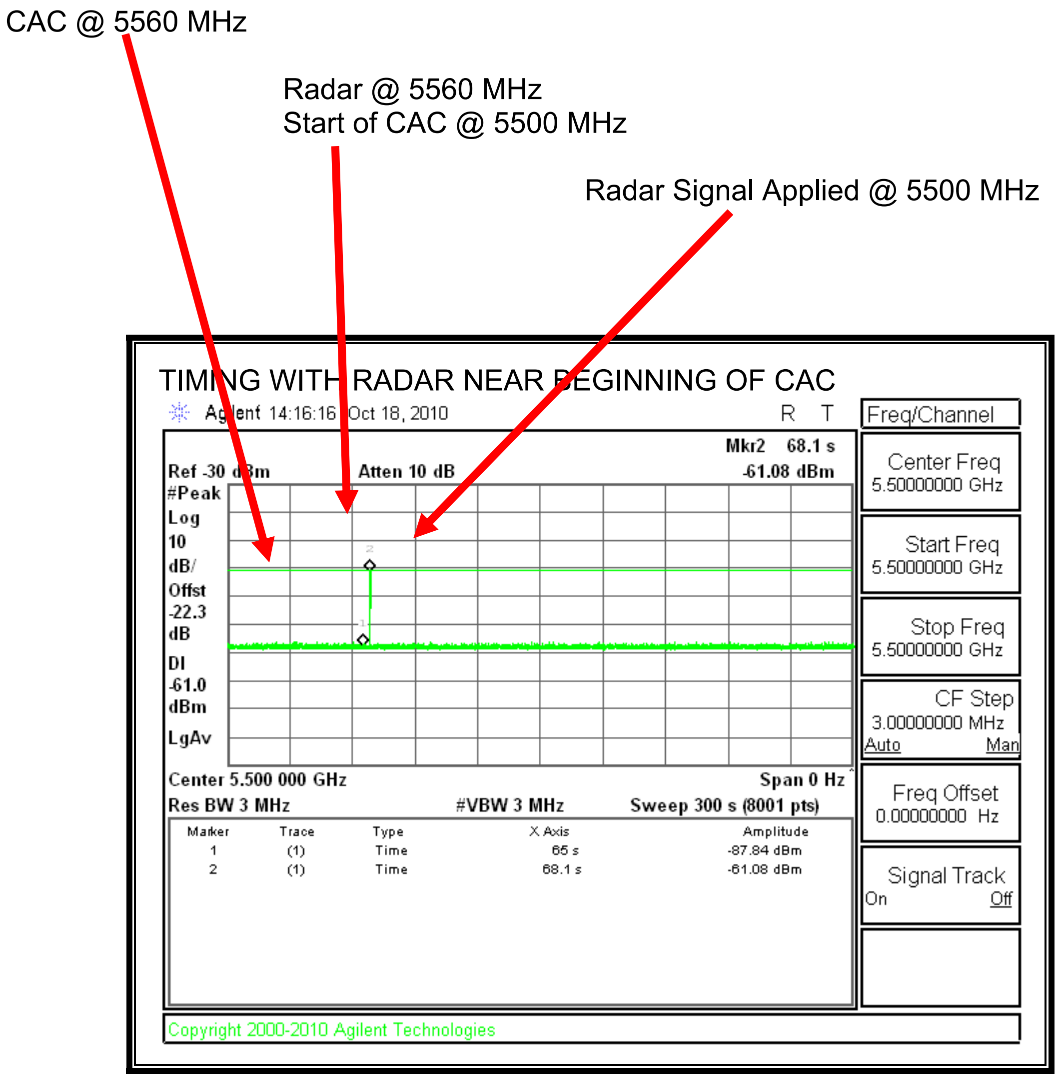


Transmissions begin on intended channel after completion of CAC.

EUT TEST MODE LOG FILE - CAC TIMING WITHOUT RADAR

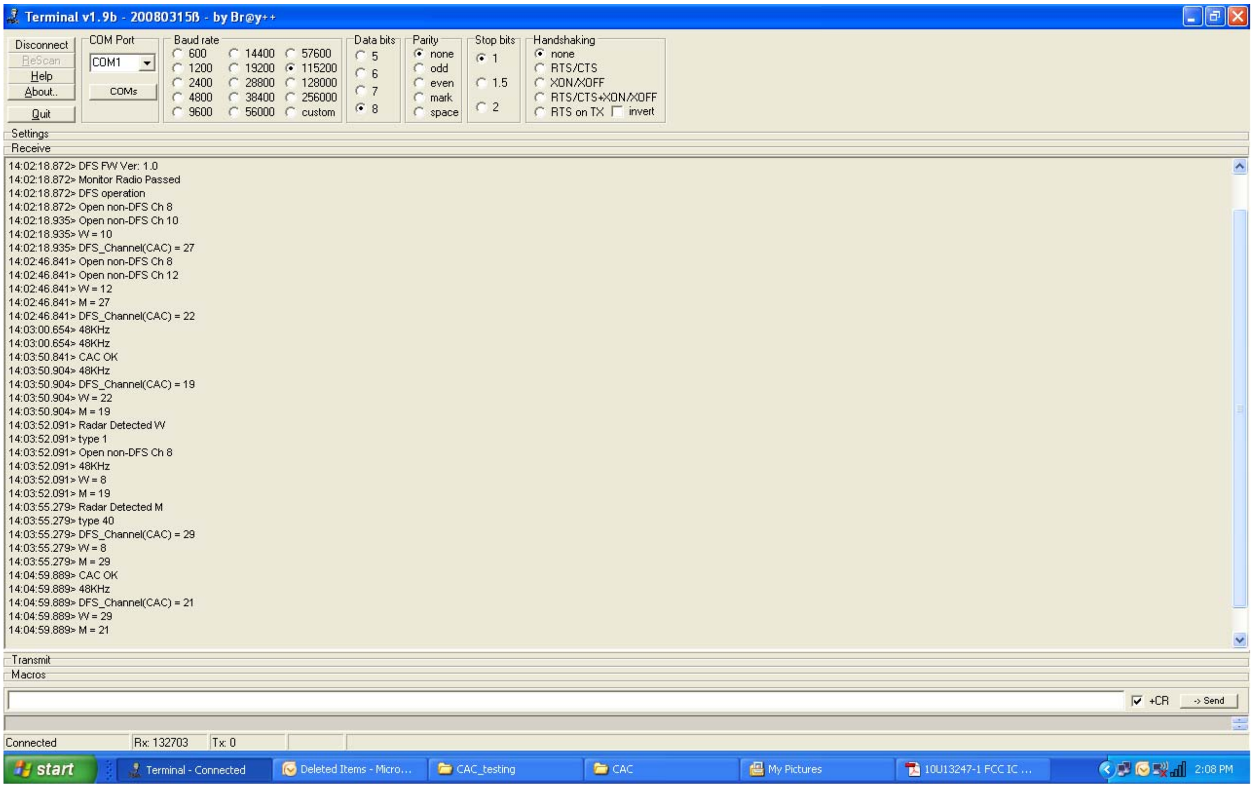


TIMING WITH RADAR NEAR BEGINNING OF CAC



No EUT transmissions on the intended channel were observed.

EUT TEST MODE LOG FILE - BEGINNING OF CAC

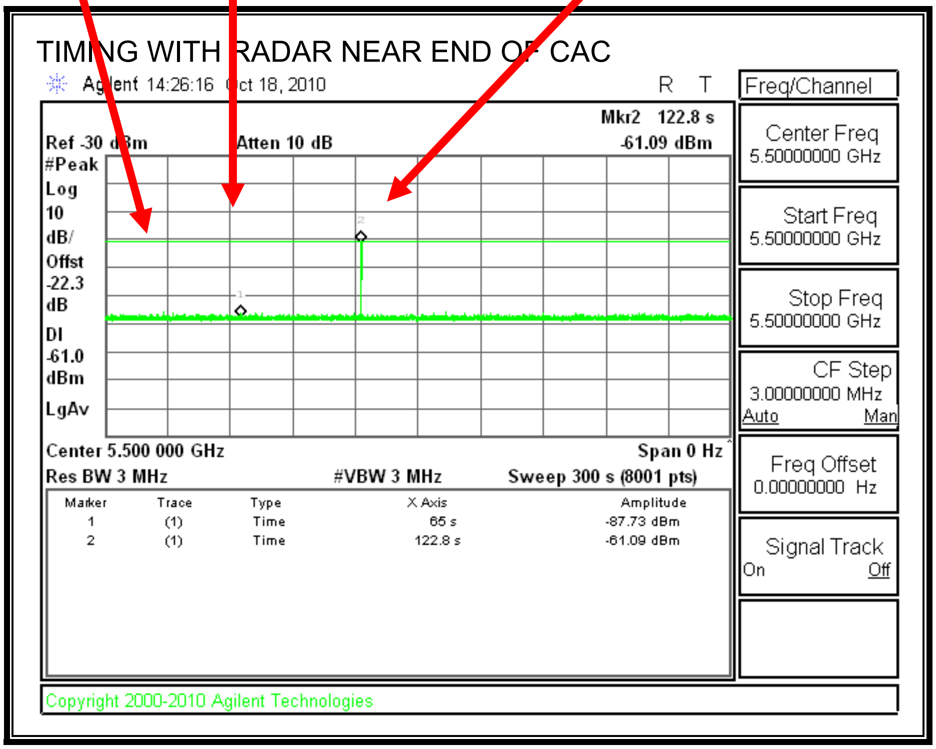


TIMING WITH RADAR NEAR END OF CAC

CAC @ 5560 MHz

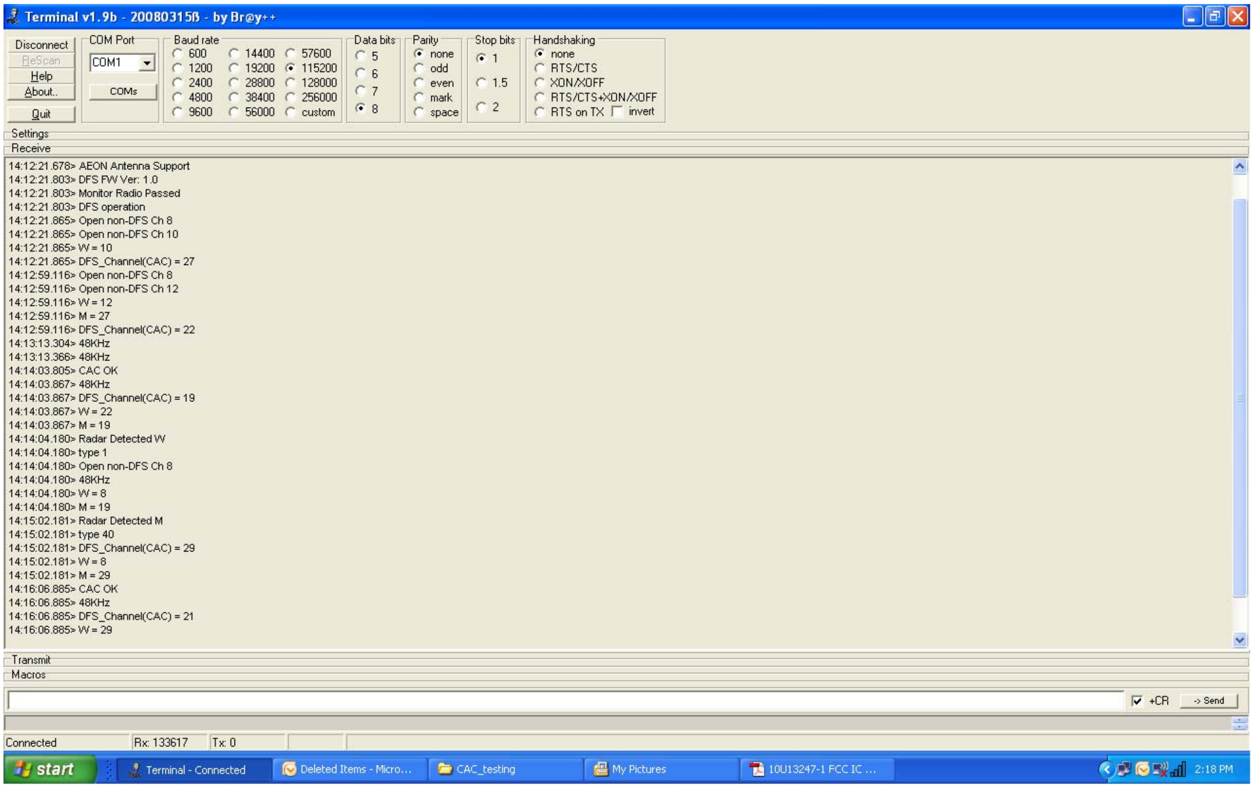
Radar @ 5560 MHz
Start of CAC @ 5500 MHz

Radar Signal Applied @ 5500 MHz



No EUT transmissions on the intended channel were observed.

EUT TEST MODE LOG FILE - END OF CAC



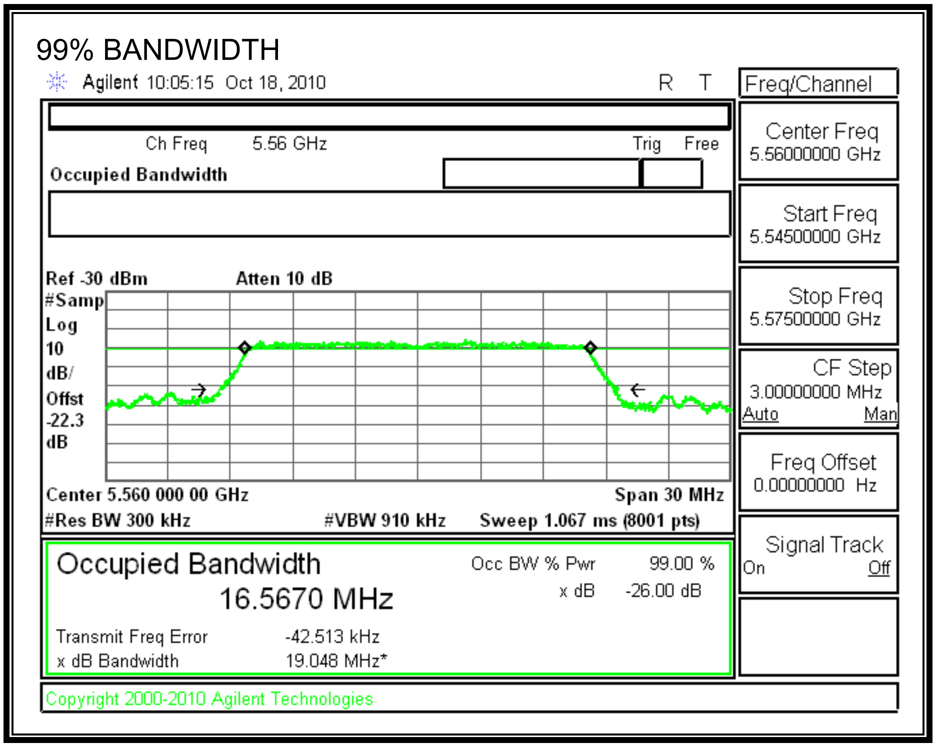
5.3.3. CHANNEL AND NETWORK CONFIGURATION FOR DETECTION TESTS

All Detection Bandwidth and In-Service Monitoring tests were performed on the Monitor Radio at a channel center frequency of 5520 MHz, with a fully operational link established between the Working Radio and the Slave Devices at a channel center frequency of 5560 MHz, thus the channel separation between the Working and Monitor Radios was at the design minimum in accordance with KDB 437887.

All Detection Bandwidth and In-Service Monitoring tests were performed at the worst-case sampling rate of 48 kHz.

5.3.4. DETECTION BANDWIDTH

REFERENCE PLOT OF 99% POWER BANDWIDTH OF WORKING RADIO



RESULTS

FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99% Power Bandwidth (MHz)	Ratio of Detection BW to 99% Power BW (%)	Minimum Limit (%)
5512	5528	16	16.567	96.6	80

DETECTION BANDWIDTH PROBABILITY

DETECTION BANDWIDTH PROBABILITY RESULTS

Detection Bandwidth Test Results				
FCC Type 1 Waveform: 1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst				
Frequency (MHz)	Number of Trials	Number Detected	Detection (%)	Mark
5512	10	10	100	FL
5513	10	10	100	
5514	10	10	100	
5515	10	10	100	
5516	10	10	100	
5517	10	10	100	
5518	10	10	100	
5519	10	10	100	
5520	10	10	100	
5521	10	10	100	
5522	10	10	100	
5523	10	10	100	
5524	10	10	100	
5525	10	10	100	
5526	10	10	100	
5527	10	10	100	
5528	10	10	100	FH

5.3.5. IN-SERVICE MONITORING

RESULTS

FCC Radar Test Summary				
Signal Type	Number of Trials	Detection (%)	Limit (%)	Pass/Fail
FCC Short Pulse Type 1	30	100.00	60	Pass
FCC Short Pulse Type 2	30	93.33	60	Pass
FCC Short Pulse Type 3	30	86.67	60	Pass
FCC Short Pulse Type 4	30	83.33	60	Pass
Aggregate		90.83	80	Pass
FCC Long Pulse Type 5	30	96.67	80	Pass
FCC Hopping Type 6	34	94.12	70	Pass

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TYPE 1 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 1 1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst	
Trial	Successful Detection (Yes/No)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

TYPE 2 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 2				
Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
2001	4.9	159.00	27	Yes
2002	3.9	218.00	25	Yes
2003	4.1	228.00	24	Yes
2004	2.6	159.00	26	Yes
2005	2.1	228.00	25	Yes
2006	4.7	152.00	25	Yes
2007	4	194.00	27	Yes
2008	4.3	183.00	27	Yes
2009	4.2	225.00	27	Yes
2010	4	214.00	29	Yes
2011	5	157.00	25	Yes
2012	5	190.00	28	Yes
2013	1.3	202.00	23	Yes
2014	2.8	165.00	24	Yes
2015	2.7	153.00	24	Yes
2016	1.7	152.00	29	Yes
2017	1.8	160.00	24	Yes
2018	3.9	171.00	25	Yes
2019	4.8	158.00	24	Yes
2020	1.6	209.00	25	Yes
2021	2.7	182.00	26	Yes
2022	3.3	210.00	26	Yes
2023	2.3	198.00	23	Yes
2024	3.4	218.00	24	Yes
2025	1.4	189.00	27	Yes
2026	2.3	205.00	24	Yes
2027	4.3	190.00	26	Yes
2028	1	193.00	26	Yes
2029	4.4	179.00	24	No
2030	1.7	166.00	28	No

TYPE 3 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 3				
Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
3001	5.5	392.00	16	Yes
3002	8.2	387.00	18	Yes
3003	5.4	494.00	18	Yes
3004	5.3	447.00	16	Yes
3005	8.6	261.00	17	Yes
3006	9.2	411.00	18	Yes
3007	5.2	380.00	16	Yes
3008	6.1	455.00	18	Yes
3009	7.4	406.00	18	Yes
3010	9.6	402.00	18	Yes
3011	9	378.00	17	Yes
3012	5.7	258.00	18	Yes
3013	6.4	379.00	17	Yes
3014	5	444.00	16	No
3015	9.4	297.00	17	No
3016	5.5	366.00	18	No
3017	5.9	353.00	17	No
3018	9.3	259.00	18	Yes
3019	5.5	342.00	18	Yes
3020	8.5	482.00	17	Yes
3021	5.1	328.00	16	Yes
3022	6.2	294.00	17	Yes
3023	5.4	341.00	18	Yes
3024	8.9	354.00	17	Yes
3025	8.5	485.00	18	Yes
3026	5.4	445.00	18	Yes
3027	9.9	347.00	16	Yes
3028	9.8	259.00	18	Yes
3029	7.4	343	16	Yes
3030	5.2	396	17	Yes

TYPE 4 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 4				
Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
4001	12.7	288.00	16	No
4002	17.3	487.00	13	Yes
4003	19.5	256.00	14	Yes
4004	10.9	389.00	15	Yes
4005	13.2	368.00	15	Yes
4006	10	293.00	13	Yes
4007	16.7	404.00	14	Yes
4008	15.5	335.00	16	Yes
4009	12.4	392.00	13	Yes
4010	19	261.00	13	Yes
4011	13.7	349.00	13	Yes
4012	11.5	290.00	13	Yes
4013	11.2	289.00	16	Yes
4014	14.7	457.00	16	Yes
4015	15	267.00	12	Yes
4016	11.3	345.00	15	Yes
4017	12.8	421.00	16	Yes
4018	12.2	440.00	12	No
4019	15.7	279.00	15	Yes
4020	19.1	486.00	13	No
4021	12.3	475.00	16	Yes
4022	12.2	494.00	15	Yes
4023	13.1	345.00	14	Yes
4024	13.4	387.00	12	No
4025	16.9	332.00	12	No
4026	15.6	462.00	16	Yes
4027	10.5	394.00	12	Yes
4028	15	436.00	13	Yes
4029	12.3	396.00	15	Yes
4030	20	267.00	16	Yes

TYPE 5 DETECTION PROBABILITY

Data Sheet for FCC Long Pulse Radar Type 5

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

Note: The Type 5 randomized parameters are shown in a separate document.

TYPE 6 DETECTION PROBABILITY

Data Sheet for FCC Hopping Radar Type 6				
1 us Pulse Width, 333 us PRI, 9 Pulses per Burst, 1 Burst per Hop				
NTIA August 2005 Hopping Sequence				
Trial	Starting Index Within Sequence	Signal Generator Frequency (MHz)	Hops within Detection BW	Successful Detection (Yes/No)
1	101	5512	4	Yes
2	576	5513	4	Yes
3	1051	5514	1	No
4	1526	5515	5	Yes
5	2001	5516	5	Yes
6	2476	5517	3	Yes
7	2951	5518	2	No
8	3426	5519	3	Yes
9	3901	5520	3	Yes
10	4376	5521	2	Yes
11	4851	5522	2	Yes
12	5326	5523	3	Yes
13	5801	5524	5	Yes
14	6276	5525	2	Yes
15	6751	5526	3	Yes
16	7226	5527	5	Yes
17	7701	5528	4	Yes
18	8176	5512	6	Yes
19	8651	5513	4	Yes
20	9126	5514	7	Yes
21	9601	5515	3	Yes
22	10076	5516	3	Yes
23	10551	5517	3	Yes
24	11026	5518	2	Yes
25	11501	5519	4	Yes
26	11976	5520	3	Yes
27	12451	5521	3	Yes
28	12926	5522	6	Yes
29	13401	5523	8	Yes
30	13876	5524	5	Yes
31	14826	5525	4	Yes
32	15301	5526	5	Yes
33	15776	5527	3	Yes
34	16251	5528	3	Yes

5.4. WORKING RADIO TEST RESULTS

5.4.1. CHANNEL AND NETWORK CONFIGURATION FOR SHUTDOWN AND DETECTION TESTS

All Channel Shutdown, Detection Bandwidth and In-Service Monitoring tests were performed on the Working Radio at a channel center frequency of 5560 MHz, with a fully operational link established between the Working Radio and the Slave Devices.

All Channel Shutdown, Detection Bandwidth and In-Service Monitoring tests were performed at the worst-case sampling rate of 48 kHz.

5.4.2. MOVE AND CLOSING TIME

REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =
(Number of analyzer bins showing transmission) * (dwell time per bin)

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

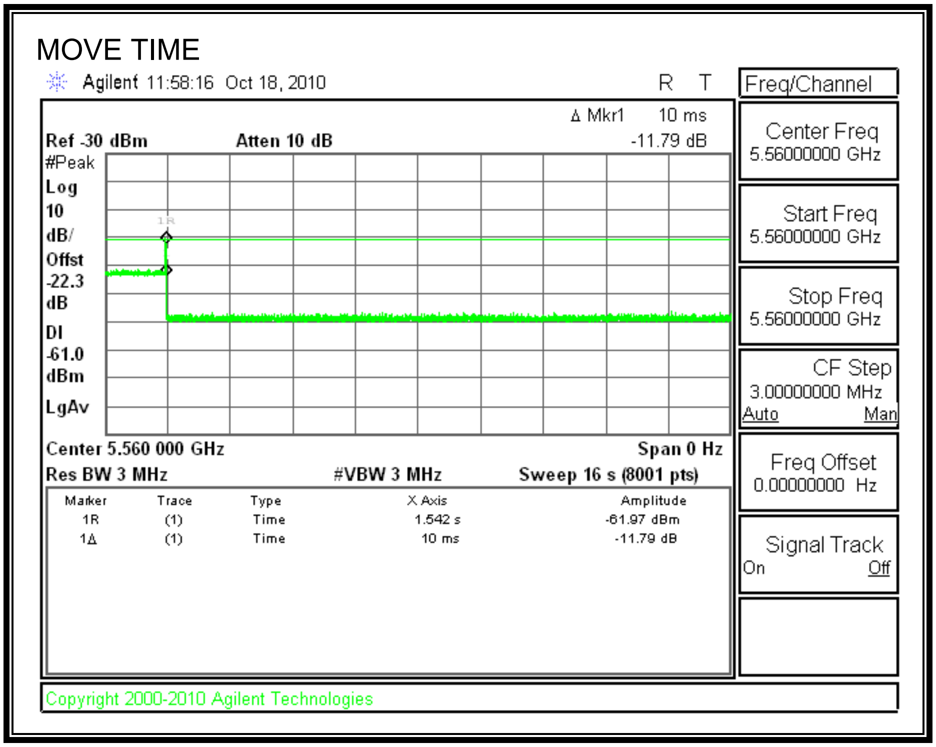
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

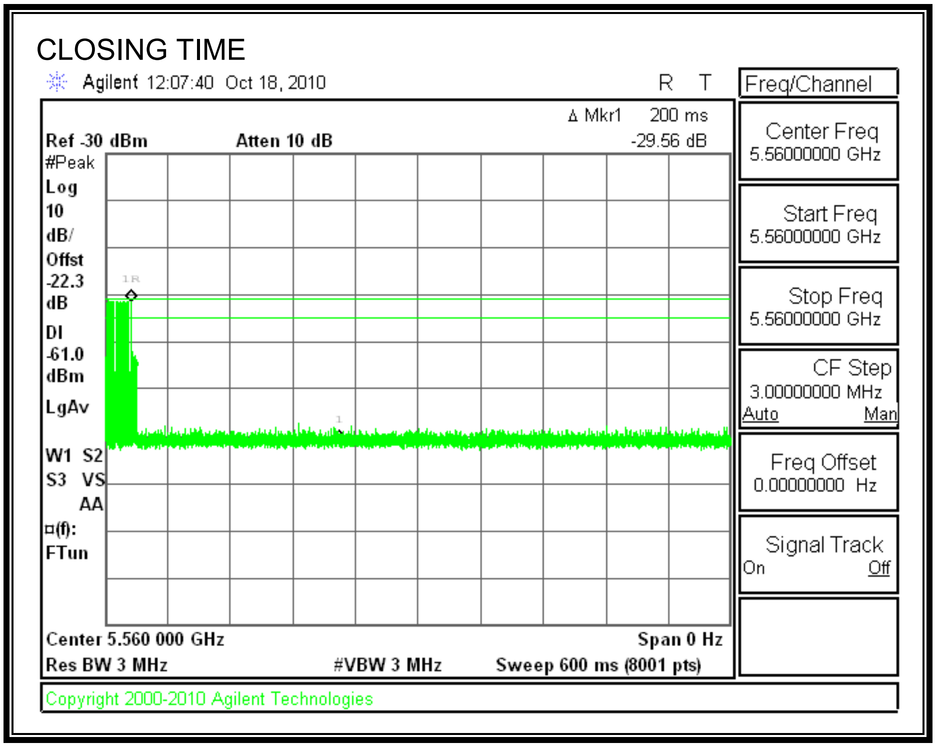
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.010	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	0.0	60
IC	6.0	260

MOVE TIME

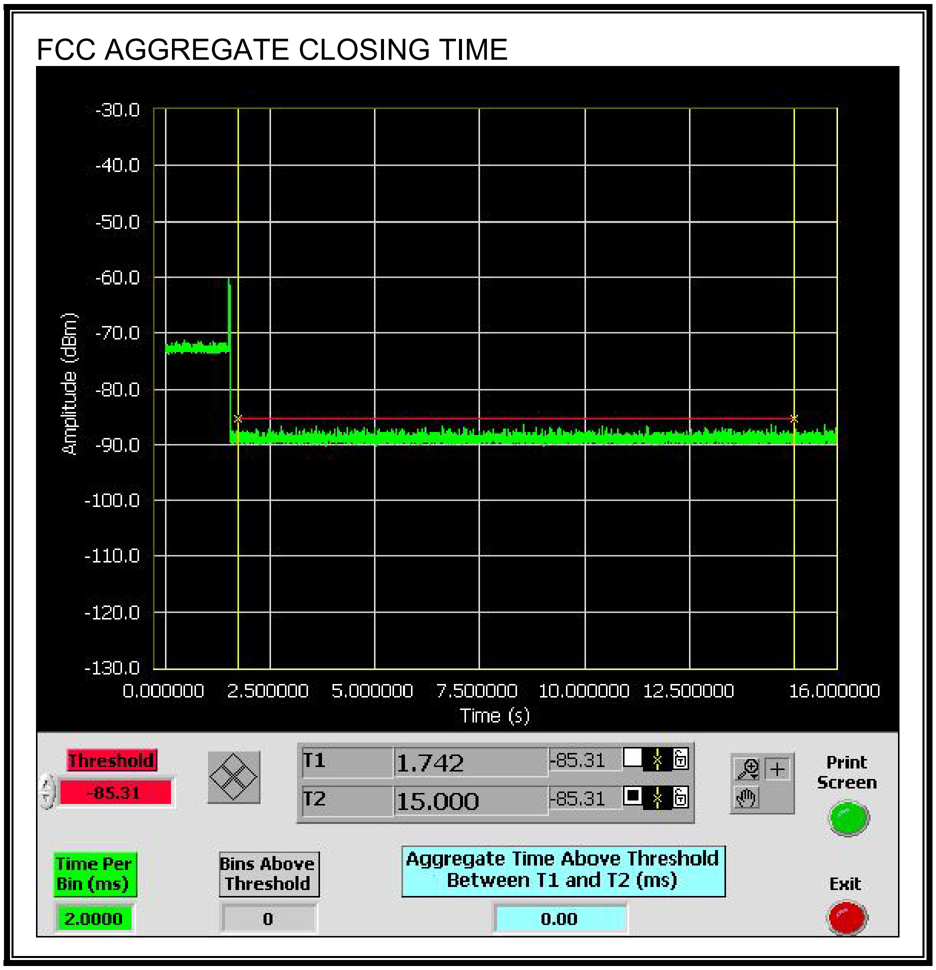

MOVE TIME
Agilent 11:58:16 Oct 18, 2010
R T
Δ Mkr1 10 ms
Ref -30 dBm
Atten 10 dB
-11.79 dB
#Peak
Log
10
dB/
Offst
-22.3
dB
Dl
-61.0
dBm
LgAv
Center 5.560 000 GHz
Span 0 Hz
Res BW 3 MHz
#VBW 3 MHz
Sweep 16 s (8001 pts)
Marker Trace Type X Axis Amplitude
1R (1) Time 1.542 s -61.97 dBm
1Δ (1) Time 10 ms -11.79 dB
Freq/Channel
Center Freq
5.56000000 GHz
Start Freq
5.56000000 GHz
Stop Freq
5.56000000 GHz
CF Step
3.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2010 Agilent Technologies

CHANNEL CLOSING TIME

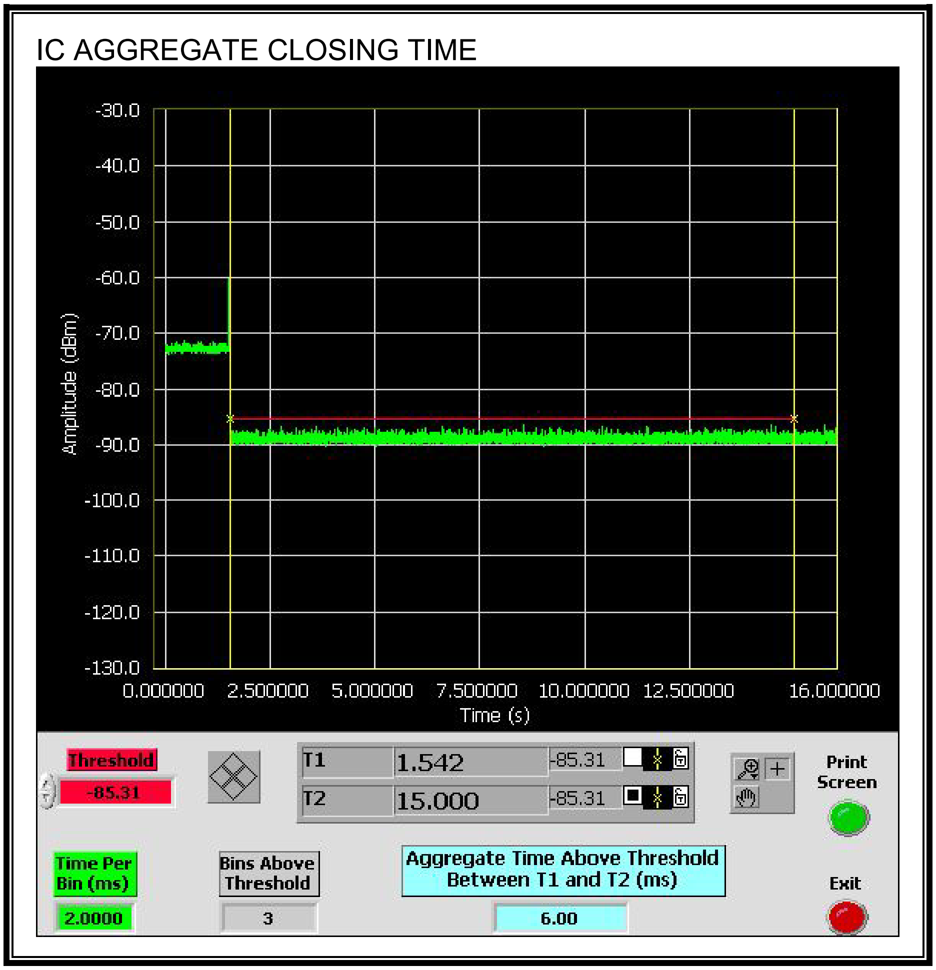


AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the FCC aggregate monitoring period.

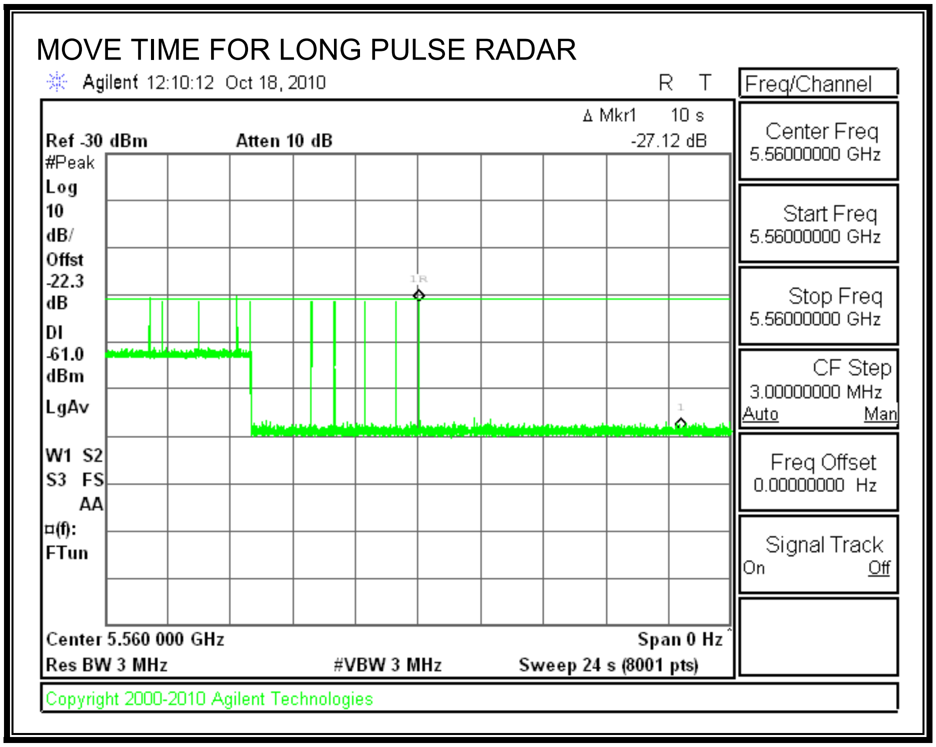


Only Intermittent transmissions are observed during the IC aggregate monitoring period.



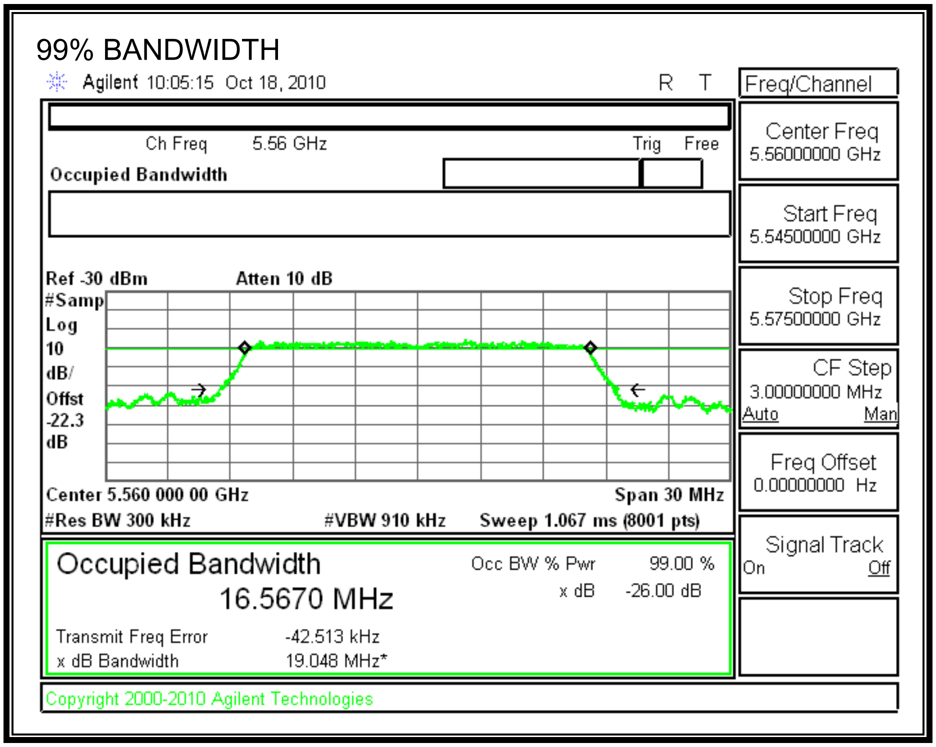
LONG PULSE CHANNEL MOVE TIME

The traffic ceases prior to 10 seconds after the end of the radar waveform.



5.4.3. DETECTION BANDWIDTH

REFERENCE PLOT OF 99% POWER BANDWIDTH



RESULTS

FL (MHz)	FH (MHz)	Detection Bandwidth (MHz)	99% Power Bandwidth (MHz)	Ratio of Detection BW to 99% Power BW (%)	Minimum Limit (%)
5552	5568	16	16.567	96.6	80

DETECTION BANDWIDTH PROBABILITY

DETECTION BANDWIDTH PROBABILITY RESULTS

Detection Bandwidth Test Results				
FCC Type 1 Waveform: 1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst				
Frequency (MHz)	Number of Trials	Number Detected	Detection (%)	Mark
5552	10	10	100	FL
5553	10	10	100	
5554	10	10	100	
5555	10	10	100	
5556	10	10	100	
5557	10	10	100	
5558	10	10	100	
5559	10	10	100	
5560	10	10	100	
5561	10	10	100	
5562	10	10	100	
5563	10	10	100	
5564	10	10	100	
5565	10	10	100	
5566	10	10	100	
5567	10	10	100	
5568	10	10	100	FH

5.4.4. IN-SERVICE MONITORING

RESULTS

FCC Radar Test Summary				
Signal Type	Number of Trials	Detection (%)	Limit (%)	Pass/Fail
FCC Short Pulse Type 1	30	100.00	60	Pass
FCC Short Pulse Type 2	30	83.33	60	Pass
FCC Short Pulse Type 3	30	83.33	60	Pass
FCC Short Pulse Type 4	30	93.33	60	Pass
Aggregate		90.00	80	Pass
FCC Long Pulse Type 5	30	93.33	80	Pass
FCC Hopping Type 6	34	91.18	70	Pass

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TYPE 1 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 1	
1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst	
Trial	**Successful Detection (Yes/No)**
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes
8	Yes
9	Yes
10	Yes
11	Yes
12	Yes
13	Yes
14	Yes
15	Yes
16	Yes
17	Yes
18	Yes
19	Yes
20	Yes
21	Yes
22	Yes
23	Yes
24	Yes
25	Yes
26	Yes
27	Yes
28	Yes
29	Yes
30	Yes

TYPE 2 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 2

Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
2001	4.9	159.00	27	No
2002	3.9	218.00	25	Yes
2003	4.1	228.00	24	Yes
2004	2.6	159.00	26	Yes
2005	2.1	228.00	25	Yes
2006	4.7	152.00	25	Yes
2007	4	194.00	27	No
2008	4.3	183.00	27	Yes
2009	4.2	225.00	27	Yes
2010	4	214.00	29	Yes
2011	5	157.00	25	Yes
2012	5	190.00	28	Yes
2013	1.3	202.00	23	Yes
2014	2.8	165.00	24	Yes
2015	2.7	153.00	24	No
2016	1.7	152.00	29	Yes
2017	1.8	160.00	24	Yes
2018	3.9	171.00	25	Yes
2019	4.8	158.00	24	No
2020	1.6	209.00	25	Yes
2021	2.7	182.00	26	Yes
2022	3.3	210.00	26	Yes
2023	2.3	198.00	23	Yes
2024	3.4	218.00	24	Yes
2025	1.4	189.00	27	Yes
2026	2.3	205.00	24	Yes
2027	4.3	190.00	26	Yes
2028	1	193.00	26	Yes
2029	4.4	179.00	24	No
2030	1.7	166.00	28	Yes

TYPE 3 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 3				
Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
3001	5.5	392.00	16	Yes
3002	8.2	387.00	18	Yes
3003	5.4	494.00	18	Yes
3004	5.3	447.00	16	Yes
3005	8.6	261.00	17	Yes
3006	9.2	411.00	18	Yes
3007	5.2	380.00	16	Yes
3008	6.1	455.00	18	Yes
3009	7.4	406.00	18	Yes
3010	9.6	402.00	18	No
3011	9	378.00	17	Yes
3012	5.7	258.00	18	Yes
3013	6.4	379.00	17	Yes
3014	5	444.00	16	Yes
3015	9.4	297.00	17	No
3016	5.5	366.00	18	Yes
3017	5.9	353.00	17	Yes
3018	9.3	259.00	18	Yes
3019	5.5	342.00	18	Yes
3020	8.5	482.00	17	Yes
3021	5.1	328.00	16	Yes
3022	6.2	294.00	17	Yes
3023	5.4	341.00	18	Yes
3024	8.9	354.00	17	Yes
3025	8.5	485.00	18	No
3026	5.4	445.00	18	Yes
3027	9.9	347.00	16	No
3028	9.8	259.00	18	Yes
3029	7.4	343	16	Yes
3030	5.2	396	17	No

TYPE 4 DETECTION PROBABILITY

Data Sheet for FCC Short Pulse Radar Type 4				
Waveform	Pulse Width (us)	PRI (us)	Pulses Per Burst	Successful Detection (Yes/No)
4001	12.7	288.00	16	Yes
4002	17.3	487.00	13	No
4003	19.5	256.00	14	Yes
4004	10.9	389.00	15	Yes
4005	13.2	368.00	15	Yes
4006	10	293.00	13	Yes
4007	16.7	404.00	14	Yes
4008	15.5	335.00	16	Yes
4009	12.4	392.00	13	Yes
4010	19	261.00	13	Yes
4011	13.7	349.00	13	Yes
4012	11.5	290.00	13	Yes
4013	11.2	289.00	16	Yes
4014	14.7	457.00	16	Yes
4015	15	267.00	12	Yes
4016	11.3	345.00	15	Yes
4017	12.8	421.00	16	Yes
4018	12.2	440.00	12	Yes
4019	15.7	279.00	15	Yes
4020	19.1	486.00	13	Yes
4021	12.3	475.00	16	Yes
4022	12.2	494.00	15	Yes
4023	13.1	345.00	14	Yes
4024	13.4	387.00	12	Yes
4025	16.9	332.00	12	Yes
4026	15.6	462.00	16	Yes
4027	10.5	394.00	12	Yes
4028	15	436.00	13	No
4029	12.3	396.00	15	Yes
4030	20	267.00	16	Yes

TYPE 5 DETECTION PROBABILITY

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

Note: The Type 5 randomized parameters are shown in a separate document.

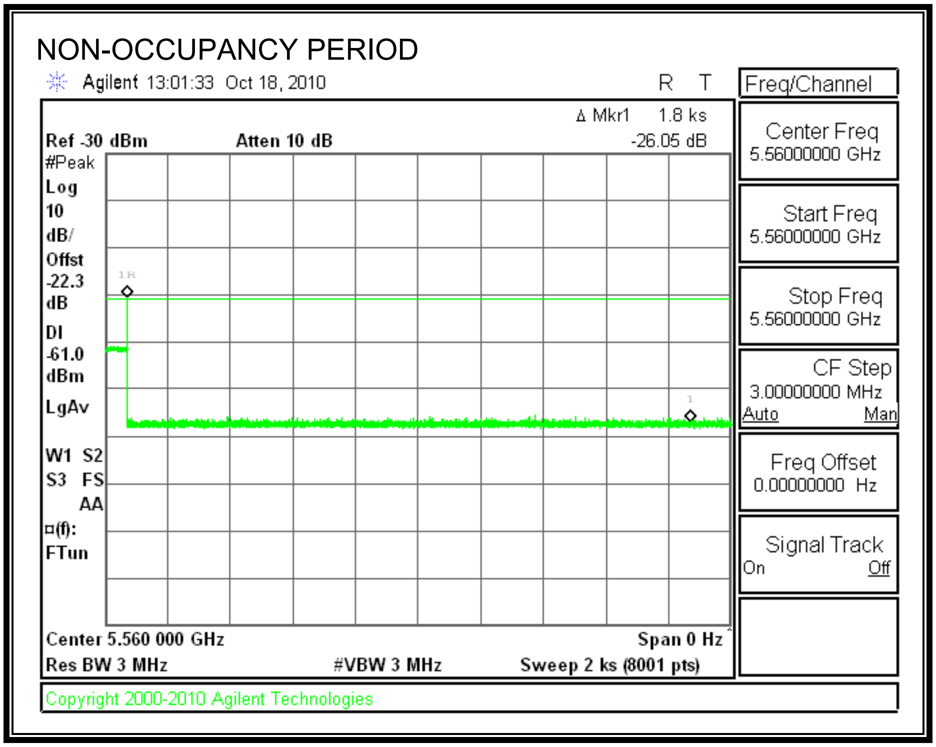
TYPE 6 DETECTION PROBABILITY

Data Sheet for FCC Hopping Radar Type 6				
1 us Pulse Width, 333 us PRI, 9 Pulses per Burst, 1 Burst per Hop				
NTIA August 2005 Hopping Sequence				
Trial	Starting Index Within Sequence	Signal Generator Frequency (MHz)	Hops within Detection BW	Successful Detection (Yes/No)
1	282	5552	3	Yes
2	757	5553	5	Yes
3	1232	5554	2	Yes
4	1707	5555	4	Yes
5	2182	5556	3	No
6	2657	5557	2	Yes
7	3132	5558	3	Yes
8	3607	5559	4	Yes
9	4082	5560	1	Yes
10	5032	5561	5	Yes
11	5507	5562	1	No
12	5982	5563	4	Yes
13	6457	5564	2	Yes
14	6932	5565	3	Yes
15	7407	5566	3	Yes
16	7882	5567	6	Yes
17	8357	5568	3	Yes
18	9307	5552	1	Yes
19	9782	5553	4	Yes
20	10257	5554	2	Yes
21	10732	5555	1	Yes
22	11207	5556	3	Yes
23	11682	5557	5	Yes
24	12157	5558	2	Yes
25	12632	5559	3	Yes
26	13107	5560	5	Yes
27	13582	5561	2	Yes
28	14057	5562	2	Yes
29	14532	5563	4	Yes
30	15007	5564	2	Yes
31	15482	5565	4	No
32	15957	5566	4	Yes
33	16432	5567	5	Yes
34	16907	5568	3	Yes

5.4.5. WORKING RADIO NON-OCCUPANCY PERIOD

RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



5.5. MASTER SYSTEM TEST RESULTS

5.5.1. NON-OCCUPANCY PERIOD

A network is established on an initial channel and the Monitor Radio starts a CAC on the test channel. A radar burst is triggered on the initial channel prior to the end of the CAC on the test channel. These actions start the internal NOP counter for the initial channel and force the Working Radio to move the network to a non-DFS channel.

A radar burst is then triggered on the test channel, also prior to the end of the CAC on the test channel.

The above sequence of actions prevents the Working Radio from moving the network to the test channel, starts the internal NOP counter for the test channel, and the Monitor Radio starts a CAC on an alternate channel.

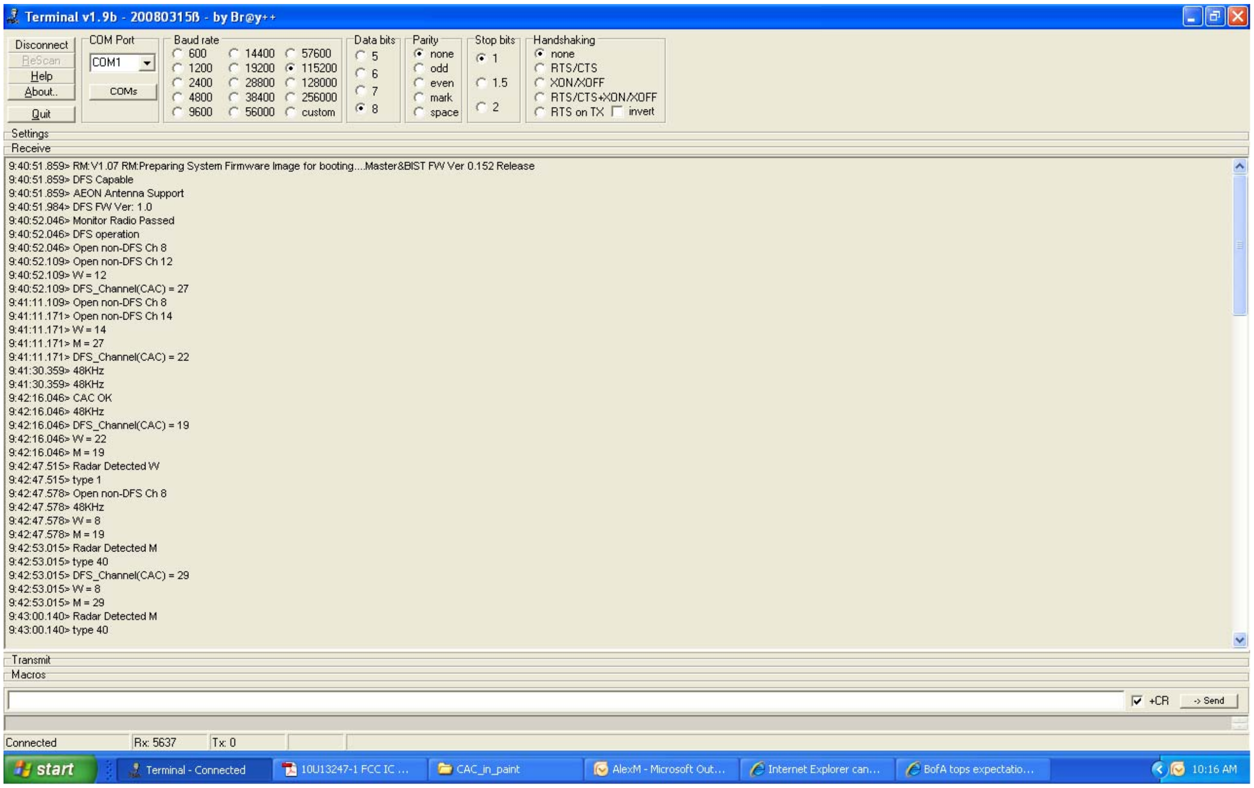
For each new alternate channel selected by the Monitor Radio, a radar burst is triggered prior to the end of the CAC on that channel. This process is repeated until a radar burst has been triggered on all DFS channels.

When all DFS channels have been blocked, NOP counters for each DFS channel are stored internally. These counters decrement. When a counter reaches zero for a particular channel, a CAC is started on that channel if appropriate for normal system operation. Given the above sequence of actions, the first NOP counter to reach zero will be the one for the initial channel.

When the NOP counter for the initial channel reaches zero the Monitor Radio will start a CAC on the initial channel. Upon completion of this CAC, the Working Radio will move the network to the initial channel.

The second NOP counter to reach zero will be the one for the alternate channel. Given the initial sequence of actions to force the Working Radio to a non-DFS channel, this counter will reach zero during the CAC of the initial channel. Therefore, upon completion of the CAC on the initial channel, the Monitor Radio will start a CAC on the test channel.

EUT TEST MODE LOG FILE (FIRST SCREEN)

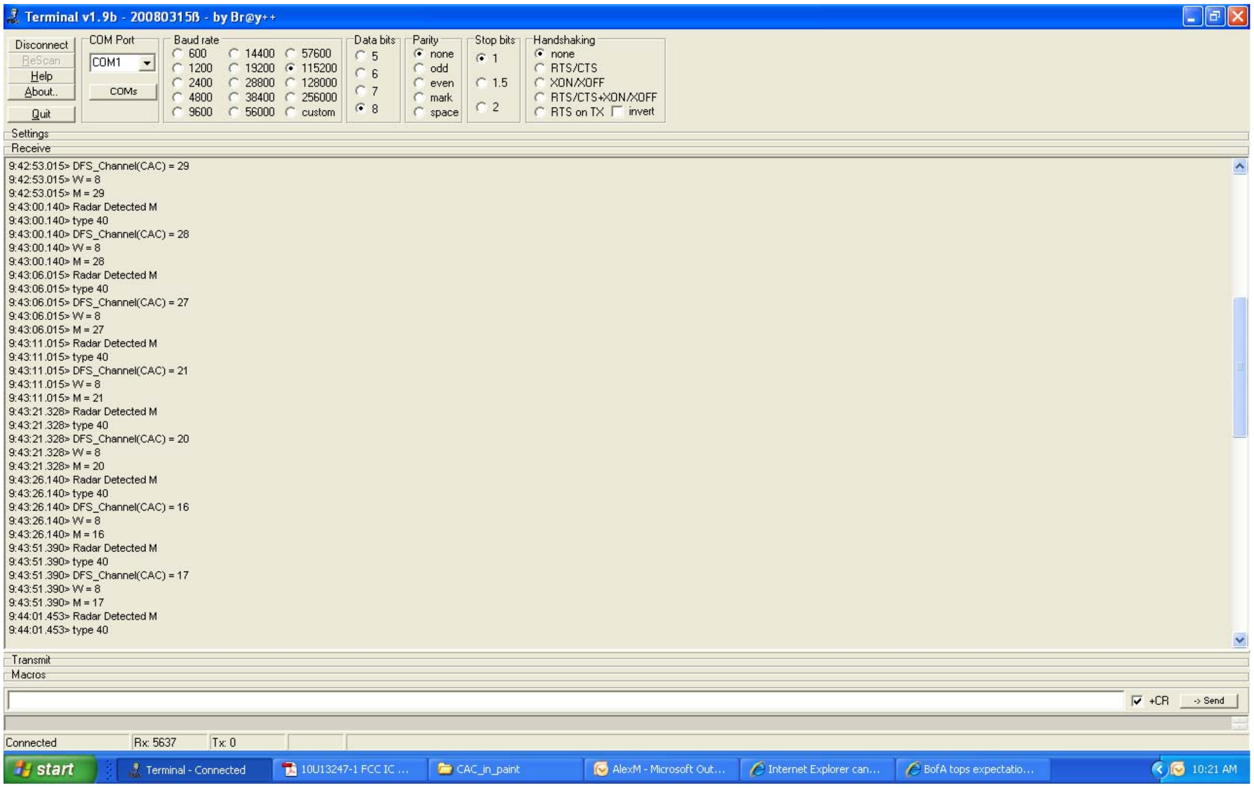


At time stamp 9:42:16.046 a network was established on initial channel Ch 22 (5560 MHz) after the conclusion of the CAC. A radar burst was triggered on 5560 MHz, prior to the end of the CAC on test channel Ch 19 (5500 MHz), forcing the network to a non-DFS frequency.

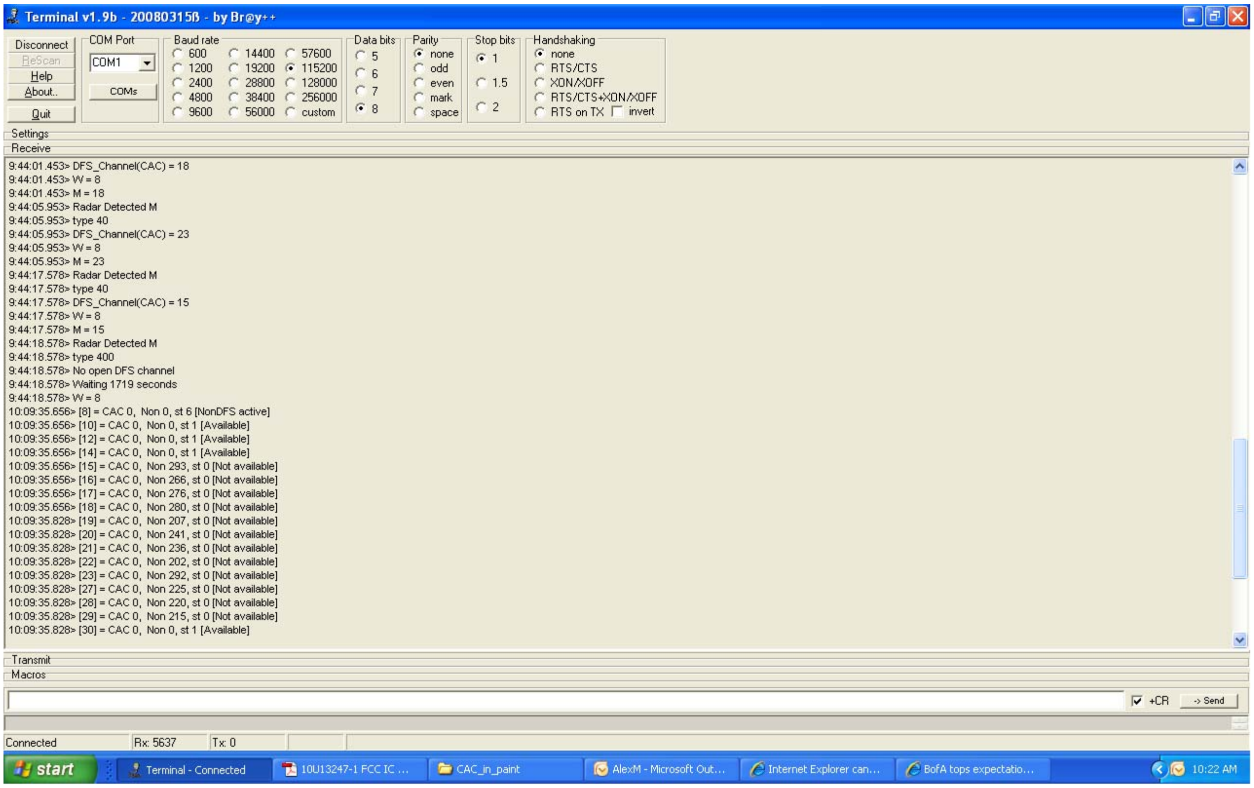
The time stamp at 9:42:47.515 shows the detection of radar on Ch 22 (5560 MHz) and the beginning of the Non-Occupancy period for 5560 MHz.

A radar burst was then triggered during the CAC period for each of the remaining channels in the DFS bands, to block all DFS channels.

EUT TEST MODE LOG FILE (SECOND SCREEN)

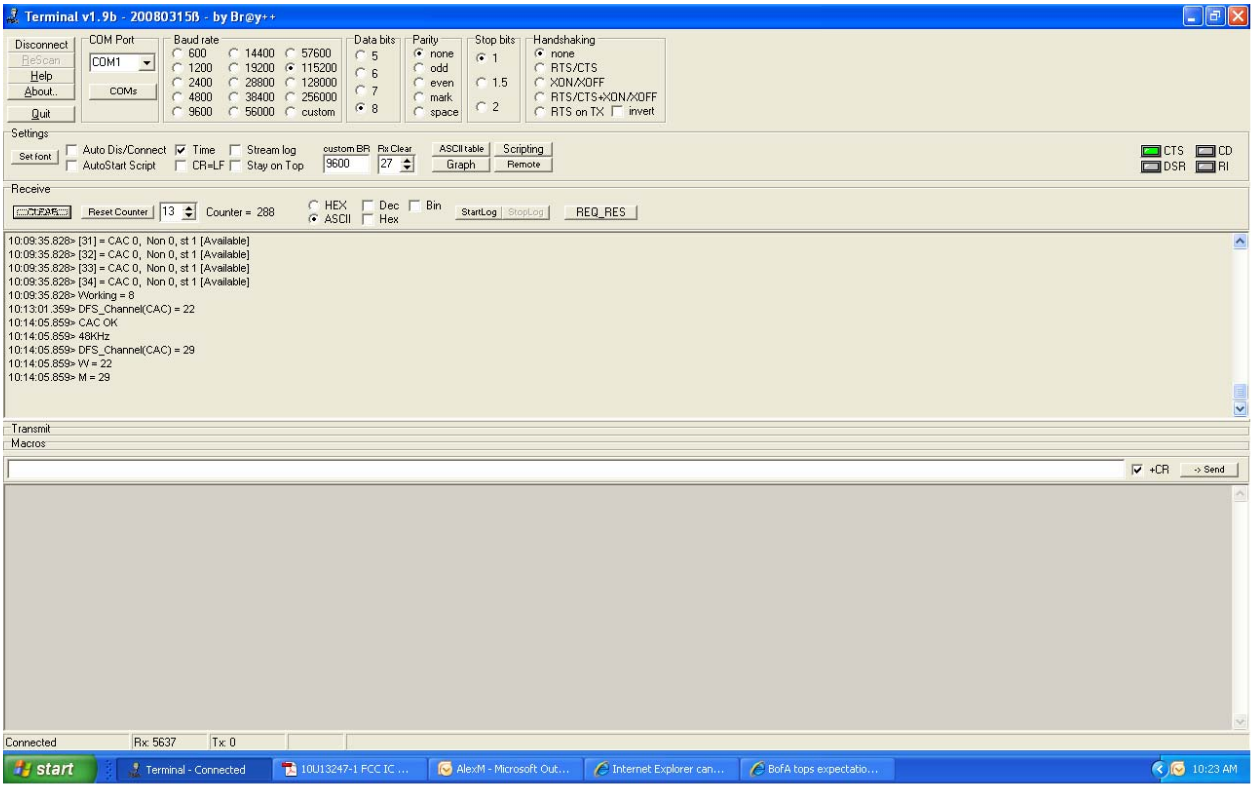


EUT TEST MODE LOG FILE (THIRD SCREEN)



The time stamps at 9:44:18.578 shows that all DFS channels are blocked, and the remaining non-occupancy time for the initial channel.

EUT TEST MODE LOG FILE (LAST SCREEN)

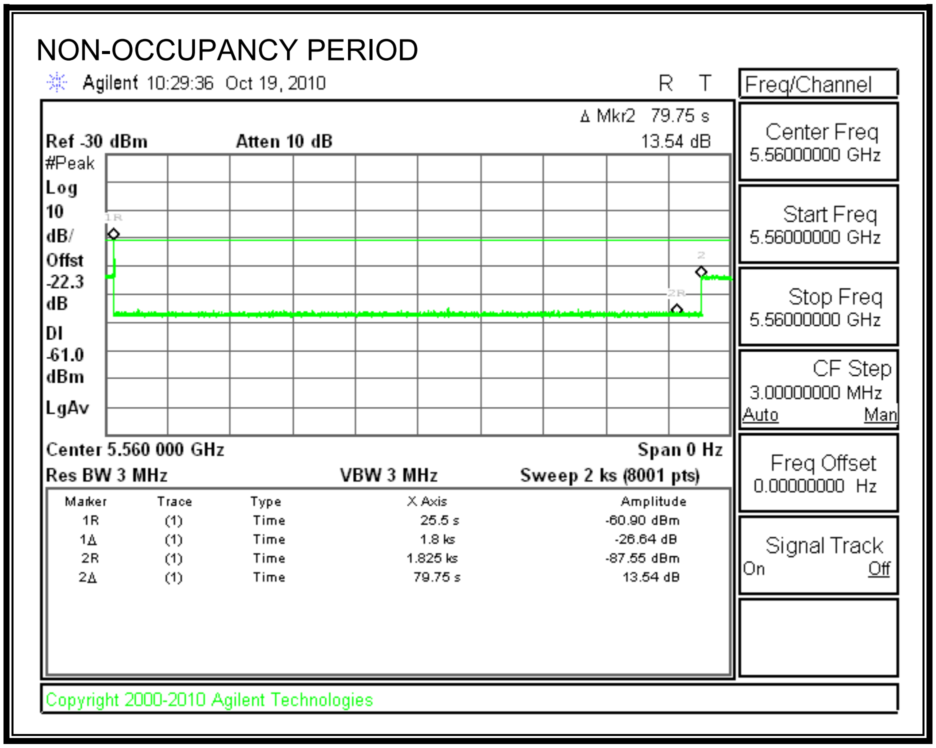


The time stamp at 10:13:01.351 shows the end of the non-occupancy period for the initial channel and the beginning of the subsequent CAC on the initial channel Ch 22 (5560 MHz).

The time stamp at 10:14:05.859 shows the end of the CAC for the initial channel.

RF PLOT OF INITIAL CHANNEL NON-OCCUPANCY

No EUT transmissions were observed on the initial channel during the non-occupancy period plus subsequent CAC time. Upon finding the initial channel clear of radar during the subsequent CAC the network was re-established on the initial channel after a total of 1879.75 seconds.



5.5.2. 60-SECOND IN-SERVICE MONITORING FUNCTION TEST PROCEDURE

This test is performed in accordance with KDB 437887.

The spectrum analyzer is tuned to 5500 MHz and the log file from the EUT records the events.

A fully operational Working Radio network is established on 5560 MHz and the Monitor Radio is performing continuous monitoring on 5500 MHz.

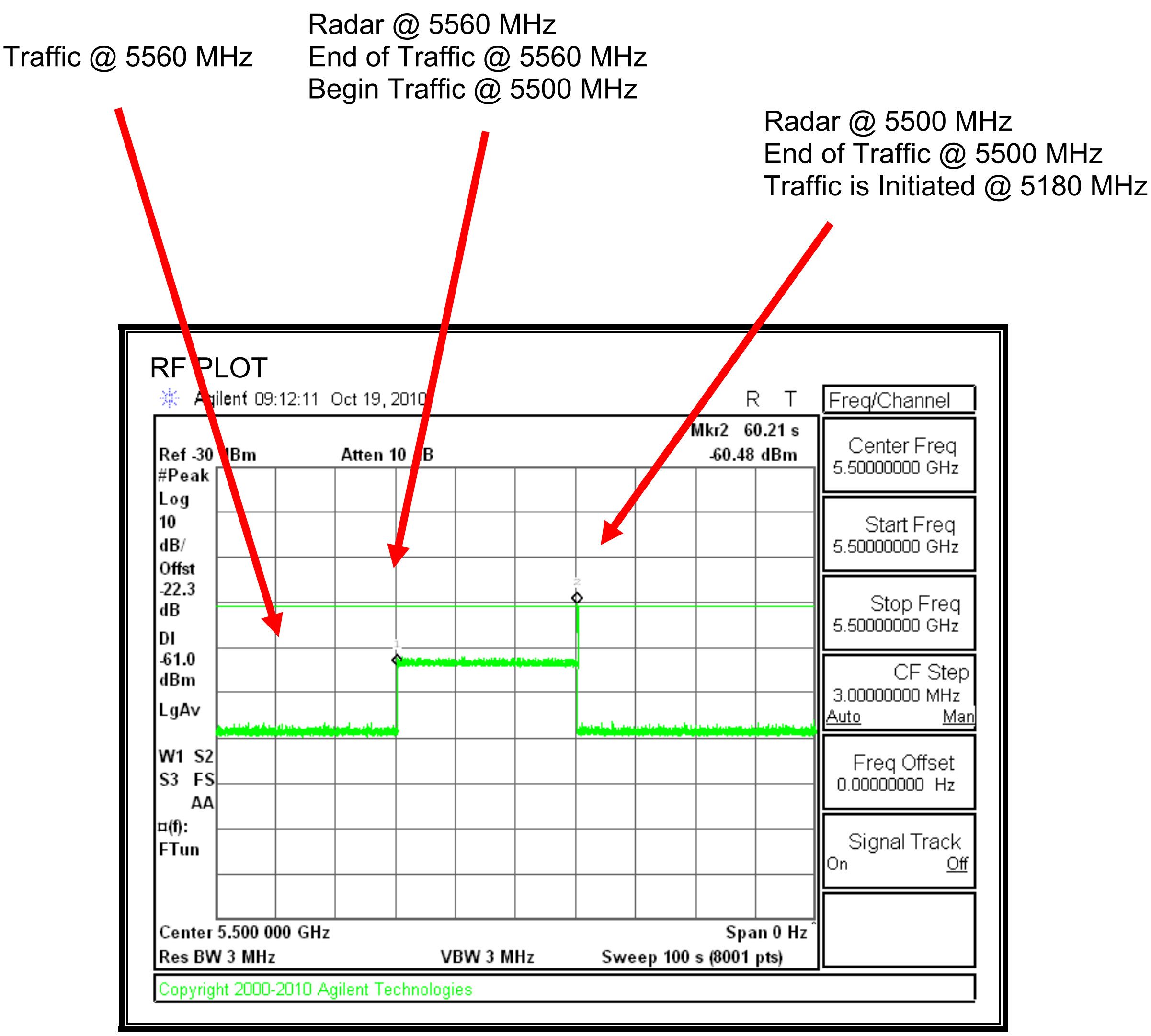
A radar burst is triggered on 5560 MHz and the Working Radio network is expected to move to 5500 MHz. In response to this the Monitor Radio is expected to start a CAC on a new channel.

Prior to the end of the CAC on the new channel a radar burst is triggered on 5500 MHz. In response to this the Working Radio network is expected to move to a non-DFS channel.

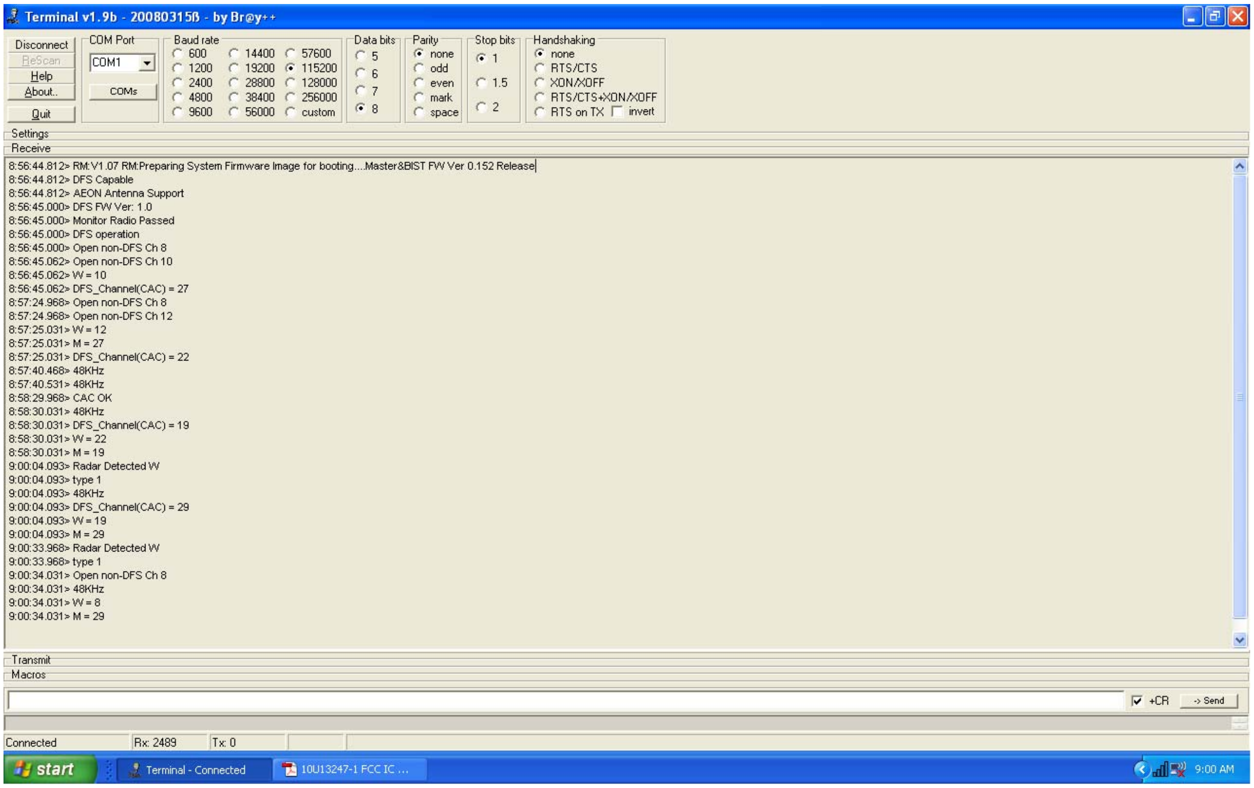
This test is performed at the worst-case 48 kHz audio sampling rate.

5.5.3. 60-SECOND IN-SERVICE MONITORING FUNCTION TEST RESULTS

RF PLOT



LOG FILE


Terminal v1.9b - 20080315ß - by Br@y++
Disconnect
ReScan
Help
About..
Quit
COM Port
COM1
COMs
Baud rate
600
1200
2400
4800
9600
14400
19200
28800
38400
56000
57600
115200
128000
256000
custom
Data bits
5
6
7
8
Parity
none
odd
even
mark
space
Stop bits
1
1.5
2
Handshaking
none
RTS/CTS
XON/XOFF
RTS/CTS+XON/XOFF
RTS on TX
invert
Settings
Receive
8:56:44.812> RM:V1.07 RM:Preparing System Firmware Image for booting....Master&BIST FW Ver 0.152 Release
8:56:44.812> DFS Capable
8:56:44.812> AEON Antenna Support
8:56:45.000> DFS FW Ver: 1.0
8:56:45.000> Monitor Radio Passed
8:56:45.000> DFS operation
8:56:45.000> Open non-DFS Ch 8
8:56:45.062> Open non-DFS Ch 10
8:56:45.062> W = 10
8:56:45.062> DFS_Channel(CAC) = 27
8:57:24.968> Open non-DFS Ch 8
8:57:24.968> Open non-DFS Ch 12
8:57:25.031> W = 12
8:57:25.031> M = 27
8:57:25.031> DFS_Channel(CAC) = 22
8:57:40.468> 48KHz
8:57:40.531> 48KHz
8:58:29.968> CAC OK
8:58:30.031> 48KHz
8:58:30.031> DFS_Channel(CAC) = 19
8:58:30.031> W = 22
8:58:30.031> M = 19
9:00:04.093> Radar Detected W
9:00:04.093> type 1
9:00:04.093> 48KHz
9:00:04.093> DFS_Channel(CAC) = 29
9:00:04.093> W = 19
9:00:04.093> M = 29
9:00:33.968> Radar Detected W
9:00:33.968> type 1
9:00:34.031> Open non-DFS Ch 8
9:00:34.031> 48KHz
9:00:34.031> W = 8
9:00:34.031> M = 29
Transmit
Macros
+CR
-> Send
Connected
Rx: 2489
Tx: 0
start
Terminal - Connected
10U13247-1 FCC IC ...
9:00 AM