10.2.3. OVERLAPPING CHANNEL TESTS

RESULTS

These tests are not applicable.

10.2.4. 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).

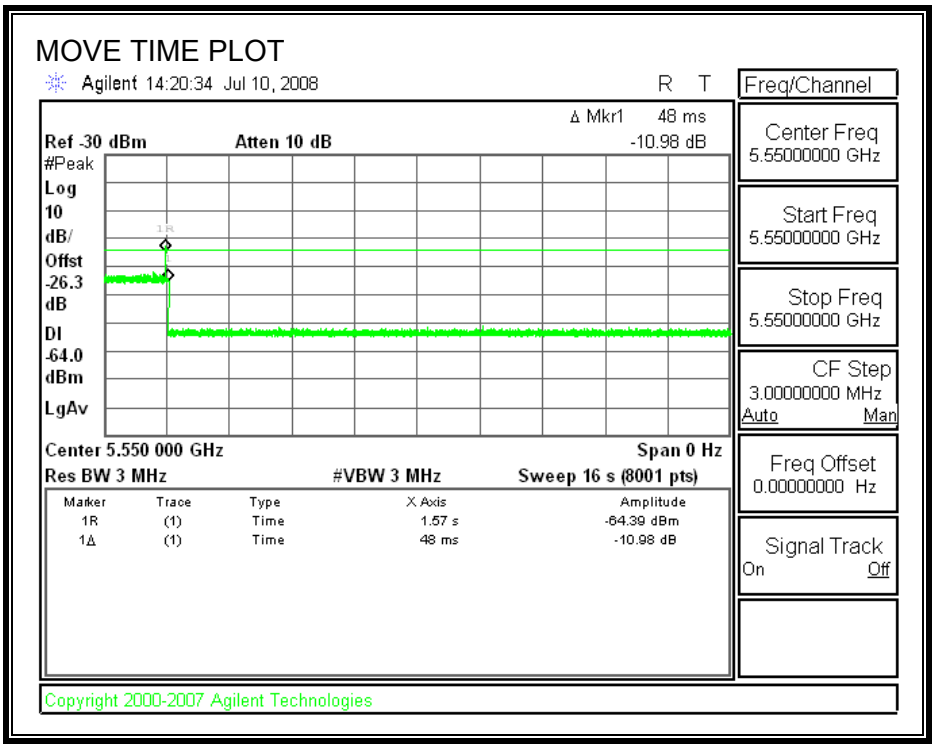
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

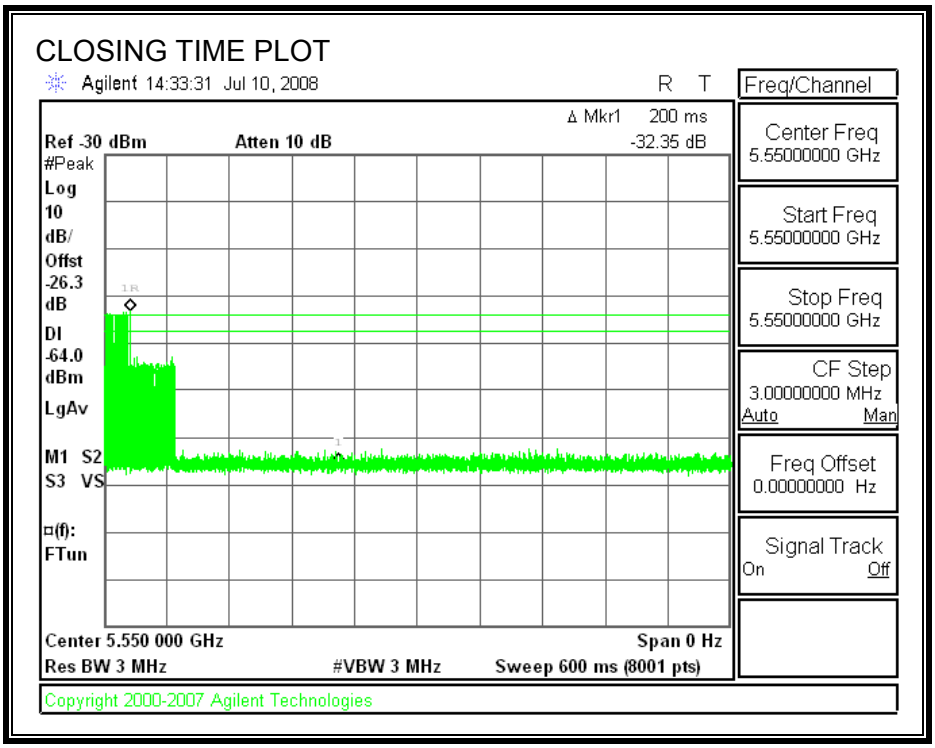
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.048	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	0.0	60
IC	44.0	260

MOVE TIME

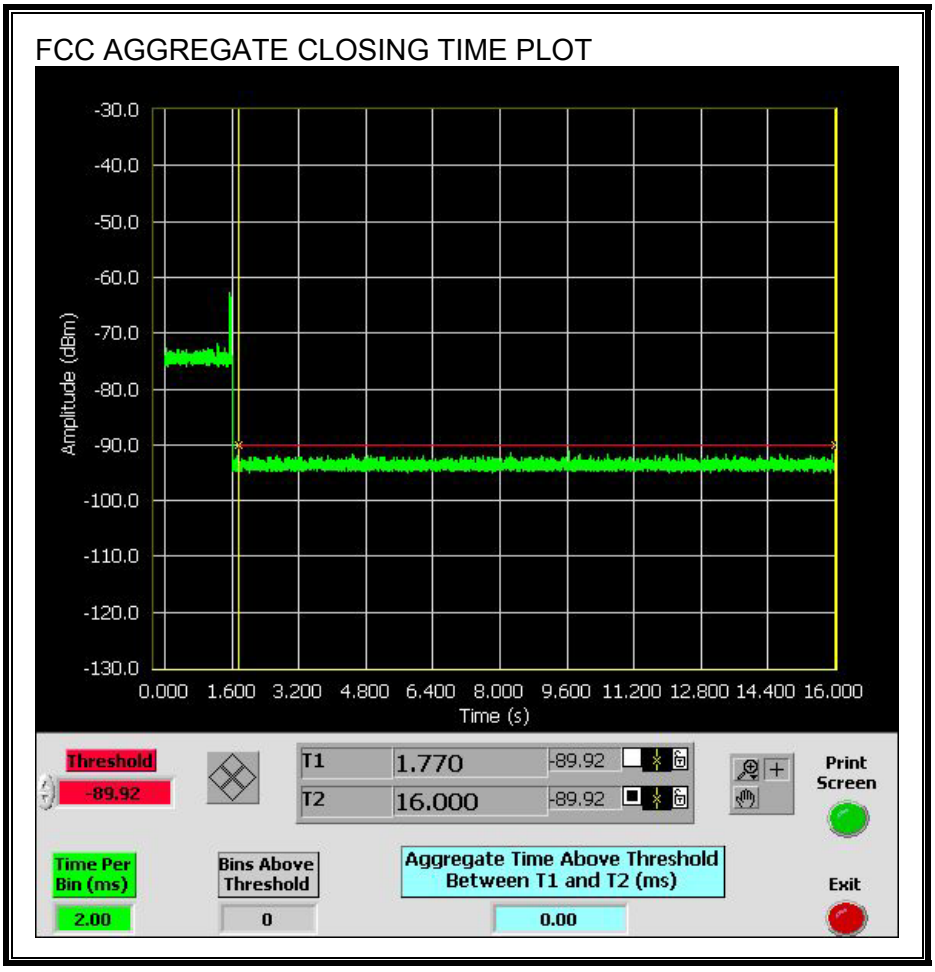


CHANNEL CLOSING TIME



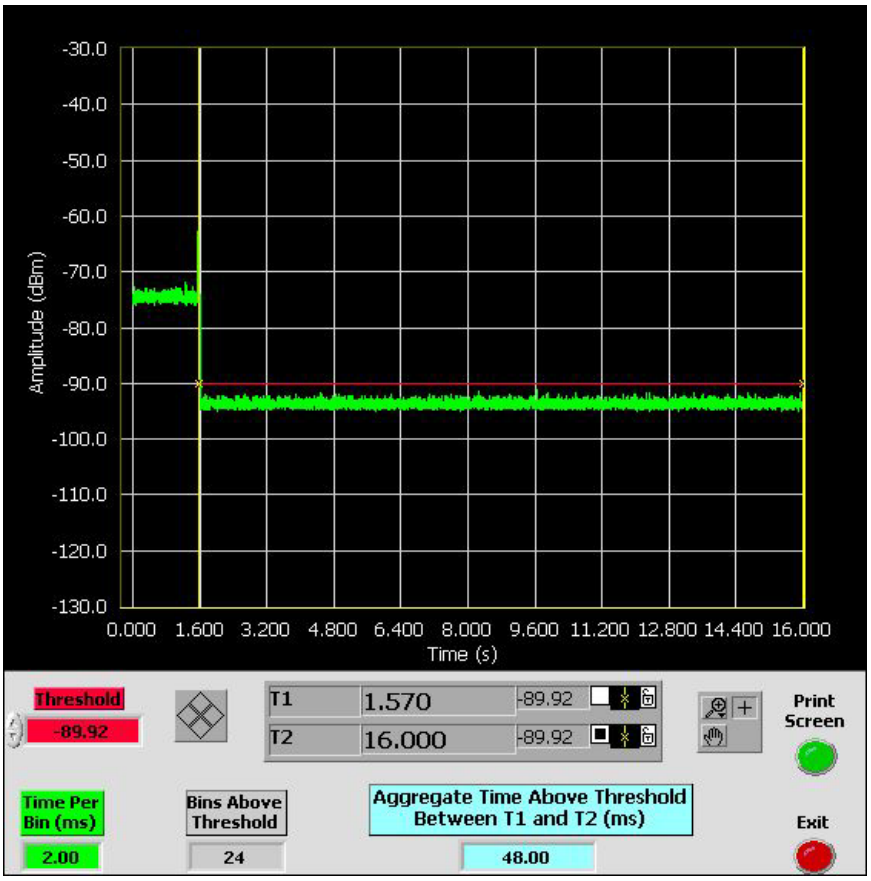
AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the FCC aggregate monitoring period.



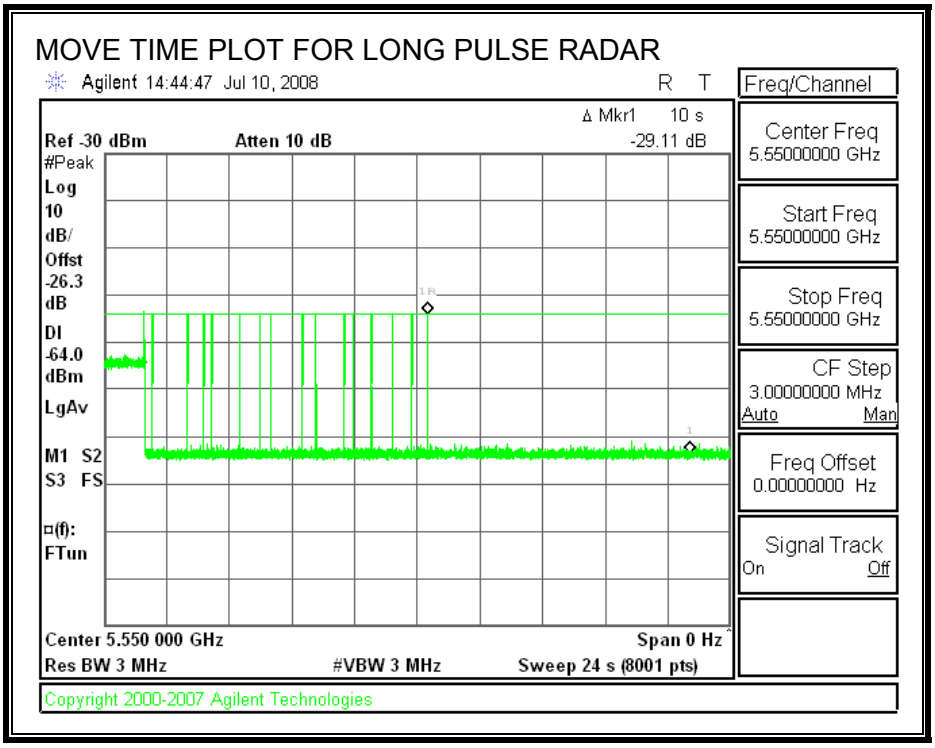
Only intermittent transmissions are observed during the IC aggregate monitoring period.

IC AGGREGATE CLOSING TIME PLOT



LONG PULSE CHANNEL MOVE TIME

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

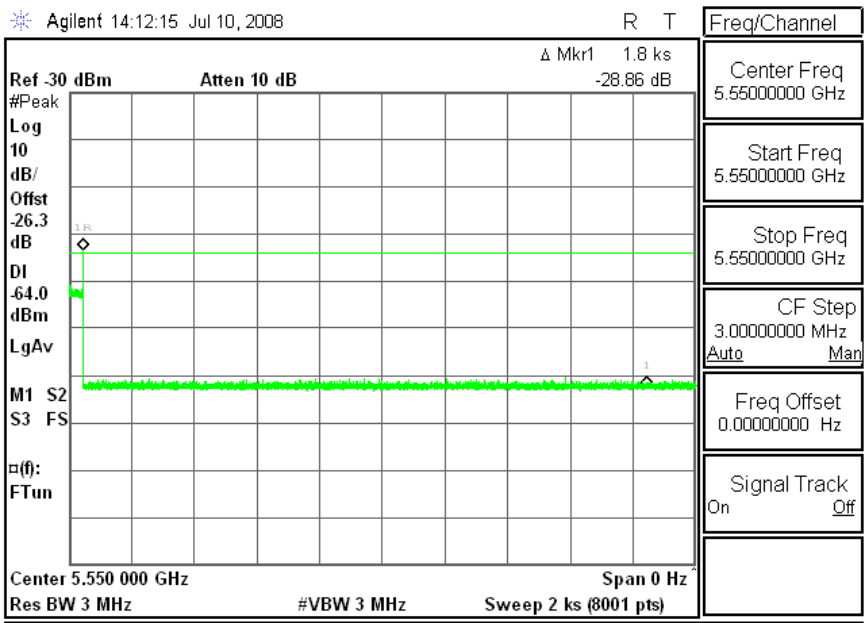


10.2.5. NON-OCCUPANCY PERIOD

RESULTS

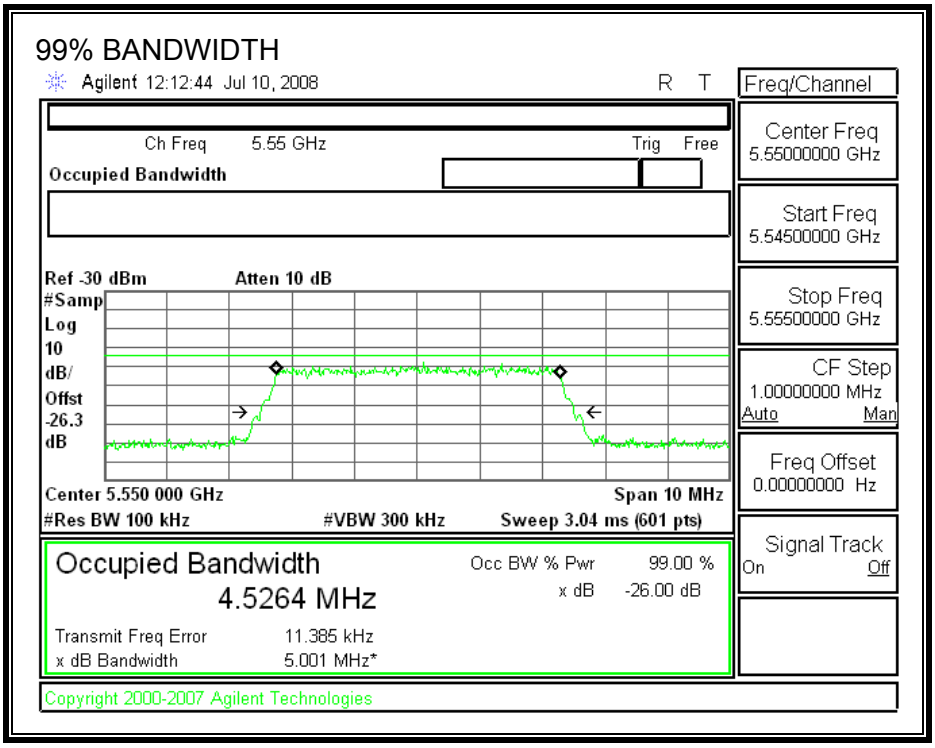
No EUT transmissions were observed on the test channel during the 30-minute observation time.

NON-OCCUPANCY PERIOD PLOT



10.2.6. 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 (%)
5547	5553	6	4.526	132.6	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
5546	2	0	0	
5547	10	10	100	FL
5548	10	10	100	
5549	10	10	100	
5550	10	10	100	
5551	10	10	100	
5552	10	10	100	
5553	10	10	100	FH
5554	1	0	0	

10.2.7. IN-SERVICE MONITORING

RESULTS

FCC Radar Test Summary

Signal Type	Number of Trials	Detection (%)	Limit (%)	Pass/Fail
FCC TYPE 1	30	100.00	60	Pass
FCC TYPE 2	30	100.00	60	Pass
FCC TYPE 3	30	100.00	60	Pass
FCC TYPE 4	30	100.00	60	Pass
Aggregate		100.00	80	Pass
FCC TYPE 5	30	100.00	80	Pass
FCC TYPE 6	35	100.00	70	Pass

TYPE 1 DETECTION PROBABILITY

Data Sheet for FCC Fixed 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	4.8	220.00	28	Yes
2002	4.5	225.00	28	Yes
2003	5	214.00	27	Yes
2004	1.4	186.00	27	Yes
2005	1.6	187.00	27	Yes
2006	4.8	192.00	27	Yes
2007	1.8	197.00	26	Yes
2008	2.6	182.00	28	Yes
2009	2.7	221.00	27	Yes
2010	1.5	209.00	26	Yes
2011	2.1	167.00	25	Yes
2012	4.1	183.00	23	Yes
2013	3	173.00	29	Yes
2014	4.6	176.00	25	Yes
2015	3.6	215.00	24	Yes
2016	2.2	192.00	28	Yes
2017	1.4	152.00	29	Yes
2018	2.4	182.00	29	Yes
2019	3.8	208.00	26	Yes
2020	1	176.00	26	Yes
2021	4.9	203.00	28	Yes
2022	1.1	201.00	23	Yes
2023	4.6	208.00	28	Yes
2024	2.1	207.00	23	Yes
2025	1.3	213.00	27	Yes
2026	5	200.00	25	Yes
2027	2.5	158.00	24	Yes
2028	4.2	151.00	26	Yes
2029	1.3	223.00	25	Yes
2030	2.6	178.00	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	6.7	297.00	16	Yes
3002	8.9	341.00	18	Yes
3003	9	440.00	17	Yes
3004	6.2	318.00	17	Yes
3005	6.3	344.00	18	Yes
3006	9.7	326.00	17	Yes
3007	5.9	445.00	18	Yes
3008	6.1	409.00	17	Yes
3009	9.1	470.00	16	Yes
3010	6.3	285.00	17	Yes
3011	6.3	286.00	16	Yes
3012	6.9	285.00	16	Yes
3013	7.9	320.00	16	Yes
3014	5	426.00	17	Yes
3015	8.8	495.00	18	Yes
3016	5.5	321.00	17	Yes
3017	6.4	478.00	18	Yes
3018	5.5	267.00	18	Yes
3019	7	409.00	16	Yes
3020	9.6	304.00	16	Yes
3021	5.4	364.00	17	Yes
3022	9.9	468.00	17	Yes
3023	6.5	389.00	18	Yes
3024	5.1	362.00	17	Yes
3025	9.4	263.00	16	Yes
3026	5.3	259.00	17	Yes
3027	6.4	398.00	16	Yes
3028	8.6	413.00	16	Yes
3029	5.8	377	16	Yes
3030	5.2	483	16	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	17.2	423.00	14	Yes
4002	11.8	280.00	13	Yes
4003	12.1	424.00	14	Yes
4004	11	476.00	16	Yes
4005	19.2	454.00	13	Yes
4006	18	402.00	12	Yes
4007	16.1	381.00	13	Yes
4008	16.6	490.00	14	Yes
4009	15.5	334.00	12	Yes
4010	12.4	436.00	12	Yes
4011	13.4	390.00	16	Yes
4012	18.6	281.00	13	Yes
4013	15	481.00	14	Yes
4014	15.4	486.00	16	Yes
4015	14.9	284.00	16	Yes
4016	12	297.00	12	Yes
4017	19.6	268.00	15	Yes
4018	10.9	393.00	15	Yes
4019	11	404.00	16	Yes
4020	15.2	336.00	12	Yes
4021	15.1	256.00	14	Yes
4022	17.1	400.00	12	Yes
4023	14.3	480.00	12	Yes
4024	19.1	325.00	13	Yes
4025	16.5	459.00	13	Yes
4026	10.2	411.00	13	Yes
4027	14.2	306.00	16	Yes
4028	14.8	403.00	16	Yes
4029	17.4	352.00	15	Yes
4030	12.3	393.00	13	Yes

TYPE 5 DETECTION PROBABILITY

Data Sheet for FCC Long Pulse Radar Type 5

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

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

TYPE 6 DETECTION PROBABILITY

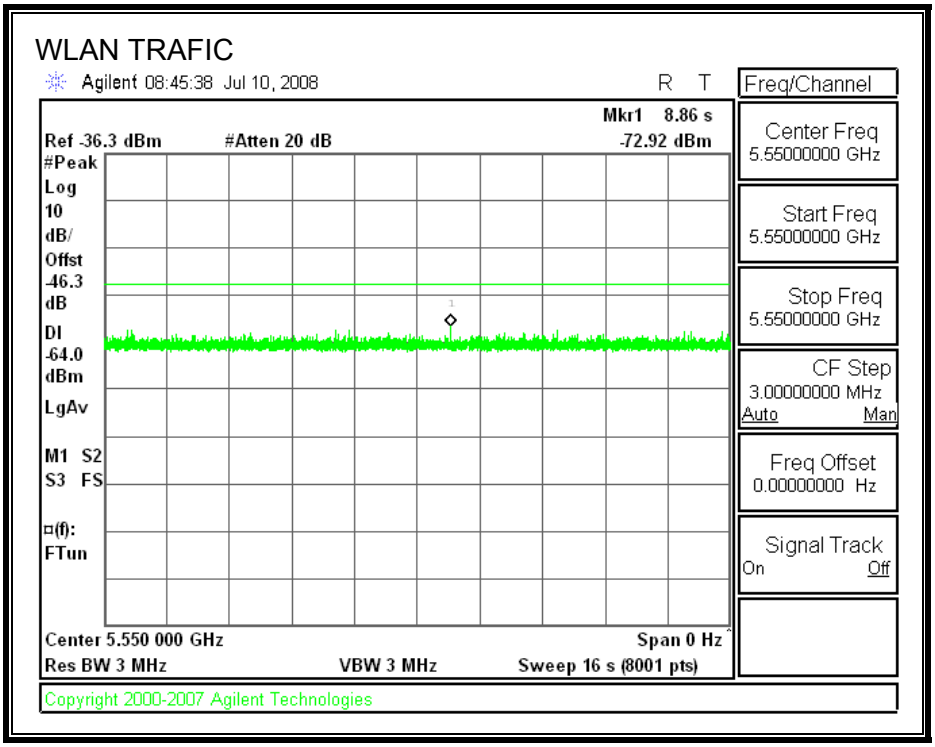
Data Sheet for FCC Hopping Radar Type 6
1 us Pulse Width, 333 us PRI, 9 Pulses per Burst, 1 Burst per Hop
NTIA August 2005 Hopping Sequence

Trial	Starting Index Within Sequence (Base 1)	Signal Generator Frequency (MHz)	Hops within Detection BW	Successful Detection (Yes/No)
1	349	5547	3	Yes
2	824	5548	2	Yes
3	1299	5549	1	Yes
4	1774	5550	1	Yes
5	2724	5551	3	Yes
6	3199	5552	1	Yes
7	3674	5553	1	Yes
8	4149	5547	2	Yes
9	4624	5548	3	Yes
10	5099	5549	2	Yes
11	5574	5550	1	Yes
12	6049	5551	1	Yes
13	6524	5552	2	Yes
14	6999	5553	1	Yes
15	7474	5547	3	Yes
16	7949	5548	2	Yes
17	8424	5549	2	Yes
18	8899	5550	3	Yes
19	9374	5551	1	Yes
20	10324	5552	1	Yes
21	10799	5553	2	Yes
22	11274	5547	2	Yes
23	11749	5548	2	Yes
24	12224	5549	1	Yes
25	12699	5550	3	Yes
26	13174	5551	2	Yes
27	13649	5552	2	Yes
28	14599	5553	1	Yes
29	15074	5547	1	Yes
30	15549	5548	1	Yes
31	16024	5549	1	Yes
32	16499	5550	3	Yes
33	16974	5551	1	Yes
34	17924	5552	3	Yes
35	18399	5553	1	Yes

10.3. SLAVE DEVICE CONFIGURATION IN 5 MHz BANDWIDTH

10.3.1. TRAFFIC

PLOT OF TRAFFIC FROM SLAVE



10.3.2. 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).

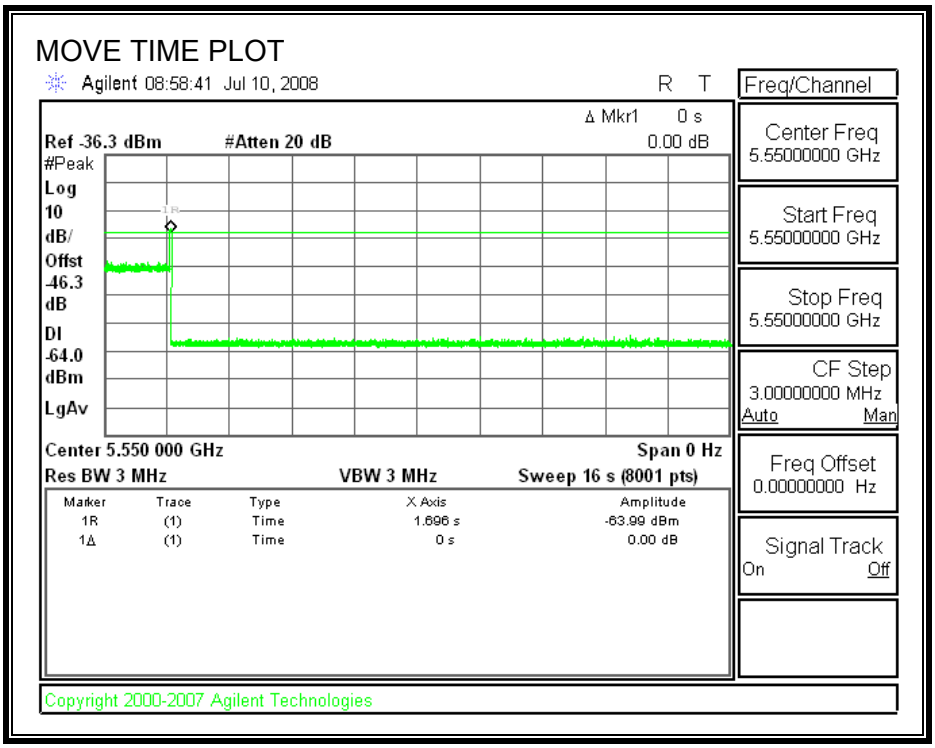
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

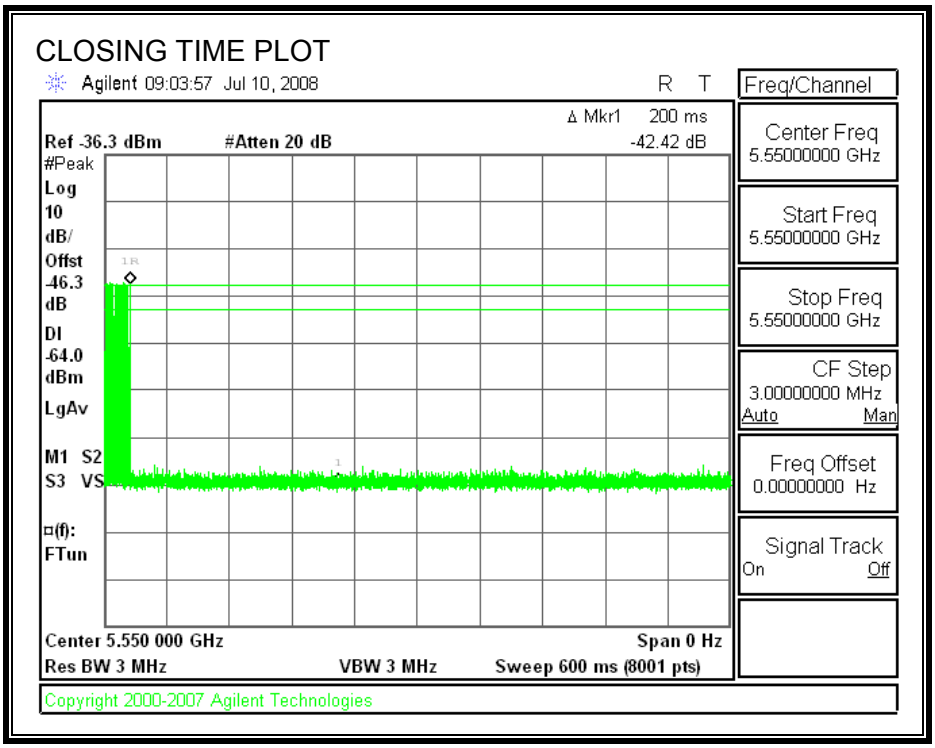
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.0	10

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

MOVE TIME



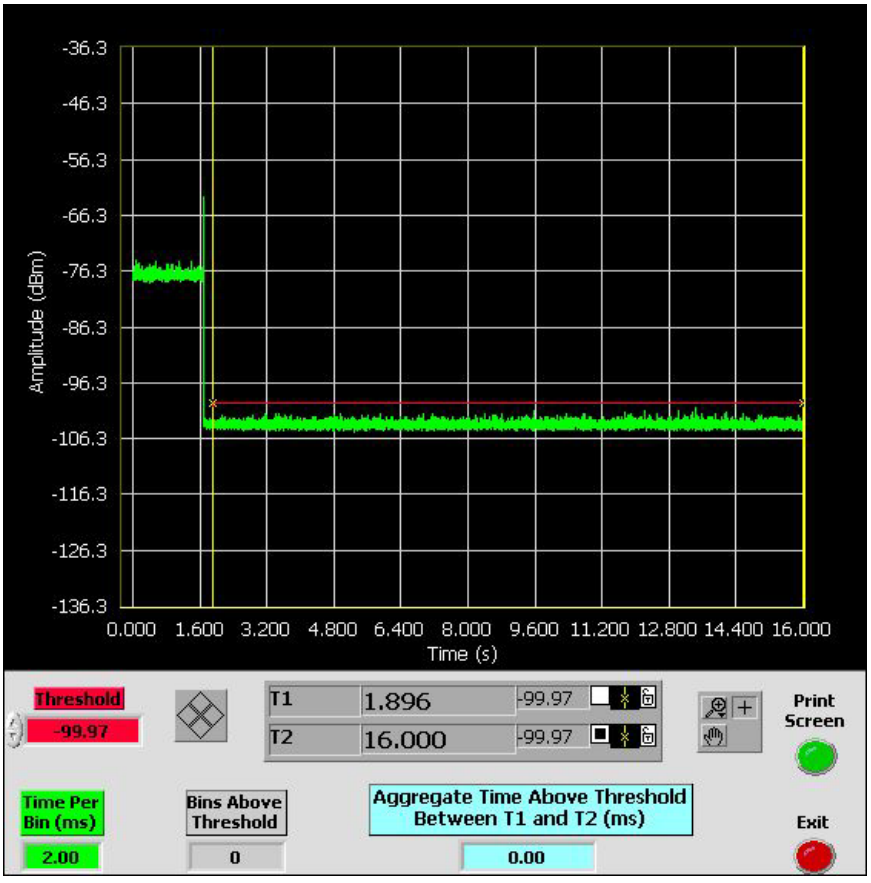
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

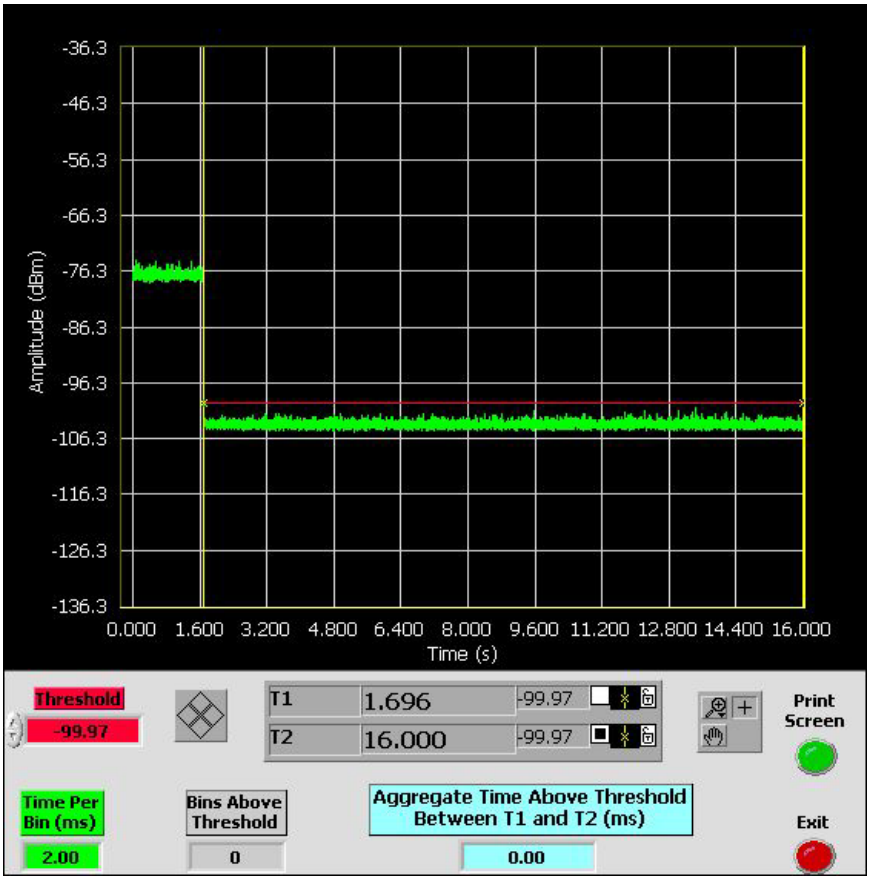
No transmissions are observed during the FCC aggregate monitoring period.

FCC AGGREGATE CLOSING TIME PLOT



No transmissions are observed during the IC aggregate monitoring period.

IC AGGREGATE CLOSING TIME PLOT

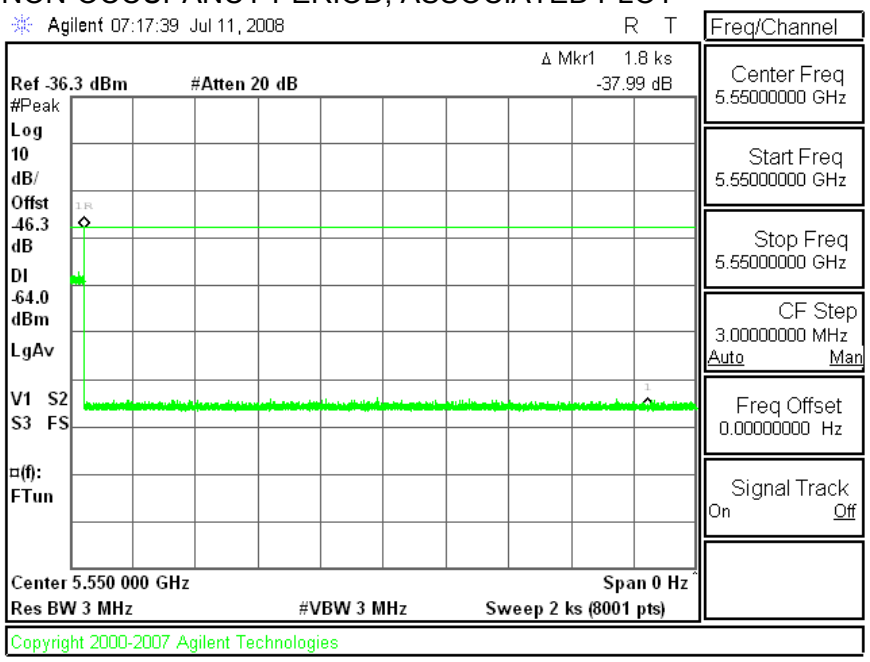


10.3.3. NON-OCCUPANCY PERIOD

RESULTS

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

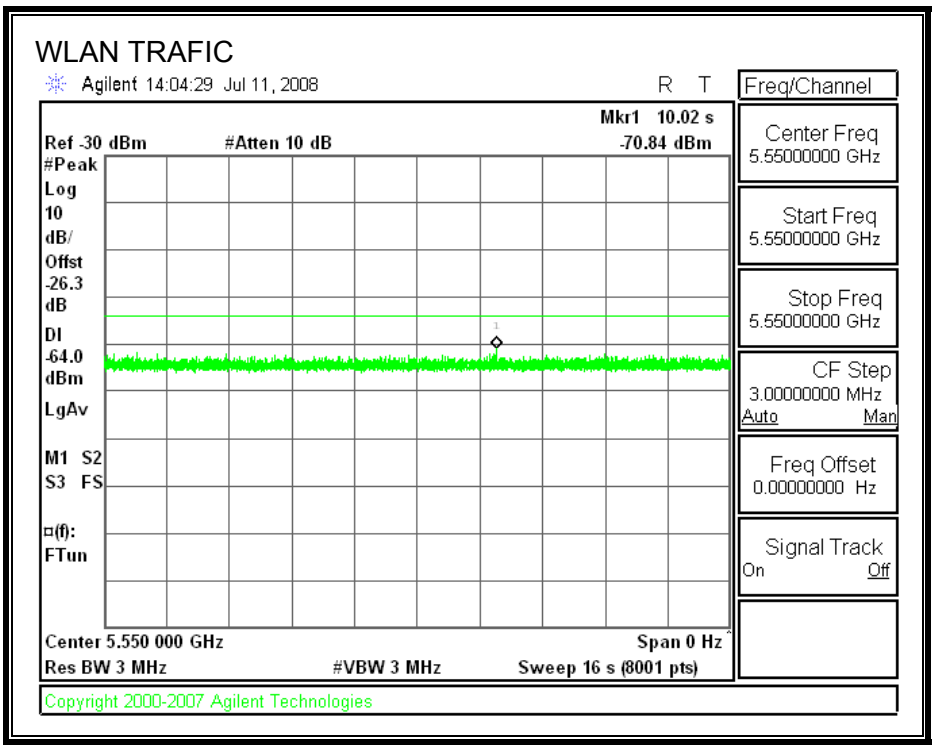
NON-OCCUPANCY PERIOD, ASSOCIATED PLOT



10.4. MASTER DEVICE CONFIGURATION IN 10 MHz BANDWIDTH

10.4.1. TRAFFIC

PLOT OF TRAFFIC FROM MASTER



10.4.2. CHANNEL AVAILABILITY CHECK TIME

PROCEDURE TO DETERMINE INITIAL POWER-UP CYCLE TIME

A link was established on channel then the EUT was rebooted. The time from the cessation of traffic to the re-initialization of traffic was measured as the time required for the EUT to complete the total power-up cycle. The time to complete the initial power-up period is 60 seconds less than this total power-up time.

PROCEDURE FOR TIMING OF RADAR BURST

With a link established on channel, the EUT was rebooted. A radar signal was triggered within 0 to 6 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

The Non-Occupancy list was cleared. With a link established on channel, the EUT was rebooted. A radar signal was triggered within 54 to 60 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

QUANTITATIVE RESULTS

No Radar Triggered

Timing of Reboot (sec)	Timing of Start of Traffic (sec)	Total Power-up Cycle Time (sec)	Initial Power-up Cycle Time (sec)
17.91	134.8	116.9	56.9

Radar Near Beginning of CAC

Timing of Reboot (sec)	Timing of Radar Burst (sec)	Radar Relative to Reboot (sec)	Radar Relative to Start of CAC (sec)
18.34	77.6	59.3	2.4

Radar Near End of CAC

Timing of Reboot (sec)	Timing of Radar Burst (sec)	Radar Relative to Reboot (sec)	Radar Relative to Start of CAC (sec)
18.07	131.8	113.7	56.8

QUALITATIVE RESULTS

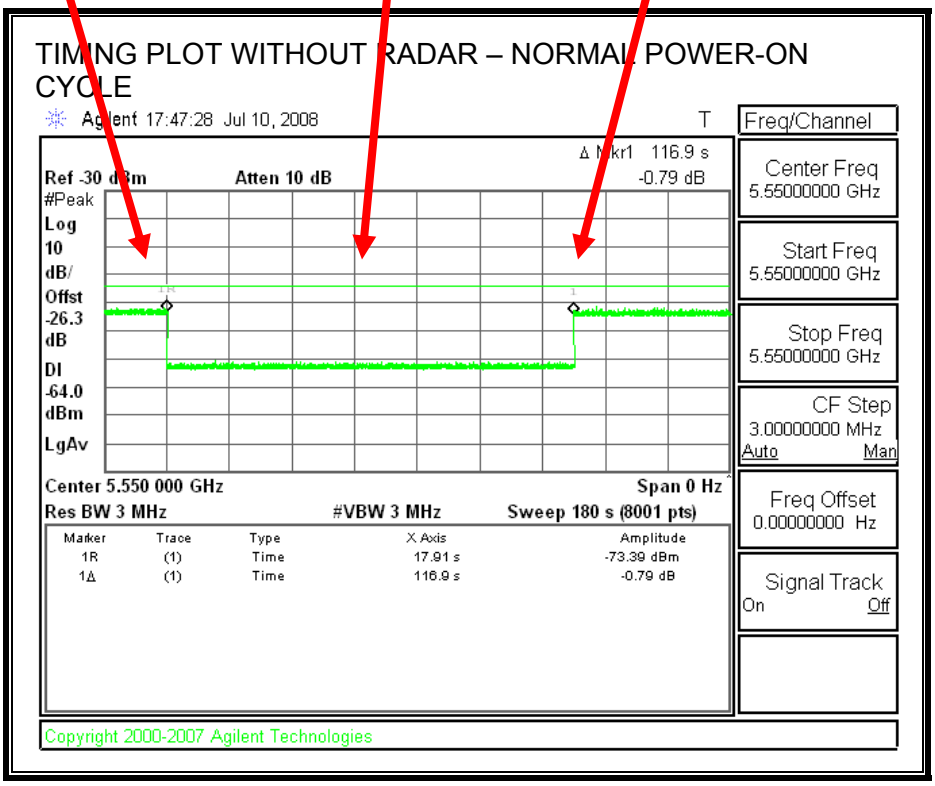
Timing of Radar Burst	Display on Control Computer	Spectrum Analyzer Display
No Radar Triggered	EUT marks Channel as active	Transmissions begin on channel after completion of the initial power-up cycle and the CAC
Within 0 to 6 second window	EUT indicates radar detected	No transmissions on channel
Within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

TIMING PLOT WITHOUT RADAR DURING CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

End of CAC
Traffic is Initiated



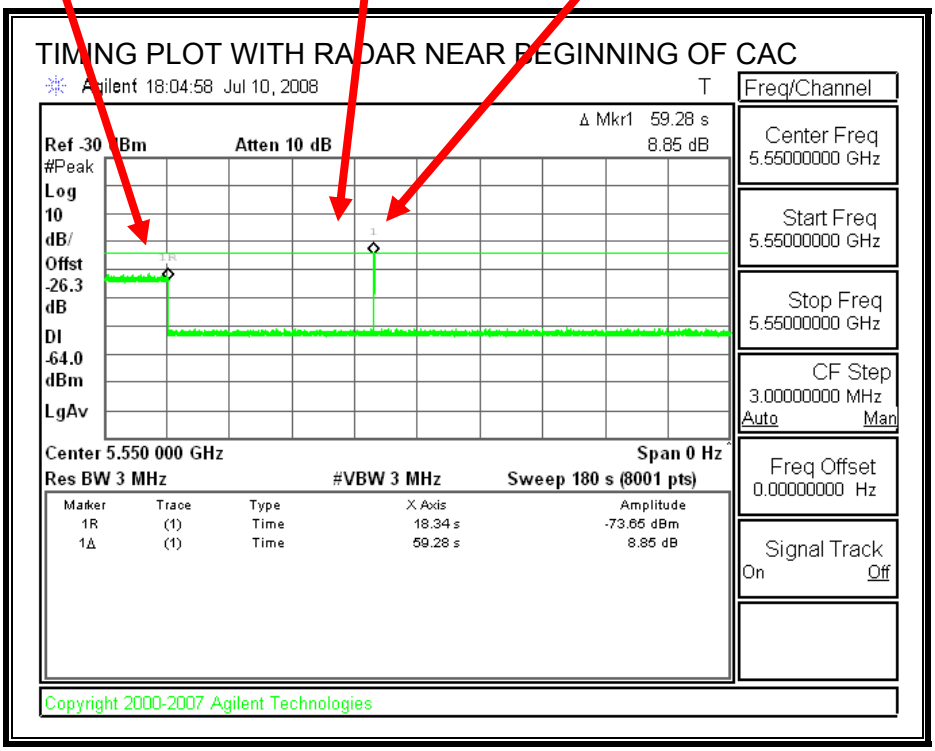
Transmissions begin on channel after completion of the initial power-up cycle and the CAC.

TIMING PLOT WITH RADAR NEAR BEGINNING OF CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

Radar Signal Applied



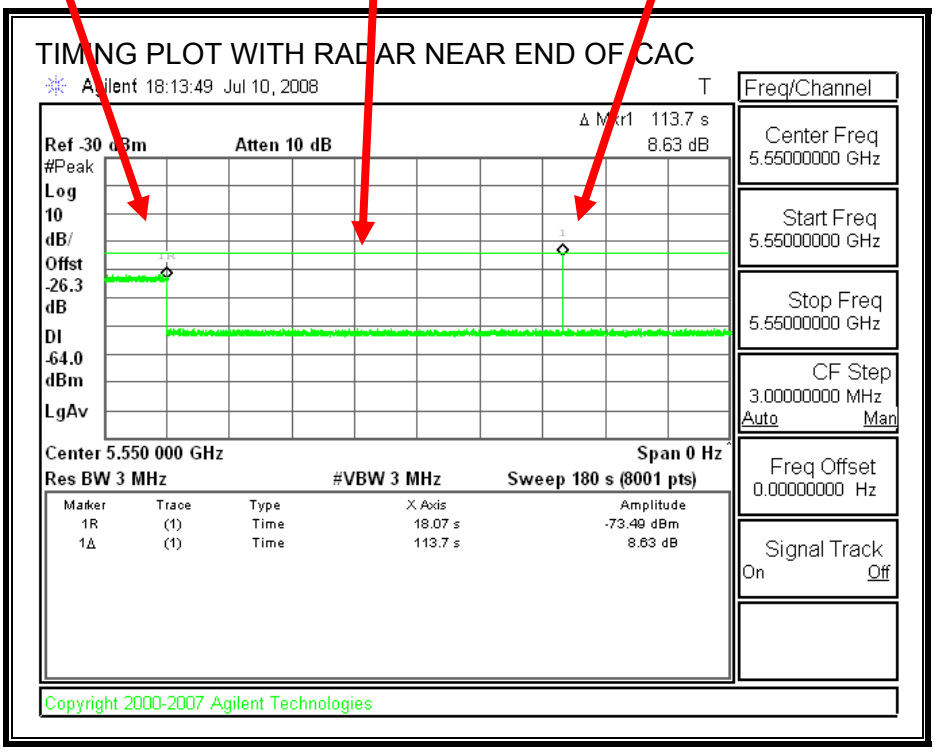
No EUT transmissions were observed after the radar signal.

TIMING PLOT WITH RADAR NEAR END OF CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

Radar Signal Applied



No EUT transmissions were observed after the radar signal.

10.4.3. 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).

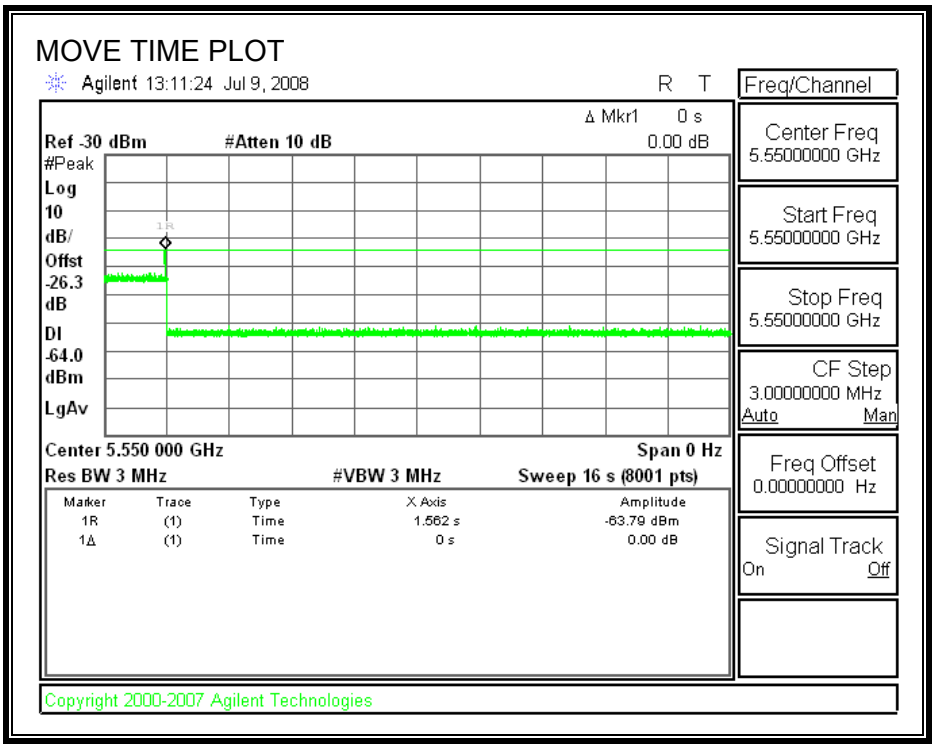
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

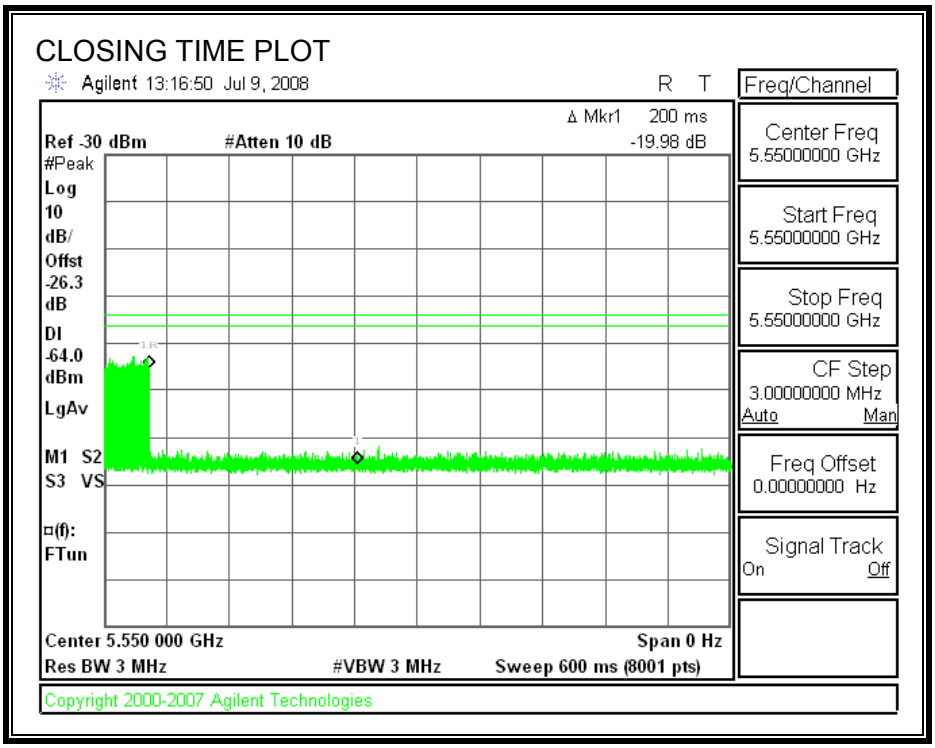
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.044	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	0.0	60
IC	44.0	260

MOVE TIME



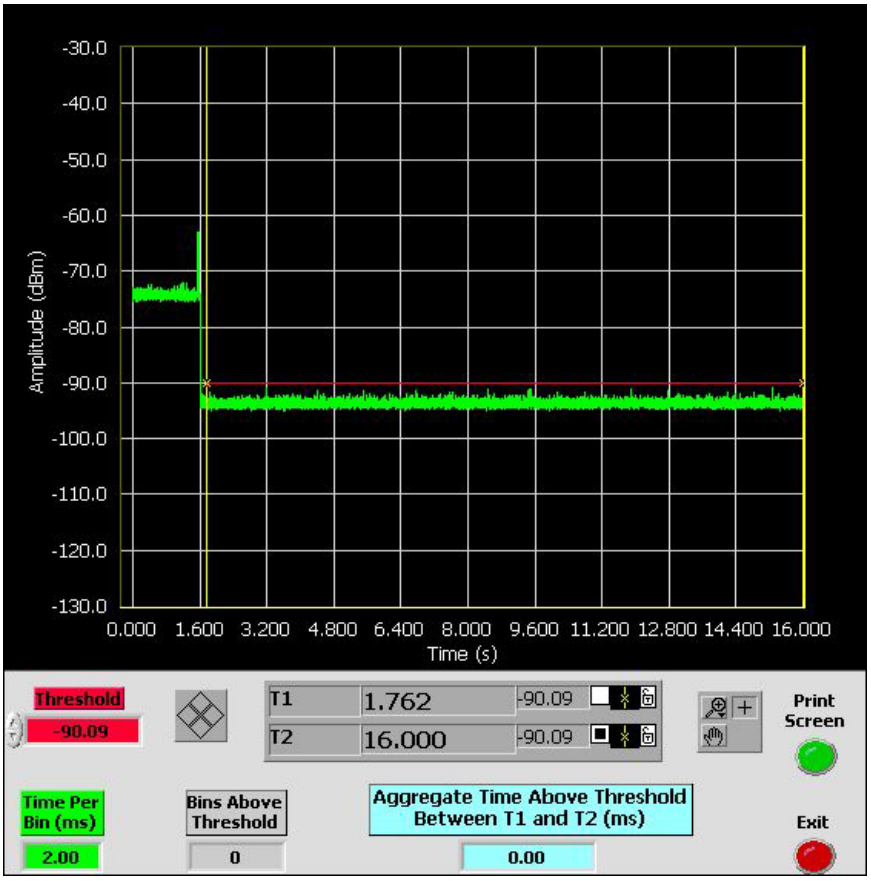
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

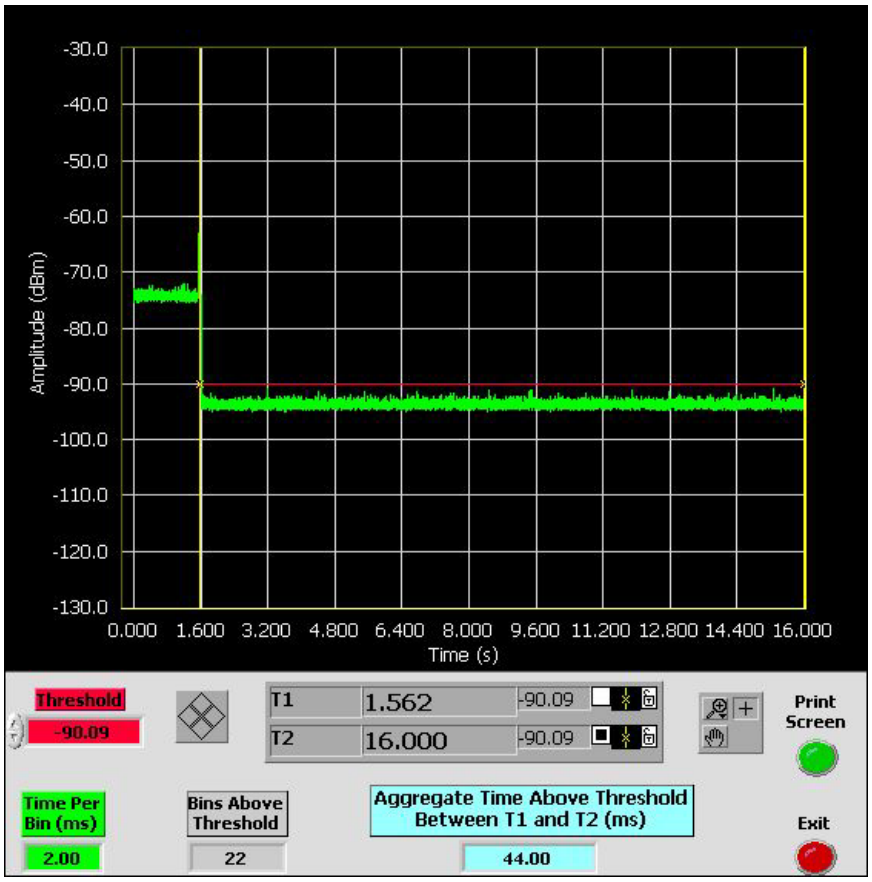
No transmissions are observed during the FCC aggregate monitoring period.

FCC AGGREGATE CLOSING TIME PLOT



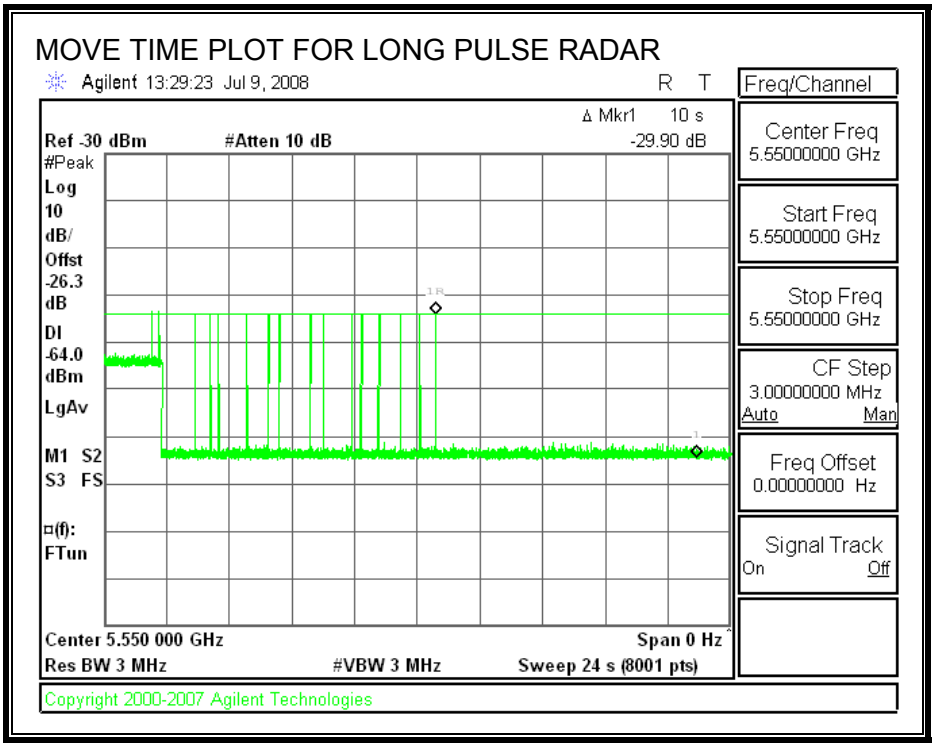
Only intermittent transmissions are observed during the IC aggregate monitoring period.

IC AGGREGATE CLOSING TIME PLOT



LONG PULSE CHANNEL MOVE TIME

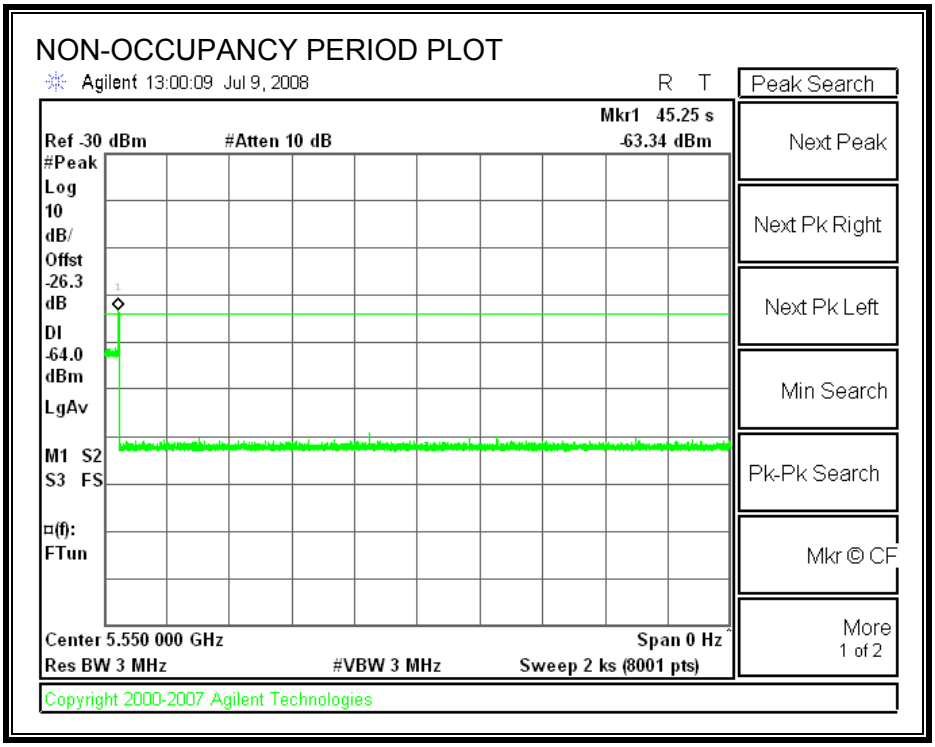
The traffic ceases prior to 10 seconds after the end of the radar waveform.



10.4.4. NON-OCCUPANCY PERIOD

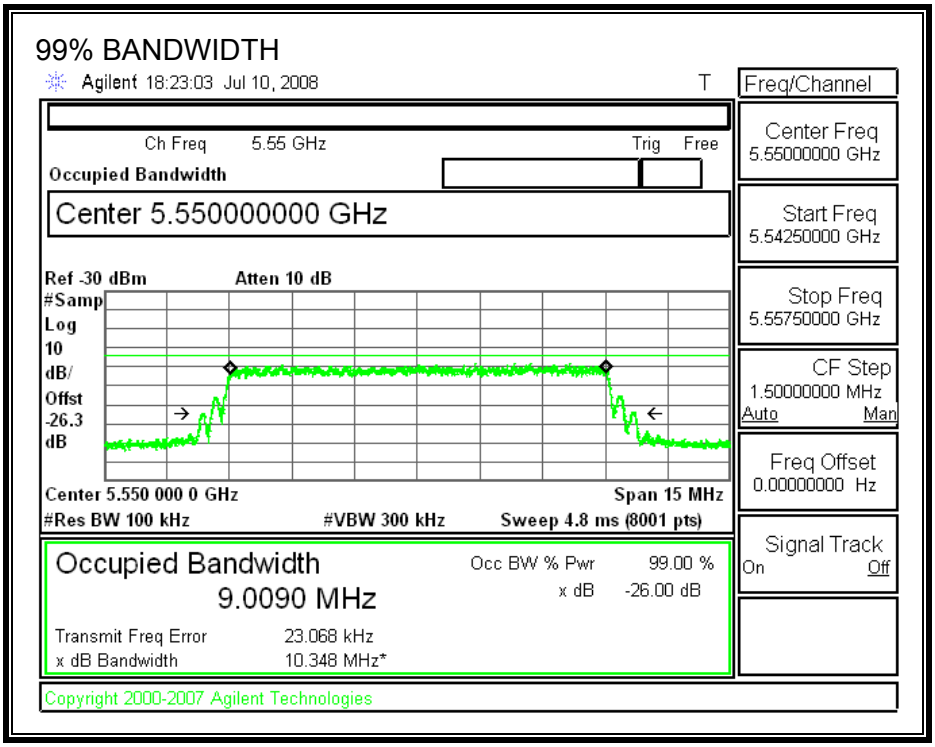
RESULTS

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



10.4.5. 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 (%)
5545	5555	10	9.009	111.0	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
5545	10	10	100	FL
5546	10	10	100	
5547	10	10	100	
5548	10	10	100	
5549	10	10	100	
5550	10	10	100	
5551	10	10	100	
5552	10	10	100	
5553	10	10	100	
5554	10	10	100	
5555	10	10	100	FH

10.4.6. IN-SERVICE MONITORING

RESULTS

FCC Radar Test Summary

Signal Type	Number of Trials	Detection (%)	Limit (%)	Pass/Fail
FCC TYPE 1	30	100.00	60	Pass
FCC TYPE 2	30	100.00	60	Pass
FCC TYPE 3	30	96.67	60	Pass
FCC TYPE 4	30	100.00	60	Pass
Aggregate		99.17	80	Pass
FCC TYPE 5	30	100.00	80	Pass
FCC TYPE 6	33	100.00	70	Pass

TYPE 1 DETECTION PROBABILITY

Data Sheet for FCC Fixed 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	4.8	220.00	28	Yes
2002	4.5	225.00	28	Yes
2003	5	214.00	27	Yes
2004	1.4	186.00	27	Yes
2005	1.6	187.00	27	Yes
2006	4.8	192.00	27	Yes
2007	1.8	197.00	26	Yes
2008	2.6	182.00	28	Yes
2009	2.7	221.00	27	Yes
2010	1.5	209.00	26	Yes
2011	2.1	167.00	25	Yes
2012	4.1	183.00	23	Yes
2013	3	173.00	29	Yes
2014	4.6	176.00	25	Yes
2015	3.6	215.00	24	Yes
2016	2.2	192.00	28	Yes
2017	1.4	152.00	29	Yes
2018	2.4	182.00	29	Yes
2019	3.8	208.00	26	Yes
2020	1	176.00	26	Yes
2021	4.9	203.00	28	Yes
2022	1.1	201.00	23	Yes
2023	4.6	208.00	28	Yes
2024	2.1	207.00	23	Yes
2025	1.3	213.00	27	Yes
2026	5	200.00	25	Yes
2027	2.5	158.00	24	Yes
2028	4.2	151.00	26	Yes
2029	1.3	223.00	25	Yes
2030	2.6	178.00	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	6.7	297.00	16	Yes
3002	8.9	341.00	18	Yes
3003	9	440.00	17	Yes
3004	6.2	318.00	17	Yes
3005	6.3	344.00	18	Yes
3006	9.7	326.00	17	Yes
3007	5.9	445.00	18	Yes
3008	6.1	409.00	17	Yes
3009	9.1	470.00	16	Yes
3010	6.3	285.00	17	Yes
3011	6.3	286.00	16	Yes
3012	6.9	285.00	16	No
3013	7.9	320.00	16	Yes
3014	5	426.00	17	Yes
3015	8.8	495.00	18	Yes
3016	5.5	321.00	17	Yes
3017	6.4	478.00	18	Yes
3018	5.5	267.00	18	Yes
3019	7	409.00	16	Yes
3020	9.6	304.00	16	Yes
3021	5.4	364.00	17	Yes
3022	9.9	468.00	17	Yes
3023	6.5	389.00	18	Yes
3024	5.1	362.00	17	Yes
3025	9.4	263.00	16	Yes
3026	5.3	259.00	17	Yes
3027	6.4	398.00	16	Yes
3028	8.6	413.00	16	Yes
3029	5.8	377	16	Yes
3030	5.2	483	16	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	17.2	423.00	14	Yes
4002	11.8	280.00	13	Yes
4003	12.1	424.00	14	Yes
4004	11	476.00	16	Yes
4005	19.2	454.00	13	Yes
4006	18	402.00	12	Yes
4007	16.1	381.00	13	Yes
4008	16.6	490.00	14	Yes
4009	15.5	334.00	12	Yes
4010	12.4	436.00	12	Yes
4011	13.4	390.00	16	Yes
4012	18.6	281.00	13	Yes
4013	15	481.00	14	Yes
4014	15.4	486.00	16	Yes
4015	14.9	284.00	16	Yes
4016	12	297.00	12	Yes
4017	19.6	268.00	15	Yes
4018	10.9	393.00	15	Yes
4019	11	404.00	16	Yes
4020	15.2	336.00	12	Yes
4021	15.1	256.00	14	Yes
4022	17.1	400.00	12	Yes
4023	14.3	480.00	12	Yes
4024	19.1	325.00	13	Yes
4025	16.5	459.00	13	Yes
4026	10.2	411.00	13	Yes
4027	14.2	306.00	16	Yes
4028	14.8	403.00	16	Yes
4029	17.4	352.00	15	Yes
4030	12.3	393.00	13	Yes

TYPE 5 DETECTION PROBABILITY

Data Sheet for FCC Long Pulse Radar Type 5

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

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 (Base 1)	Signal Generator Frequency (MHz)	Hops within Detection BW	Successful Detection (Yes/No)
1	287	5545	2	Yes
2	762	5546	2	Yes
3	1237	5547	2	Yes
4	1712	5548	3	Yes
5	2187	5549	1	Yes
6	2662	5550	3	Yes
7	3137	5551	1	Yes
8	3612	5552	2	Yes
9	4562	5553	4	Yes
10	5037	5554	3	Yes
11	5512	5555	4	Yes
12	5987	5545	2	Yes
13	6462	5546	2	Yes
14	6937	5547	2	Yes
15	7412	5548	1	Yes
16	7887	5549	5	Yes
17	8362	5550	3	Yes
18	8837	5551	1	Yes
19	9312	5552	2	Yes
20	9787	5553	1	Yes
21	10737	5554	1	Yes
22	11212	5555	4	Yes
23	11687	5545	2	Yes
24	12162	5546	1	Yes
25	13112	5547	3	Yes
26	13587	5548	3	Yes
27	14062	5549	3	Yes
28	14537	5550	3	Yes
29	15012	5551	1	Yes
30	15962	5552	2	Yes
31	16437	5553	3	Yes
32	16912	5554	3	Yes
33	17387	5555	2	Yes

10.4.7. OVERLAPPING CHANNEL TESTS

PROCEDURE

The EUT was set to block all channels except 5545MHz, 5550 MHz and 5555 MHz, which are overlapping. The first active channel was 5550 MHz and the radar test frequency was 5550 MHz.

A link was established on the first active channel with the video file streaming.

A radar burst was triggered and a stopwatch timer was started.

The EUT was confirmed to vacate the first active channel then a second radar burst was triggered approximately 45 seconds after the first radar burst.

The EUT was confirmed to vacate the second active channel then a third radar burst was triggered approximately 45 seconds after the second radar burst.

The EUT was confirmed to vacate the third channel.

The spectrum was continuously monitored throughout the test.

RESULTS

After the first radar burst was transmitted the EUT display indicated that 5550 MHz was blocked.

The EUT display then indicated that a CAC was started on one of the remaining two unblocked channels.

After the second radar burst was transmitted the EUT displayed that the second channel was also blocked.

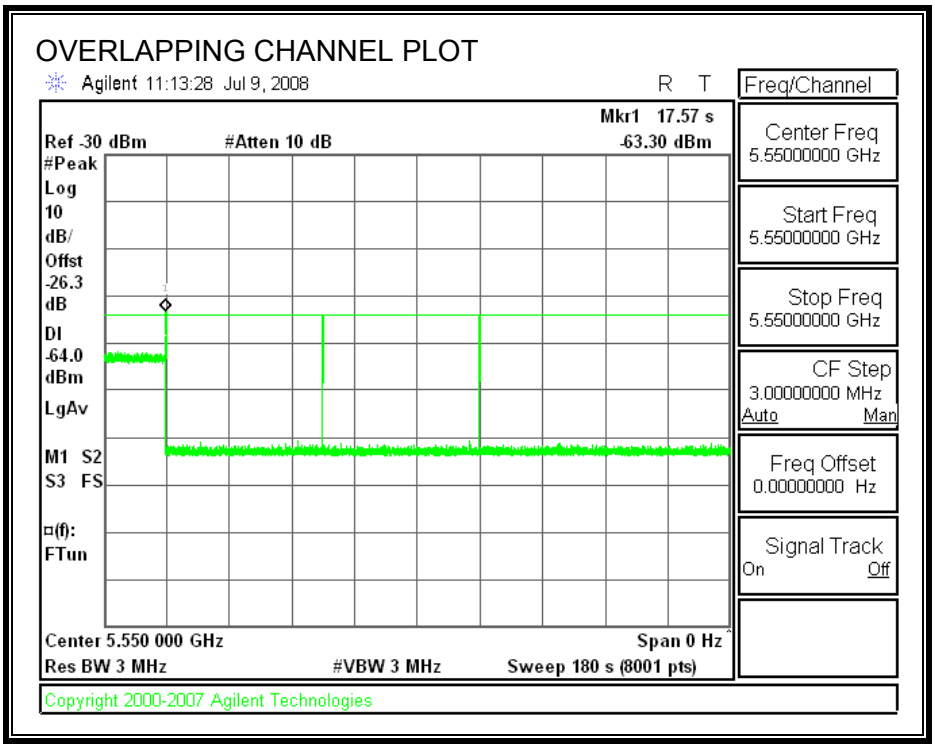
The EUT display then indicated that a CAC was started on the last unblocked channel.

After the third radar burst was transmitted the EUT displayed that all three channels were blocked.

No beacons or traffic was observed after the first radar burst was transmitted.

TEST RESULTS

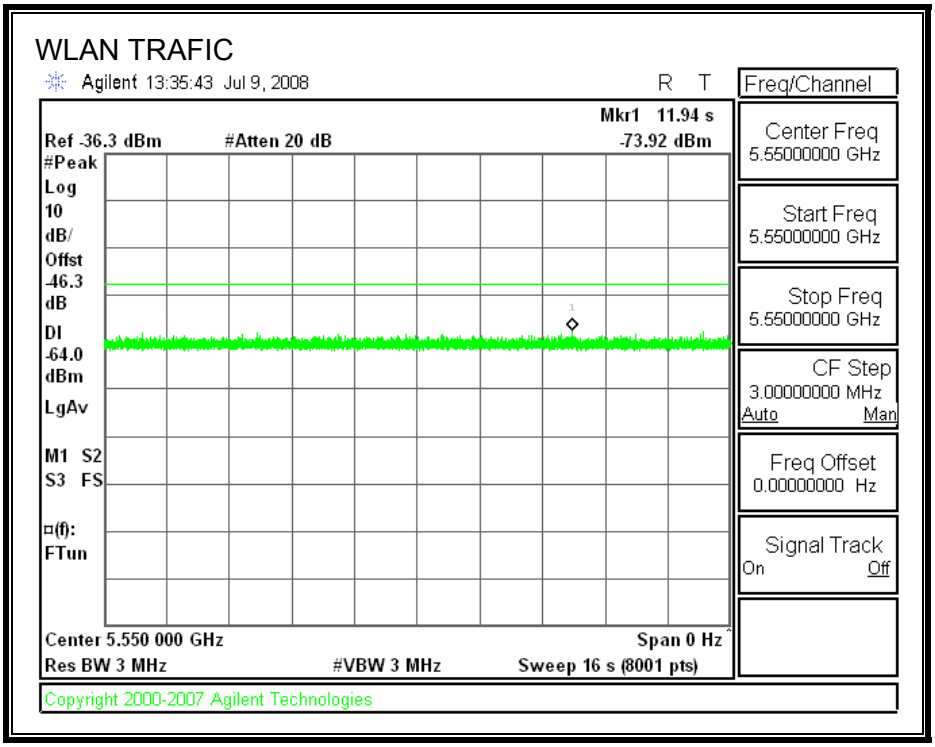
No EUT transmissions were observed on the test channel during the observation time after the first radar burst.



10.5. SLAVE DEVICE CONFIGURATION IN 10 MHz BANDWIDTH

10.5.1. TRAFFIC

PLOT OF TRAFFIC FROM SLAVE



10.5.2. 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).

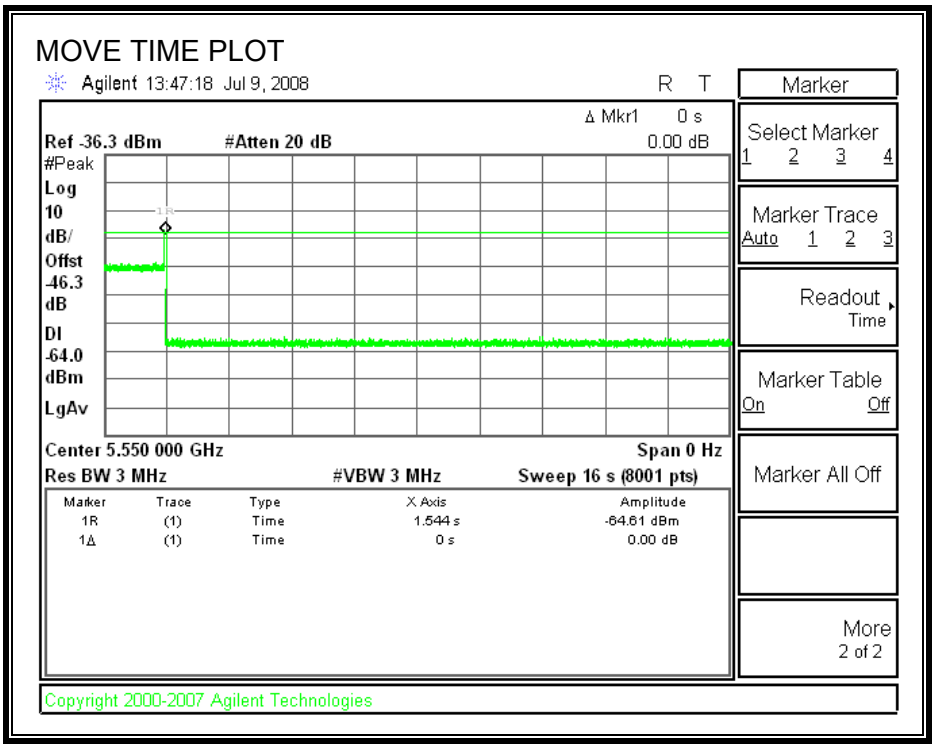
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

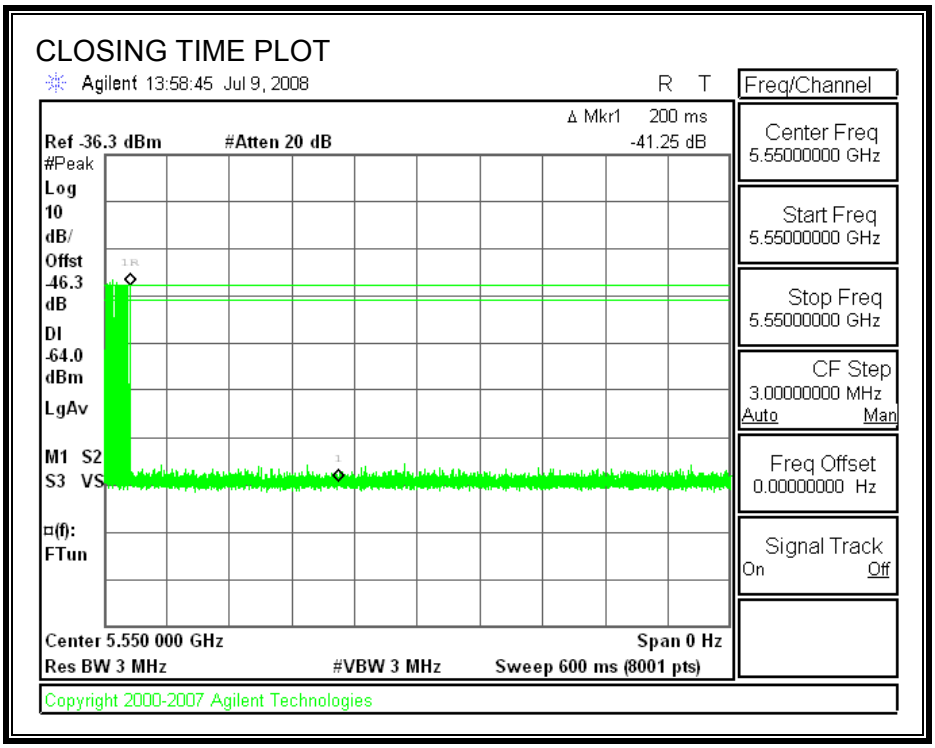
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.0	10

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

MOVE TIME



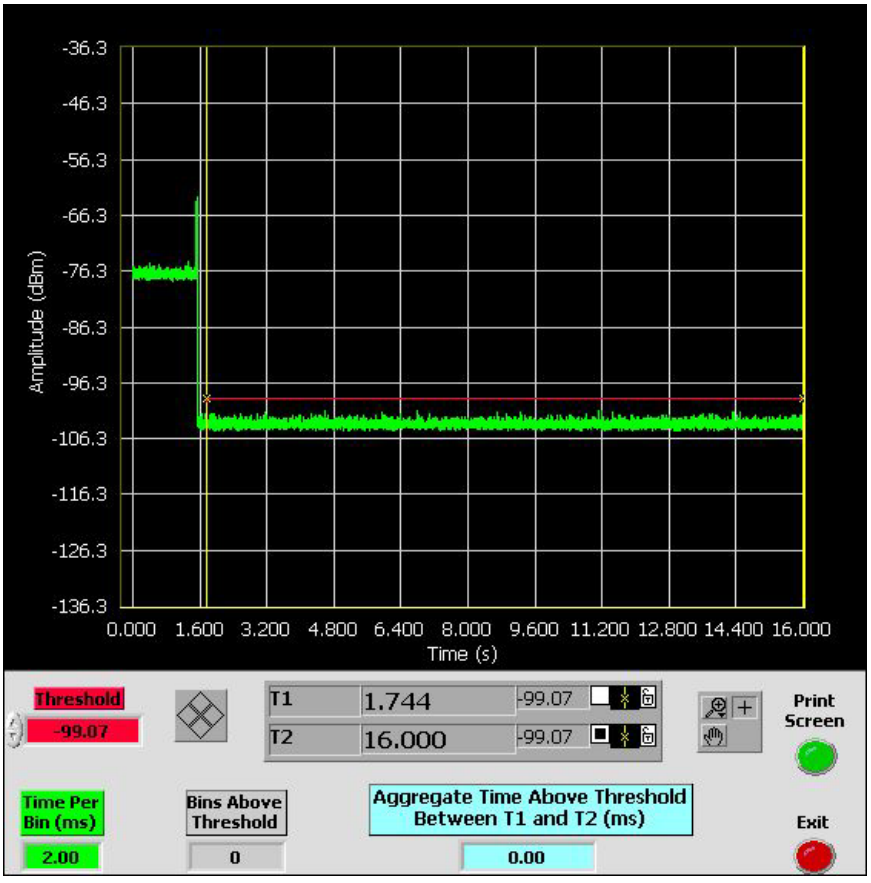
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

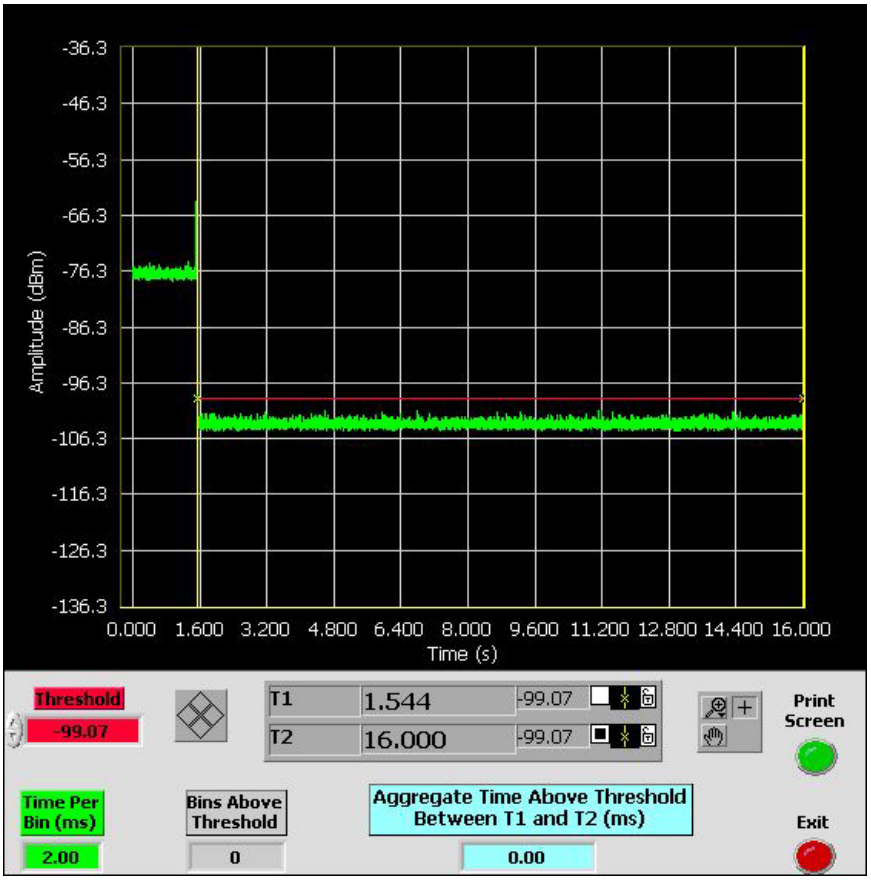
No transmissions are observed during the FCC aggregate monitoring period.

FCC AGGREGATE CLOSING TIME PLOT



No transmissions are observed during the IC aggregate monitoring period.

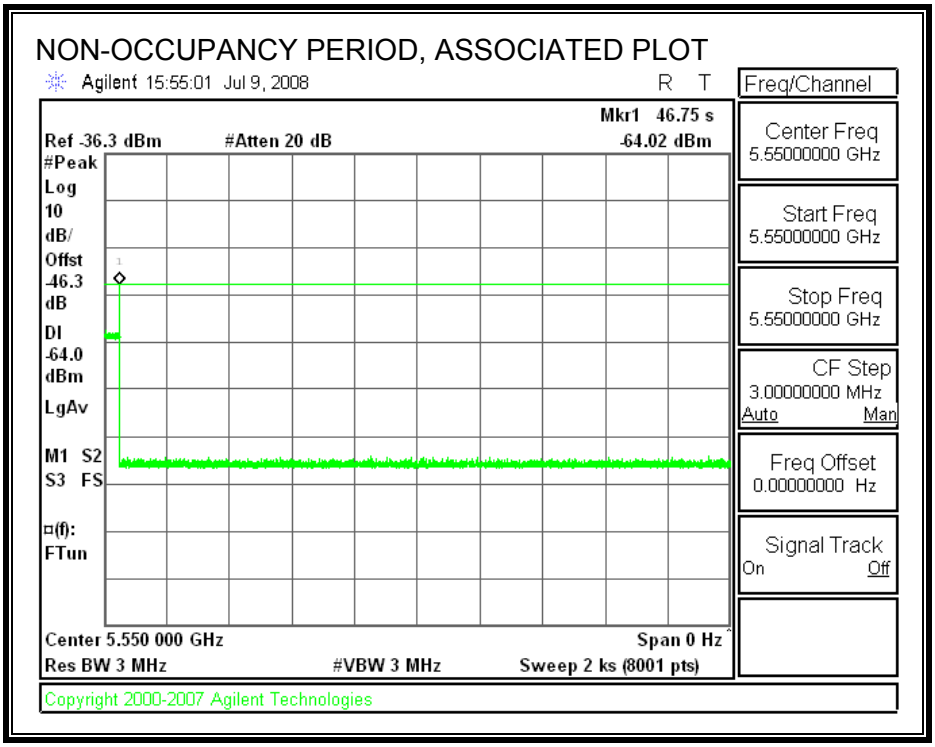
IC AGGREGATE CLOSING TIME PLOT



10.5.3. NON-OCCUPANCY PERIOD

RESULTS

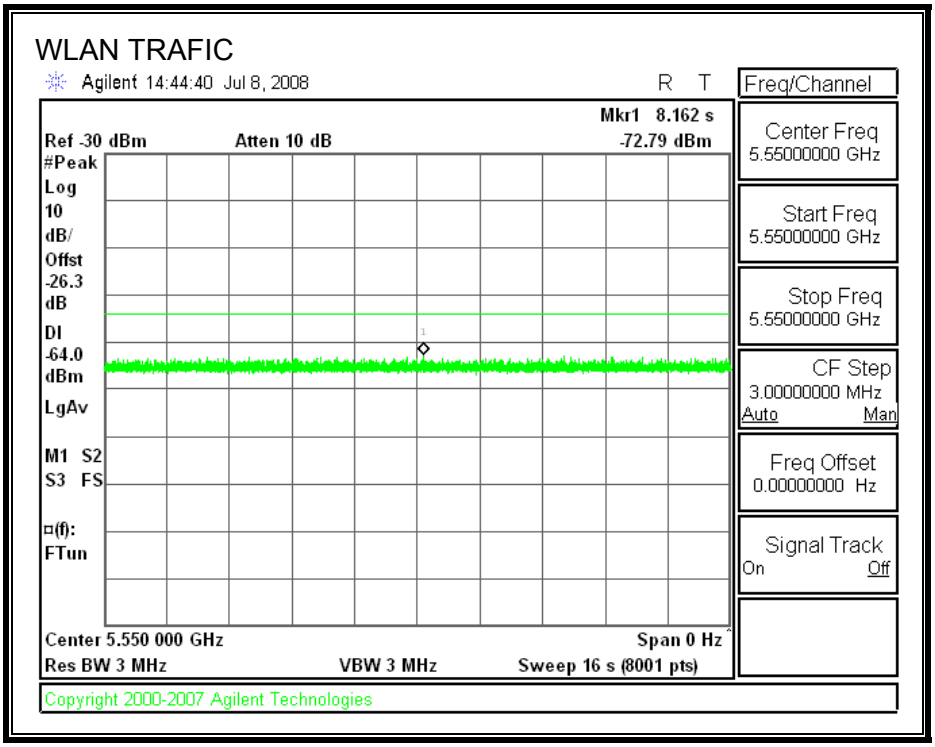
No EUT transmissions were observed on the test channel during the 30-minute observation time.



10.6. MASTER DEVICE CONFIGURATION IN 15 MHz BANDWIDTH

10.6.1. TRAFFIC

PLOT OF TRAFFIC FROM MASTER



10.6.2. CHANNEL AVAILABILITY CHECK TIME

PROCEDURE TO DETERMINE INITIAL POWER-UP CYCLE TIME

A link was established on channel then the EUT was rebooted. The time from the cessation of traffic to the re-initialization of traffic was measured as the time required for the EUT to complete the total power-up cycle. The time to complete the initial power-up period is 60 seconds less than this total power-up time.

PROCEDURE FOR TIMING OF RADAR BURST

With a link established on channel, the EUT was rebooted. A radar signal was triggered within 0 to 6 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

The Non-Occupancy list was cleared. With a link established on channel, the EUT was rebooted. A radar signal was triggered within 54 to 60 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

QUANTITATIVE RESULTS

No Radar Triggered

Timing of Reboot (sec)	Timing of Start of Traffic (sec)	Total Power-up Cycle Time (sec)	Initial Power-up Cycle Time (sec)
17.84	134.9	117.1	57.1

Radar Near Beginning of CAC

Timing of Reboot (sec)	Timing of Radar Burst (sec)	Radar Relative to Reboot (sec)	Radar Relative to Start of CAC (sec)
18.14	77.6	59.5	2.4

Radar Near End of CAC

Timing of Reboot (sec)	Timing of Radar Burst (sec)	Radar Relative to Reboot (sec)	Radar Relative to Start of CAC (sec)
18.34	131.9	113.6	56.5

QUALITATIVE RESULTS

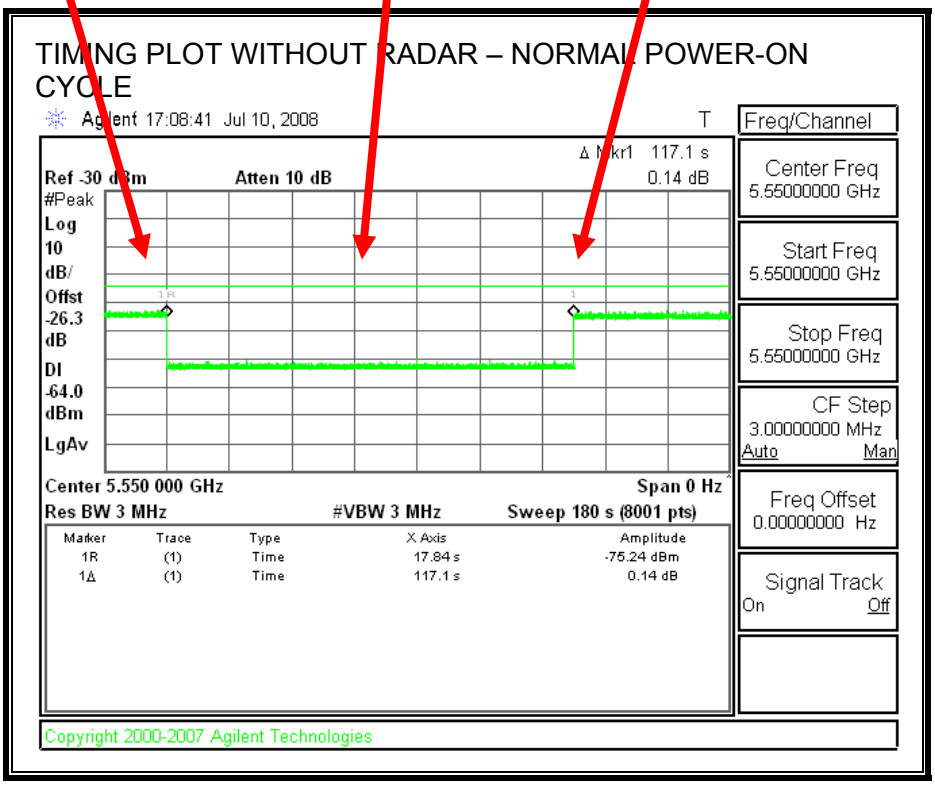
Timing of Radar Burst	Display on Control Computer	Spectrum Analyzer Display
No Radar Triggered	EUT marks Channel as active	Transmissions begin on channel after completion of the initial power-up cycle and the CAC
Within 0 to 6 second window	EUT indicates radar detected	No transmissions on channel
Within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

TIMING PLOT WITHOUT RADAR DURING CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

End of CAC
Traffic is Initiated



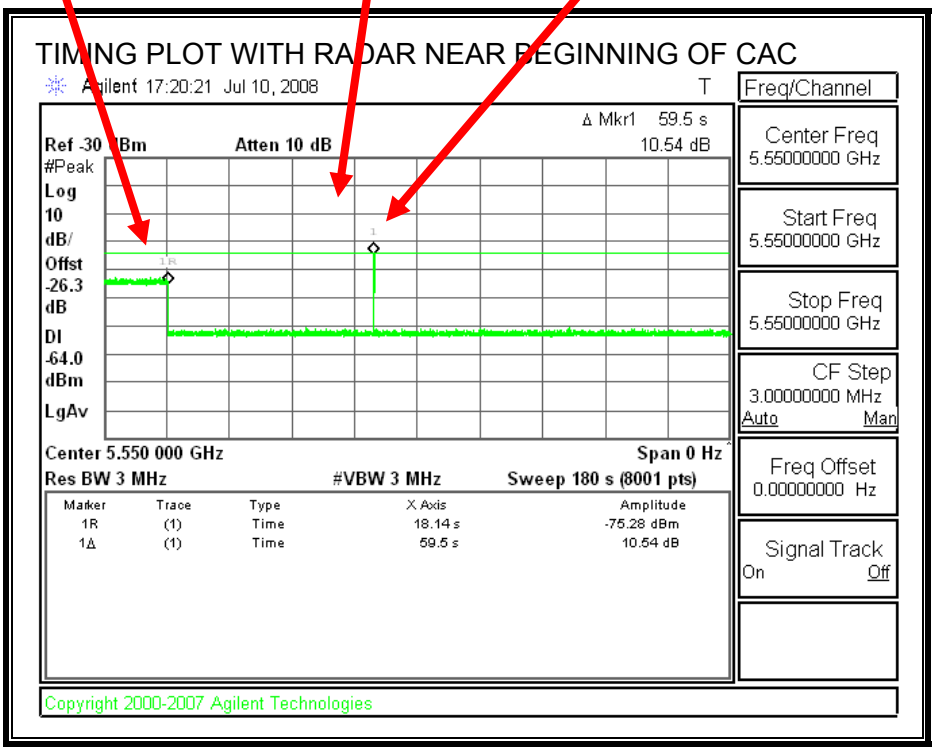
Transmissions begin on channel after completion of the initial power-up cycle and the CAC.

TIMING PLOT WITH RADAR NEAR BEGINNING OF CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

Radar Signal Applied



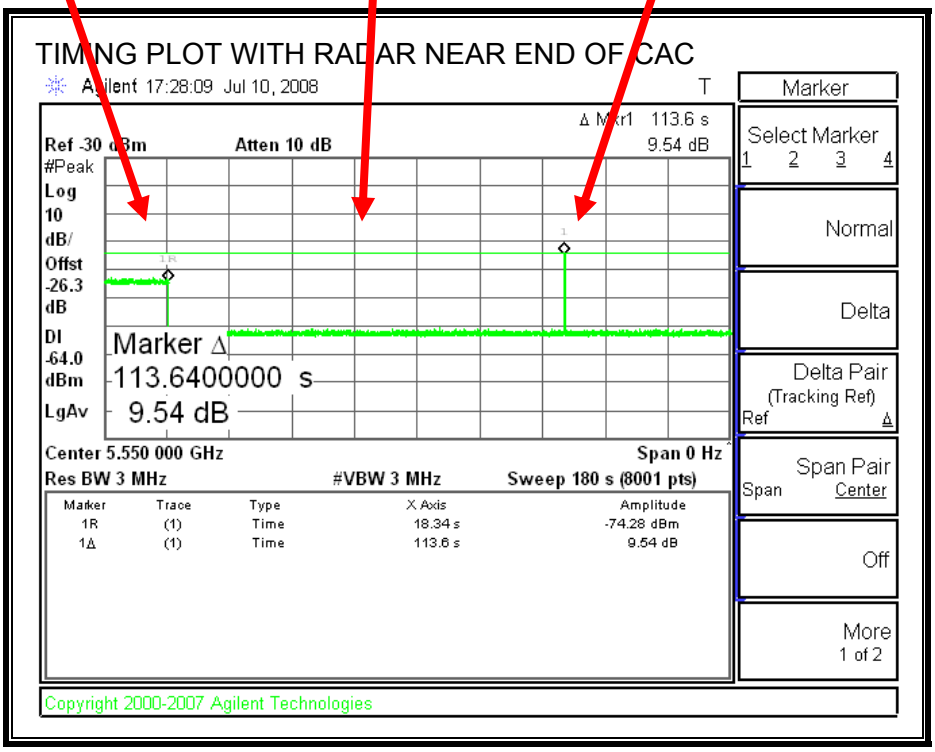
No EUT transmissions were observed after the radar signal.

TIMING PLOT WITH RADAR NEAR END OF CAC

AP is rebooted
Traffic ceases
Start of Initial Power-up cycle

End of Initial Power-up cycle
Start of CAC

Radar Signal Applied



No EUT transmissions were observed after the radar signal.

10.6.3. 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).

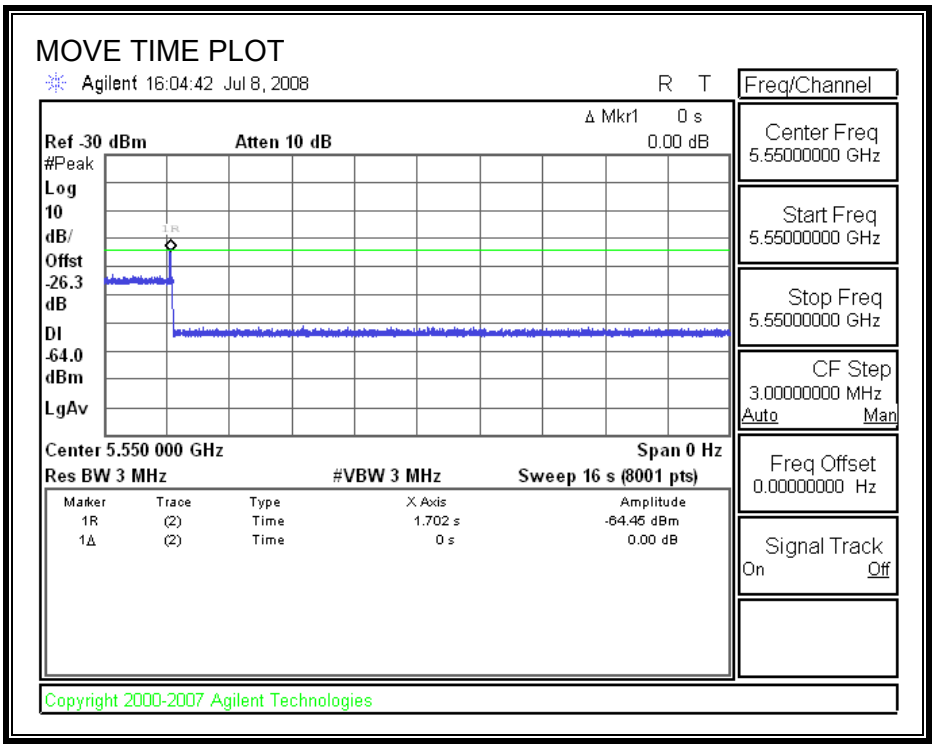
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

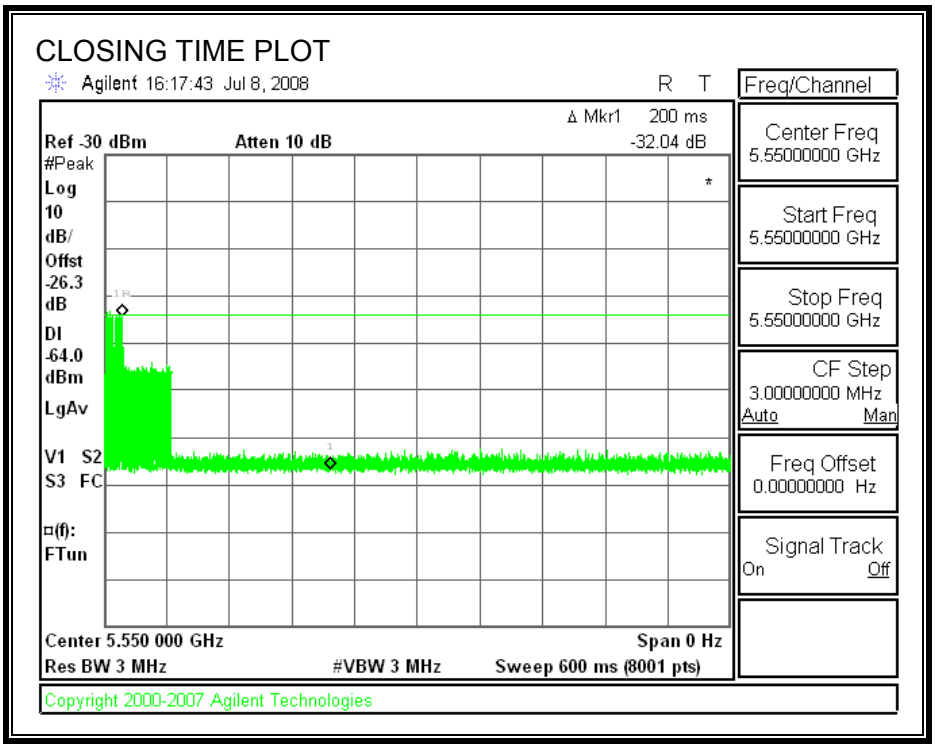
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.046	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	0.0	60
IC	46.0	260

MOVE TIME



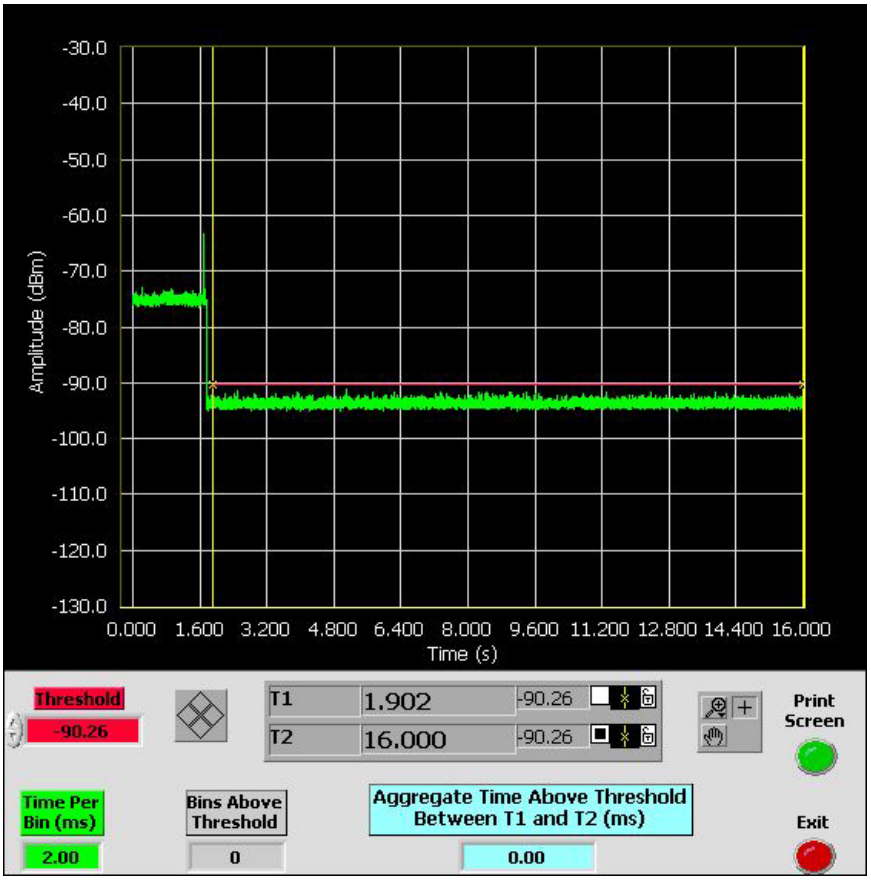
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

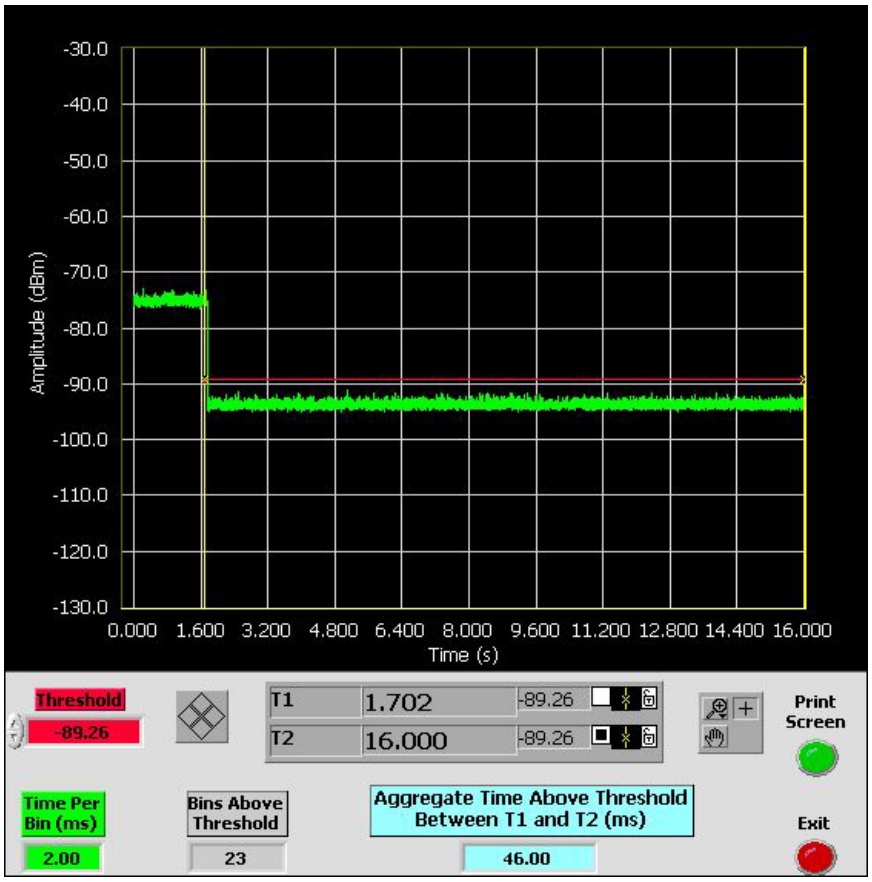
No transmissions are observed during the FCC aggregate monitoring period.

FCC AGGREGATE CLOSING TIME PLOT



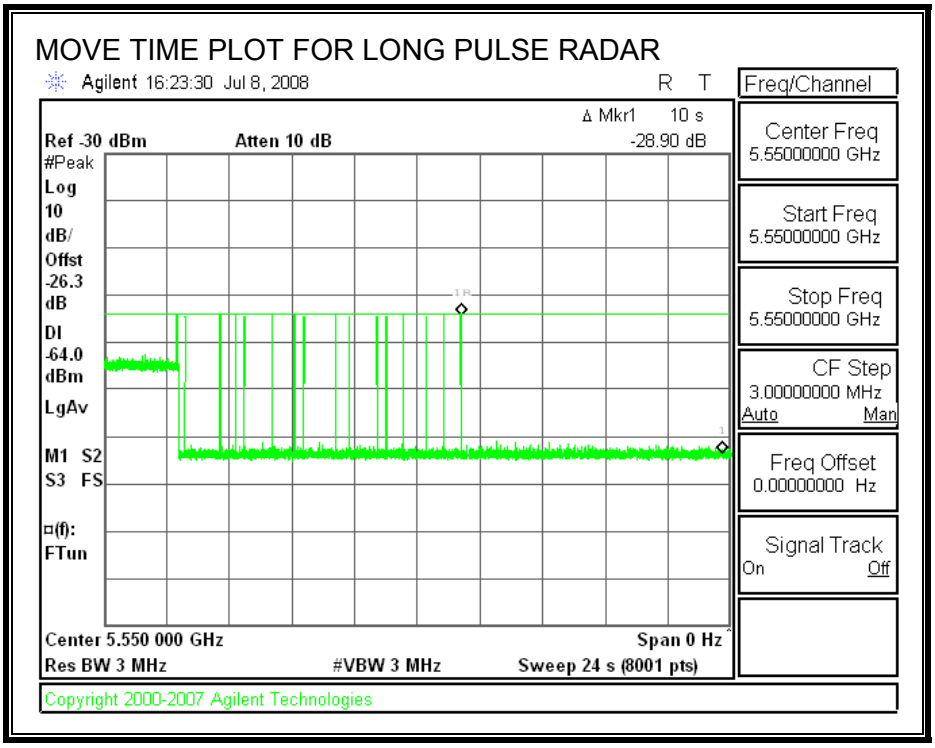
Only intermittent transmissions are observed during the IC aggregate monitoring period.

IC AGGREGATE CLOSING TIME PLOT



LONG PULSE CHANNEL MOVE TIME

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

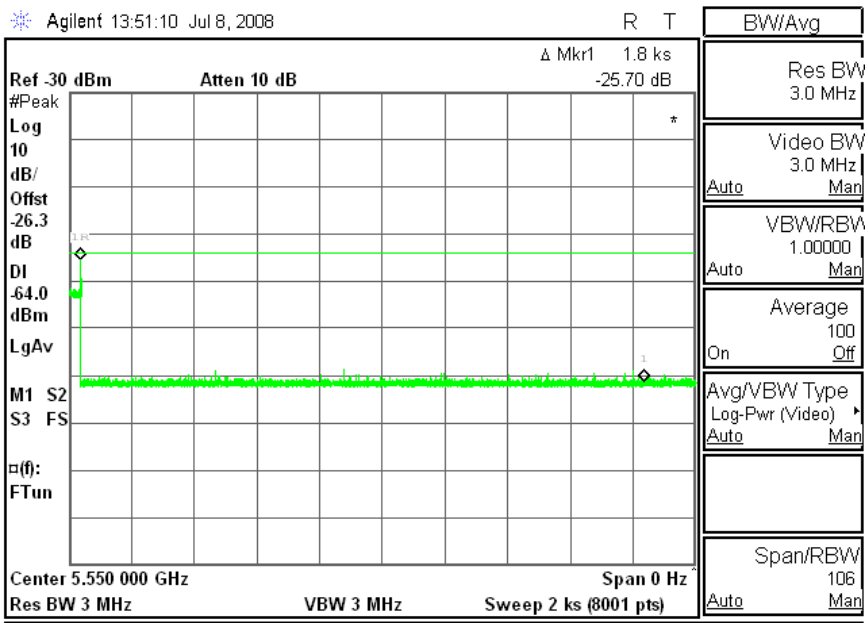


10.6.4. NON-OCCUPANCY PERIOD

RESULTS

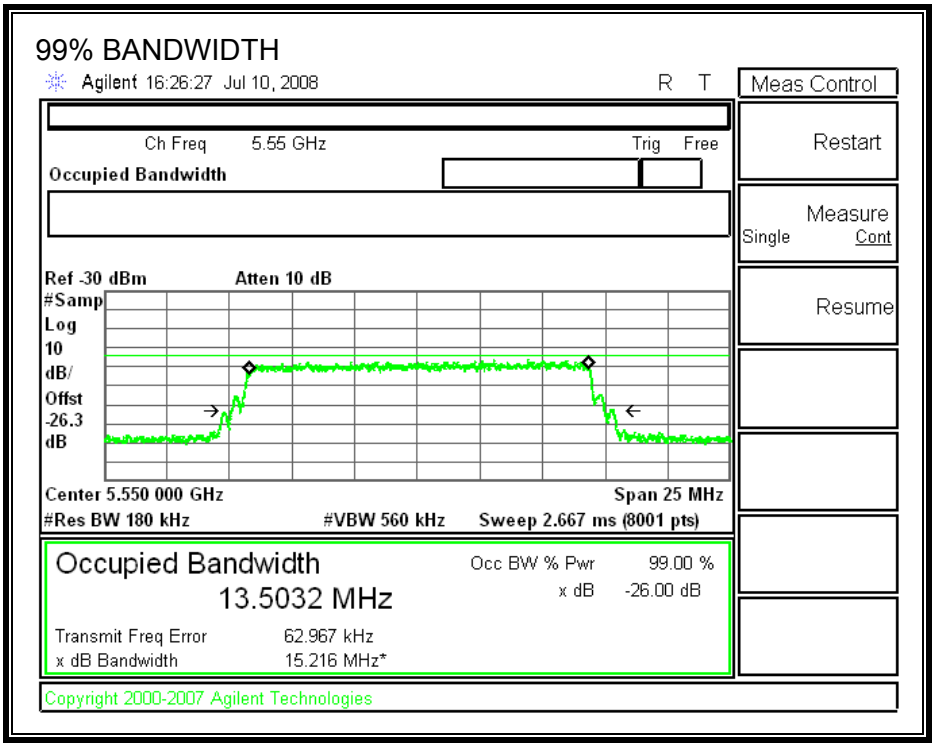
No EUT transmissions were observed on the test channel during the 30-minute observation time.

NON-OCCUPANCY PERIOD PLOT



10.6.5. 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 (%)
5543	5557	14	13.503	103.7	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
5543	10	10	100	FL
5544	10	10	100	
5545	10	10	100	
5546	10	10	100	
5547	10	10	100	
5548	10	10	100	
5549	10	10	100	
5550	10	10	100	
5551	10	10	100	
5552	10	10	100	
5553	10	10	100	
5554	10	10	100	
5555	10	10	100	
5556	10	10	100	
5557	10	10	100	FH

10.6.6. IN-SERVICE MONITORING

RESULTS

FCC Radar Test Summary

Signal Type	Number of Trials	Detection (%)	Limit (%)	Pass/Fail
FCC TYPE 1	30	100.00	60	Pass
FCC TYPE 2	30	100.00	60	Pass
FCC TYPE 3	30	100.00	60	Pass
FCC TYPE 4	30	100.00	60	Pass
Aggregate		100.00	80	Pass
FCC TYPE 5	30	100.00	80	Pass
FCC TYPE 6	30	100.00	70	Pass

TYPE 1 DETECTION PROBABILITY

Data Sheet for FCC Fixed 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	4.8	220.00	28	Yes
2002	4.5	225.00	28	Yes
2003	5	214.00	27	Yes
2004	1.4	186.00	27	Yes
2005	1.6	187.00	27	Yes
2006	4.8	192.00	27	Yes
2007	1.8	197.00	26	Yes
2008	2.6	182.00	28	Yes
2009	2.7	221.00	27	Yes
2010	1.5	209.00	26	Yes
2011	2.1	167.00	25	Yes
2012	4.1	183.00	23	Yes
2013	3	173.00	29	Yes
2014	4.6	176.00	25	Yes
2015	3.6	215.00	24	Yes
2016	2.2	192.00	28	Yes
2017	1.4	152.00	29	Yes
2018	2.4	182.00	29	Yes
2019	3.8	208.00	26	Yes
2020	1	176.00	26	Yes
2021	4.9	203.00	28	Yes
2022	1.1	201.00	23	Yes
2023	4.6	208.00	28	Yes
2024	2.1	207.00	23	Yes
2025	1.3	213.00	27	Yes
2026	5	200.00	25	Yes
2027	2.5	158.00	24	Yes
2028	4.2	151.00	26	Yes
2029	1.3	223.00	25	Yes
2030	2.6	178.00	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	6.7	297.00	16	Yes
3002	8.9	341.00	18	Yes
3003	9	440.00	17	Yes
3004	6.2	318.00	17	Yes
3005	6.3	344.00	18	Yes
3006	9.7	326.00	17	Yes
3007	5.9	445.00	18	Yes
3008	6.1	409.00	17	Yes
3009	9.1	470.00	16	Yes
3010	6.3	285.00	17	Yes
3011	6.3	286.00	16	Yes
3012	6.9	285.00	16	Yes
3013	7.9	320.00	16	Yes
3014	5	426.00	17	Yes
3015	8.8	495.00	18	Yes
3016	5.5	321.00	17	Yes
3017	6.4	478.00	18	Yes
3018	5.5	267.00	18	Yes
3019	7	409.00	16	Yes
3020	9.6	304.00	16	Yes
3021	5.4	364.00	17	Yes
3022	9.9	468.00	17	Yes
3023	6.5	389.00	18	Yes
3024	5.1	362.00	17	Yes
3025	9.4	263.00	16	Yes
3026	5.3	259.00	17	Yes
3027	6.4	398.00	16	Yes
3028	8.6	413.00	16	Yes
3029	5.8	377	16	Yes
3030	5.2	483	16	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	17.2	423.00	14	Yes
4002	11.8	280.00	13	Yes
4003	12.1	424.00	14	Yes
4004	11	476.00	16	Yes
4005	19.2	454.00	13	Yes
4006	18	402.00	12	Yes
4007	16.1	381.00	13	Yes
4008	16.6	490.00	14	Yes
4009	15.5	334.00	12	Yes
4010	12.4	436.00	12	Yes
4011	13.4	390.00	16	Yes
4012	18.6	281.00	13	Yes
4013	15	481.00	14	Yes
4014	15.4	486.00	16	Yes
4015	14.9	284.00	16	Yes
4016	12	297.00	12	Yes
4017	19.6	268.00	15	Yes
4018	10.9	393.00	15	Yes
4019	11	404.00	16	Yes
4020	15.2	336.00	12	Yes
4021	15.1	256.00	14	Yes
4022	17.1	400.00	12	Yes
4023	14.3	480.00	12	Yes
4024	19.1	325.00	13	Yes
4025	16.5	459.00	13	Yes
4026	10.2	411.00	13	Yes
4027	14.2	306.00	16	Yes
4028	14.8	403.00	16	Yes
4029	17.4	352.00	15	Yes
4030	12.3	393.00	13	Yes

TYPE 5 DETECTION PROBABILITY

Data Sheet for FCC Long Pulse Radar Type 5

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

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 (Base 1)	Signal Generator Frequency (MHz)	Hops within Detection BW	Successful Detection (Yes/No)
1	299	5543	2	Yes
2	774	5544	2	Yes
3	1249	5545	4	Yes
4	1724	5546	6	Yes
5	2199	5547	2	Yes
6	2674	5548	3	Yes
7	3149	5549	1	Yes
8	3624	5550	2	Yes
9	4099	5551	2	Yes
10	4574	5552	4	Yes
11	5049	5553	1	Yes
12	5524	5554	5	Yes
13	5999	5555	2	Yes
14	6474	5556	2	Yes
15	6949	5557	3	Yes
16	7424	5543	3	Yes
17	7899	5544	6	Yes
18	8374	5545	4	Yes
19	8849	5546	4	Yes
20	9324	5547	2	Yes
21	9799	5548	3	Yes
22	10274	5549	3	Yes
23	10749	5550	2	Yes
24	11224	5551	4	Yes
25	11699	5552	2	Yes
26	12174	5553	3	Yes
27	12649	5554	4	Yes
28	13124	5555	4	Yes
29	13599	5556	3	Yes
30	14074	5557	4	Yes

10.6.7. OVERLAPPING CHANNEL TESTS

PROCEDURE

The EUT was set to block all channels except 5545MHz, 5550 MHz and 5555 MHz, which are overlapping. The first active channel was 5550 MHz and the radar test frequency was 5550 MHz.

A link was established on the first active channel with the video file streaming.

A radar burst was triggered and a stopwatch timer was started.

The EUT was confirmed to vacate the first active channel then a second radar burst was triggered approximately 45 seconds after the first radar burst.

The EUT was confirmed to vacate the second active channel then a third radar burst was triggered approximately 45 seconds after the second radar burst.

The EUT was confirmed to vacate the third channel.

The spectrum was continuously monitored throughout the test.

RESULTS

After the first radar burst was transmitted the EUT display indicated that 5550 MHz was blocked.

The EUT display then indicated that a CAC was started on one of the remaining two unblocked channels.

After the second radar burst was transmitted the EUT displayed that the second channel was also blocked.

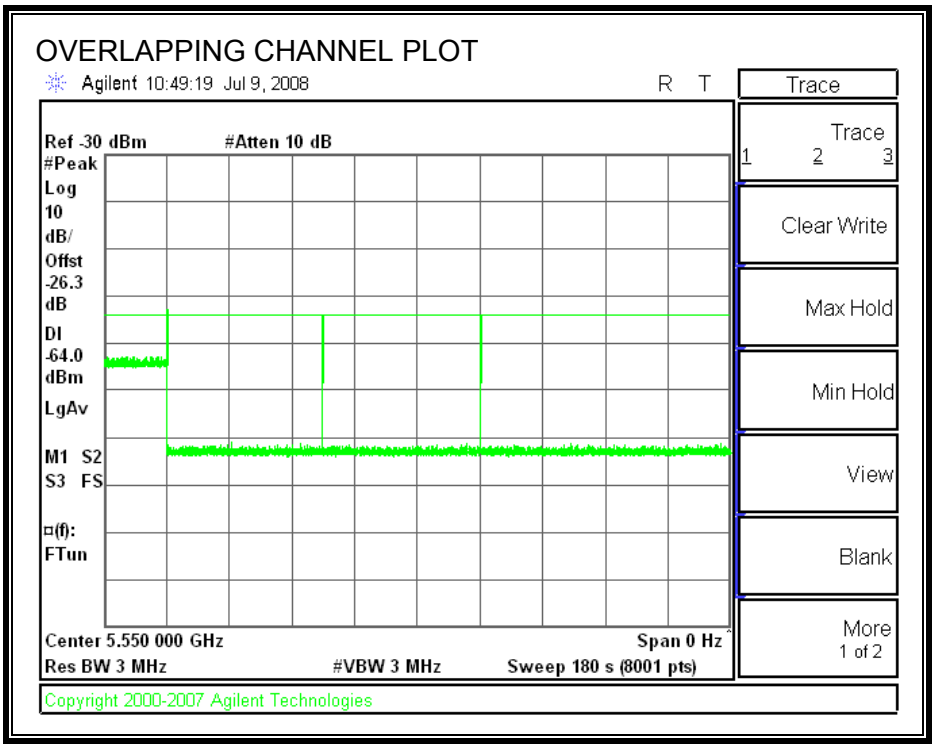
The EUT display then indicated that a CAC was started on the last unblocked channel.

After the third radar burst was transmitted the EUT displayed that all three channels were blocked.

No beacons or traffic was observed after the first radar burst was transmitted.

TEST RESULTS

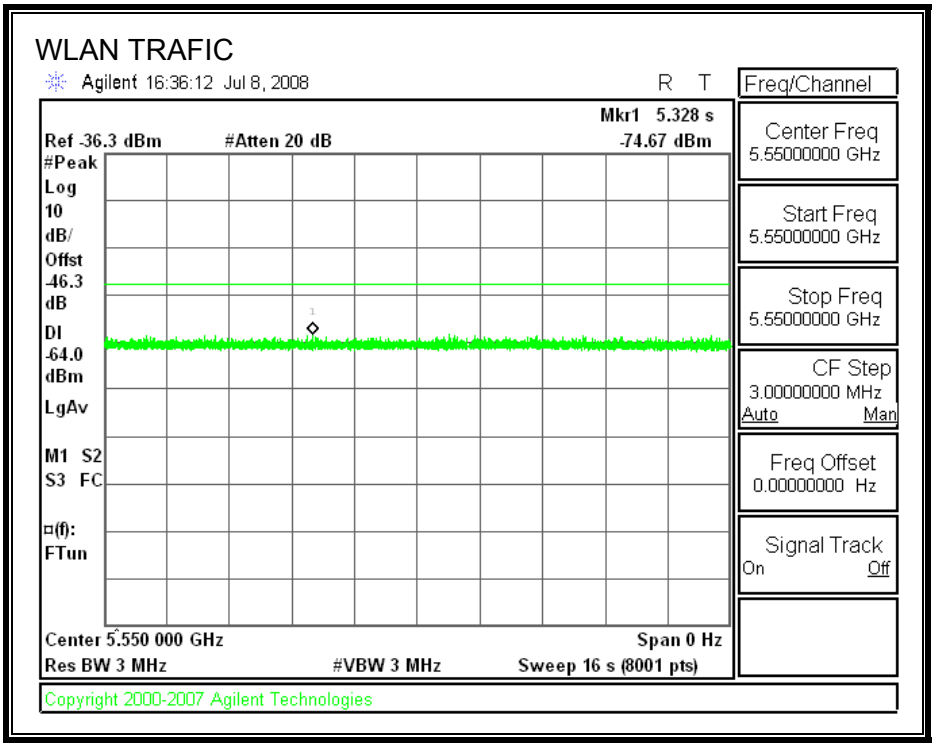
No EUT transmissions were observed on the test channel during the observation time after the first radar burst.



10.7. SLAVE DEVICE CONFIGURATION IN 15 MHz BANDWIDTH

10.7.1. TRAFFIC

PLOT OF TRAFFIC FROM SLAVE



10.7.2. 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).

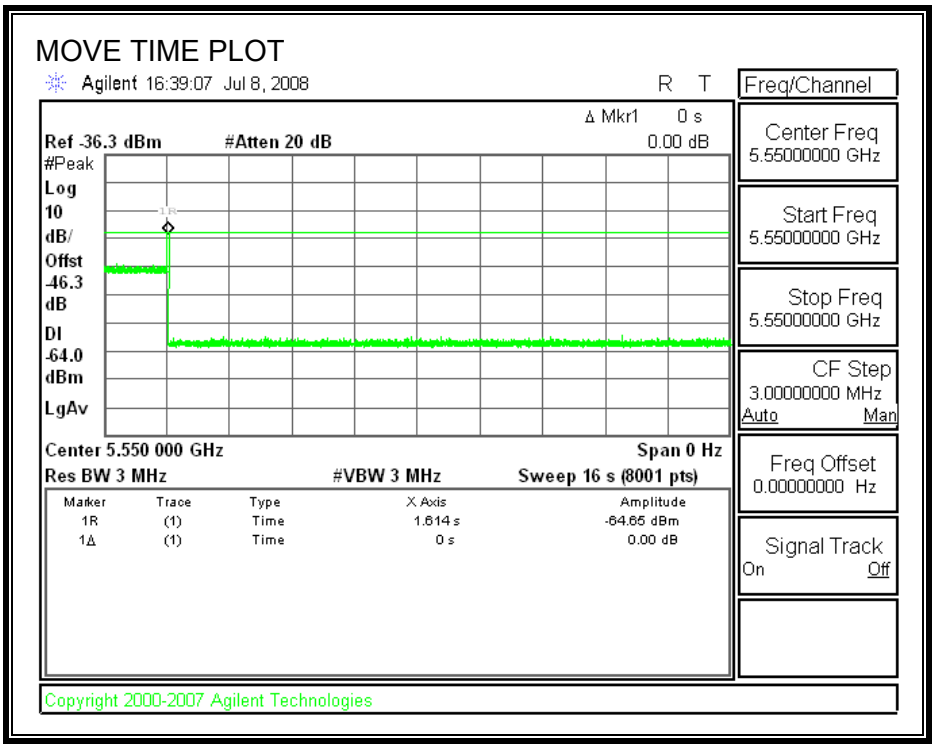
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

RESULTS

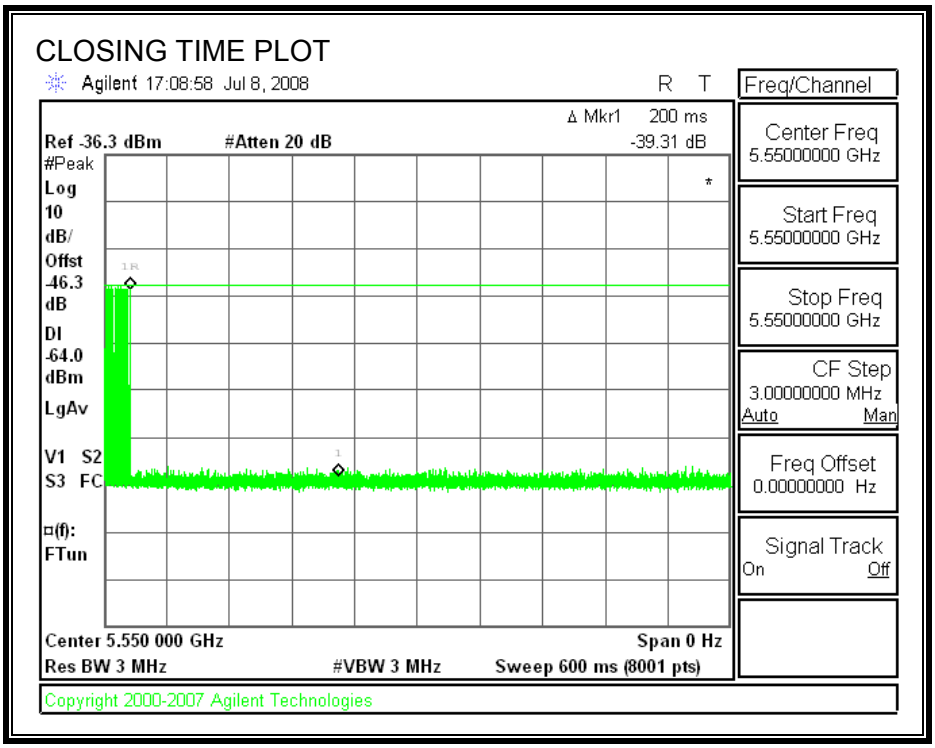
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.0	10

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

MOVE TIME



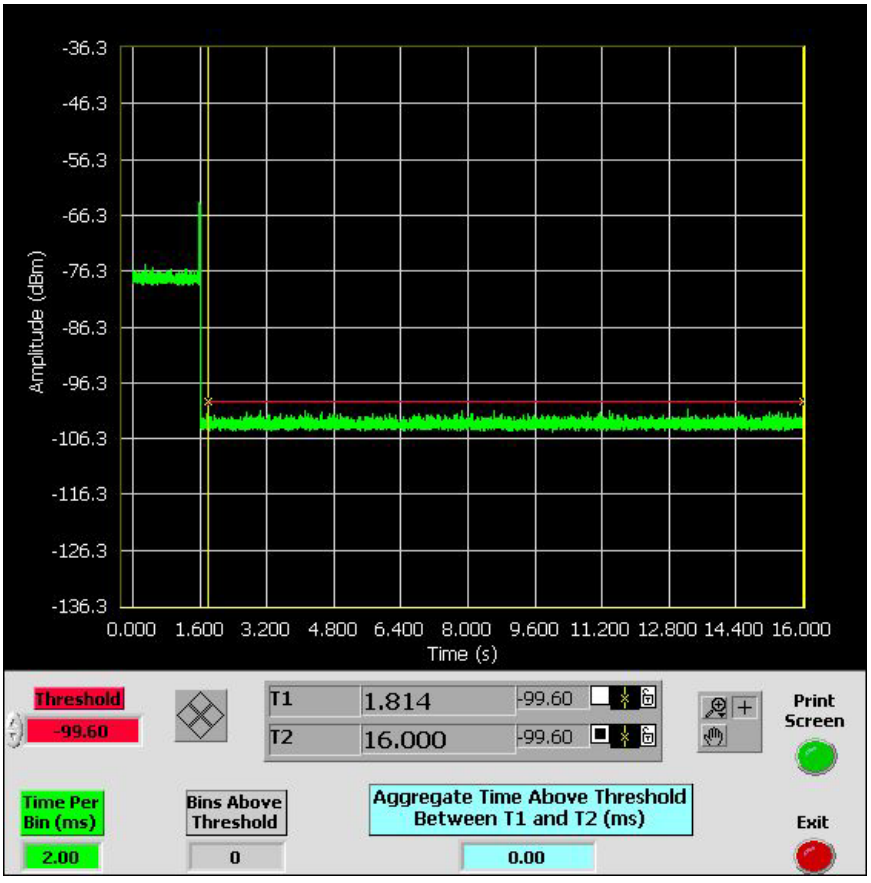
CHANNEL CLOSING TIME



AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

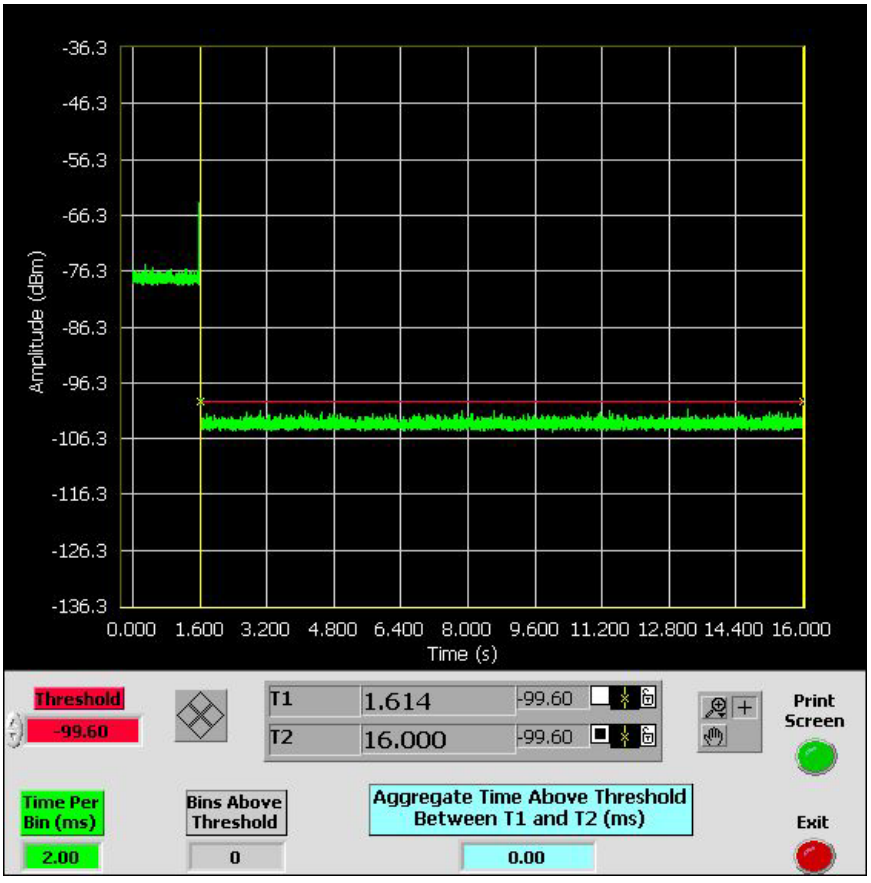
No transmissions are observed during the FCC aggregate monitoring period.

FCC AGGREGATE CLOSING TIME PLOT



No transmissions are observed during the IC aggregate monitoring period.

IC AGGREGATE CLOSING TIME PLOT

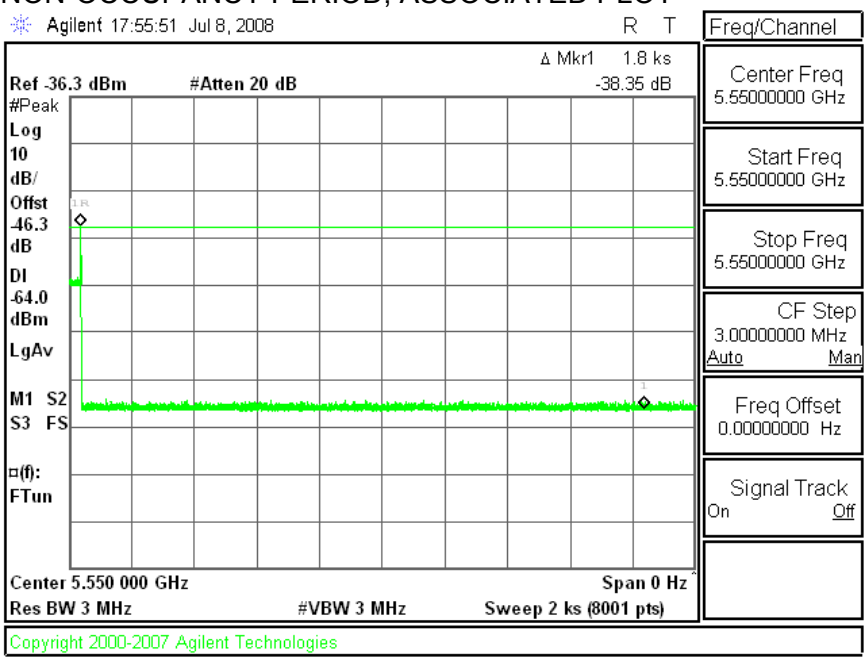


10.7.3. NON-OCCUPANCY PERIOD

RESULTS

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

NON-OCCUPANCY PERIOD, ASSOCIATED PLOT



11. MAXIMUM PERMISSIBLE EXPOSURE

FCC RULES

§1.1310 The criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

IC RULES

IC Safety Code 6, Section 2.2.1 (a) A person other than an RF and microwave exposed worker shall not be exposed to electromagnetic radiation in a frequency band listed in Column 1 of Table 5, if the field strength exceeds the value given in Column 2 or 3 of Table 5, when averaged spatially and over time, or if the power density exceeds the value given in Column 4 of Table 5, when averaged spatially and over time.

Table 5
Exposure Limits for Persons Not Classed As RF and Microwave Exposed Workers (Including the General Public)

1 Frequency (MHz)	2 Electric Field Strength; rms (V/m)	3 Magnetic Field Strength; rms (A/m)	4 Power Density (W/m^2)	5 Averaging Time (min)
0.003–1	280	2.19		6
1–10	$280/f$	$2.19/f$		6
10–30	28	$2.19/f$		6
30–300	28	0.073	2*	6
300–1 500	$1.585f^{0.5}$	$0.0042f^{0.5}$	$f/150$	6
1 500–15 000	61.4	0.163	10	6
15 000–150 000	61.4	0.163	10	$616\,000/f^{1.2}$
150 000–300 000	$0.158f^{0.5}$	$4.21 \times 10^{-4}f^{0.5}$	$6.67 \times 10^{-5}f$	$616\,000/f^{1.2}$

* Power density limit is applicable at frequencies greater than 100 MHz.

Notes: 1. Frequency, f, is in MHz.
2. A power density of 10 W/m^2 is equivalent to 1 mW/cm^2.
3. A magnetic field strength of 1 A/m corresponds to 1.257 microtesla (μT) or 12.57 milligauss (mG).

CALCULATIONS

Given

$E = \sqrt{(30 * P * G)} / d$

and

$S = E ^ 2 / 3770$

where

E = Field Strength in Volts/meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power Density in milliwatts/square centimeter

Combining equations, rearranging the terms to express the distance as a function of the remaining variables, changing to units of Power to mW and Distance to cm, and substituting the logarithmic form of power and gain yields:

$d = 0.282 * 10 ^ ((P + G) / 20) / \sqrt{S}$

where

d = MPE distance in cm
P = Power in dBm
G = Antenna Gain in dBi
S = Power Density Limit in mW/cm^2

Rearranging terms to calculate the power density at a specific distance yields

$S = 0.0795 * 10 ^ ((P + G) / 10) / (d^2)$

The power density in units of mW/cm^2 is converted to units of W/m^2 by multiplying by a factor of 10.

LIMITS

From FCC §1.1310 Table 1 (B), the maximum value of S = 1.0 mW/cm^2

From IC Safety Code 6, Section 2.2 Table 5 Column 4, S = 10 W/m^2

RESULTS

Mode	Band	FCC Limit (mW/cm^2)	IC Limit (W/m^2)	Output (dBm)	Antenna (dBi)	MPE Distance (cm)
5 MHz BW	5 Ghz	1.0	10.0	2.47	23.00	5.29
10 MHz BW	5 GHz	1.0	10.0	-8.35	33.90	5.34