Select Comfort Corporation

Bridge Router
Model: SNbb1

EMC Test Report

Report No. SECF0002

Report Prepared By

www.nwemc.com
1-888-EMI-CERT

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Last Date of Test: January 19, 2011
Select Comfort Corporation
Bridge Router, Model: SNbb1

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Occupied Bandwidth	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
Output Power	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
Band Edge Compliance	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
Spurious Conducted Emissions	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
Power Spectral Density	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
Spurious Radiated Emissions	FCC 15.247:2011	ANSI C63.10:2009	**Pass**
AC Powerline Conducted Emissions	FCC 15:207:2011	ANSI C63.10:2009	**Pass**

Modifications made to the product
See the Modifications section of this report

Test Facility

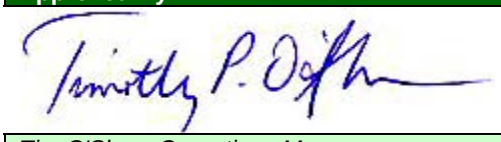
The measurement facility used to collect the data is located at:

Northwest EMC, Inc.
9349 W Broadway Ave.
Brooklyn Park, MN 55445

Phone: (763) 425-2281 Fax: (763) 424-3469

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834E-1).

Approved By:



Tim O'Shea, Operations Manager

NVLAP Lab Code: 200881-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

Accreditations and Authorizations

FCC

Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.

NVLAP

Northwest EMC, Inc. is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. NVLAP is administered by the National Institute of Standards and Technology (NIST), an agency of the U.S. Commerce Department. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.

Industry Canada

Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1)*

CAB

Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.

Australia/New Zealand

The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).

Accreditations and Authorizations

VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. *(Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634).*

BSMI

Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017).

GOST

Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification

KCC

Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (*Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157, Brooklyn Park: US0175)*

VIETNAM

Vietnam MIC has approved Northwest EMC as an accredited test lab. Per Decision No. 194/QD-QLCL (dated December 15, 2009), Northwest EMC test reports can be used for Vietnam approval submissions.

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/

Northwest EMC Locations

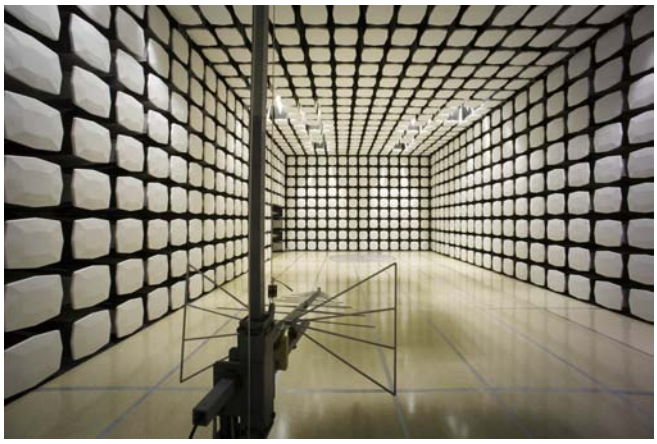
Oregon
Labs EV01-EV12
22975 NW Evergreen Pkwy
Suite 400
Hillsboro, OR 97124
(503) 844-4066

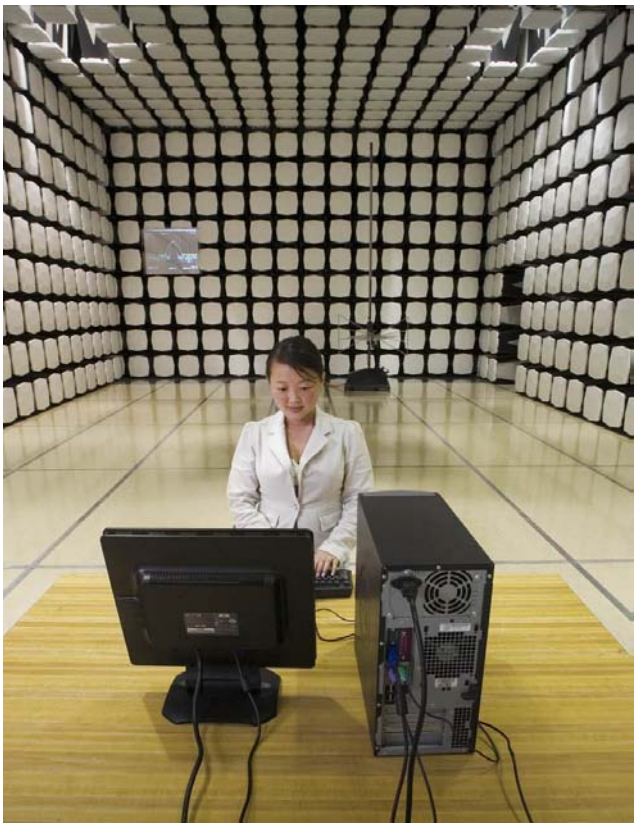
California
Labs OC01-OC13
41 Tesla
Irvine, CA 92618
(949) 861-8918

Minnesota
Labs MN01-MN08
9349 W Broadway Ave.
Brooklyn Park,
MN 55445
(763) 425-2281

Washington
Labs SU01-SU07
14128 339th Ave. SE
Sultan, WA 98294
(360) 793-8675

New York
Labs WA01-WA04
4939 Jordan Rd.
Elbridge, NY 13060
(315) 685-0796





Party Requesting the Test

Company Name:	Select Comfort Corporation
Address:	9800 59th Avenue North
City, State, Zip:	Minneapolis, MN 55442
Test Requested By:	Paul Mahoney
Model:	Bridge Router, Model: SNbb1
First Date of Test:	January 17, 2011
Last Date of Test:	January 19, 2011
Receipt Date of Samples:	January 17, 2011
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

2.4 GHz IEEE 802.15.4 Transceiver used to wirelessly control and adjust the user's foundation.

The equipment final configuration will have a plastic enclosure. Since that would not affect this testing it was all performed without the enclosure. The 2,4 GHz IEEE 802.15.4 radio used in this device is identical to the one used in the Adjustable Foundation Interface. Therefore, the antenna port conducted data from that testing is being used to demonstrate compliance for the radio in this product.

Testing Objective:

Demonstrate compliance to FCC 15.247 requirements. 802.15.4 radio

CONFIGURATION 1 SECF0001

Software/Firmware Running during test	
Description	**Version**
Firmware Rev	77377

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Adjustable Foundation Interface	Select Comfort Corporation	SNab1/115214	3A863798

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
DC Power Brick	Emerson Network Power	DA12-050US-M	H704GU00B201L

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power	No	1.53cm	No	Adjustable Foundation Interface	DC Power Brick
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 1 SECF0002

Software/Firmware Running during test	
Description	**Version**
Firmware Rev	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bridge Router	Select Comfort Corporation	SNbb1/115213	3A924315

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
DC Power Brick	Emerson Network Power	DA12-050US-M	H704GU00B201L

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power	No	1.53cm	No	Bridge Router	DC Power Brick
Ethernet	No	4.6m	No	Bridge Router	LAN
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 SECF0002

Software/Firmware Running during test	
Description	**Version**
Firmware Rev	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bridge Router	Select Comfort Corporation	SNbb1/115213	3A924315

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
DC Power Brick	Emerson Network Power	DA12-050US-M	H704GU00B201L

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power	No	1.53cm	No	Bridge Router	DC Power Brick
Ethernet	No	1.8m	No	Bridge Router	LAN
AC Power	No	1.8m	No	DC Power Brick	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	1/17/2011	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	1/17/2011	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	1/17/2011	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	1/17/2011	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	1/17/2011	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	1/18/2011	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	1/19/2011	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Signal Generator	Agilent	E4422B	TGQ	3/16/2009	24
Attenuator, 20 dB 'SMA'	Fairview Microwave	SA18S5W-20	RFX	10/6/2010	13
40 GHz DC block	Fairview Microwave	SD3379	AMI	11/1/2010	13
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The occupied bandwidth was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate with the typical modulation.

NORTHWEST EMC

OCCUPIED BANDWIDTH

XMit 2010.11.03

EUT:	Adjustable Foundation Interface, Model: SNab1			Work Order:	SECF0001
Serial Number:	3A863798			Date:	01/17/11
Customer:	Select Comfort Corporation			Temperature:	23.52°C
Attendees:	Paul Mahoney			Humidity:	11%
Project:	None			Barometric Pres.:	1003.2
Tested by:	Trevor Buls	Power:	120VAC/60Hz	Job Site:	MN05

TEST SPECIFICATIONS	Test Method
FCC 15.247:2011	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

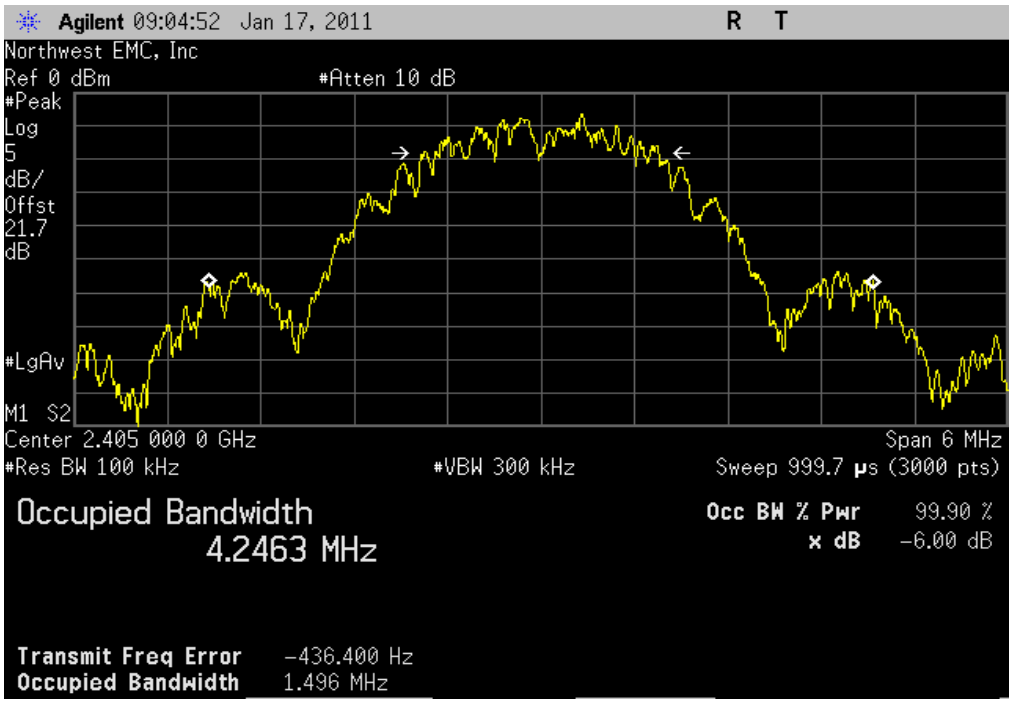
No deviations.

Configuration #	1	Signature	Trevor Buls

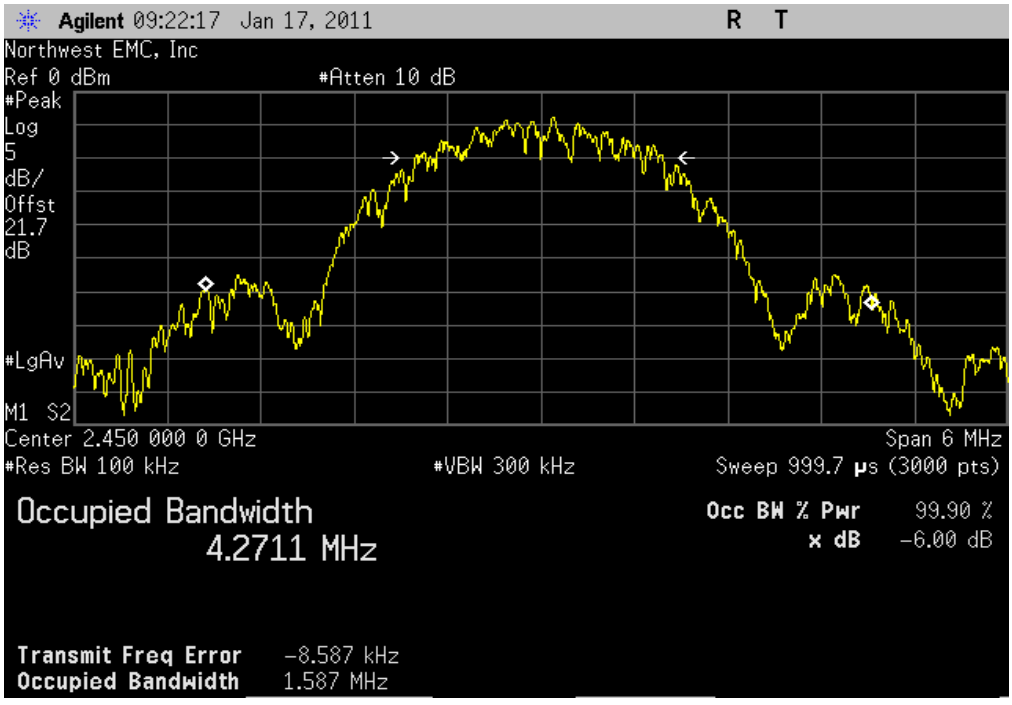
	Value	Limit	Results
Low Channel	1.496 MHz	> 500 kHz	Pass
Mid Channel	1.587 MHz	> 500 kHz	Pass
High Channel	1.571 MHz	> 500 kHz	Pass

OCCUPIED BANDWIDTH

Low Channel					
Result:	Pass	**Value:**	1.496 MHz	**Limit:**	> 500 kHz



Mid Channel					
Result:	Pass	**Value:**	1.587 MHz	**Limit:**	> 500 kHz



OCCUPIED BANDWIDTH

High Channel					
Result:	Pass	**Value:**	1.571 MHz	**Limit:**	> 500 kHz

OUTPUT POWER

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
40 GHz DC block	Fairview Microwave	SD3379	AMI	11/1/2010	13
Attenuator, 20 dB 'SMA'	Fairview Microwave	SA18S5W-20	RFX	10/6/2010	13
Signal Generator	Agilent	E4422B	TGQ	3/16/2009	24
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The EUT was transmitting at its maximum data rate in a no hop mode.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

NORTHWEST EMC

OUTPUT POWER

XMit 2010.11.03

EUT:	Adjustable Foundation Interface, Model: SNab1			Work Order:	SECF0001
Serial Number:	3A863798			Date:	01/17/11
Customer:	Select Comfort Corporation			Temperature:	23.52°C
Attendees:	Paul Mahoney			Humidity:	11%
Project:	None			Barometric Pres.:	1003.2
Tested by:	Trevor Buls	Power:	120VAC/60Hz	Job Site:	MN05

TEST SPECIFICATIONS	Test Method
FCC 15.247:2011	ANSI C63.10:2009

COMMENTS

None

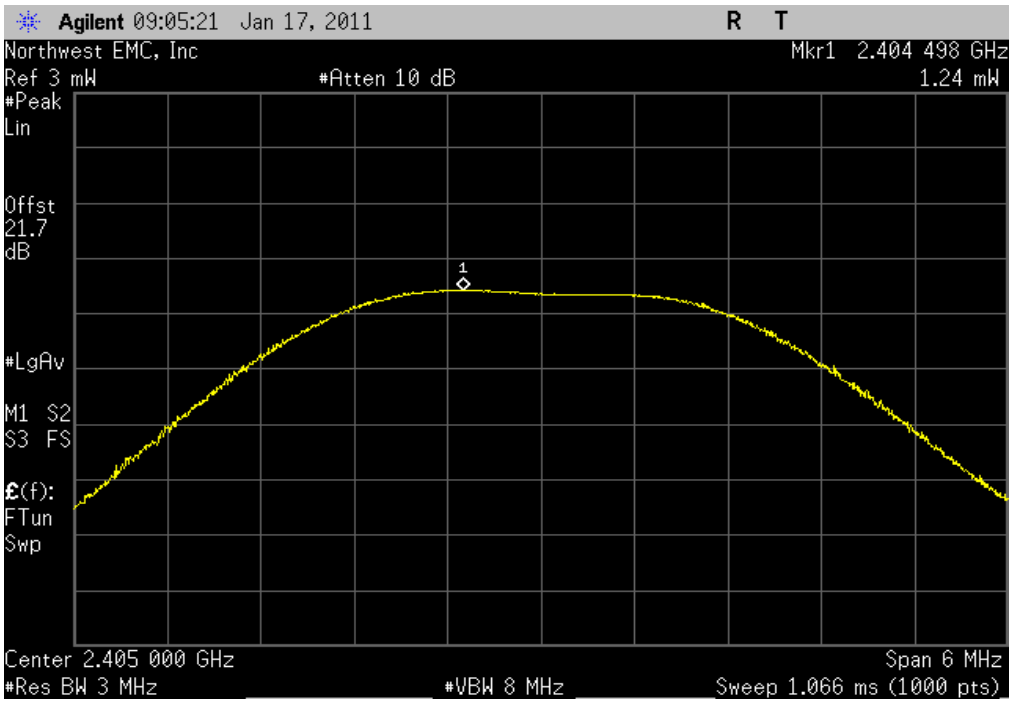
DEVIATIONS FROM TEST STANDARD

No deviations.

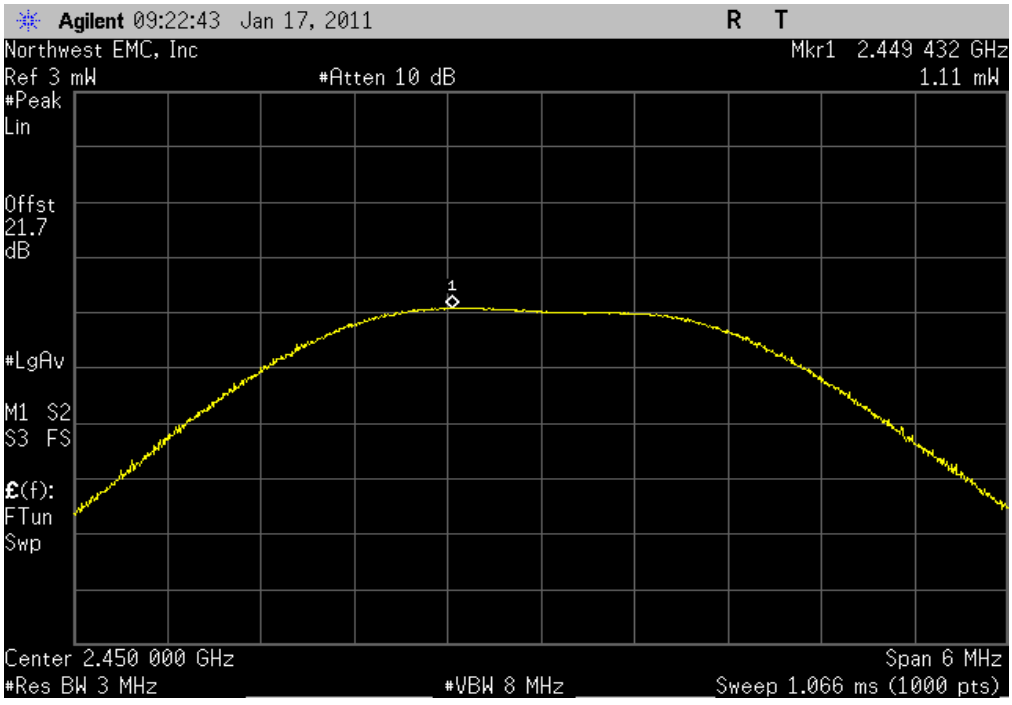
Configuration #	1	Signature	Trevor Buls

	Value	Limit	Results
Low Channel	1.24 mW	1 W	Pass
Mid Channel	1.11 mW	1 W	Pass
High Channel	1.07 mW	1 W	Pass

Low Channel					
Result:	Pass	**Value:**	1.24 mW	**Limit:**	1 W

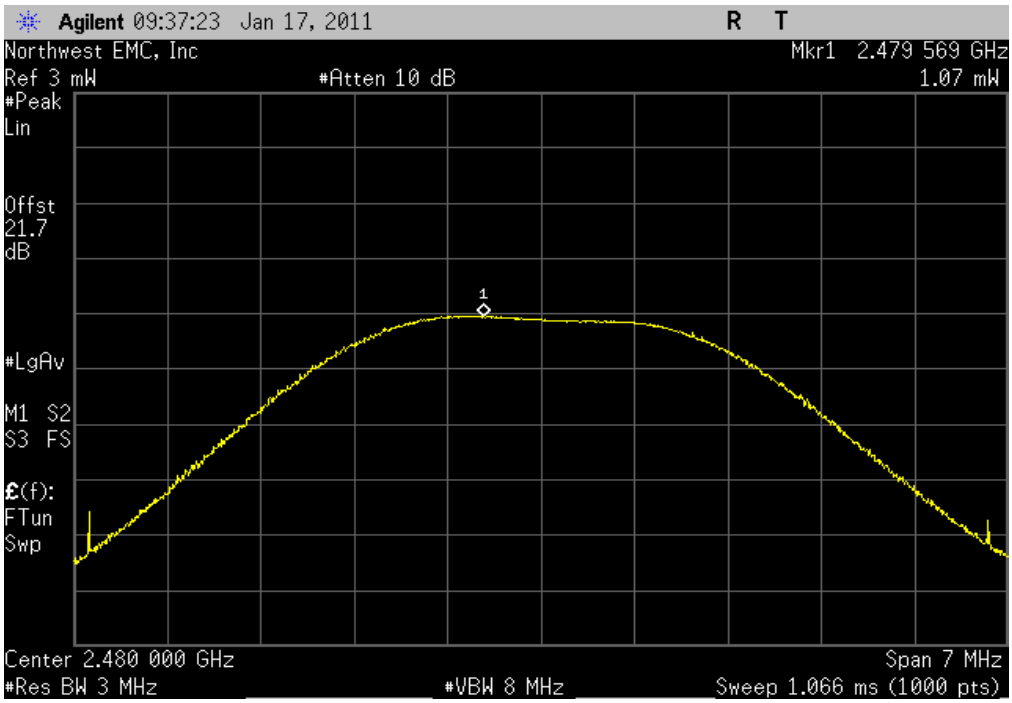


Mid Channel					
Result:	Pass	**Value:**	1.11 mW	**Limit:**	1 W



OUTPUT POWER

High Channel					
Result:	Pass	**Value:**	1.07 mW	**Limit:**	1 W



BAND EDGE COMPLIANCE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
40 GHz DC block	Fairview Microwave	SD3379	AMI	11/1/2010	13
Attenuator, 20 dB 'SMA'	Fairview Microwave	SA18S5W-20	RFX	10/6/2010	13
Signal Generator	Agilent	E4422B	TGQ	3/16/2009	24
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its only data rate available.

The spectrum was scanned across each band edge from at least 10 MHz below the band edge to 10 MHz above the band edge.

NORTHWEST EMC

BAND EDGE COMPLIANCE

XMit 2010.11.03

EUT:	Adjustable Foundation Interface, Model: SNab1			Work Order:	SECF0001
Serial Number:	3A863798			Date:	01/17/11
Customer:	Select Comfort Corporation			Temperature:	23.52°C
Attendees:	Paul Mahoney			Humidity:	11%
Project:	None			Barometric Pres.:	1003.2
Tested by:	Trevor Buls	Power:	120VAC/60Hz	Job Site:	MN05

TEST SPECIFICATIONS	Test Method
FCC 15.247:2011	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

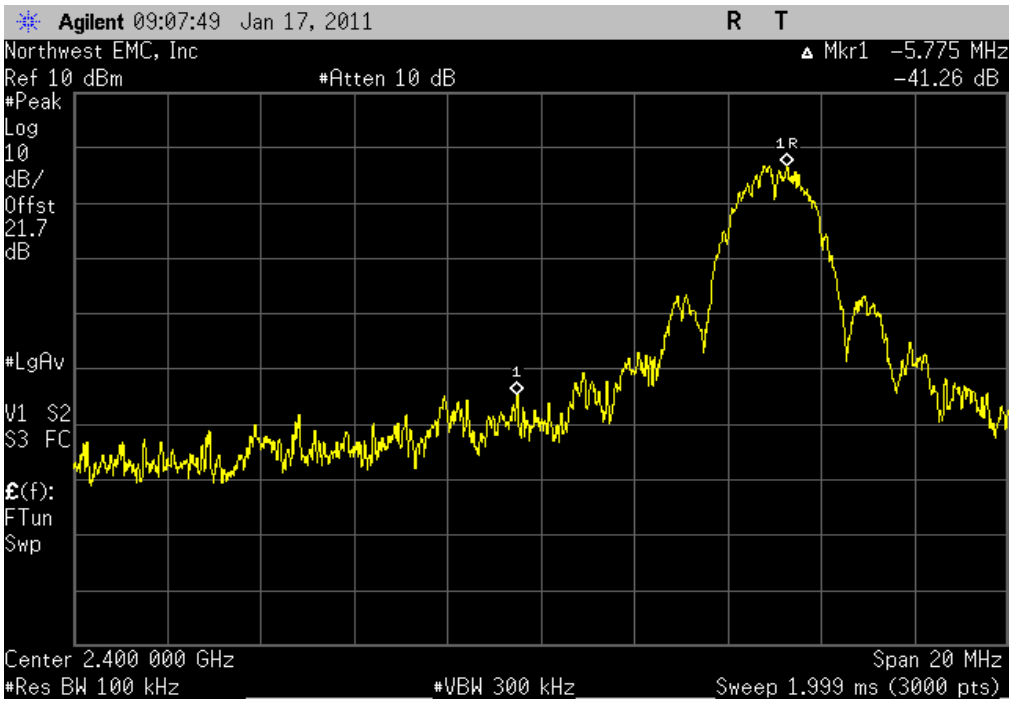
No deviations.

Configuration #	1	Signature	Trevor Buls

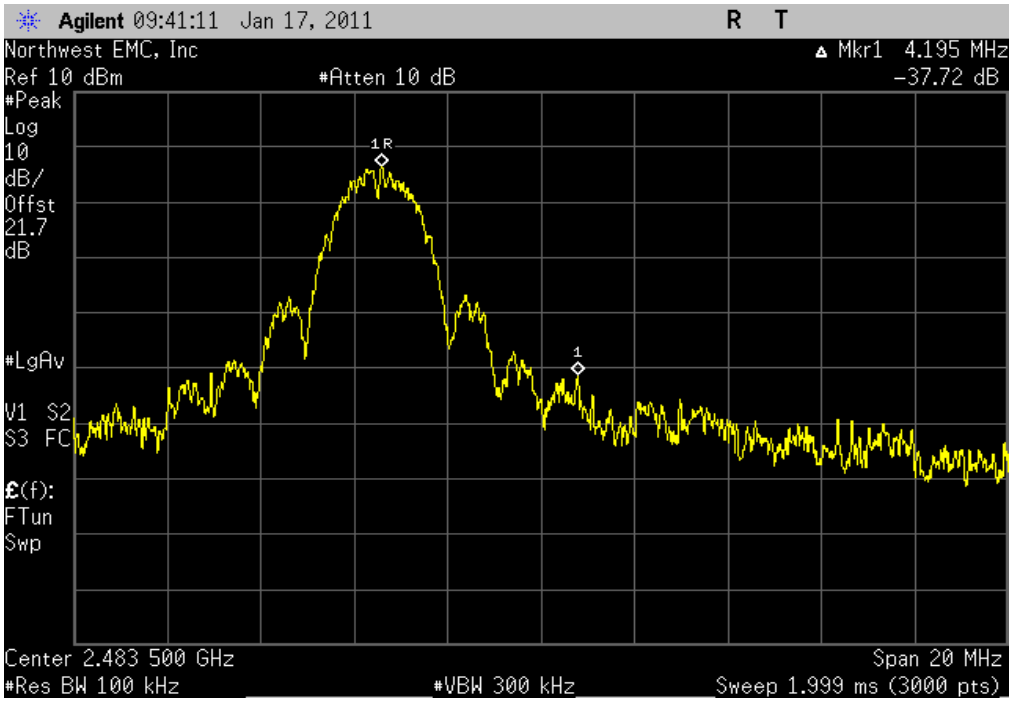
	Value	Limit	Results
Low Channel	-41.26 dBc	≤ -20 dBc	Pass
High Channel	-37.72 dBc	≤ -20 dBc	Pass

BAND EDGE COMPLIANCE

Low Channel					
Result:	Pass	**Value:**	-41.26 dBc	**Limit:**	≤ -20 dBc



High Channel					
Result:	Pass	**Value:**	-37.72 dBc	**Limit:**	≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 20 dB 'SMA'	Fairview Microwave	SA18S5W-20	RFX	10/6/2010	13
40 GHz DC block	Fairview Microwave	SD3379	AMI	11/1/2010	13
Signal Generator	Agilent	E4422B	TGQ	3/16/2009	24
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

NORTHWEST EMC

SPURIOUS CONDUCTED EMISSIONS

XMit 2010.11.03

EUT:	Adjustable Foundation Interface, Model: SNab1			Work Order:	SECF0001
Serial Number:	3A863798			Date:	01/17/11
Customer:	Select Comfort Corporation			Temperature:	23.52°C
Attendees:	Paul Mahoney			Humidity:	11%
Project:	None			Barometric Pres.:	1003.2
Tested by:	Trevor Buls	Power:	120VAC/60Hz	Job Site:	MN05

TEST SPECIFICATIONS	Test Method
FCC 15.247:2011	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

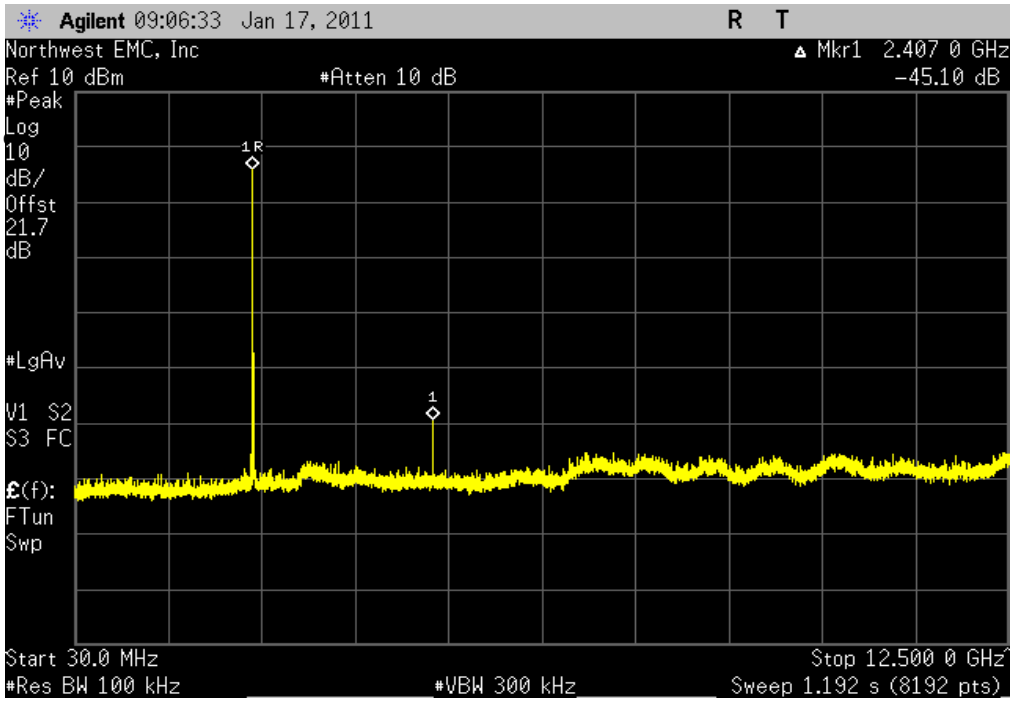
No deviations.

Configuration #	1	Signature	Trevor Buls

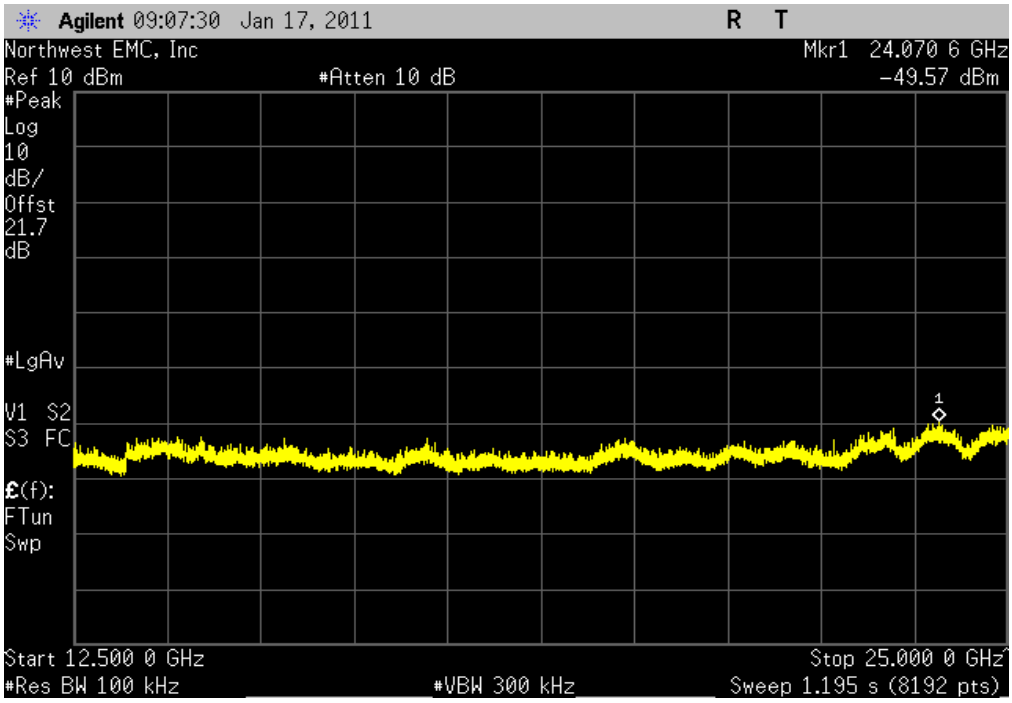
		Value	Limit	Results
Low Channel				
	30MHz - 12.5GHz	-45.10 dBc	≤ -20 dBc	Pass
	12.5GHz - 25GHz	-45.41 dBc	≤ -20 dBc	Pass
Mid Channel				
	30MHz - 12.5GHz	-27.26 dBc	≤ -20 dBc	Pass
	12.5GHz - 25GHz	-44.44 dBc	≤ -20 dBc	Pass
High Channel				
	30MHz - 12.5GHz	-28.27 dBc	≤ -20 dBc	Pass
	12.5GHz - 25GHz	-44.02 dBc	≤ -20 dBc	Pass

SPURIOUS CONDUCTED EMISSIONS

Low Channel, 30MHz - 12.5GHz					
Result:	Pass	**Value:**	-45.10 dBc	**Limit:**	≤ -20 dBc

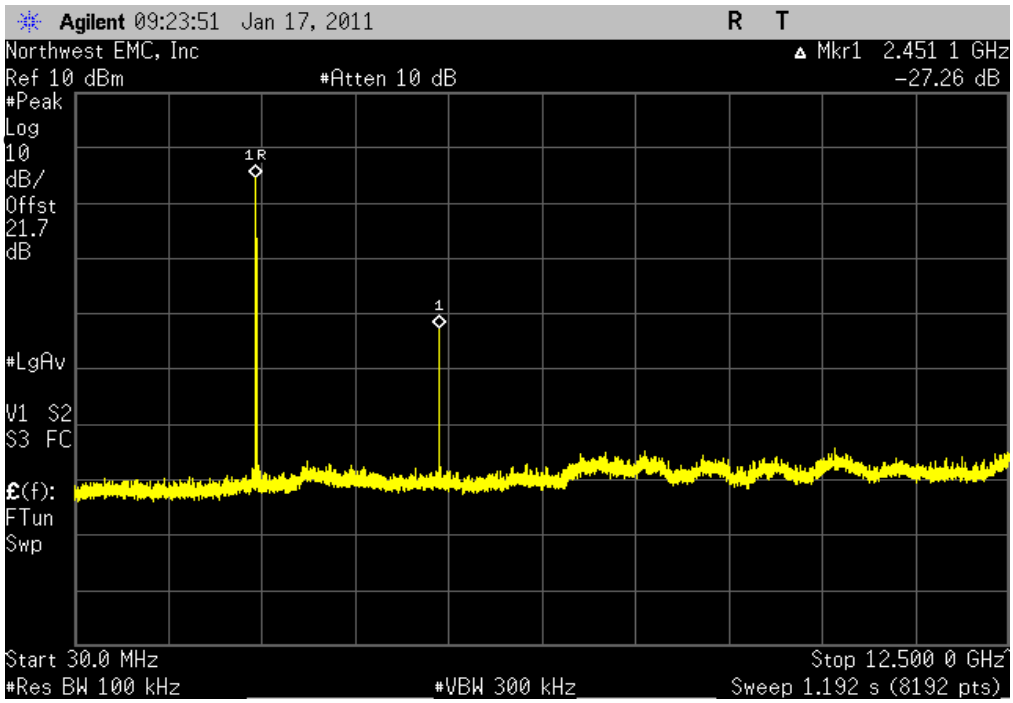


Low Channel, 12.5GHz - 25GHz					
Result:	Pass	**Value:**	-45.41 dBc	**Limit:**	≤ -20 dBc

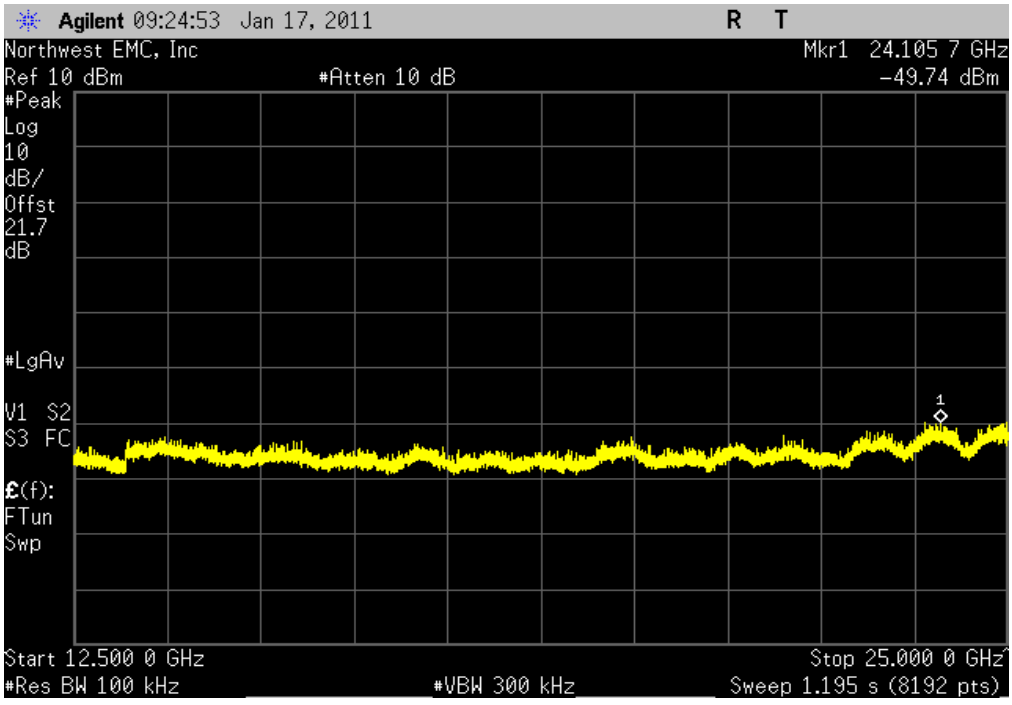


SPURIOUS CONDUCTED EMISSIONS

Mid Channel, 30MHz - 12.5GHz					
Result:	Pass	**Value:**	-27.26 dBc	**Limit:**	≤ -20 dBc

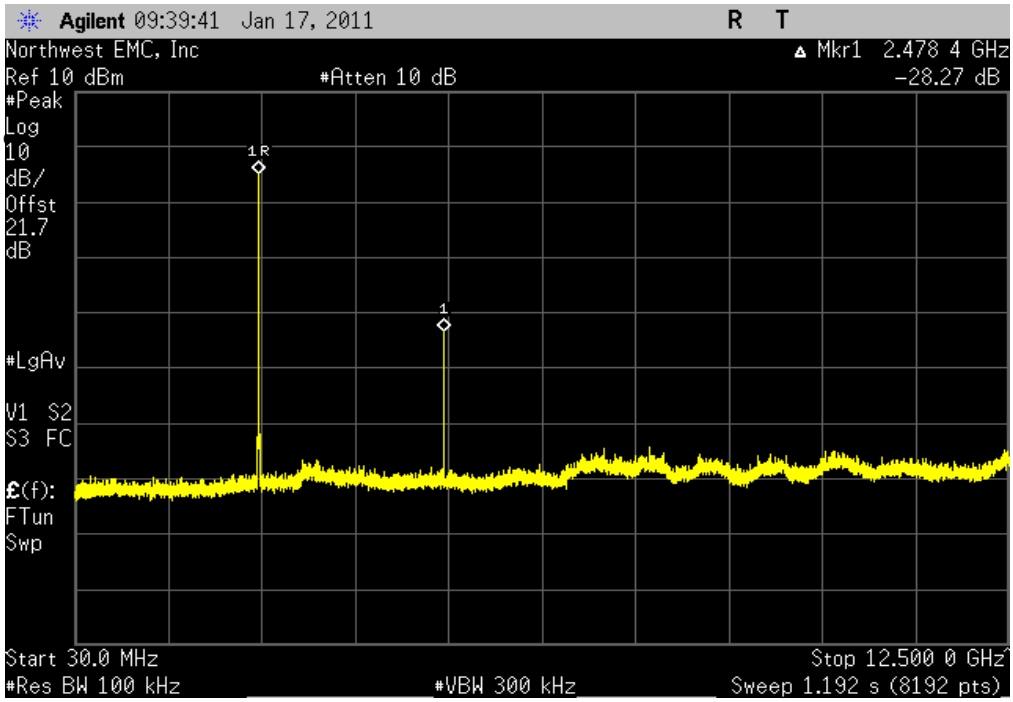


Mid Channel, 12.5GHz - 25GHz					
Result:	Pass	**Value:**	-44.44 dBc	**Limit:**	≤ -20 dBc

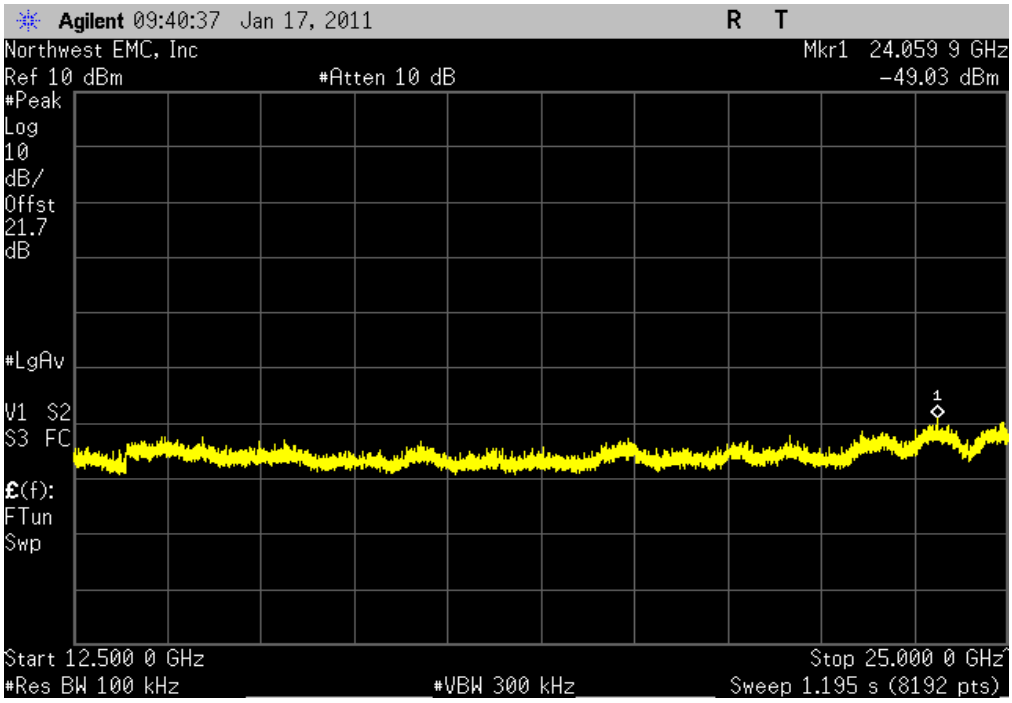


SPURIOUS CONDUCTED EMISSIONS

High Channel, 30MHz - 12.5GHz					
Result:	Pass	**Value:**	-28.27 dBc	**Limit:**	≤ -20 dBc



High Channel, 12.5GHz - 25GHz					
Result:	Pass	**Value:**	-44.02 dBc	**Limit:**	≤ -20 dBc



POWER SPECTRAL DENSITY

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 20 dB 'SMA'	Fairview Microwave	SA18S5W-20	RFX	10/6/2010	13
40 GHz DC block	Fairview Microwave	SD3379	AMI	11/1/2010	13
Signal Generator	Agilent	E4422B	TGQ	3/16/2009	24
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate for each modulation type available. Per the procedure outlined in FCC KDB 558074, March 23, 2005, the spectrum analyzer was used as follows:

> The emission peak(s) were located and zoom in on within the passband. The resolution bandwidth was set to 3 kHz, the video bandwidth was set to greater than or equal to the resolution bandwidth. The sweep speed was set equal to the span divided by 3 kHz (sweep = (SPAN/3 kHz)). For example, given a span of 1.5 MHz, the sweep should be 1.5 x 10^6 ÷ 3 x 10^3 = 500 seconds. External attenuation was used and added to the reading. The following FCC procedure was used for modifying the power spectral density measurements:

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 35 dB for correction to 3 kHz."

NORTHWEST EMC

POWER SPECTRAL DENSITY

XMit 2010.11.03

EUT:	Adjustable Foundation Interface, Model: SNab1			Work Order:	SECF0001
Serial Number:	3A863798			Date:	01/17/11
Customer:	Select Comfort Corporation			Temperature:	23.52°C
Attendees:	Paul Mahoney			Humidity:	11%
Project:	None			Barometric Pres.:	1003.2
Tested by:	Trevor Buls	Power:	120VAC/60Hz	Job Site:	MN05

TEST SPECIFICATIONS	Test Method
FCC 15.247:2011	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

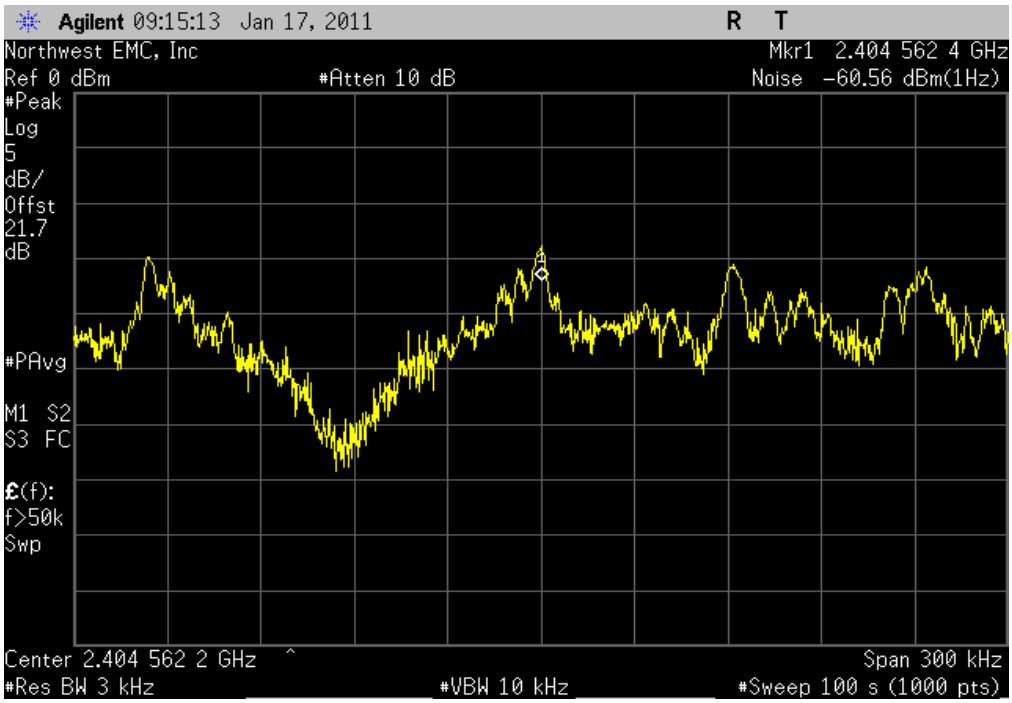
No deviations.

Configuration #	1	Signature	Trevor Buls

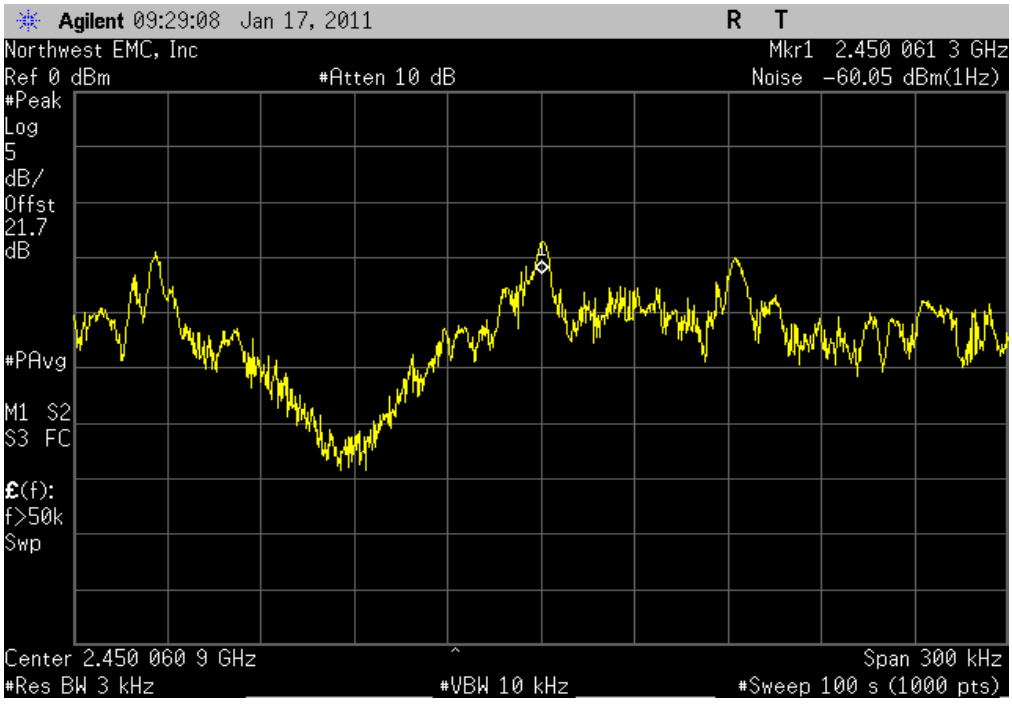
	Value	Limit	Results
Low Channel	-25.76 dBm / 3 kHz	8 dBm / 3 kHz	Pass
Mid Channel	-25.25 dBm / 3 kHz	8 dBm / 3 kHz	Pass
High Channel	-25.46 dBm / 3 kHz	8 dBm / 3 kHz	Pass

POWER SPECTRAL DENSITY

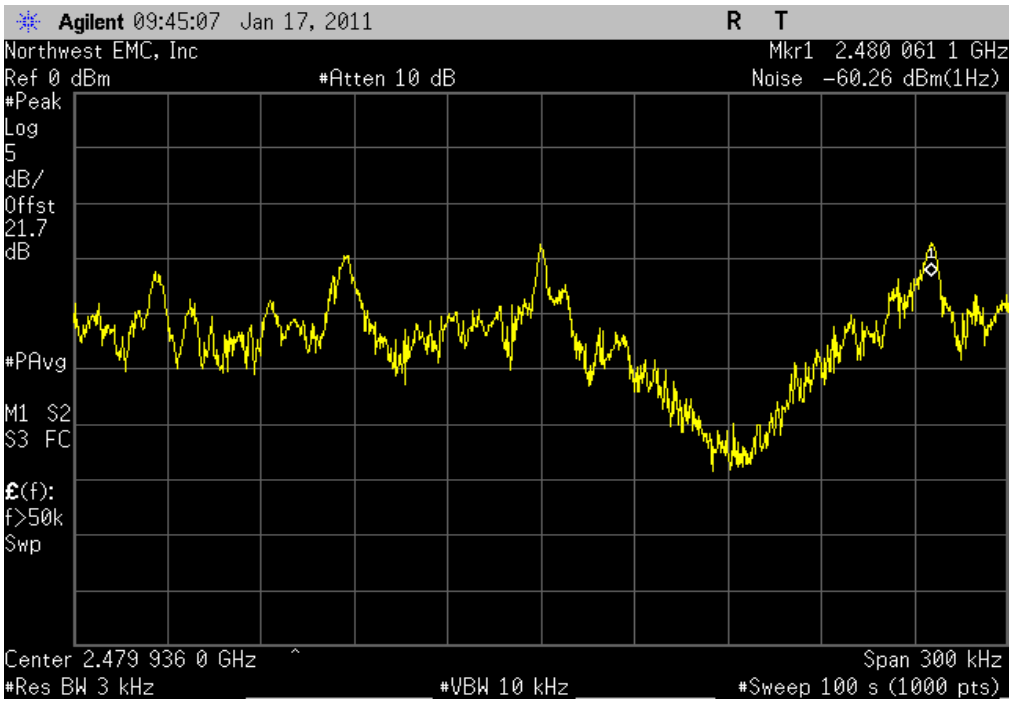
Low Channel					
Result:	Pass	**Value:**	-25.76 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



Mid Channel					
Result:	Pass	**Value:**	-25.25 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



High Channel					
Result:	Pass	**Value:**	-25.46 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



Spurious Radiated Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION
Transmitting modulated signal at High channel 2480 MHz.
Transmitting modulated signal at Mid channel 2450 MHz.
Transmitting modulated signal at Low channel 2405 MHz.

POWER SETTINGS INVESTIGATED
120VAC/60Hz

CONFIGURATIONS INVESTIGATED
SECF0002 - 1

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30 MHz	Stop Frequency	25 GHz

SAMPLE CALCULATIONS
Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	7/9/2010	13 mo
High Pass Filter	Micro-Tronics	HPM50111	HGQ	7/9/2010	13 mo
Low Pass Filter	Micro-Tronics	LPM50004	HGK	7/9/2010	13 mo
Antenna, Horn	ETS Lindgren	3160-08	AIQ	NCR	0 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	7/19/2010	13 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	7/19/2010	13 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	7/19/2010	13 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	12/22/2009	24 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	1/15/2010	13 mo
Pre-Amplifier	Miteq	AM-1616-1000	AVY	7/19/2010	13 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXN	12/30/2009	13 mo
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

NORTHWEST

EMC

Spurious Radiated Emissions

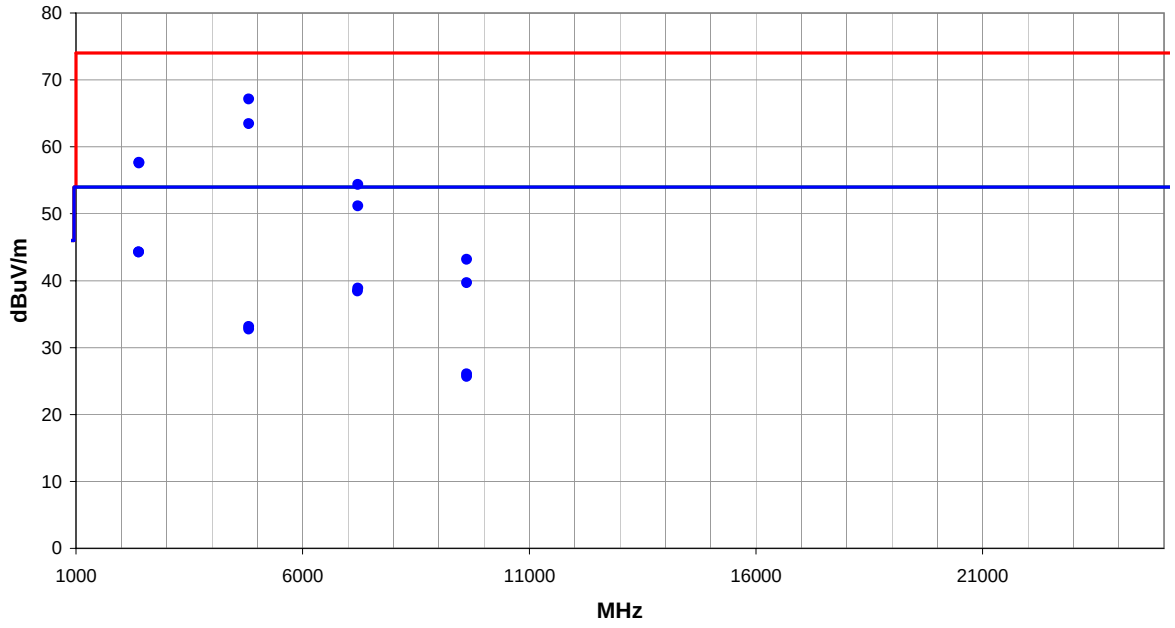
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/18/11	Trevor Buls	
Project:	None	**Temperature:**	23.57		
Job Site:	MN05	**Humidity:**	11.41		
Serial Number:	3A924315	**Barometric Pres.:**	1018.2	**Tested by:**	Trevor Buls

EUT:	Bridge Router, Model: SNbb1
Configuration:	1 - SECF0002
Customer:	Select Comfort Corporation
Attendees:	Paul Mahoney
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting modulated signal at Low channel 2405 MHz.
Deviations:	None
Comments:	EUT Horizontal

Test Specifications	**Test Method**
FCC 15.247:2011	ANSI C63.10:2009

Run #	6	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)
4808.941	63.6	3.6	1.6	158.0	3.0	0.0	Horz	PK	0.0	67.2	74.0	-6.8
2385.008	28.7	-4.4	2.5	73.0	3.0	20.0	Vert	AV	0.0	44.3	54.0	-9.7
2385.858	28.7	-4.4	1.0	198.0	3.0	20.0	Horz	AV	0.0	44.3	54.0	-9.7
4810.828	59.9	3.6	2.5	193.0	3.0	0.0	Vert	PK	0.0	63.5	74.0	-10.5
7216.295	27.9	11.0	1.0	229.0	3.0	0.0	Horz	AV	0.0	38.9	54.0	-15.1
7214.253	27.5	10.9	1.0	261.0	3.0	0.0	Vert	AV	0.0	38.4	54.0	-15.6
2389.442	42.1	-4.4	2.5	73.0	3.0	20.0	Vert	PK	0.0	57.7	74.0	-16.3
2387.125	42.0	-4.4	1.0	198.0	3.0	20.0	Horz	PK	0.0	57.6	74.0	-16.4
7216.520	43.4	11.0	1.0	229.0	3.0	0.0	Horz	PK	0.0	54.4	74.0	-19.6
4810.033	29.6	3.6	1.6	158.0	3.0	0.0	Horz	AV	0.0	33.2	54.0	-20.8
4809.986	29.2	3.6	2.5	193.0	3.0	0.0	Vert	AV	0.0	32.8	54.0	-21.2
7216.703	40.2	11.0	1.0	261.0	3.0	0.0	Vert	PK	0.0	51.2	74.0	-22.8
9617.975	35.4	-9.3	1.3	159.0	3.0	0.0	Vert	AV	0.0	26.1	54.0	-27.9
9617.925	35.0	-9.3	1.0	100.0	3.0	0.0	Horz	AV	0.0	25.7	54.0	-28.3
9617.783	52.5	-9.3	1.3	159.0	3.0	0.0	Vert	PK	0.0	43.2	74.0	-30.8
9618.425	49.0	-9.3	1.0	100.0	3.0	0.0	Horz	PK	0.0	39.7	74.0	-34.3

NORTHWEST

EMC

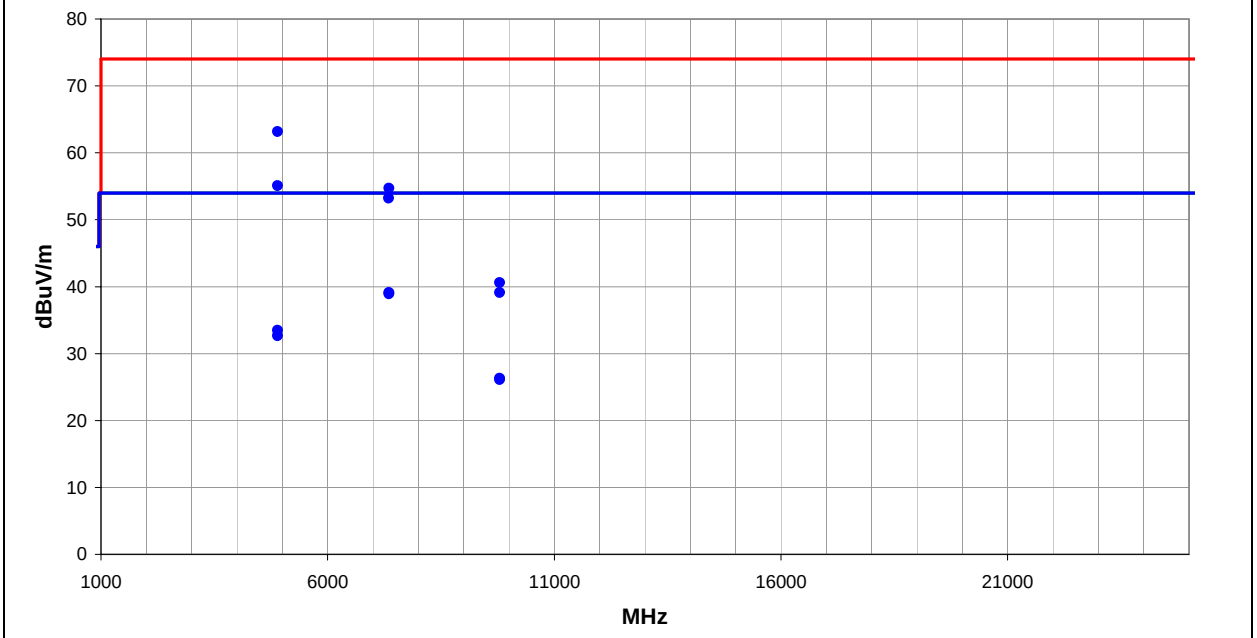
Spurious Radiated Emissions

PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/18/11	Trevor Buls	
Project:	None	**Temperature:**	23.57		
Job Site:	MN05	**Humidity:**	11.41		
Serial Number:	3A924315	**Barometric Pres.:**	1018.2	**Tested by:**	Trevor Buls
EUT:	Bridge Router, Model: SNbb1				
Configuration:	1 - SECF0002				
Customer:	Select Comfort Corporation				
Attendees:	Paul Mahoney				
EUT Power:	120VAC/60Hz				
Operating Mode:	Transmitting modulated signal at Mid channel 2450 MHz.				
Deviations:	None				
Comments:	EUT Horizontal				

Test Specifications	**Test Method**
FCC 15.247:2011	ANSI C63.10:2009

Run #	11	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)
4899.058	59.2	4.0	1.0	103.0	3.0	0.0	Horz	PK	0.0	63.2	74.0	-10.8
7351.208	27.3	11.8	1.0	155.0	3.0	0.0	Vert	AV	0.0	39.1	54.0	-14.9
7351.467	27.1	11.8	1.0	231.0	3.0	0.0	Horz	AV	0.0	38.9	54.0	-15.1
4898.858	51.1	4.0	1.0	0.0	3.0	0.0	Vert	PK	0.0	55.1	74.0	-18.9
7351.075	42.9	11.8	1.0	155.0	3.0	0.0	Vert	PK	0.0	54.7	74.0	-19.3
4899.950	29.5	4.0	1.0	103.0	3.0	0.0	Horz	AV	0.0	33.5	54.0	-20.5
7348.900	41.4	11.8	1.0	231.0	3.0	0.0	Horz	PK	0.0	53.2	74.0	-20.8
4899.033	28.7	4.0	1.0	0.0	3.0	0.0	Vert	AV	0.0	32.7	54.0	-21.3
9797.950	35.3	-9.0	1.0	238.0	3.0	0.0	Vert	AV	0.0	26.3	54.0	-27.7
9797.900	35.1	-9.0	1.0	228.0	3.0	0.0	Horz	AV	0.0	26.1	54.0	-27.9
9798.167	49.6	-9.0	1.0	238.0	3.0	0.0	Vert	PK	0.0	40.6	74.0	-33.4
9797.792	48.1	-9.0	1.0	228.0	3.0	0.0	Horz	PK	0.0	39.1	74.0	-34.9

NORTHWEST

EMC

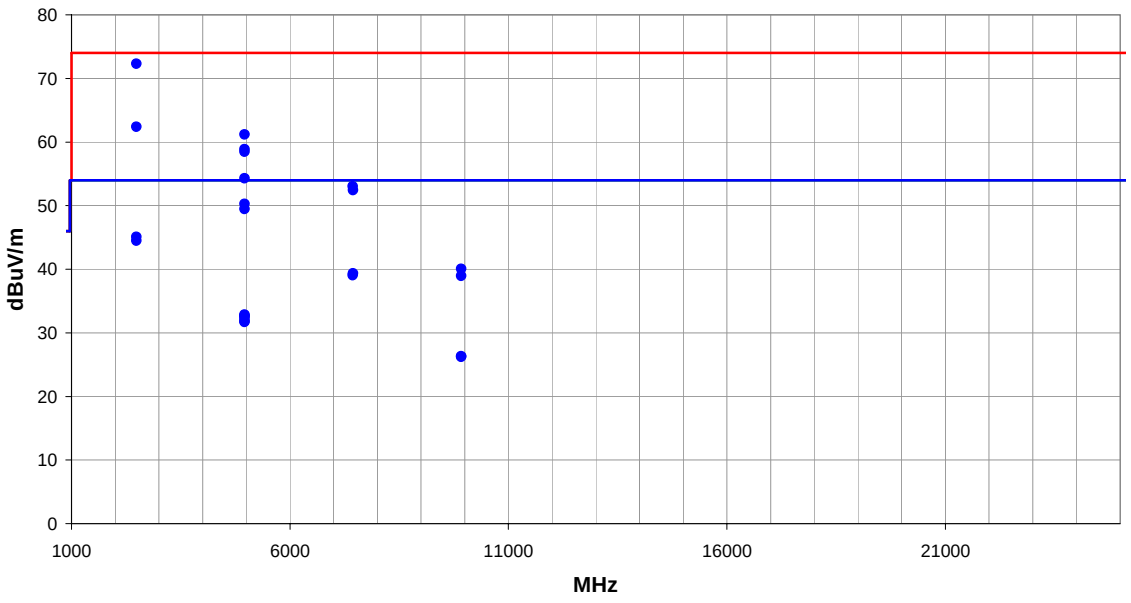
Spurious Radiated Emissions

PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/17/11	Trevor Buls	
Project:	None	**Temperature:**	23.82		
Job Site:	MN05	**Humidity:**	12.33		
Serial Number:	3A924315	**Barometric Pres.:**	1002	**Tested by:**	Trevor Buls
EUT:	Bridge Router, Model: SNbb1				
Configuration:	1 - SECF0002				
Customer:	Select Comfort Corporation				
Attendees:	Paul Mahoney				
EUT Power:	120VAC/60Hz				
Operating Mode:	Transmitting modulated signal at High channel 2480 MHz.				
Deviations:	None				
Comments:	None				

Test Specifications	**Test Method**
FCC 15.247:2011	ANSI C63.10:2009

Run #	1	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.625	56.7	-4.4	1.0	133.0	3.0	20.0	Horz	PK	0.0	72.3	74.0	-1.7	EUT Horizontal
2483.500	29.5	-4.4	1.0	133.0	3.0	20.0	Horz	AV	0.0	45.1	54.0	-8.9	EUT Horizontal
2483.508	28.9	-4.4	2.2	58.0	3.0	20.0	Vert	AV	0.0	44.5	54.0	-9.5	EUT Horizontal
2483.517	46.8	-4.4	2.2	58.0	3.0	20.0	Vert	PK	0.0	62.4	74.0	-11.6	EUT Horizontal
4960.959	57.0	4.2	1.0	72.0	3.0	0.0	Horz	PK	0.0	61.2	74.0	-12.8	EUT Horizontal
7441.320	27.1	12.2	1.0	93.0	3.0	0.0	Vert	AV	0.0	39.3	54.0	-14.7	EUT Horizontal
7441.229	26.8	12.2	1.0	232.0	3.0	0.0	Horz	AV	0.0	39.0	54.0	-15.0	EUT Horizontal
4958.959	54.7	4.2	1.0	95.0	3.0	0.0	Horz	PK	0.0	58.9	74.0	-15.1	EUT on Side
4958.993	54.3	4.2	1.0	293.0	3.0	0.0	Vert	PK	0.0	58.5	74.0	-15.5	EUT Vertical
4958.993	50.1	4.2	1.0	259.0	3.0	0.0	Horz	PK	0.0	54.3	74.0	-19.7	EUT Vertical
7439.037	40.8	12.2	1.0	93.0	3.0	0.0	Vert	PK	0.0	53.0	74.0	-21.0	EUT Horizontal
4960.118	28.7	4.2	1.0	72.0	3.0	0.0	Horz	AV	0.0	32.9	54.0	-21.1	EUT Horizontal
4960.818	28.4	4.2	1.0	95.0	3.0	0.0	Horz	AV	0.0	32.6	54.0	-21.4	EUT on Side
4959.993	28.4	4.2	1.0	293.0	3.0	0.0	Vert	AV	0.0	32.6	54.0	-21.4	EUT Vertical
7443.595	40.2	12.2	1.0	232.0	3.0	0.0	Horz	PK	0.0	52.4	74.0	-21.6	EUT Horizontal
4960.851	28.0	4.2	1.0	259.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	EUT Vertical
4960.834	27.6	4.2	1.0	198.0	3.0	0.0	Vert	AV	0.0	31.8	54.0	-22.2	EUT on Side
4960.834	27.5	4.2	1.6	197.0	3.0	0.0	Vert	AV	0.0	31.7	54.0	-22.3	EUT Horizontal
4961.168	46.1	4.2	1.0	198.0	3.0	0.0	Vert	PK	0.0	50.3	74.0	-23.7	EUT on Side
4959.368	45.3	4.2	1.6	197.0	3.0	0.0	Vert	PK	0.0	49.5	74.0	-24.5	EUT Horizontal
9917.917	35.1	-8.8	1.0	187.0	3.0	0.0	Vert	AV	0.0	26.3	54.0	-27.7	EUT Horizontal
9918.108	35.0	-8.8	1.0	259.0	3.0	0.0	Horz	AV	0.0	26.2	54.0	-27.8	EUT Horizontal
9920.292	48.8	-8.8	1.0	187.0	3.0	0.0	Vert	PK	0.0	40.0	74.0	-34.0	EUT Horizontal
9918.375	47.7	-8.8	1.0	259.0	3.0	0.0	Horz	PK	0.0	38.9	74.0	-35.1	EUT Horizontal

AC Powerline Conducted Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Transmitting modulated signal at High channel 2480 MHz. Pinging through LAN.
Transmitting modulated signal at Mid channel 2450 MHz. Pinging through LAN.
Transmitting modulated signal at Low channel 2405 MHz. Pinging through LAN.

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

SECF0002 - 3

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 20 dB	SM Electronics	SA01B-20	REF	1/3/2011	13 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	6/28/2010	13 mo
ISN adapter	Fischer Custom Communications	T8ALCL-1	NILA	7/9/2009	24 mo
ISN	Fischer Custom Communications	FCC-TLISN-T8-02-09	NIL	7/9/2009	24 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	8/3/2010	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	6/8/2010	13 mo
Receiver	Rohde & Schwarz	ESCI	ARF	3/30/2010	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10-2009.

NORTHWEST

EMC

AC Powerline Conducted Emissions

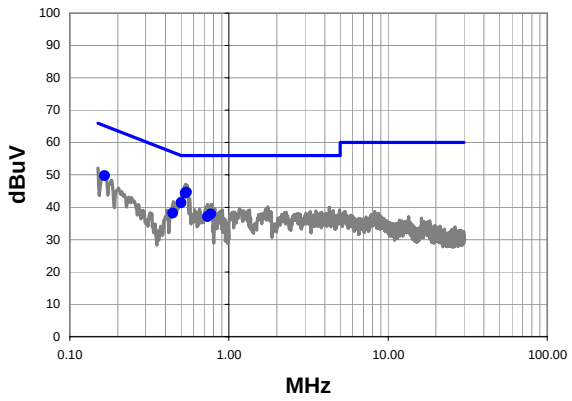
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls
Project:	None	**Temperature:**	23.52	
Job Site:	MN03	**Humidity:**	7.72	
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:** Trevor Buls
EUT:	Bridge Router, Model: SNbb1			
Configuration:	3 - SECF0002 - Longer Power Cable			
Customer:	Select Comfort Corporation			
Attendees:	Paul Mahoney			
EUT Power:	120VAC/60Hz			
Operating Mode:	Transmitting modulated signal at Low channel 2405 MHz. Pinging through LAN.			
Deviations:	None			
Comments:	None			

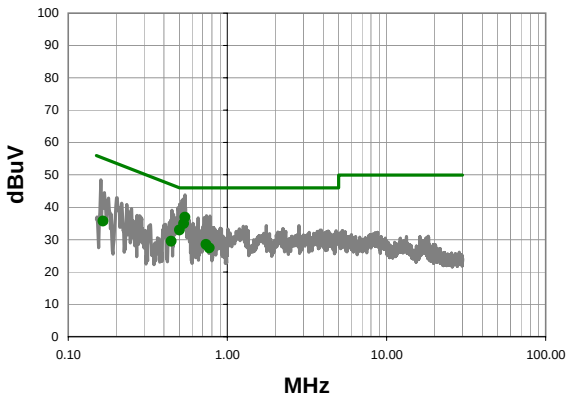
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	3	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.541	24.5	20.1	44.6	56.0	-11.4
0.531	24.2	20.1	44.3	56.0	-11.7
0.502	21.2	20.1	41.3	56.0	-14.7
0.166	29.7	20.1	49.8	65.2	-15.4
0.771	17.8	20.1	37.9	56.0	-18.1
0.444	18.1	20.1	38.2	57.0	-18.8
0.736	17.0	20.0	37.0	56.0	-19.0

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.541	16.8	20.1	36.9	46.0	-9.1
0.531	14.8	20.1	34.9	46.0	-11.1
0.502	12.8	20.1	32.9	46.0	-13.1
0.444	9.4	20.1	29.5	47.0	-17.5
0.736	8.4	20.0	28.4	46.0	-17.6
0.771	7.3	20.1	27.4	46.0	-18.6
0.166	15.6	20.1	35.7	55.2	-19.5

NORTHWEST

EMC

AC Powerline Conducted Emissions

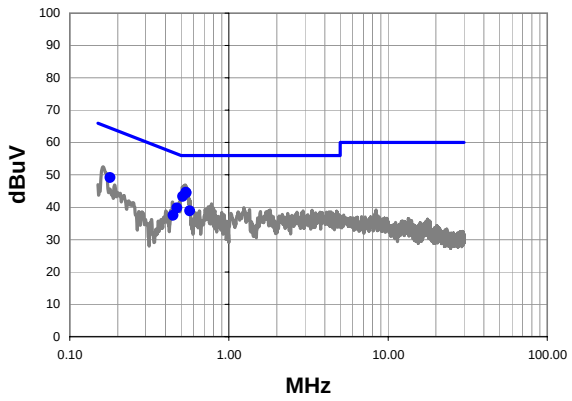
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls
Project:	None	**Temperature:**	23.52	
Job Site:	MN03	**Humidity:**	7.72	
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:** Trevor Buls
EUT:	Bridge Router, Model: SNbb1			
Configuration:	3 - SECF0002 - Longer Power Cable			
Customer:	Select Comfort Corporation			
Attendees:	Paul Mahoney			
EUT Power:	120VAC/60Hz			
Operating Mode:	Transmitting modulated signal at Low channel 2405 MHz. Pinging through LAN.			
Deviations:	None			
Comments:	None			

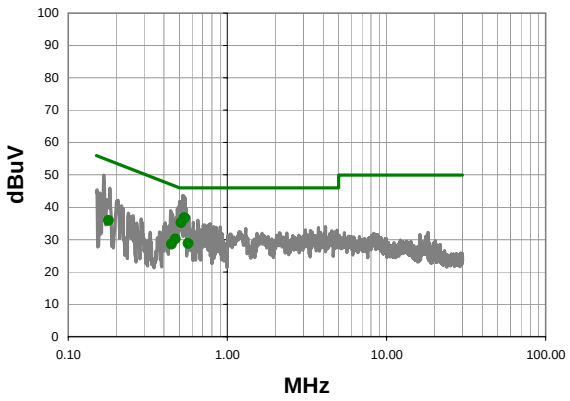
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	4	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.538	24.5	20.1	44.6	56.0	-11.4
0.540	24.3	20.1	44.4	56.0	-11.6
0.512	23.2	20.1	43.3	56.0	-12.7
0.179	29.1	20.1	49.2	64.5	-15.3
0.472	19.7	20.1	39.8	56.5	-16.7
0.568	18.8	20.1	38.9	56.0	-17.1
0.447	17.4	20.1	37.5	56.9	-19.4

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.540	16.6	20.1	36.7	46.0	-9.3
0.538	16.6	20.1	36.7	46.0	-9.3
0.512	15.1	20.1	35.2	46.0	-10.8
0.472	10.1	20.1	30.2	46.5	-16.3
0.568	8.7	20.1	28.8	46.0	-17.2
0.447	8.5	20.1	28.6	46.9	-18.3
0.179	15.8	20.1	35.9	54.5	-18.6

NORTHWEST

EMC

AC Powerline Conducted Emissions

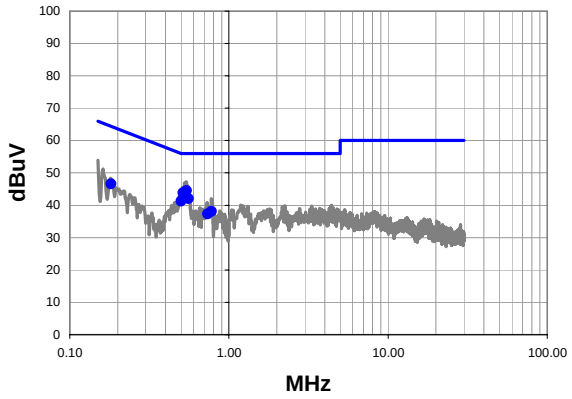
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls
Project:	None	**Temperature:**	23.52	
Job Site:	MN03	**Humidity:**	7.72	
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:** Trevor Buls
EUT:	Bridge Router, Model: SNbb1			
Configuration:	3 - SECF0002 - Longer Power Cable			
Customer:	Select Comfort Corporation			
Attendees:	Paul Mahoney			
EUT Power:	120VAC/60Hz			
Operating Mode:	Transmitting modulated signal at Mid channel 2450 MHz. Pinging through LAN.			
Deviations:	None			
Comments:	None			

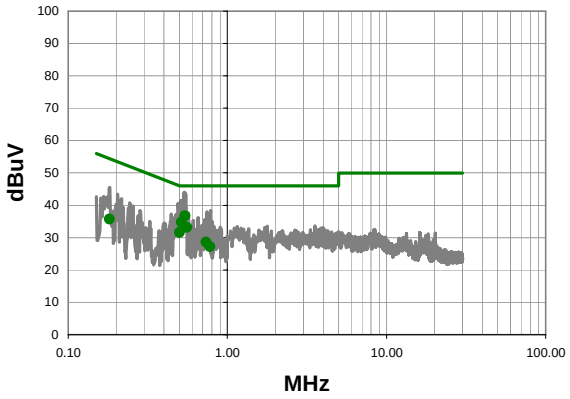
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	5	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.543	24.4	20.1	44.5	56.0	-11.5
0.516	23.7	20.1	43.8	56.0	-12.2
0.556	21.9	20.1	42.0	56.0	-14.0
0.502	21.1	20.1	41.2	56.0	-14.8
0.182	26.5	20.1	46.6	64.4	-17.8
0.776	18.0	20.1	38.1	56.0	-17.9
0.737	17.2	20.0	37.2	56.0	-18.8

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.543	16.6	20.1	36.7	46.0	-9.3
0.516	14.6	20.1	34.7	46.0	-11.3
0.556	13.0	20.1	33.1	46.0	-12.9
0.502	11.5	20.1	31.6	46.0	-14.4
0.737	8.5	20.0	28.5	46.0	-17.5
0.182	15.6	20.1	35.7	54.4	-18.7
0.776	7.1	20.1	27.2	46.0	-18.8

NORTHWEST

EMC

AC Powerline Conducted Emissions

PSA-ESCI 2010.04.06
Version 2010.3.17

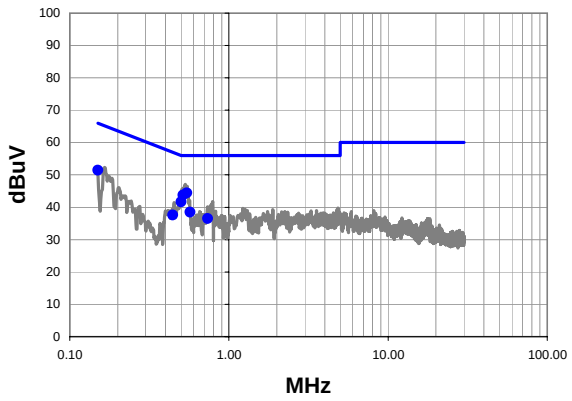
Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls
Project:	None	**Temperature:**	23.52	
Job Site:	MN03	**Humidity:**	7.72	
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:** Trevor Buls

EUT:	Bridge Router, Model: SNbb1
Configuration:	3 - SECF0002 - Longer Power Cable
Customer:	Select Comfort Corporation
Attendees:	Paul Mahoney
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting modulated signal at Mid channel 2450 MHz. Pinging through LAN.
Deviations:	None
Comments:	None

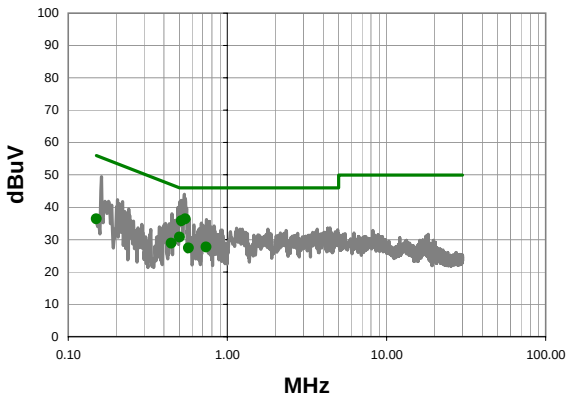
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	6	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.544	24.3	20.1	44.4	56.0	-11.6
0.516	23.6	20.1	43.7	56.0	-12.3
0.500	21.5	20.1	41.6	56.0	-14.4
0.150	31.3	20.1	51.4	66.0	-14.6
0.571	18.4	20.1	38.5	56.0	-17.5
0.445	17.5	20.1	37.6	57.0	-19.4
0.736	16.5	20.0	36.5	56.0	-19.5

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.544	16.3	20.1	36.4	46.0	-9.6
0.516	15.7	20.1	35.8	46.0	-10.2
0.500	10.7	20.1	30.8	46.0	-15.2
0.445	8.8	20.1	28.9	47.0	-18.1
0.736	7.6	20.0	27.6	46.0	-18.4
0.571	7.3	20.1	27.4	46.0	-18.6
0.150	16.3	20.1	36.4	56.0	-19.6

NORTHWEST

EMC

AC Powerline Conducted Emissions

PSA-ESCI 2010.04.06
Version 2010.3.17

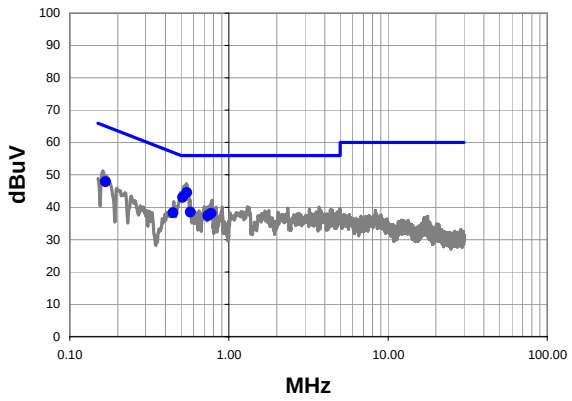
Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls	
Project:	None	**Temperature:**	23.52		
Job Site:	MN03	**Humidity:**	7.72		
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:**	Trevor Buls

EUT:	Bridge Router, Model: SNbb1
Configuration:	3 - SECF0002 - Longer Power Cable
Customer:	Select Comfort Corporation
Attendees:	Paul Mahoney
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting modulated signal at High channel 2480 MHz. Pinging through LAN.
Deviations:	None
Comments:	None

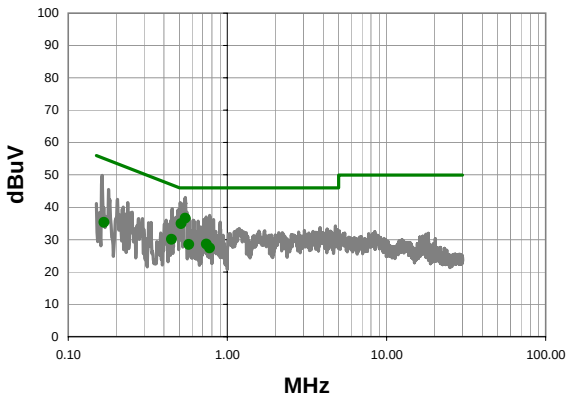
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	7	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.544	24.4	20.1	44.5	56.0	-11.5
0.513	22.9	20.1	43.0	56.0	-13.0
0.168	27.8	20.1	47.9	65.1	-17.2
0.573	18.4	20.1	38.5	56.0	-17.5
0.774	18.0	20.1	38.1	56.0	-17.9
0.447	18.2	20.1	38.3	56.9	-18.6
0.739	17.3	20.0	37.3	56.0	-18.7

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.544	16.5	20.1	36.6	46.0	-9.4
0.513	14.8	20.1	34.9	46.0	-11.1
0.447	10.0	20.1	30.1	46.9	-16.8
0.739	8.5	20.0	28.5	46.0	-17.5
0.573	8.4	20.1	28.5	46.0	-17.5
0.774	7.3	20.1	27.4	46.0	-18.6
0.168	15.2	20.1	35.3	55.1	-19.8

NORTHWEST

EMC

AC Powerline Conducted Emissions

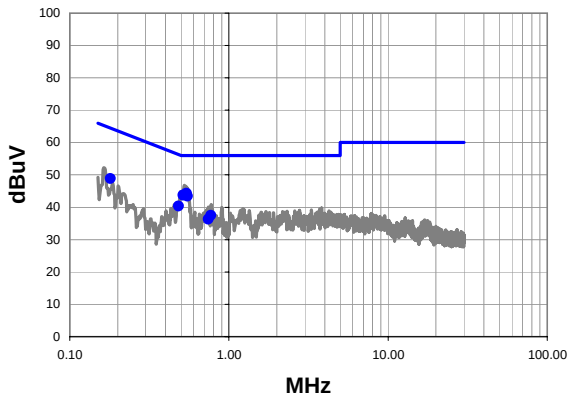
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	SECF0002	**Date:**	01/19/11	Trevor Buls	
Project:	None	**Temperature:**	23.52		
Job Site:	MN03	**Humidity:**	7.72		
Serial Number:	3A924315	**Barometric Pres.:**	1022.7	**Tested by:**	Trevor Buls
EUT:	Bridge Router, Model: SNbb1				
Configuration:	3 - SECF0002 - Longer Power Cable				
Customer:	Select Comfort Corporation				
Attendees:	Paul Mahoney				
EUT Power:	120VAC/60Hz				
Operating Mode:	Transmitting modulated signal at High channel 2480 MHz. Pinging through LAN.				
Deviations:	None				
Comments:	None				

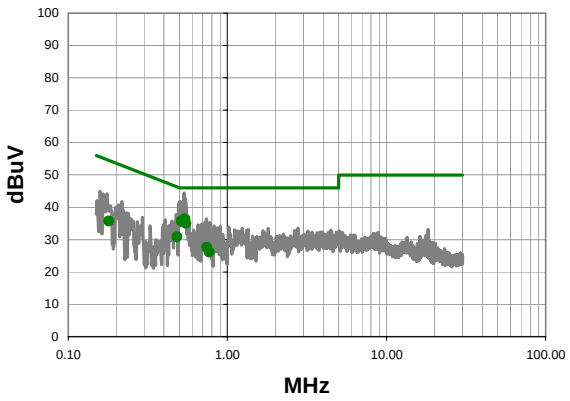
Test Specifications	**Test Method**
FCC 15.207:2011	ANSI C63.10:2009

Run #	8	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.542	24.2	20.1	44.3	56.0	-11.7
0.514	23.6	20.1	43.7	56.0	-12.3
0.549	23.3	20.1	43.4	56.0	-12.6
0.180	28.8	20.1	48.9	64.5	-15.6
0.482	20.3	20.1	40.4	56.3	-15.9
0.772	17.4	20.1	37.5	56.0	-18.5
0.742	16.3	20.0	36.3	56.0	-19.7

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.542	16.3	20.1	36.4	46.0	-9.6
0.514	15.6	20.1	35.7	46.0	-10.3
0.549	14.9	20.1	35.0	46.0	-11.0
0.482	10.8	20.1	30.9	46.3	-15.4
0.742	7.5	20.0	27.5	46.0	-18.5
0.180	15.6	20.1	35.7	54.5	-18.8
0.772	6.1	20.1	26.2	46.0	-19.8