Report On

FCC DFS Testing of the
Aava Mobile Oy INARI8-3GAN-1
In accordance with FCC CFR 47 Part 15E and FCC 06-96

COMMERCIAL-IN-CONFIDENCE

FCC ID: 2ABVH-INARI81

Document 75926145 Report 02 Issue 2 May 2014

Product Service

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REPORT ON

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Document 75926145 Report 02 Issue 2

May 2014

PREPARED FOR

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DATED 08 May 2014

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part 15E and FCC 06-96. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

S Milliken

UKAS TESTING 0141

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CONTENTS

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SECTION 1

REPORT SUMMARY

FCC DFS Testing of the
Aava Mobile Oy INARI8-3GAN-1
In accordance with FCC CFR 47 Part 15E and FCC 06-96

1.1 INTRODUCTION

The information contained in this report is intended to show the verification of FCC DFS Testing of the Aava Mobile Oy INARI8-3GAN-1 to the requirements of FCC CFR 47 Part 15E and FCC 06-96.

Objective	To perform FCC DFS Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Aava Mobile Oy
Model Number(s)	Inari8-3GAN-C1
Serial Number(s)	IMEI 866274011528092
Hardware Version	Pre-Production
Software Version	Windows 8.1
Number of Samples Tested	1
Test Specification/Issue/Date	FCC CFR 47 Part 15E (2013) FCC 06-96 (2006)
Incoming Release Date	Application Form 11 April 2014
Disposal Reference Number Date	Held Pending Disposal Not Applicable Not Applicable
Order Number Date	PMDE143054 17 March 2014
Start of Test	7 May 2014
Finish of Test	7 May 2014
Name of Engineer(s)	S Milliken
Related Document(s)	FCC Public Notice DA 02-2138 (2002); UKAS M3003: Edition 2 (2007); ETSI TR 100 028 (2001)

This report has been up issued to Issue 2 and should be read in place of Issue 1. This report has been up issued to Issue 2 to correct an error in the Test Procedure description in Section 2.2.5and include amended plots.

1.2 TEST REQUIREMENTS

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without DFS	Client With DFS
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
U-NII Detection Bandwidth	Yes	Not required	Yes

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
U-NII Detection Bandwidth	Yes	Not required	Yes

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1.3 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC CFR 47 Part 15E and FCC 06-96 is shown below.

Section	Spec Clause	Test Description	Result	Comments/Base Standard
802.11(a)				
2.1	NA	Calibration of Test Setup	Pass	
2.2	15.407 (h)(2)(iii)	In-Service Monitoring	Pass	
802.11(n) 20 MHz BW				
2.1	NA	Calibration of Test Setup	Pass	
2.2	15.407 (h)(2)(iii)	In-Service Monitoring	Pass	
802.11(n) 40 MHz BW				
2.1	NA	Calibration of Test Setup	Pass	
2.2	15.407 (h)(2)(iii)	In-Service Monitoring	Pass	

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1.4 APPLICATION FORM

EQUIPMENT DESCRIPTION	
Model Name/Number	INARI8-3GAN-1
Part Number	INARI8-3GAN-1
Hardware Version	Pre-Production
Software Version	Windows 8.1
FCC ID	2ABVH-INARI81
Technical Description (Please provide a brief description of the intended use of the equipment)	Windows tablet computer with integrated WLAN and 3G modem.

TYPE OF EQUIPMENT	
☐	Master
☐	Client with Radar Detection
☒	Client without Radar Detection
☐	Wi-Fi Direct Support

TRANSMITTER TECHNICAL CHARACTERISTICS	
FREQUENCY CHARACTERISTICS	
☒	5.150 GHz to 5.250 GHz
☒	5.250 GHz to 5.350 GHz
☒	5.470 GHz to 5.725 GHz
☒	5.725 GHz to 5.825 GHz
☐	Please confirm the EUT does not operate in the frequency band 5600 – 5650 MHz
☐	Off Channel CAC Implemented Off Channel CAC within 5600 – 5650 MHz band hours, (1 – 24) Off Channel CAC outside 5600 – 5650 MHz band minutes, (6 – 240)
Note: DFS is not required in the ranges 5.15 – 5.25 GHz and 5.725 – 5.825 GHz	

TRANSMITTER RF POWER CHARACTERISTICS	
Maximum rated transmitter output power as stated by manufacturer	
Conducted Power	12 dBm
Maximum Antenna Gain	1.9 dBi
EIRP	13.9 dBm
Minimum rated transmitter output power as stated by manufacturer (if applicable)	
Conducted Power	12 dBm
Maximum Antenna Gain	1.49 dBi
EIRP	13.49 dBm
Is TPC supported?	☐ Yes ☒ No
If Yes, provide a description of operation.	

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POWER SOURCE			
☐	AC mains supply		State voltage
AC supply frequency		(Hz)	VAC
☒	DC supply		
Nominal voltage		4.2 V Nominal	

SYSTEM ARCHITECTURE			
☐	Frame Based		
☐	IP Based		
☐	Other	If other please state	
☒	802.11(a)	Receiver Bandwidth:	MHz
☒	802.11(n) – 20 MHz	Receiver Bandwidth:	MHz
☒	802.11(n) – 40 MHz	Receiver Bandwidth:	MHz
☐	802.11(ac) – 20 MHz	Receiver Bandwidth:	MHz
☐	802.11(ac) – 40 MHz	Receiver Bandwidth:	MHz
☐	802.11(ac) – 80 MHz	Receiver Bandwidth:	MHz

DECLARATION			
No parameter or information relating to the detected radar waveforms is available or accessible to the end user.			
☒	True	☐	False

MISCELLANEOUS (Master Device Only)
Power-on cycle time*
* Time from switching on the UUT to the point at which Channel Availability Check (CAC) commences

UNIFORM SPREADING (Master Device Only)
Describe how the meter provides, on aggregate, uniform channel loading of the spectrum across all channels.

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ANTENNA OPTIONS	
Antenna 1	
Antenna Description:	Internal antenna
Antenna Model:	
Antenna Maximum Gain:	1.9 dBi
Antenna Frequency Range:	2.4Ghz
Antenna 2	
Antenna Description:	Internal Antenna
Antenna Model:	
Antenna Maximum Gain:	1.47
Antenna Frequency Range:	5GHz band
Antenna 3	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	
Antenna 4	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	
Antenna 5	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	

I hereby declare that I am entitled to sign on behalf of the applicant and that the information supplied is correct and complete.

Signature: Name: Patrick Lomax

Position held: Senior Project Manager Date: 11.04.2014

1.5 PRODUCT INFORMATION

1.5.1 Technical Description

The Equipment Under Test (EUT) was a Aava Mobile Oy INARI8-3GAN-1. A full technical description can be found in the manufacturer's documentation.

The EUT is a Client without Radar Detection device.

1.6 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. See individual test clauses.

The EUT was powered from a 120 V AC 60 Hz power supply unit via an AC/DC USB adapter.

FCC Measurement Facility Registration Number
90987 Octagon House, Fareham Test Laboratory

1.7 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standard were made during testing.

1.8 MODIFICATION RECORD

Modification 0 - No modifications were made to the test sample during testing.

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1.9 DFS TEST SYSTEM

The DFS system consists of hardware and software. The Hardware uses a PXI chassis with PXI instruments populating the chassis. The instruments used are a Vector Signal Generator, a Digitiser, Frequency References and a Dual Core PC. The measurement and analysis software runs on the PC and controls the instruments within the mainframe via commands on the PXI bus. Various markers are contained within the generated waveforms. The markers are used to trigger the measurement system at the appropriate points. An external trigger is also provided at the SMB output on the Vector Signal Generator which is employed where a Spectrum Analyser is used in place of the Aeroflex Digitiser. These are described within the test procedure for the applicable test.

The Aeroflex DFS software generates the pulses in accordance with FCC 06-96.

Short Pulse Radar Test Waveform (Types 1-4)

The short pulse radar simulation is a conventional amplitude pulse with varying pulse widths, pulse rate intervals (PRI) and number of pulses. General characteristics for these types and number of repetitions required by the standard are as follows:

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses
1	1	1428	18
2	1-5	150-230	23-29
3	6-10	200-500	16-18
4	11-20	200-500	12-16

FCC 06-96 - Table 5 – Short Pulse Radar Test Waveforms

Long Pulse Radar Test Waveform (Type 5)

The long pulse radar simulation is a 12 second concatenated series of chirps, chosen randomly. The general characteristics for type 5 and number of repetitions required by the standard are as follows:

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per *Burst*	Number of *Bursts*
5	50-100	5-20	1000-2000	1-3	8-20

FCC 06-96 - Table 6 – Long Pulse Radar Test Waveform

A Type 5 Radar sequence is constructed in the following way:

1) The user provides the required level based on the calibration and the test frequency.
2) The Burst_Count, (a number between 8 and 20 inclusive), is chosen representing the number of "bursts" (or waveform segments). Type 5 waveform length is 12 seconds, thus each "burst" length will be BL = 12/ Burst_Count.
3) Pulse_Count, a number between 1 and 3 inclusive is chosen for each burst segment (1 through Burst_Count) representing the number of chirped pulses for each burst segment.
4) For each burst segment, the following chirp parameters are randomly chosen (all chirped pulses within a given burst segment are the same, whether 1, 2, or 3 chirped pulses are chosen):
a) Frequency width (5 MHz to 20 MHz, a linear and symmetrical ramp)
b) Pulse period (50 µs to 100 µs)
c) Pulse Rate Interval (1 ms to 2 ms, in 1 µs increments)
d) The start of the first pulse in a given burst segment is randomly chosen (in 1 µs increments) between 1 µs and [(the total burst length - (total of all pulse periods within a burst) + (the total space between pulses within a burst)]. Or stated otherwise, 1 µs to [(BL - (Pulse_Count * pulse period) + (Pulse_Count - 1)* randomly chosen PRI Interval)].

Frequency Hopping Test Waveform (Type 6)

The frequency hopping radar simulation emits 9 1 µs wide amplitude pulses with a 333 µs PRI spacing on a randomly chosen frequency, hops to another randomly chosen frequency, emits another 9 pulses and then continues this sequence for 100 different frequencies chosen using a pseudo random sequence. General characteristics for type 6 and number of repetitions required by the standard are as follows:

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)
6	1	333	9	0.333	300

FCC 06-96 - Table 7 – Frequency Hopping Radar Test Waveform

The frequency hopping Radar is generated in the following way:

a) The user inputs the required level based on the calibration and a frequency within the EUT detection bandwidth.
b) A sequence of 100 numbers, (n = 1 to 100), are randomly chosen from between 1 to 475 and then removed from the sequence producing 100 unique random numbers.
c) Frequency assignments are 5250 MHz + n.
d) If the list generated from steps (b) and (c) does not include at least one frequency which is between 5250 to 5350 MHz or 5470 to 5725 MHz, the list is regenerated.
e) Secondly, in order to verify that at least one frequency in the list is at the EUT frequency plus or minus ½ the EUT detection bandwidth (i.e. at least one of the frequencies in the list must conflict with the EUT's operation such that the EUT will attempt to relocate when the sequence is played), the frequency supplied by the user is inserted into the list, replacing one selection.

Using the supplied Aeroflex software, the pulses are automatically generated and the required numbers of trials are created for each Radar Type – except in the case of Radar Type 1 which has no changeable attributes. The pulses are saved as Arbitrary Waveform files which are then selected by the user for use in the scenario being tested.

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SECTION 2

TEST DETAILS

FCC DFS Testing of the
Aava Mobile Oy INARI8-3GAN-1
In accordance with FCC CFR 47 Part 15E and FCC 06-96

2.1 CALIBRATION OF TEST SETUP

2.1.1 Specification Reference

FCC CFR 47 Part 15E and FCC 06-96

2.1.2 Equipment Under Test and Modification State

Inari8-3GAN-C1 S/N: IMEI 866274011528092 - Modification State 0

2.1.3 Date of Test

28 March 2014

2.1.4 Environmental Conditions

Ambient Temperature	21.8°C
Relative Humidity	36.5%

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2.1.5 Test Results

802.11(a)

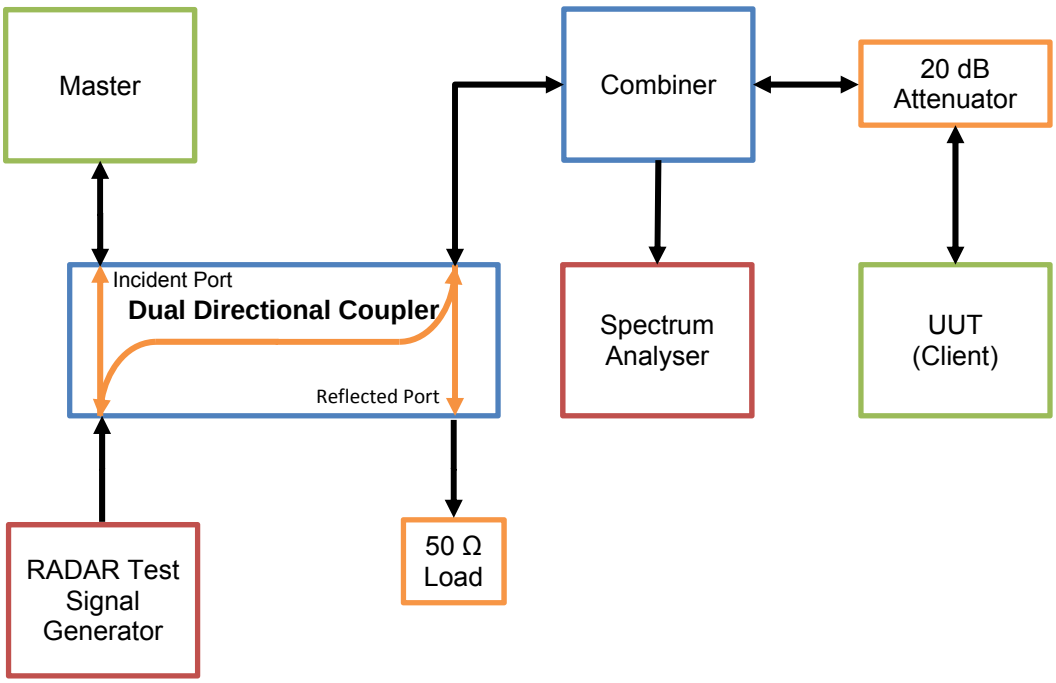
In this test equipment configuration, Radar signals are injected at the Master. The configuration ensures that the Radar pulses are received only by the Master device and not the Client. To calibrate the Radar pulses, the UUT was replaced by a Spectrum Analyser. The required Radar Waveform, (Type 1), was loaded into the Arbitrary Waveform Generator. The Spectrum Analyser was set to zero Span and the RBW and VBW set to 3MHz. The sweep time was set to display the entire burst and triggered on the Radar Burst. The output level of the Radar Signal Generator was adjusted to give the correct level as defined in the table below with the 1dB correction accounted for. Trace data showing the used Radar Pulses was recorded.

DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1 and 2)
≥ 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.	

Test Equipment Setup

Setup for Client with injection at the Master



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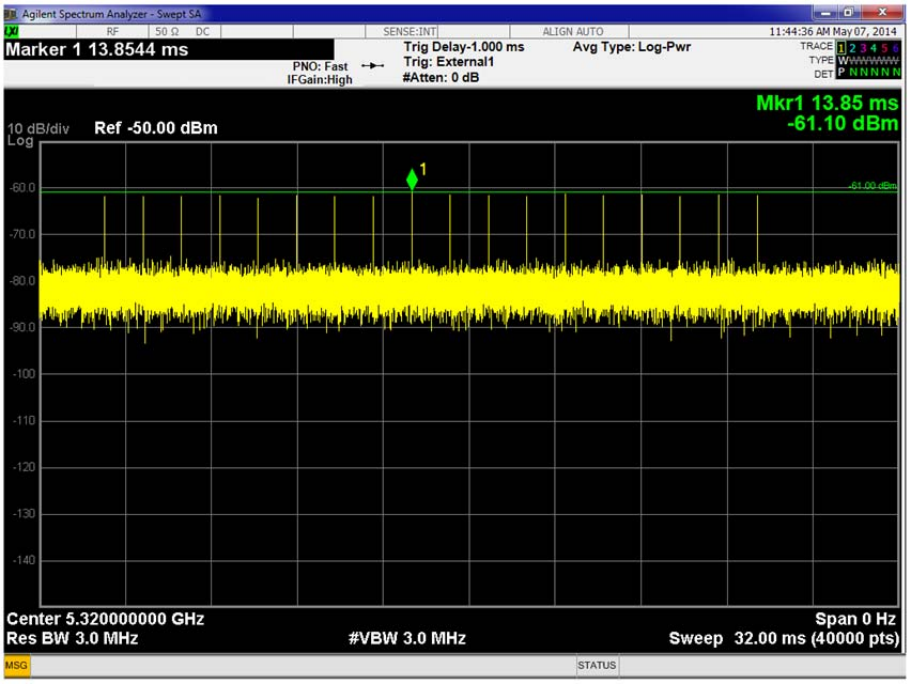
Radar Pulse Type 1

Short Radar Pulse Characteristics

Radar Type	Pulse Width (µs)	PRI (µs)	Number Of Pulses
1	1	1428	18

Client without Radar Detection

Radar Type 1 Plot



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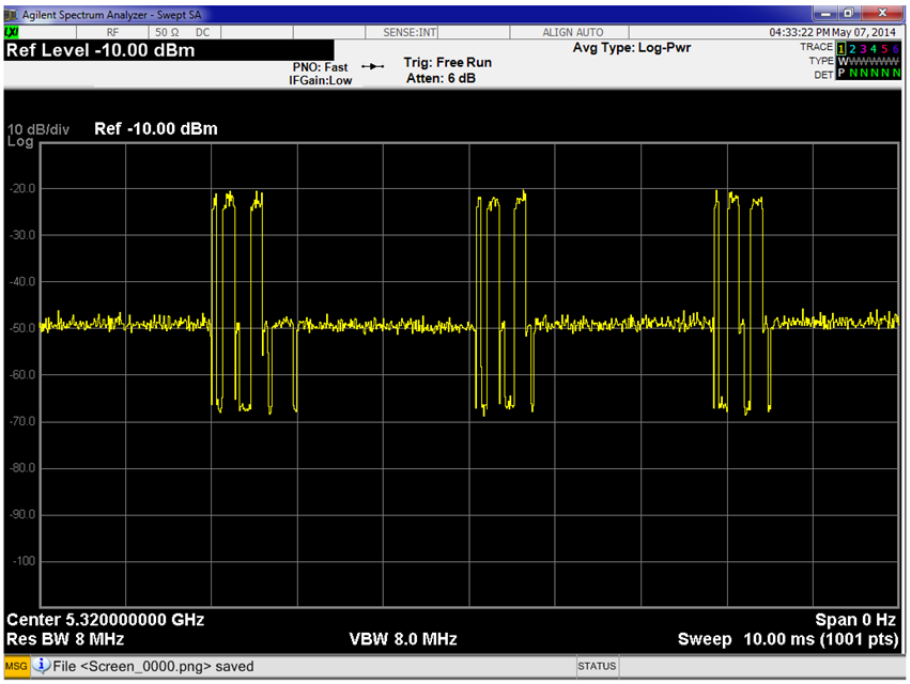
Channel Loading Plot



802.11(n) 20 MHz BW

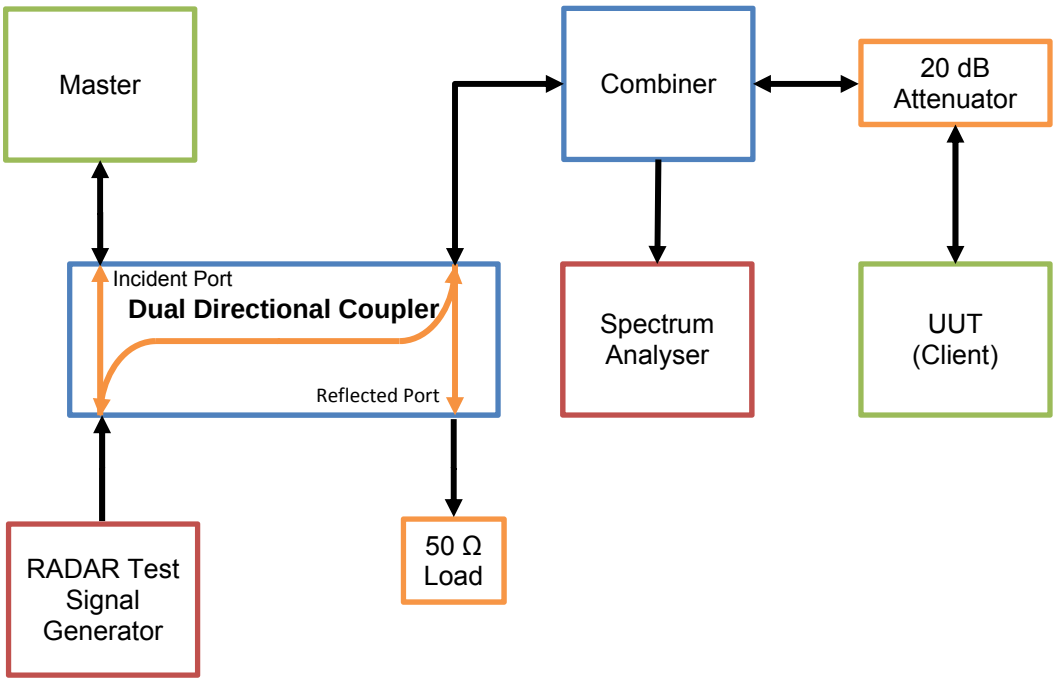
In this test equipment configuration, Radar signals are injected at the Master. The configuration ensures that the Radar pulses are received only by the Master device and not the Client. To calibrate the Radar pulses, the UUT was replaced by a Spectrum Analyser. The required Radar Waveform, (Type 1), was loaded into the Arbitrary Waveform Generator. The Spectrum Analyser was set to zero Span and the RBW and VBW set to 3MHz. The sweep time was set to display the entire burst and triggered on the Radar Burst. The output level of the Radar Signal Generator was adjusted to give the correct level as defined in the table below with the 1dB correction accounted for. Trace data showing the used Radar Pulses was recorded.

DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1 and 2)
≥ 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.	

Test Equipment Setup

Setup for Client with injection at the Master



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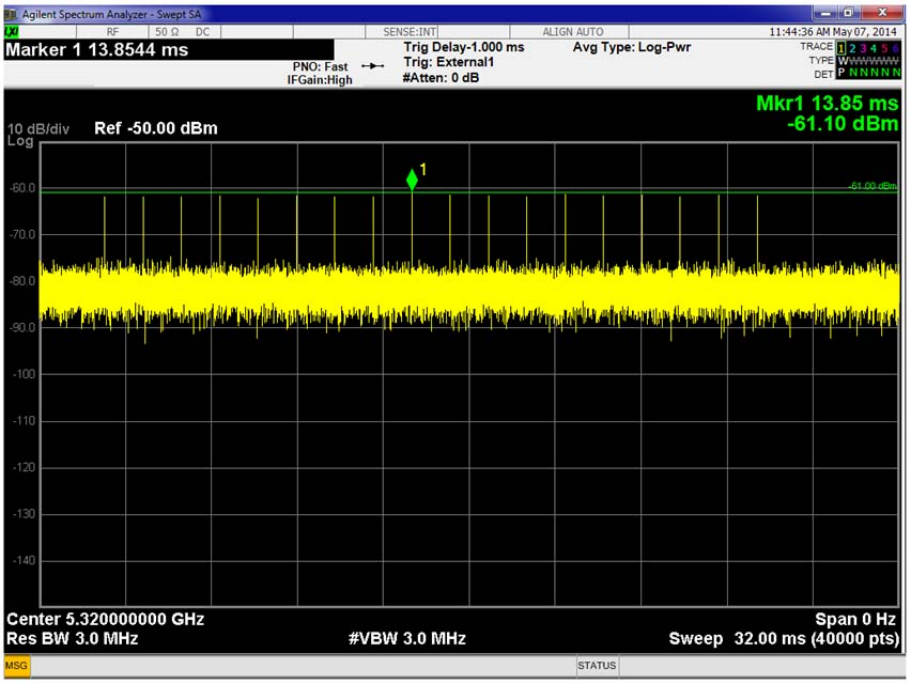
Radar Pulse Type 1

Short Radar Pulse Characteristics

Radar Type	Pulse Width (µs)	PRI (µs)	Number Of Pulses
1	1	1428	18

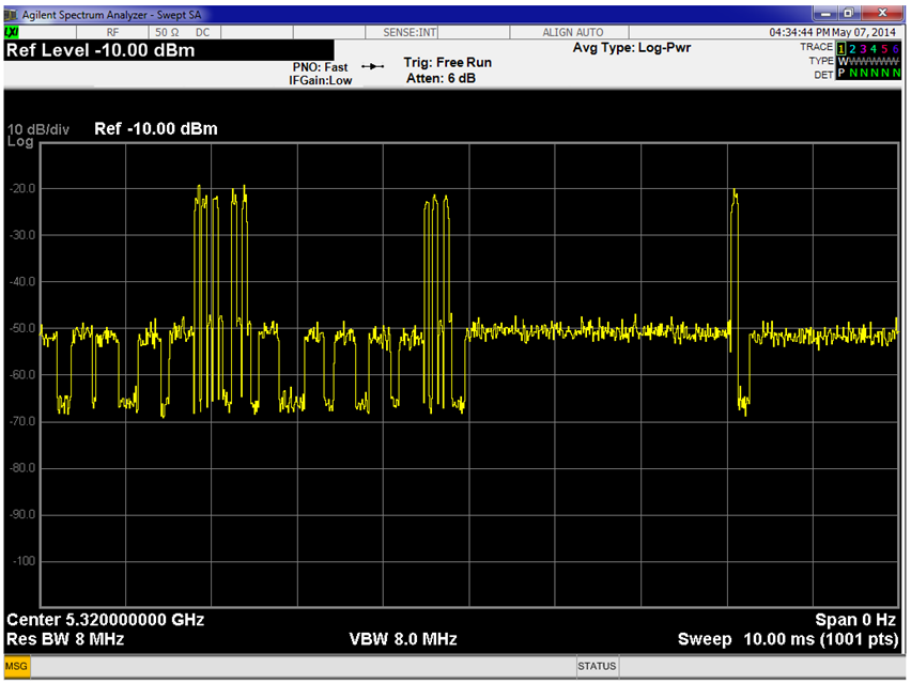
Client without Radar Detection

Radar Type 1 Plot



Product Service

Channel Loading Plot



802.11(n) 40 MHz BW

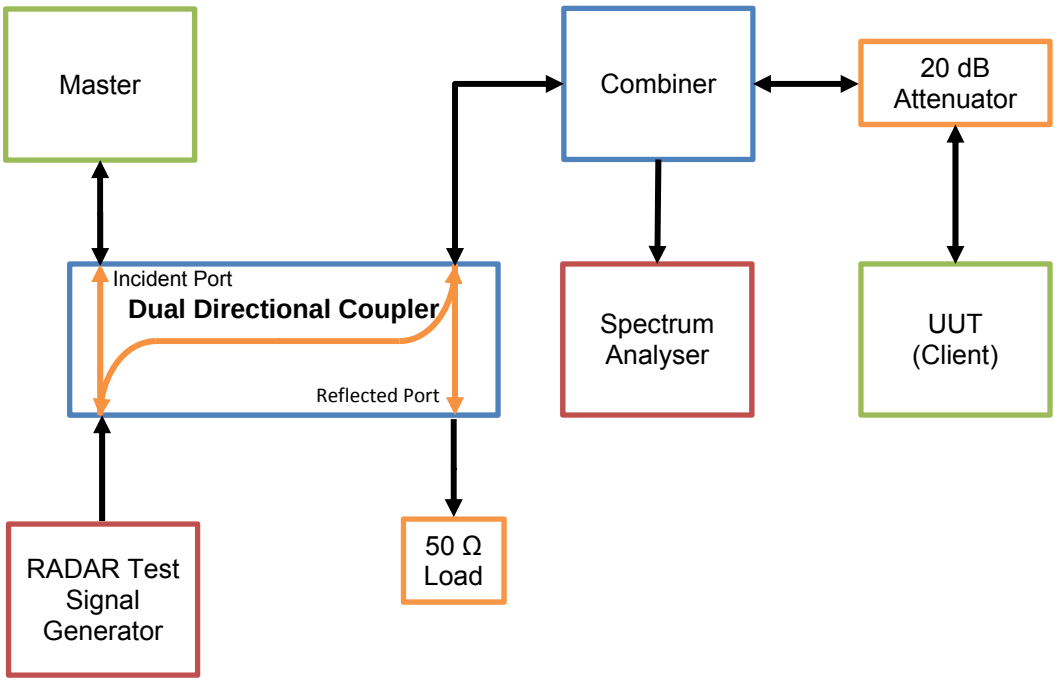
In this test equipment configuration, Radar signals are injected at the Master. The configuration ensures that the Radar pulses are received only by the Master device and not the Client. To calibrate the Radar pulses, the UUT was replaced by a Spectrum Analyser. The required Radar Waveform, (Type 1), was loaded into the Arbitrary Waveform Generator. The Spectrum Analyser was set to zero Span and the RBW and VBW set to 3MHz. The sweep time was set to display the entire burst and triggered on the Radar Burst. The output level of the Radar Signal Generator was adjusted to give the correct level as defined in the table below with the 1dB correction accounted for. Trace data showing the used Radar Pulses was recorded.

DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1 and 2)
≥ 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.	

Test Equipment Setup

Setup for Client with injection at the Master



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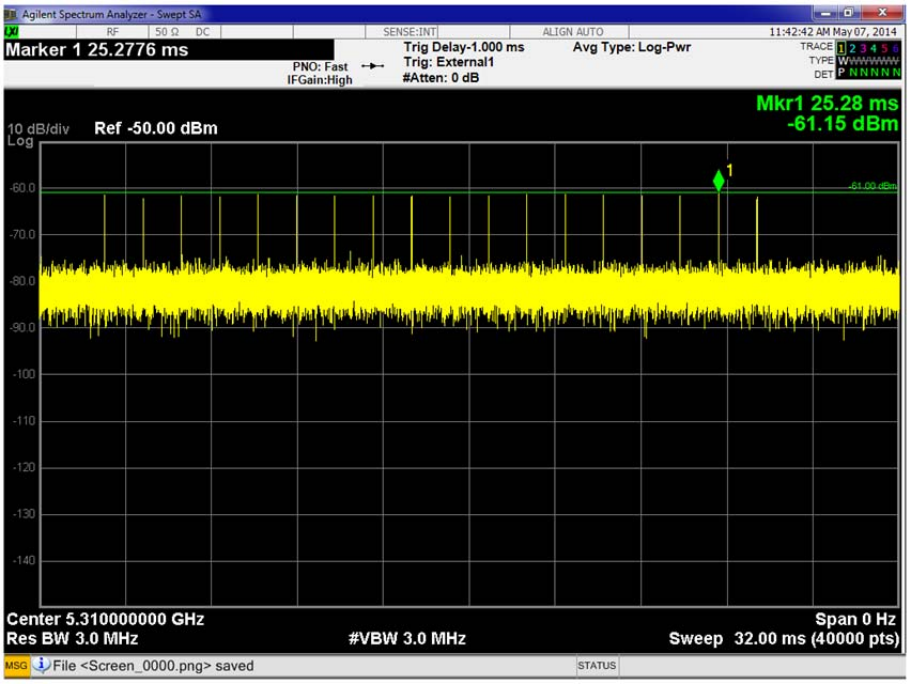
Radar Pulse Type 1

Short Radar Pulse Characteristics

Radar Type	Pulse Width (µs)	PRI (µs)	Number Of Pulses
1	1	1428	18

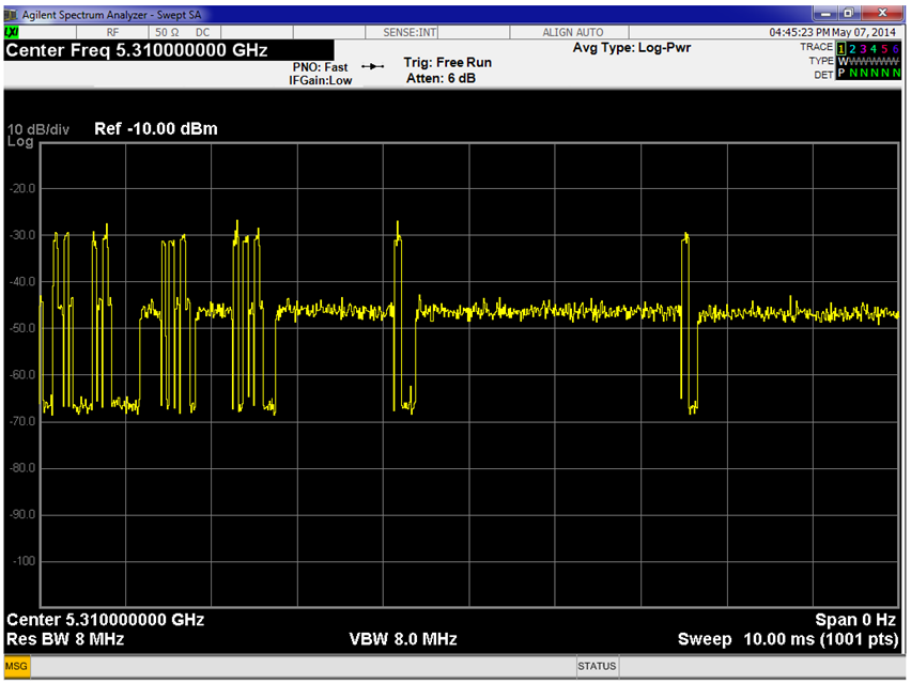
Client without Radar Detection

Radar Type 1 Plot



Product Service

Channel Loading Plot



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2.2 IN-SERVICE MONITORING

2.2.1 Specification Reference

FCC CFR 47 Part 15E and FCC 06-96, Clause 15.407 (h)(2)(iii)

2.2.2 Equipment Under Test and Modification State

Inari8-3GAN-C1 S/N: IMEI 866274011528092 - Modification State 0

2.2.3 Date of Test

7 May 2014

2.2.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.5 Test Procedure

The Channel Closing Transmission Time and Channel Move Time of the UUT were measured in accordance to the methods described in FCC 06-96 (2006) and assessed against the requirements of FCC 47 CFR 15.407 (h)(2)(iii).

The UUT is a client device without radar detection and all testing was performed using conducted methods. The UUT was associated with an FCC Approved Master device FCC ID: UZ7MB82. An ancillary computer was connected to the Master device using an ethernet Local Area Network. The computer was configured to act as a file server to allow the FCC designated video to be streamed from the Master device to the UUT.

The radar signal calibration procedure was conducted according to the methods described within FCC 06-96 (2006) clause 7.5. A spectrum analyzer was used to establish the test signal level for radar types utilised during testing. During this process, there were no transmissions by either the Master device or UUT. The spectrum analyzer was switched to the zero span (time domain) mode at the frequency of the Radar Waveform generator. The peak detector function of the spectrum analyzer was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The radar test signal level was calibrated for each operating channel to a level of the DFS Detection Threshold + 1dB; yielding a radar signal level of -61 dBm at the Master device antenna port.

The channel closing transmission and channel move times were measured using the methods described within FCC 06-96 (2006) clause 7.8.3. The UUT was associated with the Master device and was set to operate on a single channel configuration in the 5250 to 5350 MHz band. The designated FCC MPEG test file was streamed from the Master device and the UUT on the operating channel for the entire period of the test. The UUT utilized a software application “VideoLAN VLC Media Player version 2.1.3” to stream and play the test file from the Master device.

Using the Aeroflex DFS test system signal generator, a radar type 1 test signal was injected into the master device antenna port on the operating channel. The Aeroflex DFS test system signal analyser measurement sweep was triggered upon the radar injection to the Master device and resultant data of the radar burst, Master device and UUT was collected.

Product Service

A level detection threshold was set on the Aeroflex DFS test system signal analyser; such that all signals from the UUT were assessed using the Aeroflex DFS test system and both the channel closing transmission time and channel move time were measured and recorded.

The markers on the captured trace data correspond to the following time periods:

Red - End of the injected radar burst: Time T1
Purple - End of the Channel Closing Transmission Time: Time T1 + 200 ms
Yellow - End of the Channel Move Time: Time T1 + 10 seconds

2.2.6 Environmental Conditions

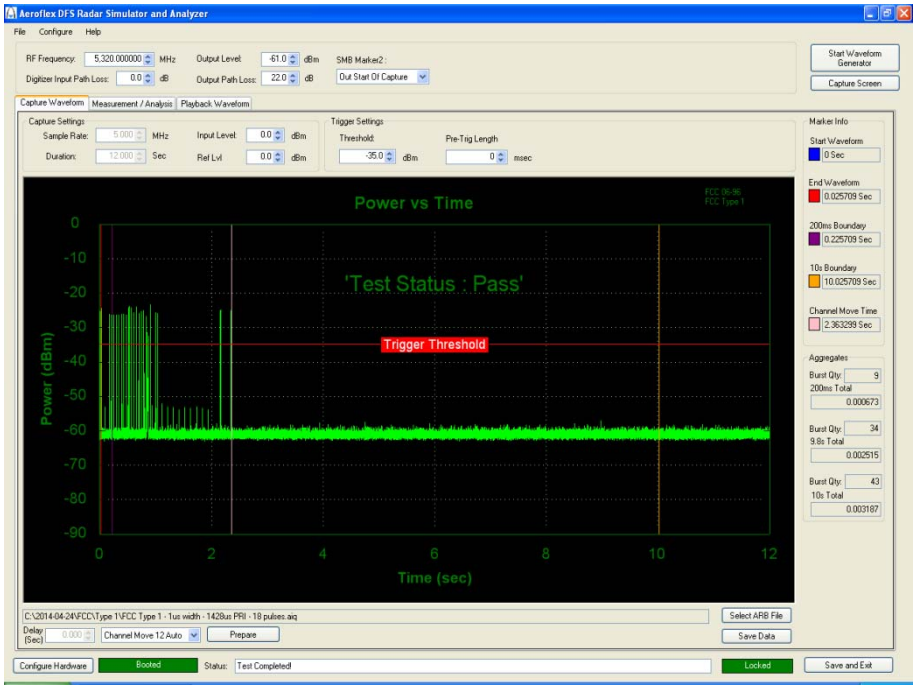
Ambient Temperature	22.8°C
Relative Humidity	41.6%

2.2.7 Test Results

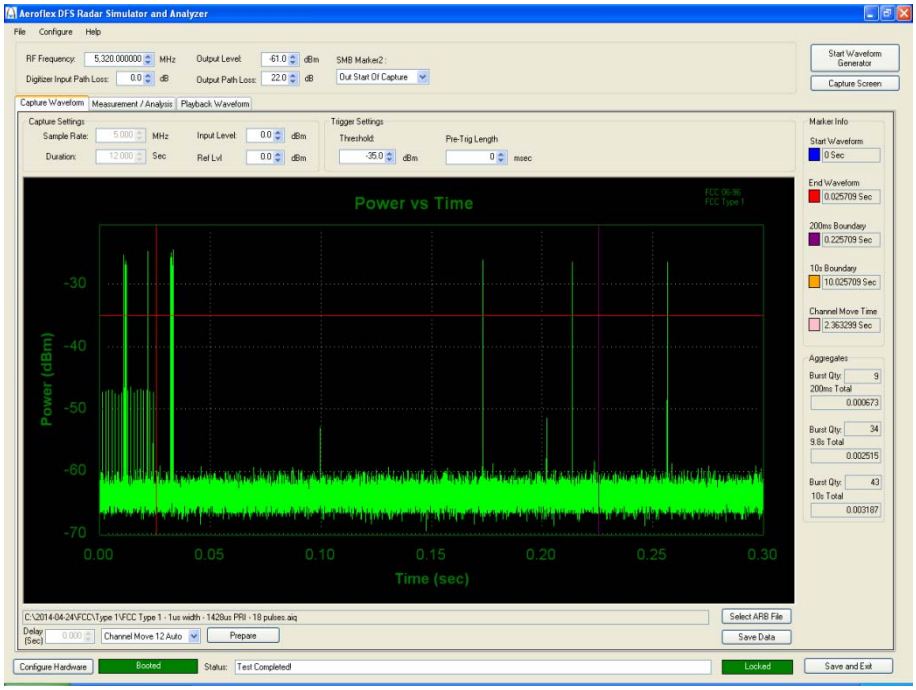
802.11(a)

Channel Move Time	2.363 seconds
Channel Closing Time (Aggregate Time During 200ms)	0.673 ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	2.515 ms
Channel Closing Time (Aggregate Time During 10s)	3.187 ms

Overall Power vs Time Display, showing channel closing and move time



Channel Closing Transmission Time, RADAR burst, Master device and UUT signalling



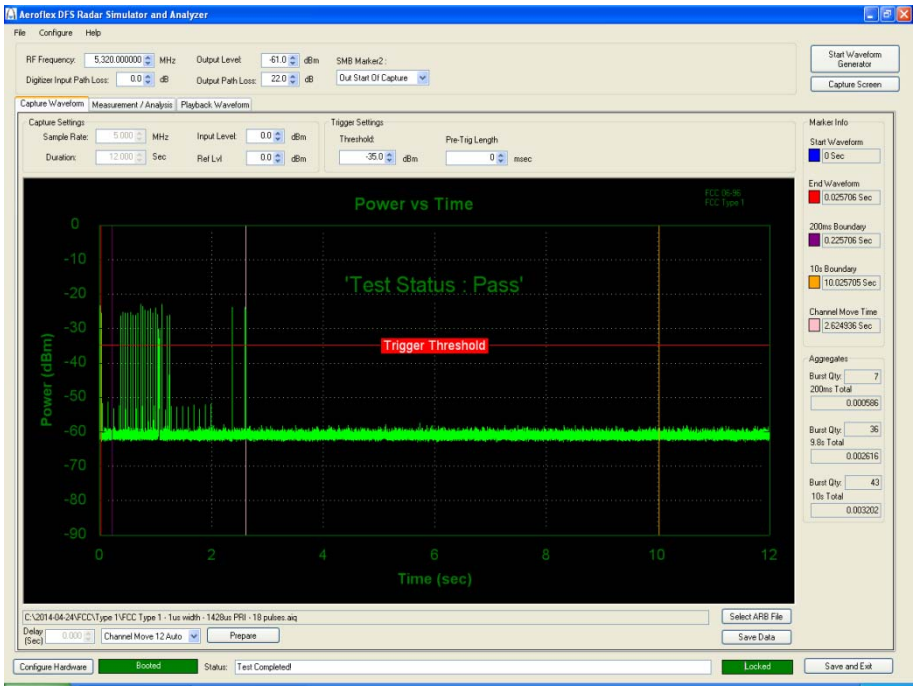
Limit Clause 15.407 (h)(2(iii) and FCC 06-96, Table 4

Channel Move Time	<10s
Channel Closing Time (Aggregate Time During 200ms)	<200ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	<60ms

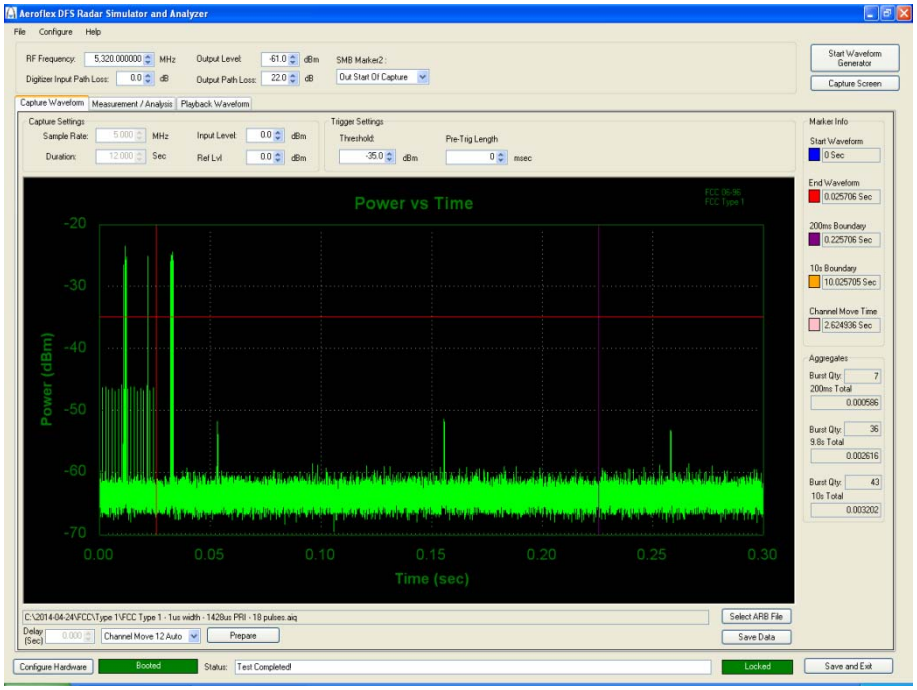
802.11(n) 20 MHz BW

Channel Move Time	2.625 seconds
Channel Closing Time (Aggregate Time During 200ms)	0.586 ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	2.616 ms
Channel Closing Time (Aggregate Time During 10s)	3.202 ms

Overall Power vs Time Display, showing channel closing and move time



Channel Closing Transmission Time, RADAR burst, Master device and UUT signalling



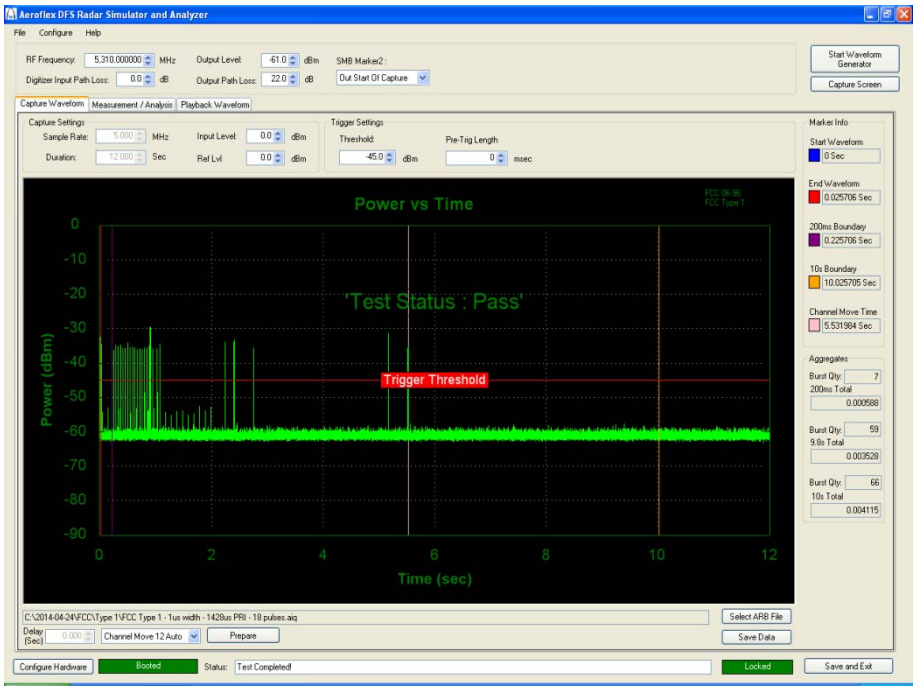
Limit Clause 15.407 (h)(2(iii) and FCC 06-96, Table 4

Channel Move Time	<10s
Channel Closing Time (Aggregate Time During 200ms)	<200ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	<60ms

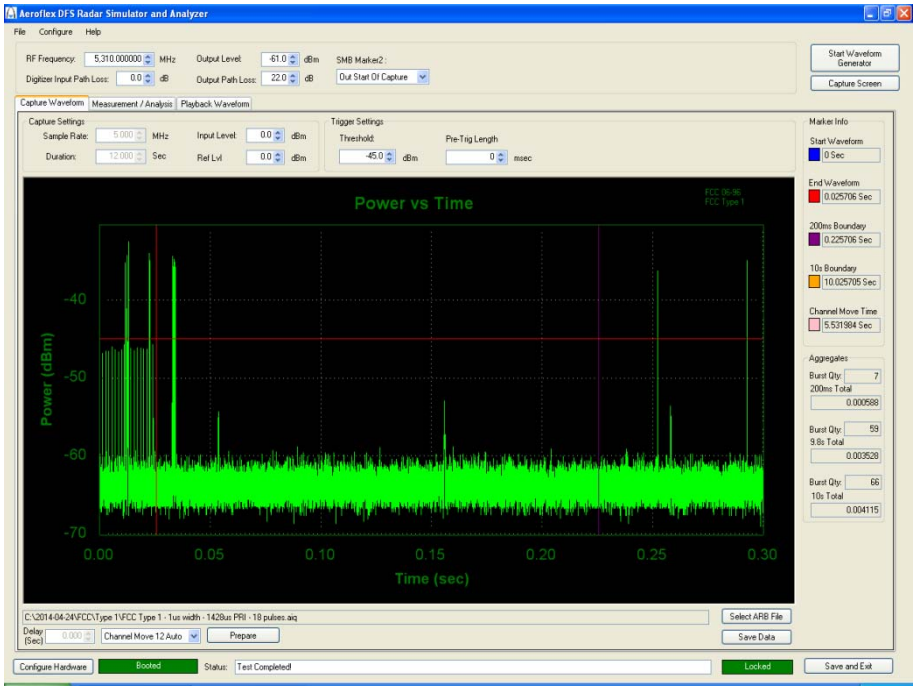
802.11(n) 40 MHz BW

Channel Move Time	5.532 seconds
Channel Closing Time (Aggregate Time During 200ms)	0.588 ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	3.528 ms
Channel Closing Time (Aggregate Time During 10s)	4.115 ms

Overall Power vs Time Display, showing channel closing and move time



Channel Closing Transmission Time, RADAR burst, Master device and UUT signalling



Limit Clause 15.407 (h)(2(iii) and FCC 06-96, Table 4

Channel Move Time	<10s
Channel Closing Time (Aggregate Time During 200ms)	<200ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	<60ms

Product Service

SECTION 3

TEST EQUIPMENT USED

Product Service

3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.2 - In-Service Monitoring					
White Gold	Multimeter	WG022	190	12	28-Oct-2014
Directional Coupler	Hewlett Packard	11692D	451	12	2-Sep-2014
20dB/2W Attenuator	Narda	4772-20	461	-	TU
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	-	TU
Mains Voltage Monitor	TUV SUD Product Service	MVM1	1378	12	6-Sep-2014
Hygrometer	Rotronic	I-1000	2891	12	8-Jul-2014
Signal Analyser	Rohde & Schwarz	FSQ 26	3545	12	4-Jul-2014
PXI Digital RF Signal Generator	Aeroflex	3025	4015	24	3-Oct-2015
1800-6000 MHz Power Splitter	Mini-Circuits	ZN2PD-63-S+	4056	-	O/P Mon

TU – Traceability Unscheduled
O/P MON – Output Monitored with Calibrated Equipment

3.2 SUPPORT TEST EQUIPMENT

Instrument	Manufacturer	Type No.	Serial Number
DFS Radar Simulator Analyser Software	Aeroflex Ltd	Version 2.1.2	-
Router	Edimax	BR-642n v2.0	BR6424N07CA01367
802.11a/n Access Point	Motorola	AP-650	10055522200026
Personal Computer	Dell Inc.	DCSM	36DJP2J

Product Service

3.3 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	MU
In-Service Monitoring	Time: ± 0.47 % Power: ± 1.29 dB

Product Service

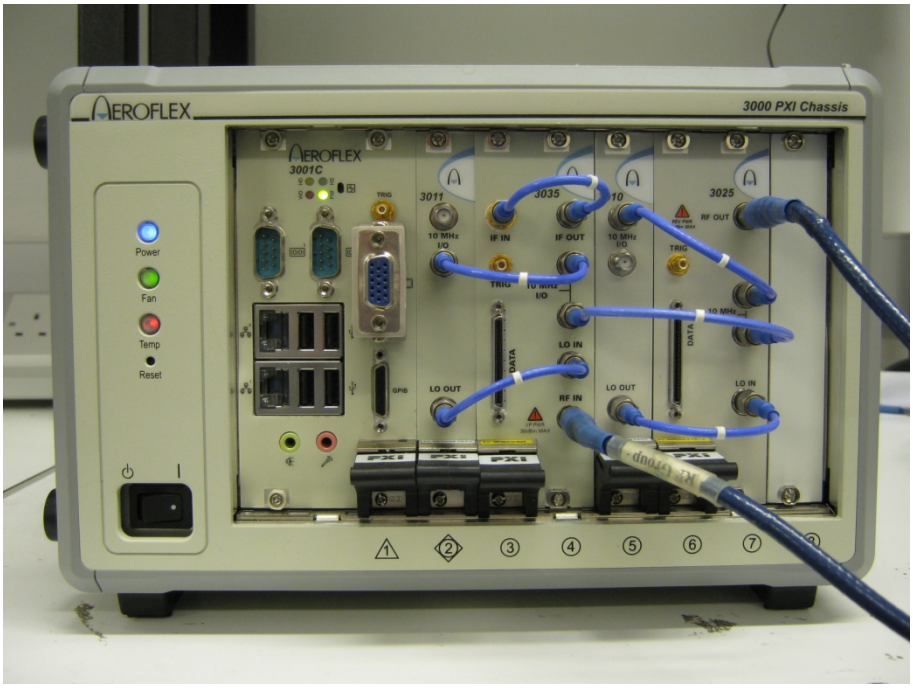
SECTION 4

PHOTOGRAPHS

4.1 TEST SET-UP PHOTOGRAPHS

See test set-up photographs exhibit “75926145 FCC Set Up Photos.pdf”.

4.2 DFS TEST EQUIPMENT



Test Set Up

Product Service

SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).