



Select Comfort Corp
Adjustable Foundation Controller Board
FCC 15.247:2013
2.4 GHz DTS Radio
Report #: LGPD0118



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington

CERTIFICATE OF TEST

Last Date of Test: November 01, 2013
Select Comfort Corp
Model: Adjustable Foundation Controller Board

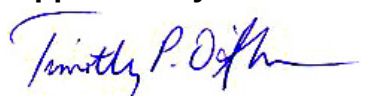
Emissions

Test Description	Specification	Test Method	Pass/Fail
Output Power	FCC 15.247:2013	ANSI C63.10:2009	Pass
Power Spectral Density	FCC 15.247:2013	ANSI C63.10:2009	Pass
Occupied Bandwidth	FCC 15.247:2013	ANSI C63.10:2009	Pass
Spurious Conducted Emissions	FCC 15.247:2013	ANSI C63.10:2009	Pass
Band Edge Compliance	FCC 15.247:2013	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.247:2013	ANSI C63.10:2009	Pass
Powerline Conducted Emissions	FCC 15.207:2013	ANSI C63.10:2009	Pass

Deviations From Test Standards

None

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 HISTORY

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

KCC / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Hong Kong

OFTA – Recognized by OFTA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

Russia

GOST – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards.

SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

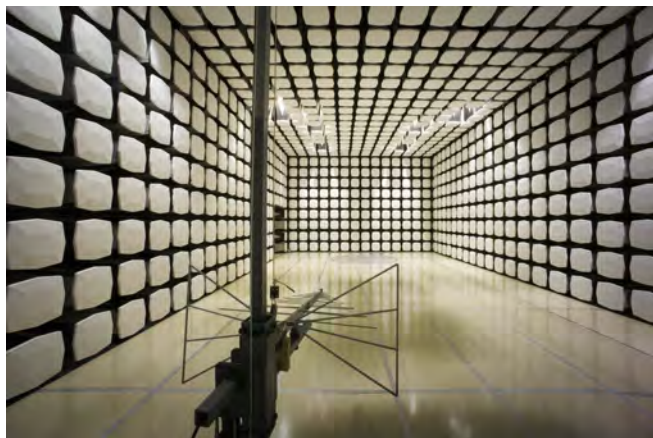
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	3.80	-3.80
AC Powerline Conducted Emissions (dB)	2.94	-2.94



Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Minnesota Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Washington Labs NC01-05, SU02, SU07 19201 120 th Ave. NE Bothell, WA 98011 (425) 984-6600
VCCI				
A-0108	A-0029		A-0109	A-0110
Industry Canada				
2834D-1, 2834D-2	2834B-1, 2834B-2, 2834B-3		2834E-1	2834C-1
NVLAP				
NVLAP Lab Code: 200630-0	NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200629-0



Client and Equipment Under Test (EUT) Information

Company Name:	Select Comfort Corp
Address:	9800 59 th Ave N
City, State, Zip:	Minneapolis, MN 55442
Test Requested By:	Rick Kinnunen
Model:	Adjustable Foundation Controller Board
First Date of Test:	October 18, 2013
Last Date of Test:	November 01, 2013
Receipt Date of Samples:	October 03, 2013
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Adjustable Foundation Controller Board with a 2.4 GHz radio with one antenna.
Testing Objective:
To demonstrate compliance to FCC 15.247 specifications as a DTS transceiver.

Configuration LGPD0118- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Bed	Select Comfort Corp	4AS573	None
Bed Controller	Select Comfort Corp	119003	Beta3 #7

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Air Pump	Select Comfort Corp	Corolla	None
Lamp (x2)	Room Essentials	Unknown	None
Night Light	AmerTac	71080LED	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power (lamps, x2)	No	1.80m	No	Lamp	Bed Controller
AC Power (air pump)	No	1.80m	No	Air Pump	Bed Controller
AC Power (night light)	No	1.80m	No	Night Light	Bed Controller
AC Power (controller)	No	1.80m	No	AC Mains	Bed Controller
Motor Control	No	1.80m	No	Bed	Bed Controller
Motor Control	No	1.80m	No	Bed	Bed Controller
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Configuration LGPD0118- 3

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Bed Controller	Select Comfort Corp	119003	Beta3 #7

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Air Pump	Select Comfort Corp	Corolla	None
Lamp (x2)	Room Essentials	Unknown	None
Night Light	AmerTac	71080LED	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power (lamps, x2)	No	1.80m	No	Lamp	Bed Controller
AC Power (air pump)	No	1.80m	No	Air Pump	Bed Controller
AC Power (night light)	No	1.80m	No	Night Light	Bed Controller
AC Power (controller)	No	1.80m	No	AC Mains	Bed Controller
Motor Control	No	1.80m	No	Bed	Bed Controller
Motor Control	No	1.80m	No	Bed	Bed Controller
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Configuration LGPD0118- 4

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Bed Controller	Select Comfort Corp	119003	Beta3 #4

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power (controller)	No	1.80m	No	AC Mains	Bed Controller
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	10/18/2013	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.
2	10/18/2013	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.
3	10/18/2013	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.
4	10/18/2013	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.
5	10/18/2013	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.
6	10/18/2013	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	11/1/2013	Powerline Conducted Emissions	Tested as delivered to Test Station.	EMI filter Schaffner FN9233B-10-06. Modification approved by Maxine Chen at Select Comfort Corp.	Scheduled testing was completed.



DUTY CYCLE

TEST DESCRIPTION

The Duty Cycle (x) were measured for each of the EUT operating modes. The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

The EUT operates at 100% Duty Cycle.

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	9/26/2013	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/12/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Method Option 1 found in KDB 558074 DTS D01 Measurement Section 8.1.1 was used because the RBW on the analyzer was greater than the Emission Bandwidth of the radio.

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



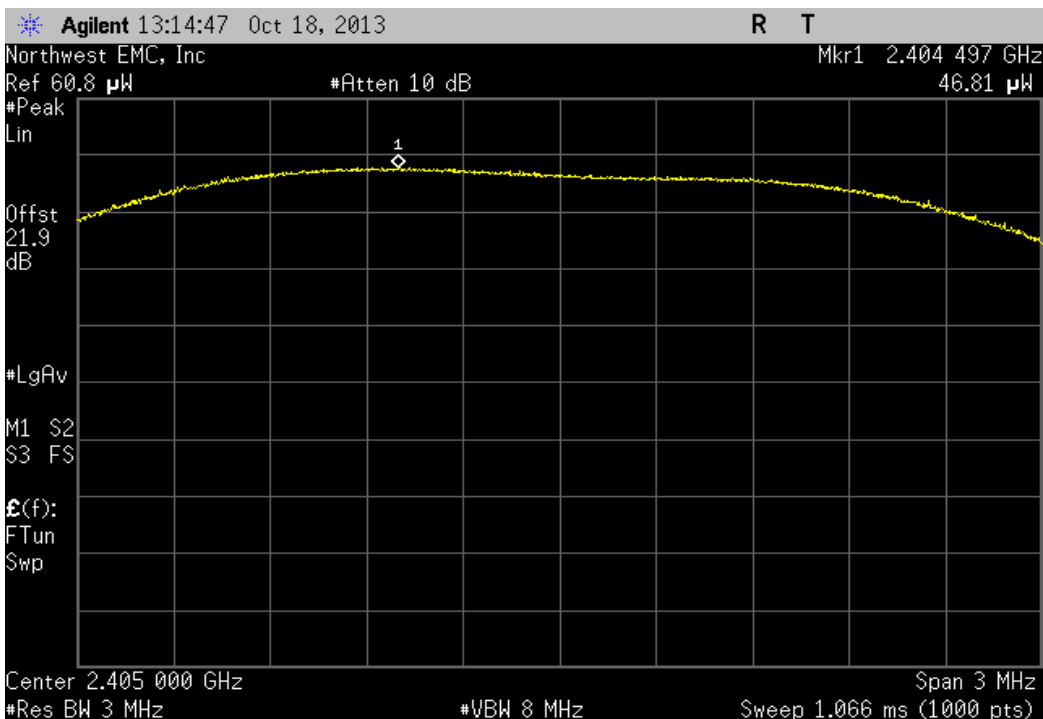
Output Power

XMit 2013.08.15
PsaTx 2013.08.16

EUT: Adjustable Foundation Controller Board		Work Order: LGPD0118	
Serial Number: Beta3 #4		Date: 10/18/13	
Customer: Select Comfort Corp		Temperature: 25.5°C	
Attendees: Michael Bendzick		Humidity: 27%	
Project: None		Barometric Pres.: 1014.5	
Tested by: Johnathan Lee		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2013		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4	Signature 	
		Value	Limit
2400 MHz - 2483.5 MHz Band			Result
Low Channel 0, 2405 MHz		46.806 uW	< 1 W
Mid Channel 9, 2450 MHz		25.71 uW	< 1 W
High Channel 15, 2480 MHz		14.138 uW	< 1 W

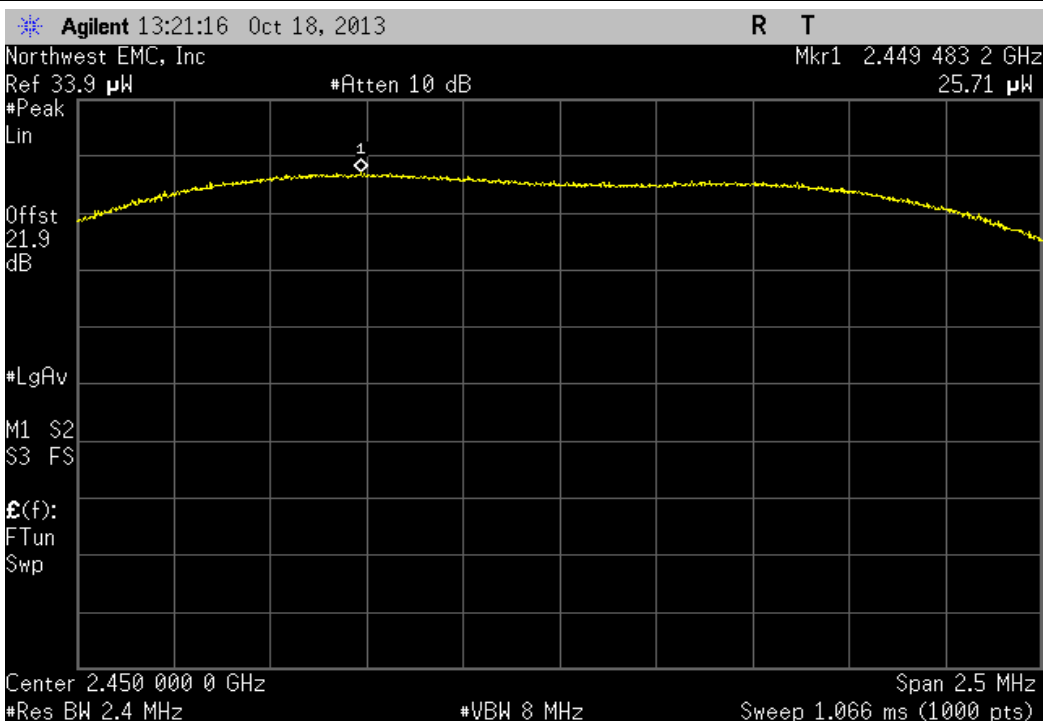
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz

Value	Limit	Result
46.806 uW	< 1 W	Pass



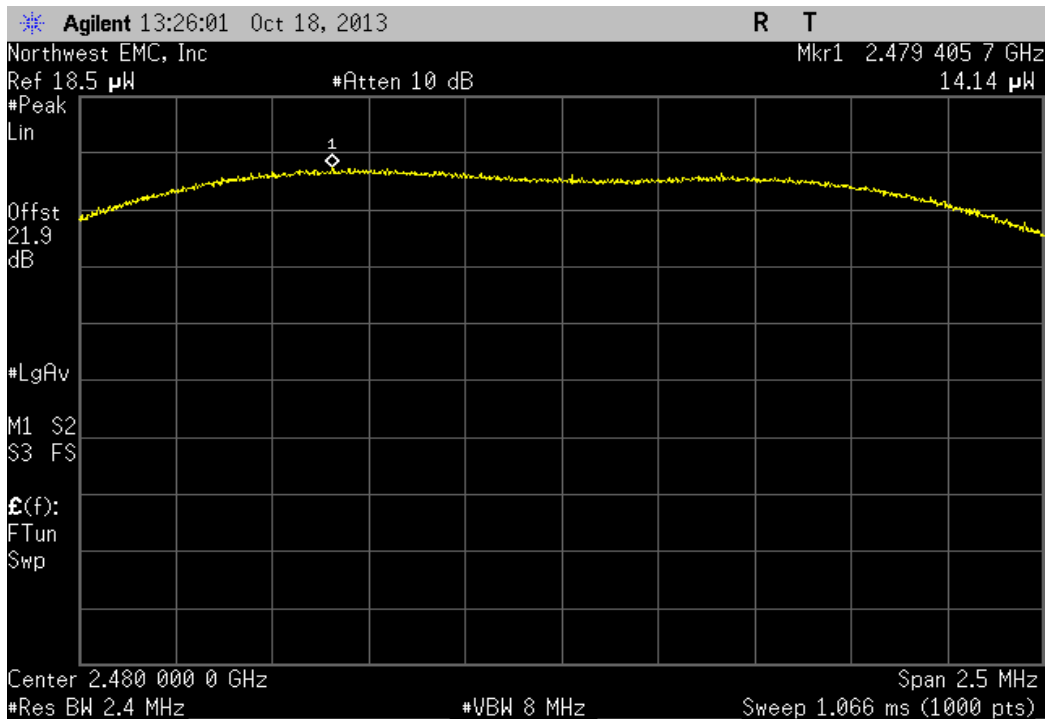
2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz

Value	Limit	Result
25.71 uW	< 1 W	Pass



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz

Value	Limit	Result
14.138 uW	< 1 W	Pass



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
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/12/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The maximum power spectral density measurements were measured with the EUT set to the required transmit frequencies in each band. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the lowest, middle, and maximum data rate for each modulation type available.

Per the procedure outlined in FCC KDB 558074 D01 DTS Measurement Section 5.3.1, the spectrum analyzer was used as follows:

- RBW = 100 kHz
- VBW = 300 kHz
- Detector = Peak (to match method used for power measurement)
- Trace = Max hold

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

$$BWCF = 10 \cdot \log(3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

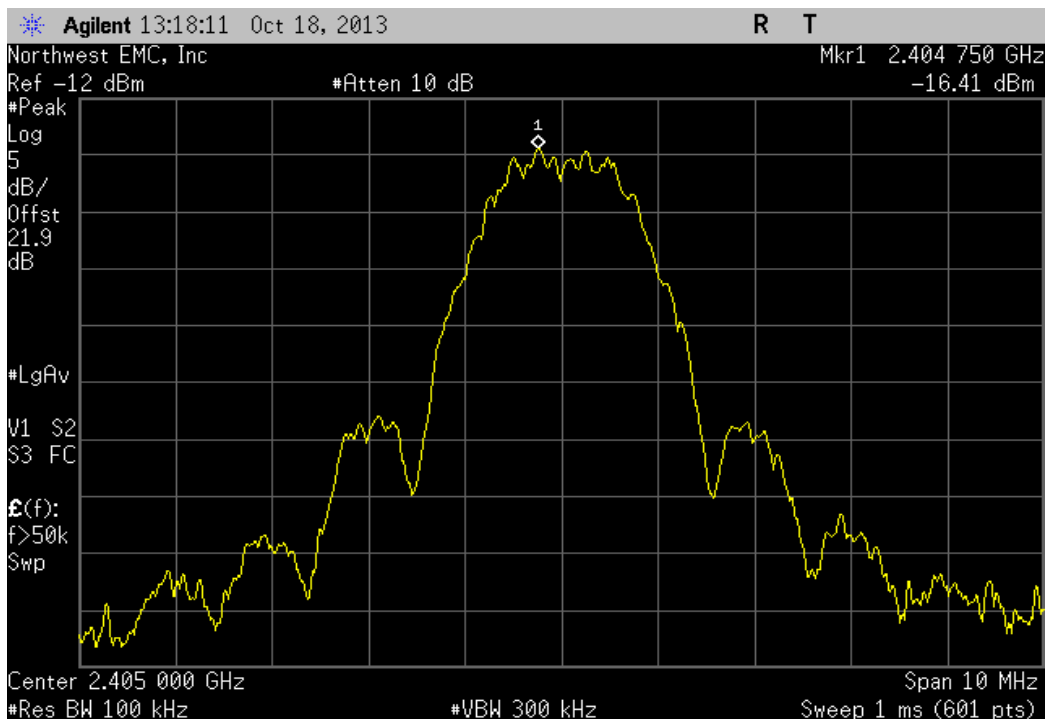


Power Spectral Density

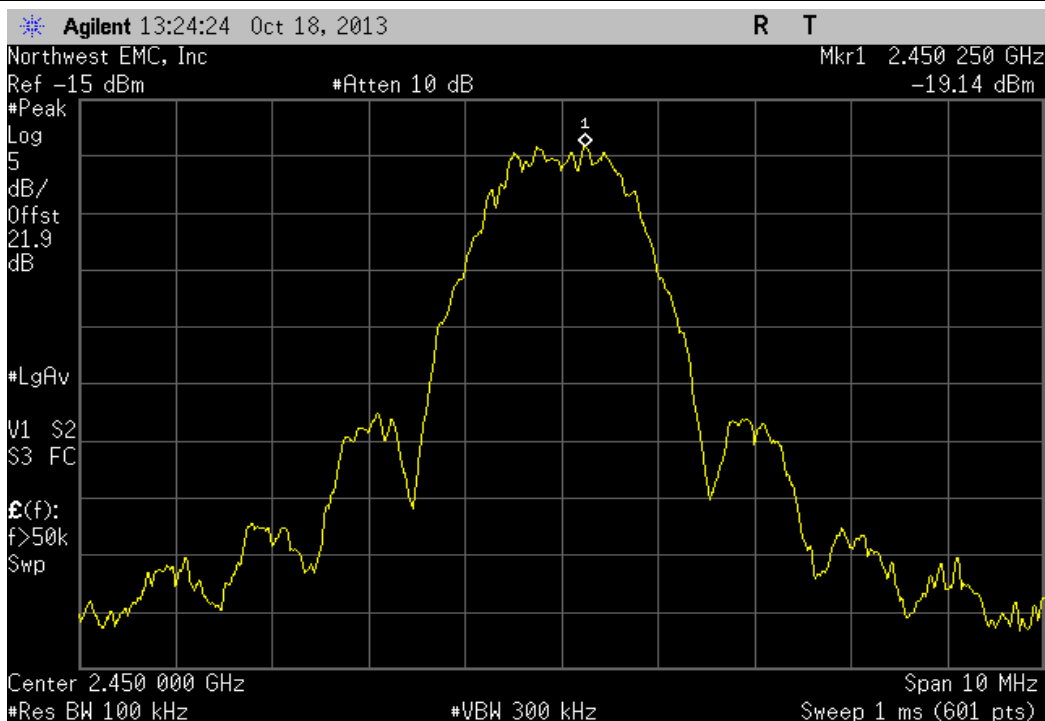
XMit 2013.08.15
PsaTx 2013.08.16

EUT: Adjustable Foundation Controller Board		Work Order: LGPD0118				
Serial Number: Beta3 #4		Date: 10/18/13				
Customer: Select Comfort Corp		Temperature: 25.5°C				
Attendees: Michael Bendzick		Humidity: 27%				
Project: None		Barometric Pres.: 1014.5				
Tested by: Johnathan Lee		Power: 110VAC/60Hz				
		Job Site: MN08				
TEST SPECIFICATIONS		Test Method				
FCC 15.247:2013		ANSI C63.10:2009				
COMMENTS						
None						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	4	Signature 				
		Value dBm/100kHz	dBm/100kHz To dBm/3kHz	Value dBm/3kHz	Limit dBm/3kHz	Result
2400 MHz - 2483.5 MHz Band						
Low Channel 0, 2405 MHz		-16.409	-15.2	-31.609	8	Pass
Mid Channel 9, 2450 MHz		-19.138	-15.2	-34.338	8	Pass
High Channel 15, 2480 MHz		-21.391	-15.2	-36.591	8	Pass

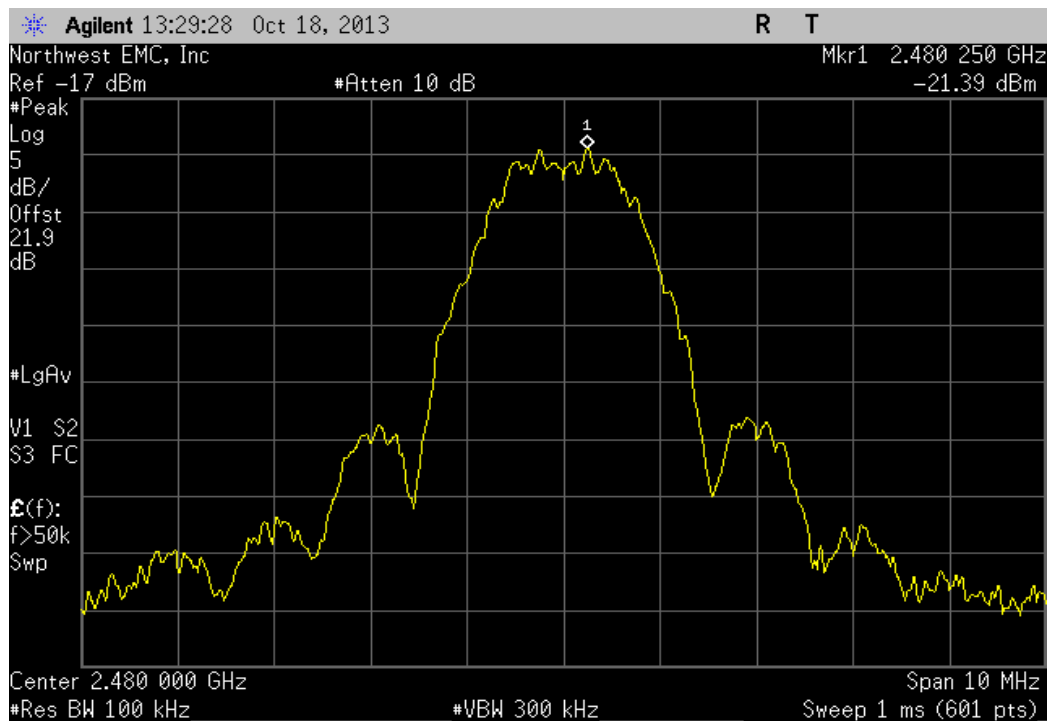
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Result	
	-16.409	-15.2	-31.609	8	Pass	



2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Result	
	-19.138	-15.2	-34.338	8	Pass	



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Result	
	-21.391	-15.2	-36.591	8	Pass	



Occupied Bandwidth

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	9/26/2013	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/12/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The 6dB occupied bandwidth was measured. The 26 dB (99.9%) emission bandwidth (EBW) was also measured at the same time.

The EUT was set to low, medium and high transmit frequencies. The measurement was made in a radiated configuration in a semi-anechoic chamber with the fundamental of the carrier full maximized for its highest radiated power. The EUT was transmitting at the data rate(s) listed in the datasheet.



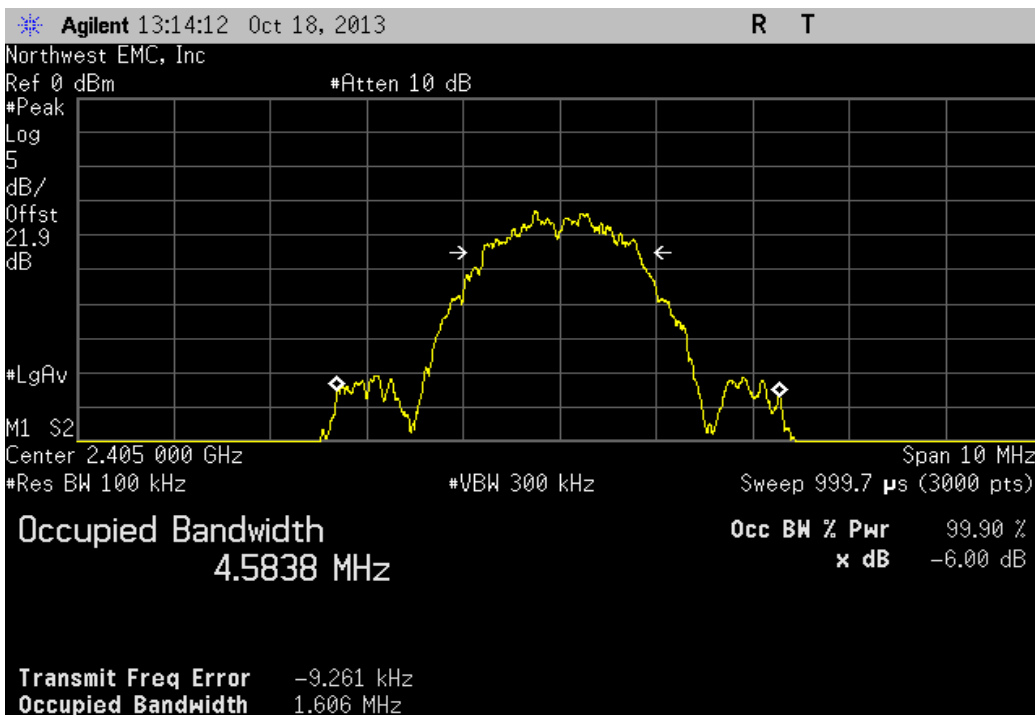
Occupied Bandwidth

XMit 2013.08.15
PsaTx 2013.08.16

EUT: Adjustable Foundation Controller Board		Work Order: LGPD0118	
Serial Number: Beta3 #4		Date: 10/18/13	
Customer: Select Comfort Corp		Temperature: 25.5°C	
Attendees: Michael Bendzick		Humidity: 27%	
Project: None		Barometric Pres.: 1014.5	
Tested by: Johnathan Lee		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2013		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4	Signature 	
		Value	Limit
2400 MHz - 2483.5 MHz Band			Result
Low Channel 0, 2405 MHz		1.606 MHz	> 500 kHz
Mid Channel 9, 2450 MHz		1.565 MHz	> 500 kHz
High Channel 15, 2480 MHz		1.565 MHz	> 500 kHz
			Pass
			Pass
			Pass

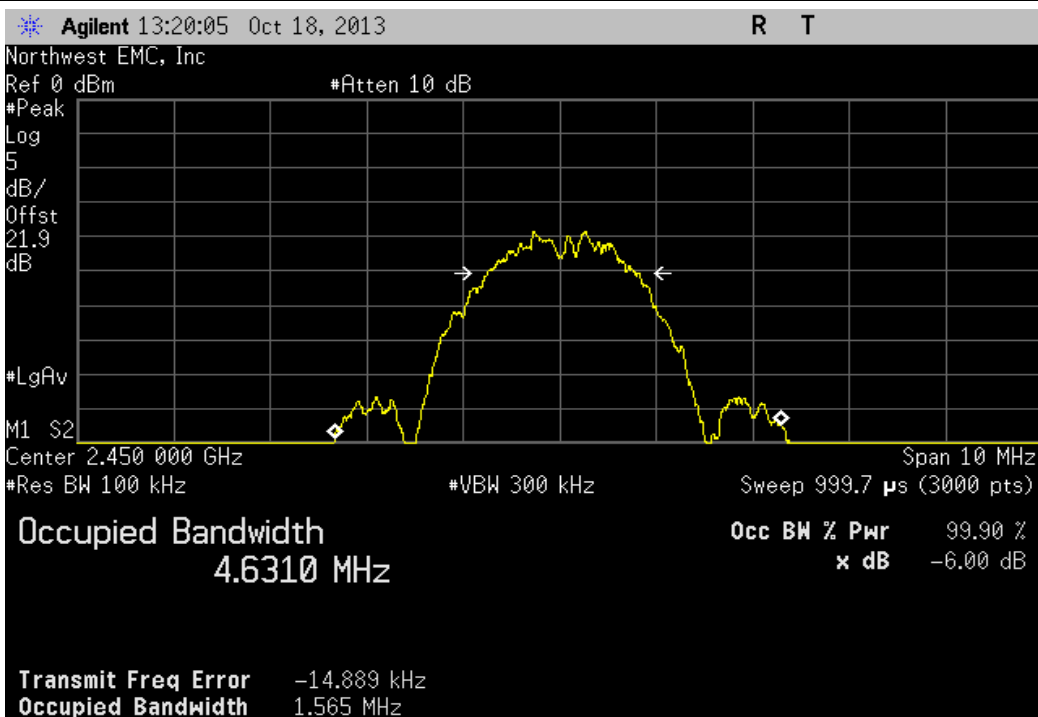
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz

Value	Limit	Result
1.606 MHz	> 500 kHz	Pass



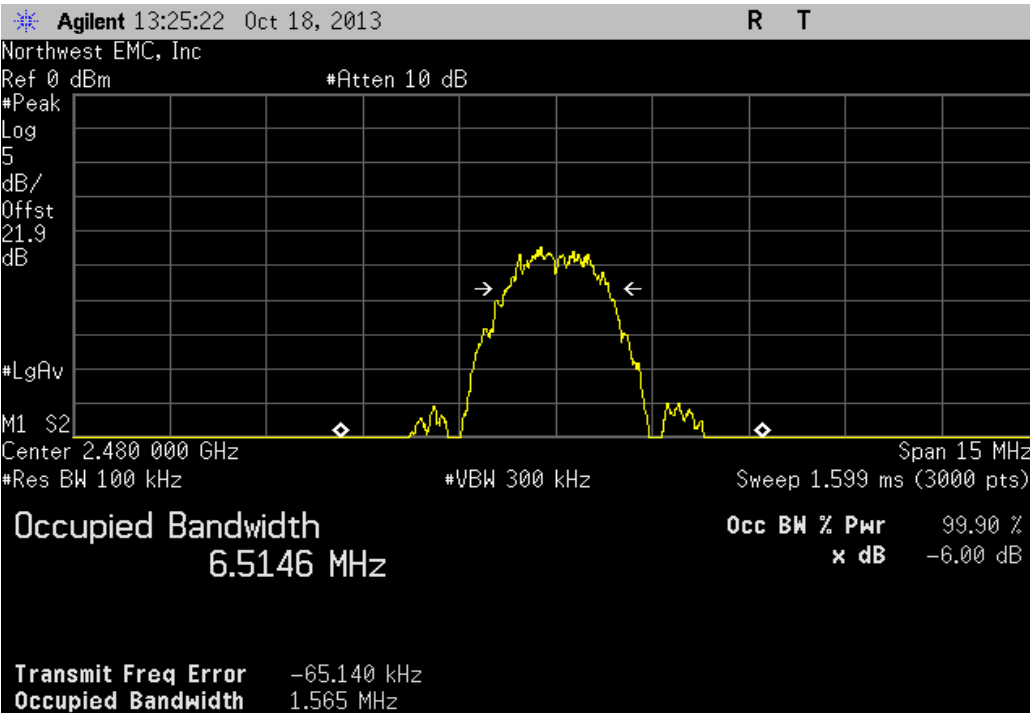
2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz

Value	Limit	Result
1.565 MHz	> 500 kHz	Pass



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz

Value	Limit	Result
1.565 MHz	> 500 kHz	Pass



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
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/12/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

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 the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

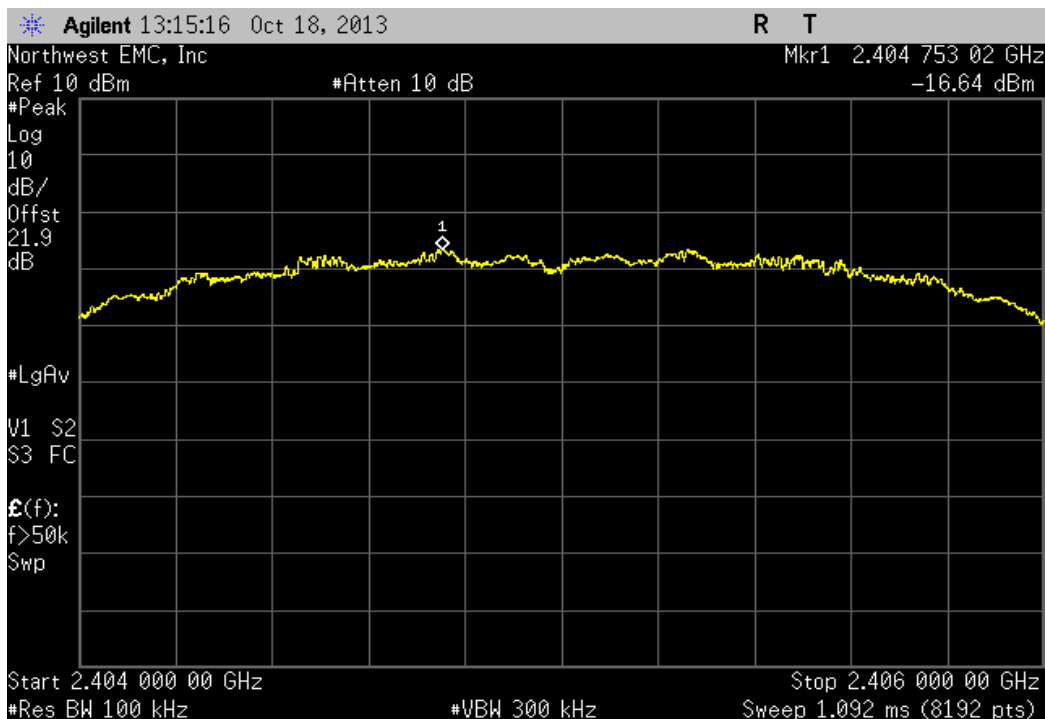


Spurious Conducted Emissions

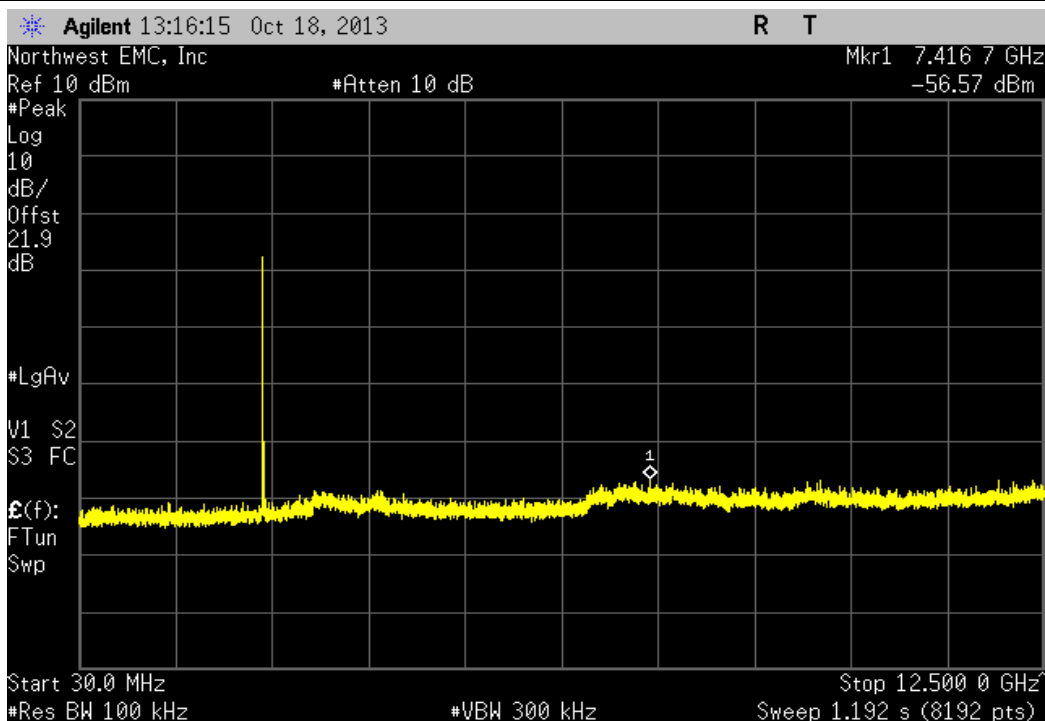
XMit 2013.08.15
PsaTx 2013.08.16

EUT: Adjustable Foundation Controller Board		Work Order: LGPD0118			
Serial Number: Beta3 #4		Date: 10/18/13			
Customer: Select Comfort Corp		Temperature: 25.5°C			
Attendees: Michael Bendzick		Humidity: 27%			
Project: None		Barometric Pres.: 1014.5			
Tested by: Johnathan Lee		Power: 110VAC/60Hz			
		Job Site: MN08			
TEST SPECIFICATIONS		Test Method			
FCC 15.247:2013		ANSI C63.10:2009			
COMMENTS					
None					
DEVIATIONS FROM TEST STANDARD					
None					
Configuration #	4	Signature 			
		Frequency Range	Value	Limit	Result
2400 MHz - 2483.5 MHz Band					
Low Channel 0, 2405 MHz		Fundamental	N/A	N/A	N/A
Low Channel 0, 2405 MHz		30 MHz - 12.5 GHz	-39.93 dBc	≤ -20 dBc	Pass
Low Channel 0, 2405 MHz		12.5 GHz - 25 GHz	-35.75 dBc	≤ -20 dBc	Pass
Mid Channel 9, 2450 MHz		Fundamental	N/A	N/A	N/A
Mid Channel 9, 2450 MHz		30 MHz - 12.5 GHz	-37.76 dBc	≤ -20 dBc	Pass
Mid Channel 9, 2450 MHz		12.5 GHz - 25 GHz	-33.1 dBc	≤ -20 dBc	Pass
High Channel 15, 2480 MHz		Fundamental	N/A	N/A	N/A
High Channel 15, 2480 MHz		30 MHz - 12.5 GHz	-34.97 dBc	≤ -20 dBc	Pass
High Channel 15, 2480 MHz		12.5 GHz - 25 GHz	-30.94 dBc	≤ -20 dBc	Pass

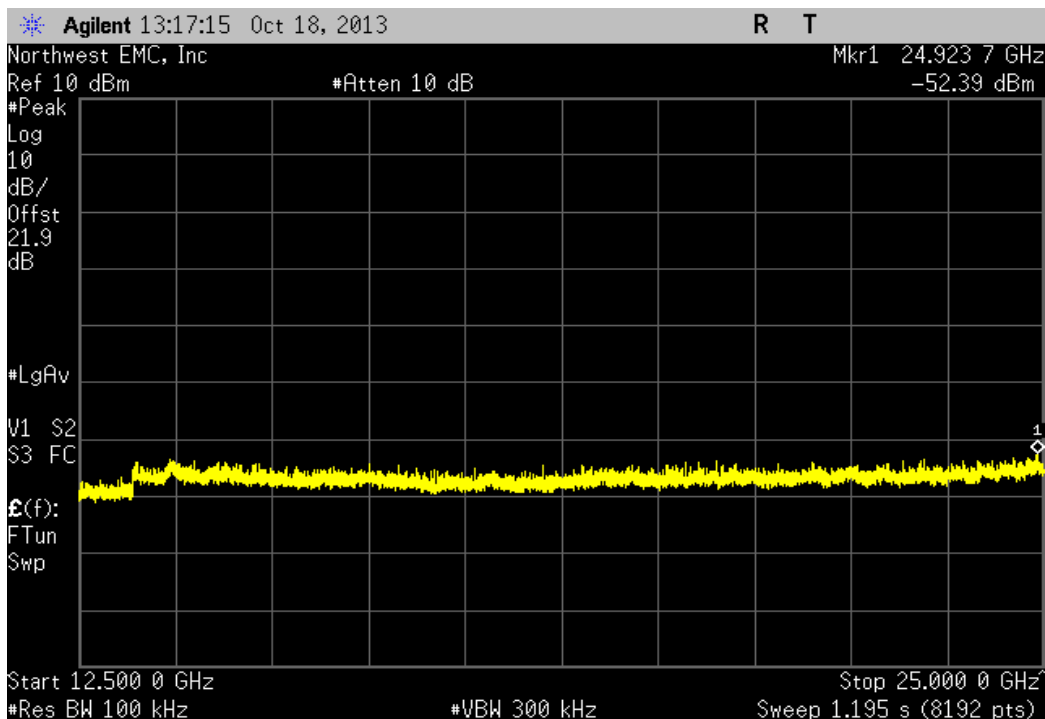
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz				
Frequency Range		Value	Limit	Result
Fundamental		N/A	N/A	N/A



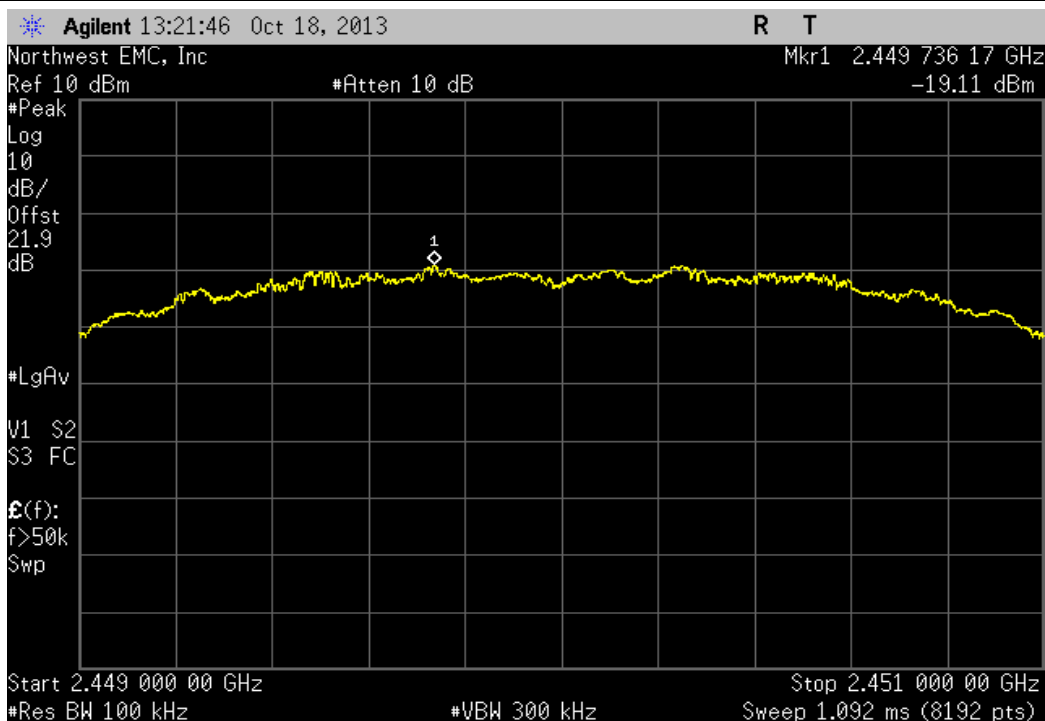
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz				
Frequency Range		Value	Limit	Result
30 MHz - 12.5 GHz		-39.93 dBc	≤ -20 dBc	Pass



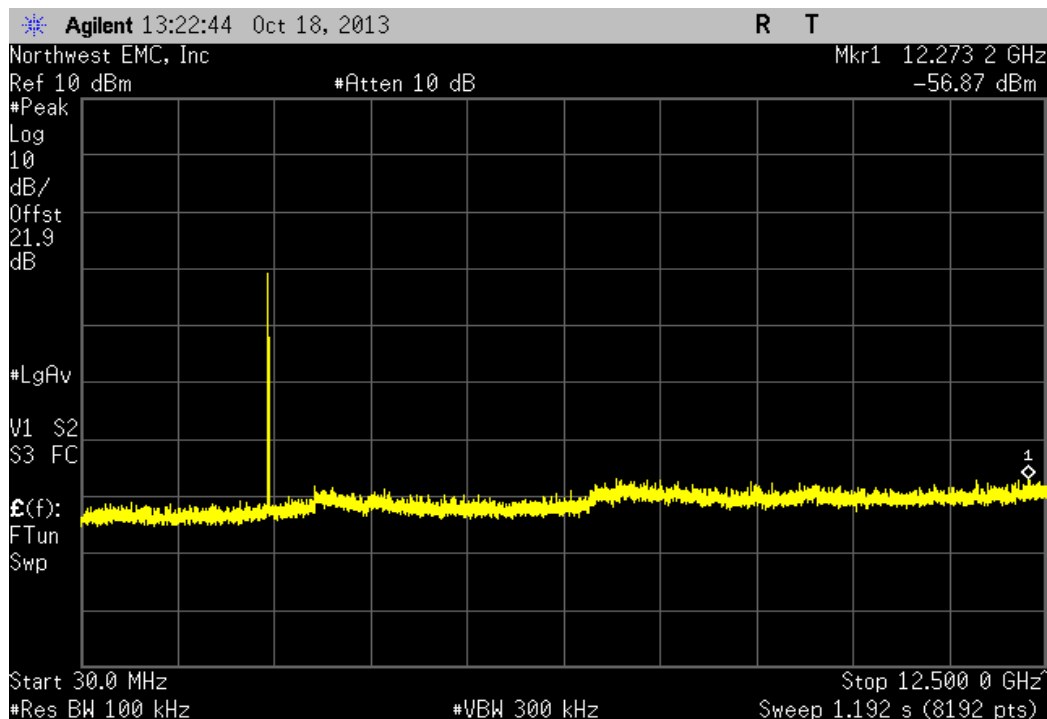
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-35.75 dBc	≤ -20 dBc	Pass	



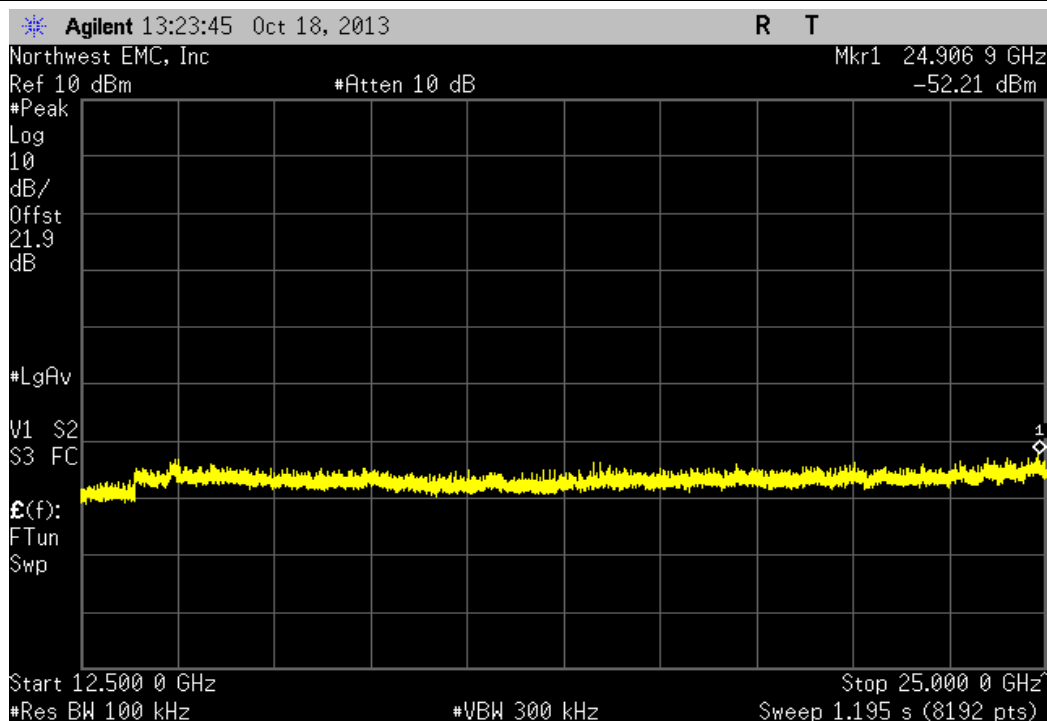
2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz				
Frequency Range	Value	Limit	Result	
Fundamental	N/A	N/A	N/A	



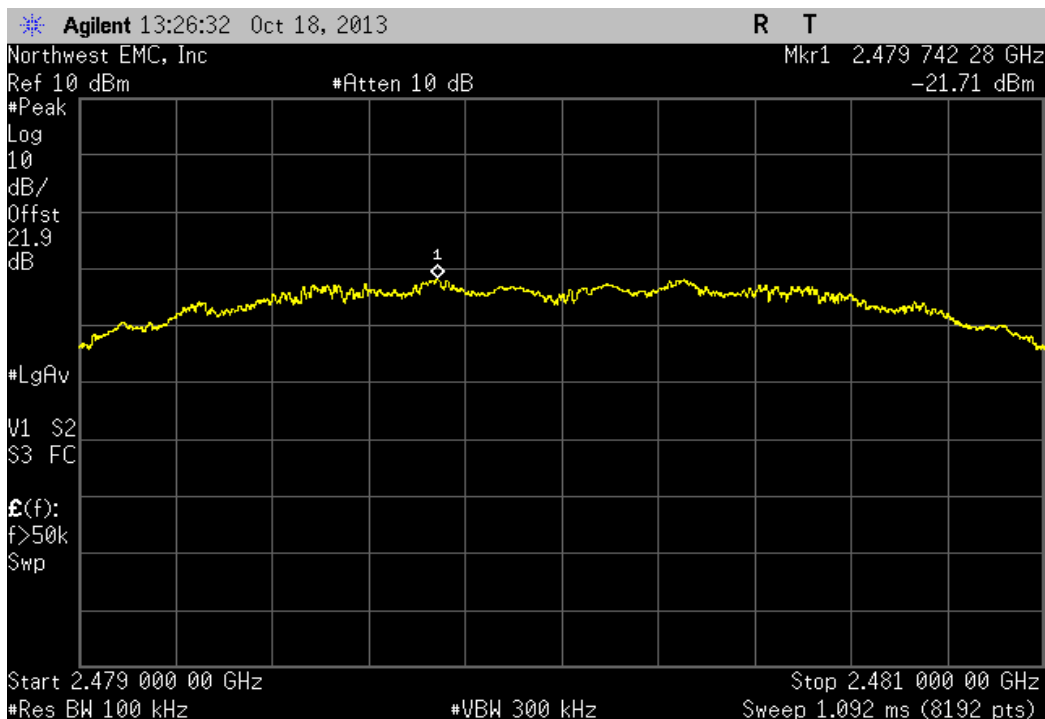
2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-37.76 dBc	≤ -20 dBc	Pass	



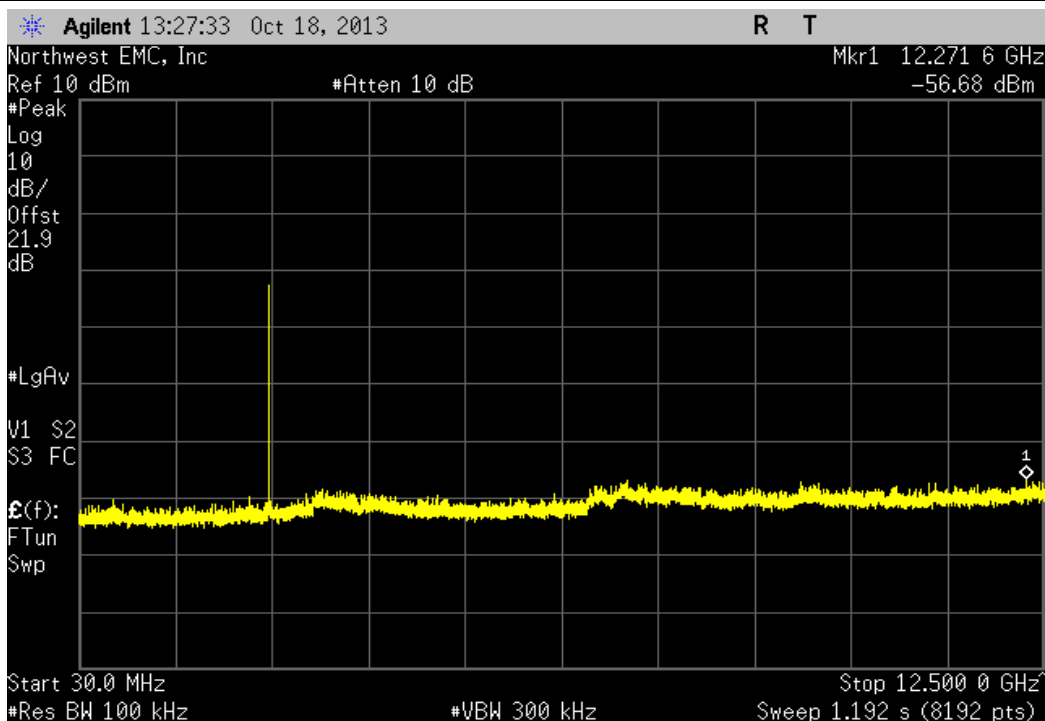
2400 MHz - 2483.5 MHz Band, Mid Channel 9, 2450 MHz				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-33.1 dBc	≤ -20 dBc	Pass	



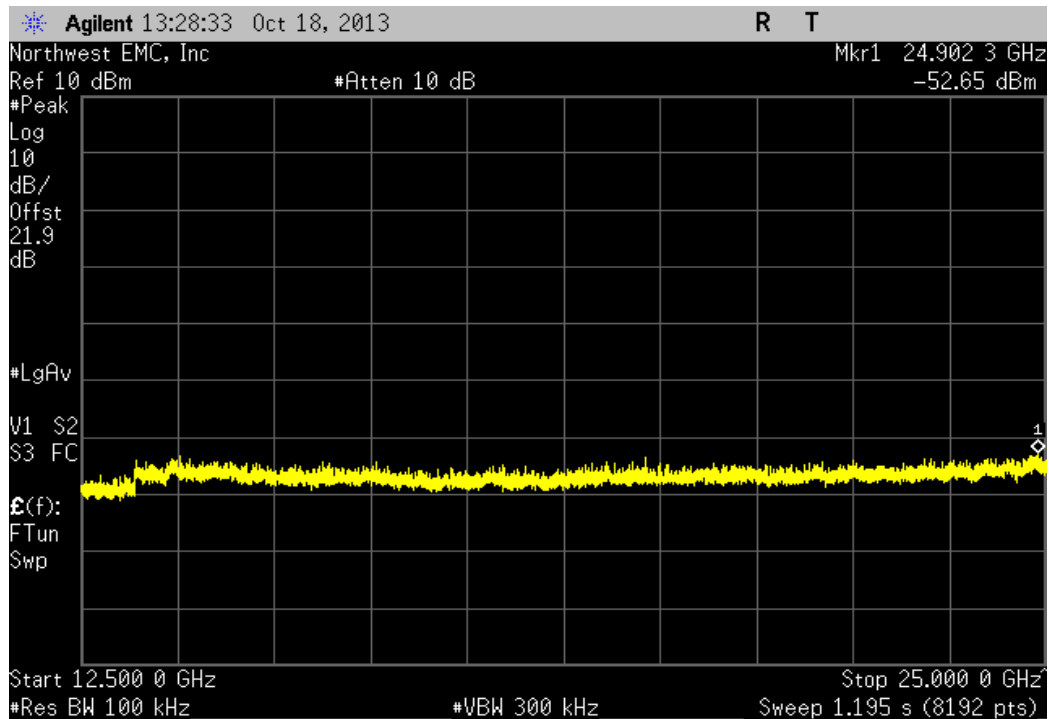
2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz						
Frequency Range		Value	Limit	Result		
Fundamental		N/A	N/A	N/A		



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz						
Frequency Range		Value	Limit	Result		
30 MHz - 12.5 GHz		-34.97 dBc	≤ -20 dBc	Pass		



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-30.94 dBc	≤ -20 dBc	Pass	



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	9/26/2013	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/12/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

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 the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.



Band Edge Compliance

XMit 2013.08.15
PsaTx 2013.08.16

EUT: Adjustable Foundation Controller Board		Work Order: LGPD0118
Serial Number: Beta3 #4		Date: 10/18/13
Customer: Select Comfort Corp		Temperature: 25.5°C
Attendees: Michael Bendzick		Humidity: 27%
Project: None		Barometric Pres.: 1014.5
Tested by: Johnathan Lee		Power: 110VAC/60Hz
		Job Site: MN08
TEST SPECIFICATIONS		
FCC 15.247:2013		Test Method
		ANSI C63.10:2009
COMMENTS		
None		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	4	Signature 
2400 MHz - 2483.5 MHz Band		
Low Channel 0, 2405 MHz		-40.53 dBc ≤ -20 dBc Pass
High Channel 15, 2480 MHz		-36.61 dBc ≤ -20 dBc Pass

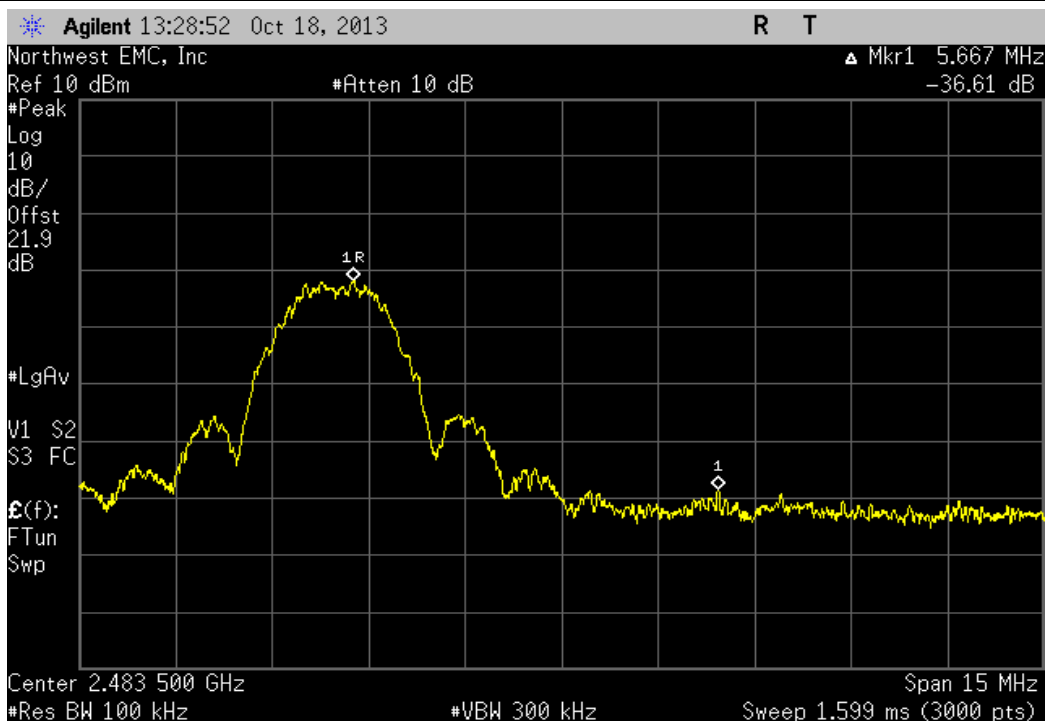
2400 MHz - 2483.5 MHz Band, Low Channel 0, 2405 MHz

Value	Limit	Result
-40.53 dBc	≤ -20 dBc	Pass



2400 MHz - 2483.5 MHz Band, High Channel 15, 2480 MHz

Value	Limit	Result
-36.61 dBc	≤ -20 dBc	Pass



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 Low, Mid, High channels: 2405 MHz, 2450 MHz, 2480 MHz. Transmit power B8

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

LGPD0118 - 3

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26000 MHz
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SAMPLE CALCULATIONS

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

TEST EQUIPMENT

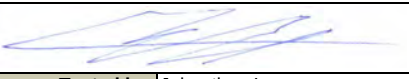
Description	Manufacturer	Model	ID	Last Cal.	Interval
Low Pass Filter	Micro-Tronics	LPM50004	HGK	5/31/2012	24 mo
High Pass Filter	Micro-Tronics	HPM50111	HGQ	6/1/2012	24 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	5/20/2013	12 mo
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	9/26/2013	12 mo
MN05 Cables	N/A	18-26GHz Standard Gain Horn Cable	MNP	9/26/2013	12 mo
Antenna, Horn	ETS	3160-09	AHG	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	7/25/2013	12 mo
Antenna, Horn	ETS Lindgren	3160-08	AIQ	NCR	0 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	8/12/2013	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	5/20/2013	12 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	5/20/2013	12 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	8/12/2013	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	6/29/2011	36 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	5/20/2013	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/20/2013	12 mo
Antenna, Bilog	Teseq	CBL 6141B	AYD	12/17/2012	12 mo
Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2013	24 mo
Comb Generator Emitter	ARC Technical Resources, Inc.	CGE01KIT01	TUC	NCR	0 mo
Comb Generator Radiated	KJR Enterprises	Harmonics	TCT	NCR	0 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

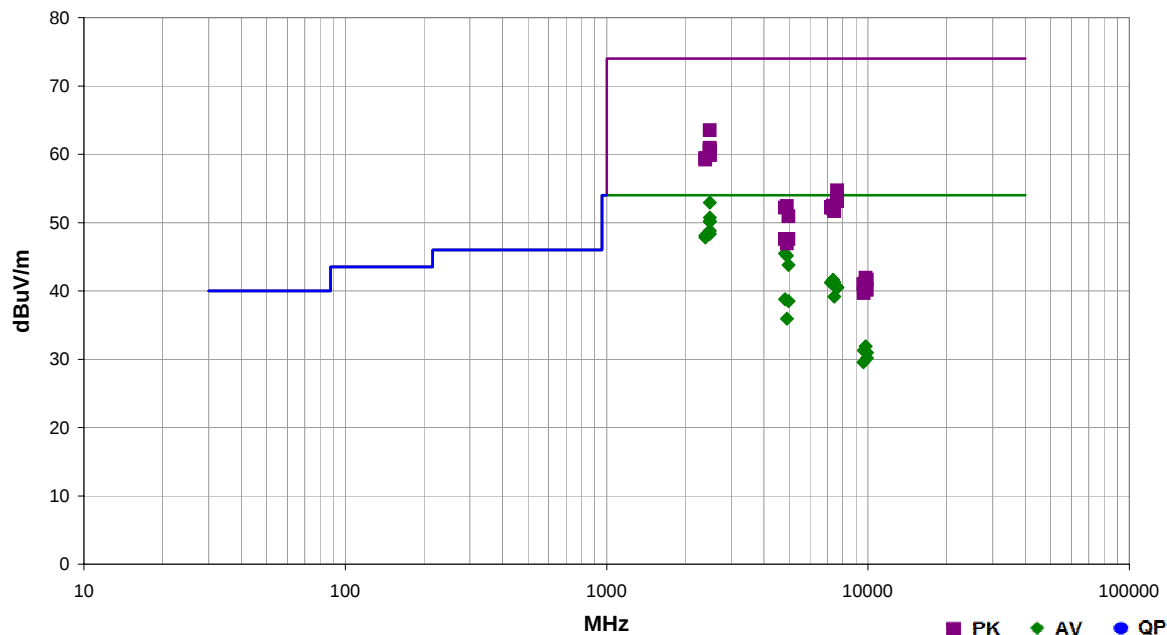
TEST DESCRIPTION

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. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Work Order:	LGPD0118	Date:	10/18/13	
Project:	None	Temperature:	22.2 °C	
Job Site:	MN05	Humidity:	34.3% RH	
Serial Number:	Beta3 #7	Barometric Pres.:	1013.8 mbar	
EUT: Adjustable Foundation Controller Board				Tested by: Johnathan Lee
Configuration:	3			
Customer:	Select Comfort Corp			
Attendees:	Michael Bendzick			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting Low, Mid, High channels: 2405 MHz, 2450 MHz, 2480 MHz. Transmit power B8			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 15.247:2013	ANSI C63.10:2009

Run #	13	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
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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
2483.500	35.6	-2.7	1.0	105.0	3.0	20.0	Vert	AV	0.0	52.9	54.0	-1.1	EUT On Side, High Ch
2483.508	33.4	-2.7	1.0	15.0	3.0	20.0	Vert	AV	0.0	50.7	54.0	-3.3	EUT Horizontal, High Ch
2483.525	32.9	-2.7	2.5	16.0	3.0	20.0	Horz	AV	0.0	50.2	54.0	-3.8	EUT Vertical, High Ch
2483.500	32.8	-2.7	1.0	182.0	3.0	20.0	Horz	AV	0.0	50.1	54.0	-3.9	EUT On Side, High Ch
2483.575	31.5	-2.7	1.0	142.0	3.0	20.0	Vert	AV	0.0	48.8	54.0	-5.2	EUT Vertical, High Ch
2483.725	31.0	-2.7	1.0	322.0	3.0	20.0	Horz	AV	0.0	48.3	54.0	-5.7	EUT Horizontal, High Ch
2389.508	31.1	-3.0	1.0	30.0	3.0	20.0	Vert	AV	0.0	48.1	54.0	-5.9	EUT On Side, High Ch
2389.383	30.8	-3.0	1.0	277.0	3.0	20.0	Horz	AV	0.0	47.8	54.0	-6.2	EUT On Side, High Ch
4809.033	40.7	4.8	1.2	119.0	3.0	0.0	Horz	AV	0.0	45.5	54.0	-8.5	EUT Vertical, Low Ch
4900.983	40.1	5.0	1.0	66.0	3.0	0.0	Horz	AV	0.0	45.1	54.0	-8.9	EUT Vertical, Mid Ch
4960.983	38.6	5.2	1.0	84.0	3.0	0.0	Horz	AV	0.0	43.8	54.0	-10.2	EUT Vertical, High Ch
2483.500	46.2	-2.7	1.0	105.0	3.0	20.0	Vert	PK	0.0	63.5	74.0	-10.5	EUT On Side, High Ch
7348.625	27.9	13.7	1.6	137.0	3.0	0.0	Vert	AV	0.0	41.6	54.0	-12.4	EUT Vertical, Mid Ch
7216.458	28.5	12.8	1.2	55.0	3.0	0.0	Vert	AV	0.0	41.3	54.0	-12.7	EUT Vertical, Low Ch
7438.700	26.9	14.3	1.2	248.0	3.0	0.0	Vert	AV	0.0	41.2	54.0	-12.8	EUT Vertical, High Ch
7216.583	28.4	12.8	1.0	26.0	3.0	0.0	Horz	AV	0.0	41.2	54.0	-12.8	EUT Vertical, Low Ch
7348.317	27.4	13.7	1.0	351.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	EUT Vertical, Mid Ch
7438.533	26.6	14.3	1.0	272.0	3.0	0.0	Vert	AV	0.0	40.9	54.0	-13.1	EUT Horizontal, High Ch
2483.692	43.6	-2.7	1.0	15.0	3.0	20.0	Vert	PK	0.0	60.9	74.0	-13.1	EUT Horizontal, High Ch
7441.392	26.5	14.4	1.2	236.0	3.0	0.0	Horz	AV	0.0	40.9	54.0	-13.1	EUT Horizontal, High Ch

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESCI	ARG	04/01/2013	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	01/17/2013	12 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	05/24/2013	12 mo
Attenuator 20dB, BNC	Fairview Microwave	SA01B-20	AQP	08/09/2013	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	05/31/2012	24 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.94 dB	-2.94 dB

CONFIGURATIONS INVESTIGATED

LGPD0118-1

MODES INVESTIGATED

Transmitting high channel beds idle.
 Transmitting low channel beds idle.
 Transmitting mid channel beds idle.

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	131	Line:	High Line	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

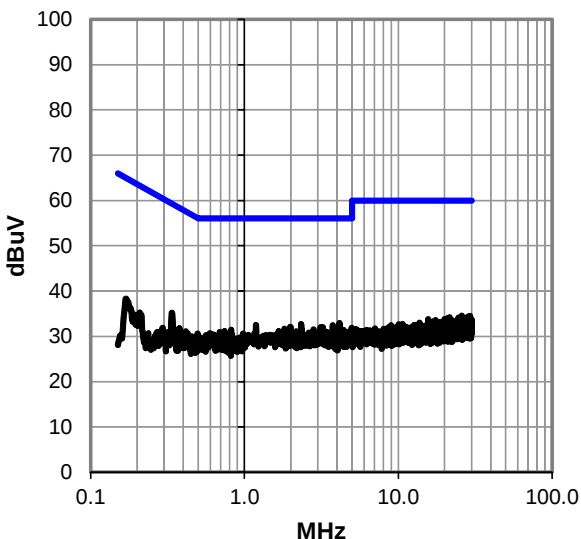
EUT OPERATING MODES

Transmitting low channel beds idle.

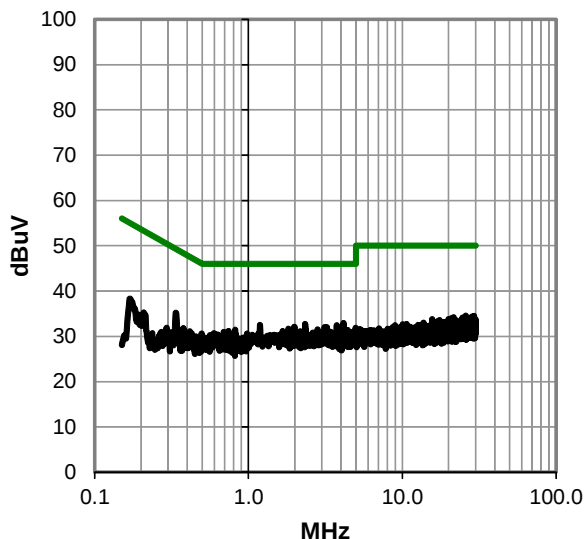
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #131

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.144	12.6	20.4	33.0	56.0	-23.0
2.336	12.4	20.3	32.7	56.0	-23.3
1.184	12.3	20.2	32.5	56.0	-23.5
3.744	12.1	20.4	32.5	56.0	-23.5
1.992	11.8	20.3	32.1	56.0	-23.9
3.240	11.7	20.3	32.0	56.0	-24.0
3.120	11.7	20.3	32.0	56.0	-24.0
0.337	15.0	20.2	35.2	59.3	-24.1
4.968	11.5	20.4	31.9	56.0	-24.1
1.816	11.4	20.3	31.7	56.0	-24.3
2.808	11.2	20.3	31.5	56.0	-24.5
0.820	11.3	20.2	31.5	56.0	-24.5
4.424	11.0	20.4	31.4	56.0	-24.6
0.743	11.0	20.2	31.2	56.0	-24.8
1.672	10.9	20.3	31.2	56.0	-24.8
3.344	10.8	20.3	31.1	56.0	-24.9
2.168	10.8	20.3	31.1	56.0	-24.9
0.691	10.8	20.2	31.0	56.0	-25.0
2.224	10.5	20.3	30.8	56.0	-25.2
0.595	10.5	20.2	30.7	56.0	-25.3
0.723	10.4	20.2	30.6	56.0	-25.4
0.981	10.4	20.2	30.6	56.0	-25.4
25.880	12.6	22.0	34.6	60.0	-25.4
0.497	10.4	20.2	30.6	56.1	-25.5
29.260	12.2	22.3	34.5	60.0	-25.5
28.410	12.1	22.2	34.3	60.0	-25.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.144	12.6	20.4	33.0	46.0	-13.0
2.336	12.4	20.3	32.7	46.0	-13.3
1.184	12.3	20.2	32.5	46.0	-13.5
3.744	12.1	20.4	32.5	46.0	-13.5
1.992	11.8	20.3	32.1	46.0	-13.9
3.240	11.7	20.3	32.0	46.0	-14.0
3.120	11.7	20.3	32.0	46.0	-14.0
0.337	15.0	20.2	35.2	49.3	-14.1
4.968	11.5	20.4	31.9	46.0	-14.1
1.816	11.4	20.3	31.7	46.0	-14.3
2.808	11.2	20.3	31.5	46.0	-14.5
0.820	11.3	20.2	31.5	46.0	-14.5
4.424	11.0	20.4	31.4	46.0	-14.6
0.743	11.0	20.2	31.2	46.0	-14.8
1.672	10.9	20.3	31.2	46.0	-14.8
3.344	10.8	20.3	31.1	46.0	-14.9
2.168	10.8	20.3	31.1	46.0	-14.9
0.691	10.8	20.2	31.0	46.0	-15.0
2.224	10.5	20.3	30.8	46.0	-15.2
0.595	10.5	20.2	30.7	46.0	-15.3
0.723	10.4	20.2	30.6	46.0	-15.4
0.981	10.4	20.2	30.6	46.0	-15.4
25.880	12.6	22.0	34.6	50.0	-15.4
0.497	10.4	20.2	30.6	46.1	-15.5
29.260	12.2	22.3	34.5	50.0	-15.5
28.410	12.1	22.2	34.3	50.0	-15.7

CONCLUSION

Pass

Bryan Welles

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	132	Line:	Neutral	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

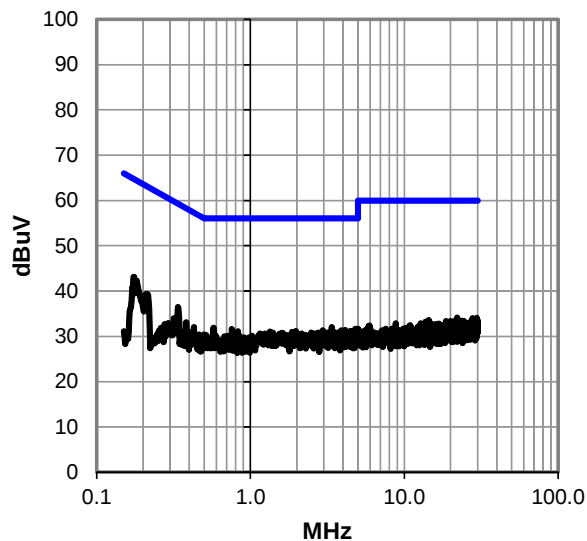
EUT OPERATING MODES

Transmitting low channel beds idle.

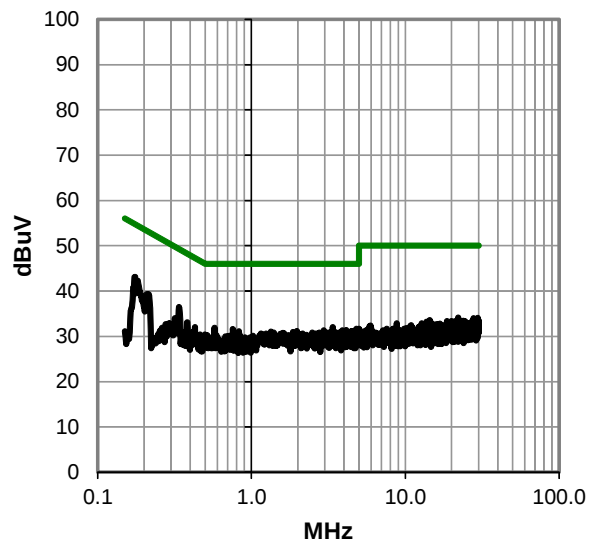
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #132

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.174	22.9	20.2	43.1	64.8	-21.7
0.339	16.3	20.2	36.5	59.2	-22.7
3.376	11.7	20.3	32.0	56.0	-24.0
0.208	19.1	20.2	39.3	63.3	-24.0
0.577	11.7	20.2	31.9	56.0	-24.1
5.000	11.3	20.4	31.7	56.0	-24.3
4.808	11.3	20.4	31.7	56.0	-24.3
0.757	11.4	20.2	31.6	56.0	-24.4
4.768	11.0	20.4	31.4	56.0	-24.6
4.128	11.0	20.4	31.4	56.0	-24.6
3.888	11.0	20.4	31.4	56.0	-24.6
2.952	11.0	20.3	31.3	56.0	-24.7
4.960	10.8	20.4	31.2	56.0	-24.8
1.976	10.9	20.3	31.2	56.0	-24.8
4.472	10.8	20.4	31.2	56.0	-24.8
0.830	10.9	20.2	31.1	56.0	-24.9
1.336	10.8	20.2	31.0	56.0	-25.0
1.864	10.7	20.3	31.0	56.0	-25.0
4.032	10.6	20.4	31.0	56.0	-25.0
3.496	10.6	20.3	30.9	56.0	-25.1
3.720	10.5	20.4	30.9	56.0	-25.1
0.381	12.9	20.2	33.1	58.3	-25.2
1.400	10.6	20.2	30.8	56.0	-25.2
3.160	10.5	20.3	30.8	56.0	-25.2
2.760	10.5	20.3	30.8	56.0	-25.2
2.488	10.5	20.3	30.8	56.0	-25.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.174	22.9	20.2	43.1	54.8	-11.7
0.339	16.3	20.2	36.5	49.2	-12.7
3.376	11.7	20.3	32.0	46.0	-14.0
0.208	19.1	20.2	39.3	53.3	-14.0
0.577	11.7	20.2	31.9	46.0	-14.1
5.000	11.3	20.4	31.7	46.0	-14.3
4.808	11.3	20.4	31.7	46.0	-14.3
0.757	11.4	20.2	31.6	46.0	-14.4
4.768	11.0	20.4	31.4	46.0	-14.6
4.128	11.0	20.4	31.4	46.0	-14.6
3.888	11.0	20.4	31.4	46.0	-14.6
2.952	11.0	20.3	31.3	46.0	-14.7
4.960	10.8	20.4	31.2	46.0	-14.8
1.976	10.9	20.3	31.2	46.0	-14.8
4.472	10.8	20.4	31.2	46.0	-14.8
0.830	10.9	20.2	31.1	46.0	-14.9
1.336	10.8	20.2	31.0	46.0	-15.0
1.864	10.7	20.3	31.0	46.0	-15.0
4.032	10.6	20.4	31.0	46.0	-15.0
3.496	10.6	20.3	30.9	46.0	-15.1
3.720	10.5	20.4	30.9	46.0	-15.1
0.381	12.9	20.2	33.1	48.3	-15.2
1.400	10.6	20.2	30.8	46.0	-15.2
3.160	10.5	20.3	30.8	46.0	-15.2
2.760	10.5	20.3	30.8	46.0	-15.2
2.488	10.5	20.3	30.8	46.0	-15.2

CONCLUSION

Pass

Bryan Welles

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	133	Line:	Neutral	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

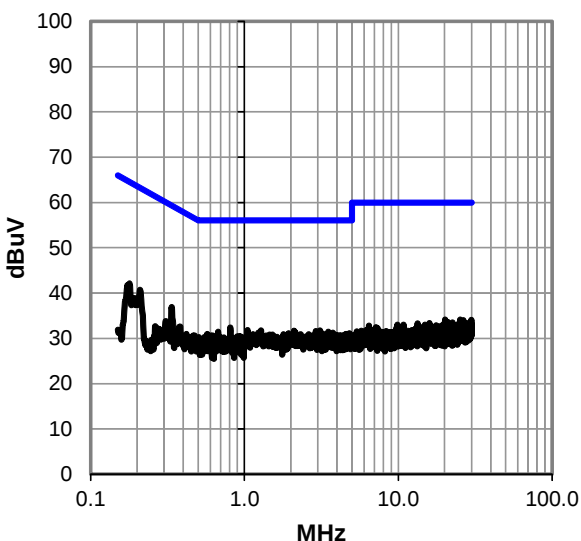
EUT OPERATING MODES

Transmitting mid channel beds idle.

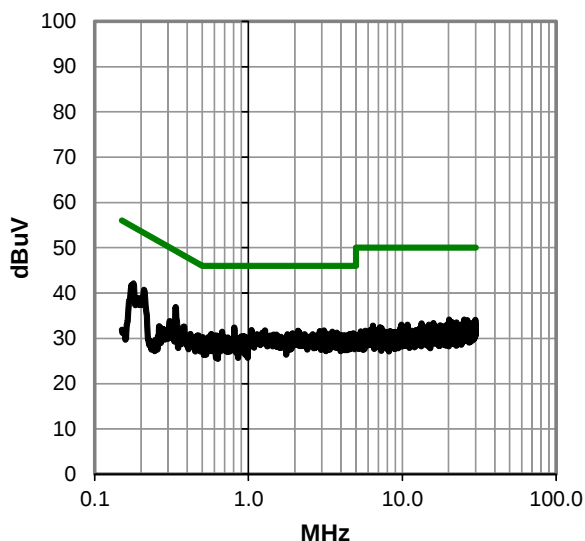
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #133

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.337	16.7	20.2	36.9	59.3	-22.4
0.179	21.9	20.2	42.1	64.5	-22.4
0.210	20.5	20.2	40.7	63.2	-22.5
0.810	12.2	20.2	32.4	56.0	-23.6
1.048	11.6	20.2	31.8	56.0	-24.2
3.096	11.4	20.3	31.7	56.0	-24.3
1.280	11.5	20.2	31.7	56.0	-24.3
2.096	11.4	20.3	31.7	56.0	-24.3
2.912	11.3	20.3	31.6	56.0	-24.4
0.674	11.3	20.2	31.5	56.0	-24.5
3.512	11.1	20.4	31.5	56.0	-24.5
3.752	10.9	20.4	31.3	56.0	-24.7
4.808	10.7	20.4	31.1	56.0	-24.9
3.240	10.7	20.3	31.0	56.0	-25.0
0.572	10.8	20.2	31.0	56.0	-25.0
4.568	10.6	20.4	31.0	56.0	-25.0
3.792	10.6	20.4	31.0	56.0	-25.0
2.616	10.6	20.3	30.9	56.0	-25.1
1.792	10.6	20.3	30.9	56.0	-25.1
1.880	10.5	20.3	30.8	56.0	-25.2
4.440	10.4	20.4	30.8	56.0	-25.2
3.976	10.4	20.4	30.8	56.0	-25.2
0.584	10.4	20.2	30.6	56.0	-25.4
0.606	10.4	20.2	30.6	56.0	-25.4
0.623	10.4	20.2	30.6	56.0	-25.4
0.927	10.3	20.2	30.5	56.0	-25.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.337	16.7	20.2	36.9	49.3	-12.4
0.179	21.9	20.2	42.1	54.5	-12.4
0.210	20.5	20.2	40.7	53.2	-12.5
0.810	12.2	20.2	32.4	46.0	-13.6
1.048	11.6	20.2	31.8	46.0	-14.2
3.096	11.4	20.3	31.7	46.0	-14.3
1.280	11.5	20.2	31.7	46.0	-14.3
2.096	11.4	20.3	31.7	46.0	-14.3
2.912	11.3	20.3	31.6	46.0	-14.4
0.674	11.3	20.2	31.5	46.0	-14.5
3.512	11.1	20.4	31.5	46.0	-14.5
3.752	10.9	20.4	31.3	46.0	-14.7
4.808	10.7	20.4	31.1	46.0	-14.9
3.240	10.7	20.3	31.0	46.0	-15.0
0.572	10.8	20.2	31.0	46.0	-15.0
4.568	10.6	20.4	31.0	46.0	-15.0
3.792	10.6	20.4	31.0	46.0	-15.0
2.616	10.6	20.3	30.9	46.0	-15.1
1.792	10.6	20.3	30.9	46.0	-15.1
1.880	10.5	20.3	30.8	46.0	-15.2
4.440	10.4	20.4	30.8	46.0	-15.2
3.976	10.4	20.4	30.8	46.0	-15.2
0.584	10.4	20.2	30.6	46.0	-15.4
0.606	10.4	20.2	30.6	46.0	-15.4
0.623	10.4	20.2	30.6	46.0	-15.4
0.927	10.3	20.2	30.5	46.0	-15.5

CONCLUSION

Pass

Bryan Welles

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	134	Line:	High Line	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

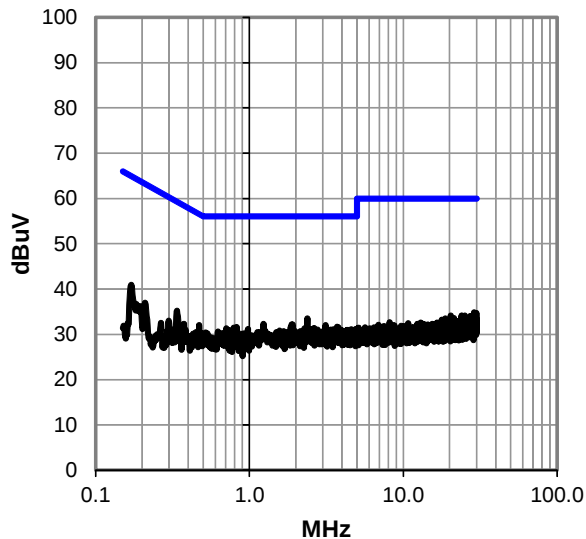
EUT OPERATING MODES

Transmitting mid channel beds idle.

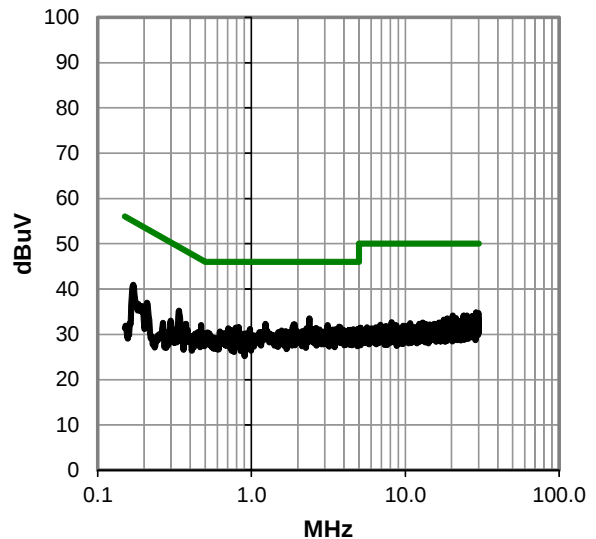
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #134

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.376	13.2	20.3	33.5	56.0	-22.5
1.232	12.1	20.2	32.3	56.0	-23.7
1.904	11.9	20.3	32.2	56.0	-23.8
3.120	11.7	20.3	32.0	56.0	-24.0
0.339	15.0	20.2	35.2	59.2	-24.0
0.170	20.7	20.2	40.9	64.9	-24.0
3.712	11.3	20.4	31.7	56.0	-24.3
0.825	11.4	20.2	31.6	56.0	-24.4
3.784	11.2	20.4	31.6	56.0	-24.4
0.471	11.8	20.2	32.0	56.5	-24.5
0.789	11.3	20.2	31.5	56.0	-24.5
2.624	11.1	20.3	31.4	56.0	-24.6
0.708	11.1	20.2	31.3	56.0	-24.7
0.978	11.0	20.2	31.2	56.0	-24.8
3.520	10.8	20.4	31.2	56.0	-24.8
3.224	10.8	20.3	31.1	56.0	-24.9
2.544	10.8	20.3	31.1	56.0	-24.9
4.584	10.7	20.4	31.1	56.0	-24.9
2.776	10.7	20.3	31.0	56.0	-25.0
0.730	10.8	20.2	31.0	56.0	-25.0
1.944	10.7	20.3	31.0	56.0	-25.0
4.664	10.6	20.4	31.0	56.0	-25.0
4.440	10.6	20.4	31.0	56.0	-25.0
4.328	10.6	20.4	31.0	56.0	-25.0
28.900	12.6	22.3	34.9	60.0	-25.1
1.568	10.6	20.3	30.9	56.0	-25.1

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.376	13.2	20.3	33.5	46.0	-12.5
1.232	12.1	20.2	32.3	46.0	-13.7
1.904	11.9	20.3	32.2	46.0	-13.8
3.120	11.7	20.3	32.0	46.0	-14.0
0.339	15.0	20.2	35.2	49.2	-14.0
0.170	20.7	20.2	40.9	54.9	-14.0
3.712	11.3	20.4	31.7	46.0	-14.3
0.825	11.4	20.2	31.6	46.0	-14.4
3.784	11.2	20.4	31.6	46.0	-14.4
0.471	11.8	20.2	32.0	46.5	-14.5
0.789	11.3	20.2	31.5	46.0	-14.5
2.624	11.1	20.3	31.4	46.0	-14.6
0.708	11.1	20.2	31.3	46.0	-14.7
0.978	11.0	20.2	31.2	46.0	-14.8
3.520	10.8	20.4	31.2	46.0	-14.8
3.224	10.8	20.3	31.1	46.0	-14.9
2.544	10.8	20.3	31.1	46.0	-14.9
4.584	10.7	20.4	31.1	46.0	-14.9
2.776	10.7	20.3	31.0	46.0	-15.0
0.730	10.8	20.2	31.0	46.0	-15.0
1.944	10.7	20.3	31.0	46.0	-15.0
4.664	10.6	20.4	31.0	46.0	-15.0
4.440	10.6	20.4	31.0	46.0	-15.0
4.328	10.6	20.4	31.0	46.0	-15.0
28.900	12.6	22.3	34.9	50.0	-15.1
1.568	10.6	20.3	30.9	46.0	-15.1

CONCLUSION

Pass

Bryan Welles

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	135	Line:	High Line	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

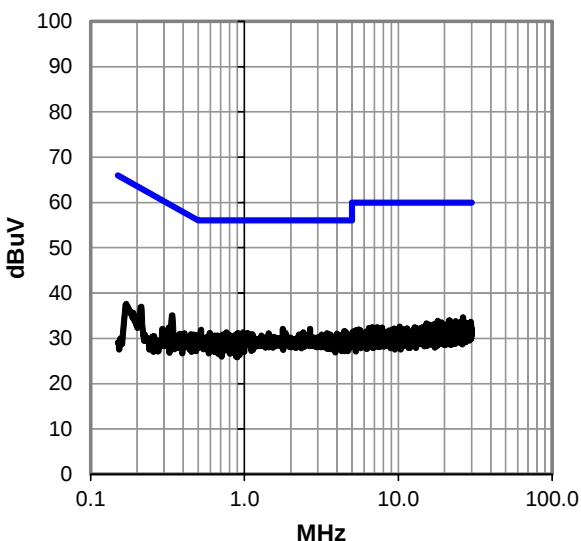
EUT OPERATING MODES

Transmitting high channel beds idle.

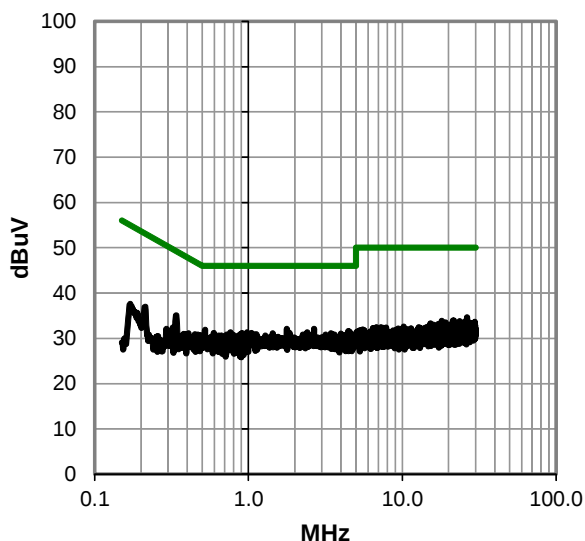
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #135

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.664	11.8	20.3	32.1	56.0	-23.9
1.776	11.8	20.3	32.1	56.0	-23.9
0.522	11.7	20.2	31.9	56.0	-24.1
0.339	14.9	20.2	35.1	59.2	-24.1
4.456	11.2	20.4	31.6	56.0	-24.4
4.552	11.1	20.4	31.5	56.0	-24.5
2.408	11.0	20.3	31.3	56.0	-24.7
0.764	11.1	20.2	31.3	56.0	-24.7
0.978	11.1	20.2	31.3	56.0	-24.7
1.848	11.0	20.3	31.3	56.0	-24.7
1.048	11.0	20.2	31.2	56.0	-24.8
0.595	11.0	20.2	31.2	56.0	-24.8
0.906	11.0	20.2	31.2	56.0	-24.8
3.432	10.8	20.3	31.1	56.0	-24.9
1.440	10.9	20.2	31.1	56.0	-24.9
3.984	10.7	20.4	31.1	56.0	-24.9
3.488	10.6	20.3	30.9	56.0	-25.1
1.128	10.7	20.2	30.9	56.0	-25.1
3.632	10.5	20.4	30.9	56.0	-25.1
0.719	10.6	20.2	30.8	56.0	-25.2
0.879	10.6	20.2	30.8	56.0	-25.2
4.264	10.4	20.4	30.8	56.0	-25.2
26.450	12.6	22.0	34.6	60.0	-25.4
0.640	10.4	20.2	30.6	56.0	-25.4
0.669	10.4	20.2	30.6	56.0	-25.4
0.810	10.4	20.2	30.6	56.0	-25.4

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
2.664	11.8	20.3	32.1	46.0	-13.9
1.776	11.8	20.3	32.1	46.0	-13.9
0.522	11.7	20.2	31.9	46.0	-14.1
0.339	14.9	20.2	35.1	49.2	-14.1
4.456	11.2	20.4	31.6	46.0	-14.4
4.552	11.1	20.4	31.5	46.0	-14.5
2.408	11.0	20.3	31.3	46.0	-14.7
0.764	11.1	20.2	31.3	46.0	-14.7
0.978	11.1	20.2	31.3	46.0	-14.7
1.848	11.0	20.3	31.3	46.0	-14.7
1.048	11.0	20.2	31.2	46.0	-14.8
0.595	11.0	20.2	31.2	46.0	-14.8
0.906	11.0	20.2	31.2	46.0	-14.8
3.432	10.8	20.3	31.1	46.0	-14.9
1.440	10.9	20.2	31.1	46.0	-14.9
3.984	10.7	20.4	31.1	46.0	-14.9
3.488	10.6	20.3	30.9	46.0	-15.1
1.128	10.7	20.2	30.9	46.0	-15.1
3.632	10.5	20.4	30.9	46.0	-15.1
0.719	10.6	20.2	30.8	46.0	-15.2
0.879	10.6	20.2	30.8	46.0	-15.2
4.264	10.4	20.4	30.8	46.0	-15.2
26.450	12.6	22.0	34.6	50.0	-15.4
0.640	10.4	20.2	30.6	46.0	-15.4
0.669	10.4	20.2	30.6	46.0	-15.4
0.810	10.4	20.2	30.6	46.0	-15.4

CONCLUSION

Pass

Bryan Welles

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	Adjustable Foundation Controller Board	Work Order:	LGPD0118
Serial Number:	Beta3 #7	Date:	11/01/2013
Customer:	Select Comfort Corp	Temperature:	22.5°C
Attendees:	Michael Bendzick	Relative Humidity:	31.4%
Customer Project:	None	Bar. Pressure:	1014.8 mb
Tested By:	Bryan Weller	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	LGPD0118-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

TEST PARAMETERS

Run #:	136	Line:	Neutral	Ext. Attenuation (dB):	20
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COMMENTS

With EMI filter Schaffner FN9233B-10-06.

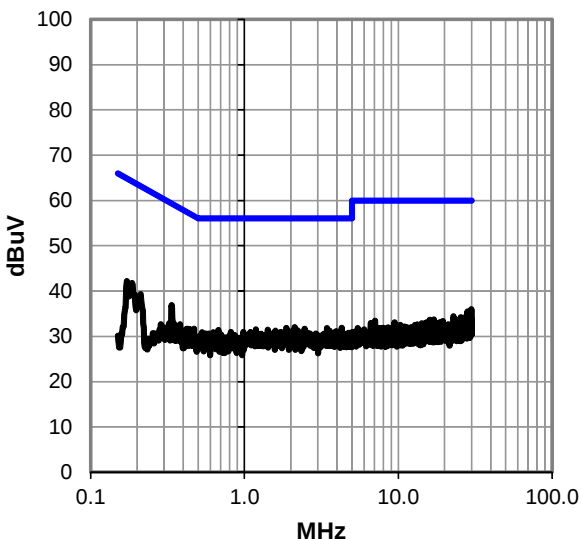
EUT OPERATING MODES

Transmitting high channel beds idle.

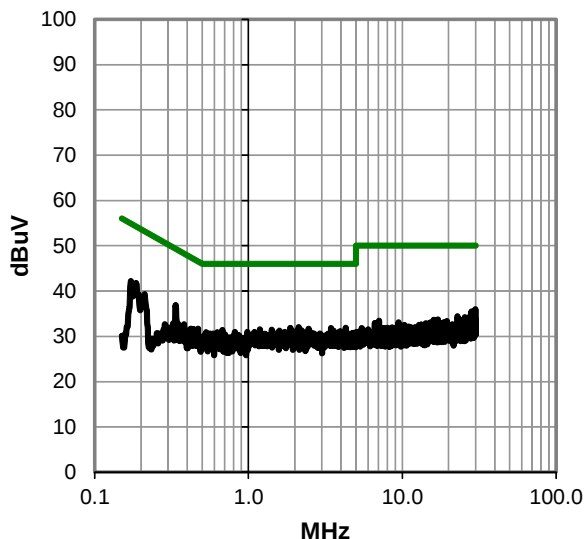
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #136

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.337	16.7	20.2	36.9	59.3	-22.4
0.172	22.0	20.2	42.2	64.9	-22.7
0.211	19.1	20.2	39.3	63.2	-23.9
2.120	11.7	20.3	32.0	56.0	-24.0
29.890	13.6	22.4	36.0	60.0	-24.0
4.280	11.5	20.4	31.9	56.0	-24.1
3.432	11.5	20.3	31.8	56.0	-24.2
1.872	11.5	20.3	31.8	56.0	-24.2
2.456	11.4	20.3	31.7	56.0	-24.3
1.184	11.3	20.2	31.5	56.0	-24.5
28.220	13.3	22.2	35.5	60.0	-24.5
1.416	11.2	20.2	31.4	56.0	-24.6
0.677	11.2	20.2	31.4	56.0	-24.6
2.216	11.0	20.3	31.3	56.0	-24.7
1.592	11.0	20.3	31.3	56.0	-24.7
3.568	10.9	20.4	31.3	56.0	-24.7
0.470	11.5	20.2	31.7	56.5	-24.8
4.000	10.7	20.4	31.1	56.0	-24.9
1.096	10.8	20.2	31.0	56.0	-25.0
0.816	10.8	20.2	31.0	56.0	-25.0
0.983	10.8	20.2	31.0	56.0	-25.0
1.728	10.7	20.3	31.0	56.0	-25.0
0.531	10.7	20.2	30.9	56.0	-25.1
0.628	10.7	20.2	30.9	56.0	-25.1
1.552	10.6	20.3	30.9	56.0	-25.1
4.840	10.4	20.4	30.8	56.0	-25.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.337	16.7	20.2	36.9	49.3	-12.4
0.172	22.0	20.2	42.2	54.9	-12.7
0.211	19.1	20.2	39.3	53.2	-13.9
2.120	11.7	20.3	32.0	46.0	-14.0
29.890	13.6	22.4	36.0	50.0	-14.0
4.280	11.5	20.4	31.9	46.0	-14.1
3.432	11.5	20.3	31.8	46.0	-14.2
1.872	11.5	20.3	31.8	46.0	-14.2
2.456	11.4	20.3	31.7	46.0	-14.3
1.184	11.3	20.2	31.5	46.0	-14.5
28.220	13.3	22.2	35.5	50.0	-14.5
1.416	11.2	20.2	31.4	46.0	-14.6
0.677	11.2	20.2	31.4	46.0	-14.6
2.216	11.0	20.3	31.3	46.0	-14.7
1.592	11.0	20.3	31.3	46.0	-14.7
3.568	10.9	20.4	31.3	46.0	-14.7
0.470	11.5	20.2	31.7	46.5	-14.8
4.000	10.7	20.4	31.1	46.0	-14.9
1.096	10.8	20.2	31.0	46.0	-15.0
0.816	10.8	20.2	31.0	46.0	-15.0
0.983	10.8	20.2	31.0	46.0	-15.0
1.728	10.7	20.3	31.0	46.0	-15.0
0.531	10.7	20.2	30.9	46.0	-15.1
0.628	10.7	20.2	30.9	46.0	-15.1
1.552	10.6	20.3	30.9	46.0	-15.1
4.840	10.4	20.4	30.8	46.0	-15.2

CONCLUSION

Pass

Bryan Welles

Tested By