



Honeywell, Automation and Control Solutions

TH8321R1001

FCC 15.247:2012

FCC 15.207:2012

Report #: HNYW0031



Report Prepared By Northwest EMC Inc.

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

California – Minnesota – Oregon – New York – Washington

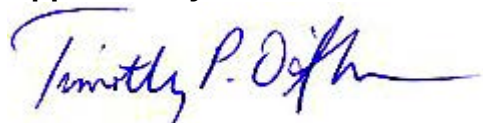
Last Date of Test: December 17, 2012
Honeywell, Automation and Control Solutions
Model: TH8321R1001

Emissions

Test Description	Specification	Test Method	Pass/Fail
Channel Spacing	FCC 15.247:2012	ANSI C63.10:2009	Pass
Dwell Time	FCC 15.247:2012	ANSI C63.10:2009	Pass
Number of Hopping Frequencies	FCC 15.247:2012	ANSI C63.10:2009	Pass
Occupied Bandwidth	FCC 15.247:2012	ANSI C63.10:2009	Pass
Output Power	FCC 15.247:2012	ANSI C63.10:2009	Pass
Band Edge Compliance	FCC 15.247:2012	ANSI C63.10:2009	Pass
Spurious Conducted Emissions	FCC 15.247:2012	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.247:2012	ANSI C63.10:2009	Pass
AC Powerline Conducted Emissions	FCC 15.207:2012	ANSI C63.10:2009	Pass

Deviations From Test Standards

None

Approved By:

Tim O'Shea, Operations Manager



NVLAP Lab Code: 200881-0

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).

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.

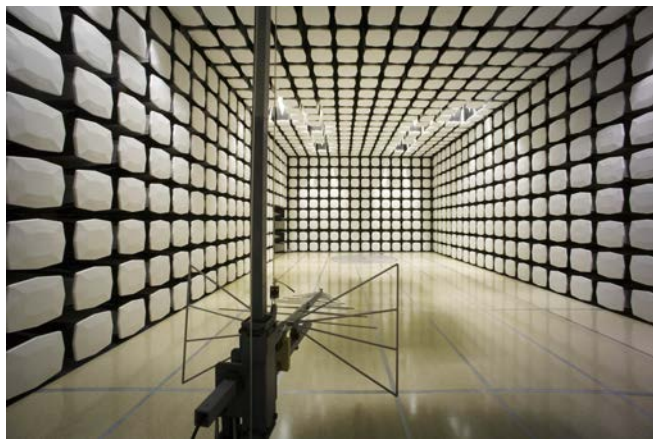
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is on each data sheet. Our measurement 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)	4.00	-4.00
AC Powerline Conducted Emissions (dB)	2.70	-2.70



Oregon Labs EV01-EV12 22975 NW Evergreen Pkwy, #400 Hillsboro, OR 97124 (503) 844-4066	California Labs OC01-OC13 41 Tesla Irvine, CA 92618 (949) 861-8918	New York Labs WA01-WA04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Minnesota Labs MN01-MN08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Washington Labs SU01-SU07 14128 339 th Ave. SE Sultan, WA 98294 (360) 793-8675
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



Client and Equipment Under Test (EUT) Information

Company Name:	Honeywell, Automation and Control Solutions
Address:	1985 Douglas Drive North
City, State, Zip:	Golden Valley, MN 55422-3992
Test Requested By:	Reed Bisson
Model:	TH8321R1001
First Date of Test:	December 13, 2012
Last Date of Test:	December 17, 2012
Receipt Date of Samples:	December 11, 2012
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Thermostat
Client Justification:
There are three different models being approved for FCC and Industry Canada: TH8321R1001, TH8320R1003, TH8110R1008. They all share common PCBs, but differentiate by component population. The transceiver and related RF circuitry remain identical across the three models. Model TH8321R1001, which is the maximum populated device, was used for testing.
Testing Objective:
To demonstrate compliance to FCC 15.247 requirements.

Configuration HNYW0031- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Thermostat	Honeywell, Automation and Control Solutions	TH8321R1001	5191101 0010384

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Transformer	Honeywell, Automation and Control Solutions	None	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power	No	1.7m	No	Thermostat	Transformer
AC Power	No	1.6m	No	Transformer	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Configuration HNYW0031- 2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Thermostat	Honeywell, Automation and Control Solutions	TH8321R1001	5191101 0010383

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Wall Adapter	Atlas	MW57-2402080A	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power	No	1.1m	No	Thermostat	Wall Adapter
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	12/13/2012	Band Edge Compliance - Hopping	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	12/13/2012	Number of Hopping Frequencies	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	12/13/2012	Dwell Time	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	12/13/2012	Channel Spacing	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	12/13/2012	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.
6	12/13/2012	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.
7	12/13/2012	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.
8	12/13/2012	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.
9	12/17/2012	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.
10	12/17/2012	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.



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.

Channel Spacing

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 - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	10/5/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

TEST DESCRIPTION

The channel carrier frequencies in the 902-928 MHz band must be separated by 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. The EUT was operated in pseudorandom hopping mode. The spectrum was scanned across two adjacent peaks. The separation between the peaks of these channels was measured.



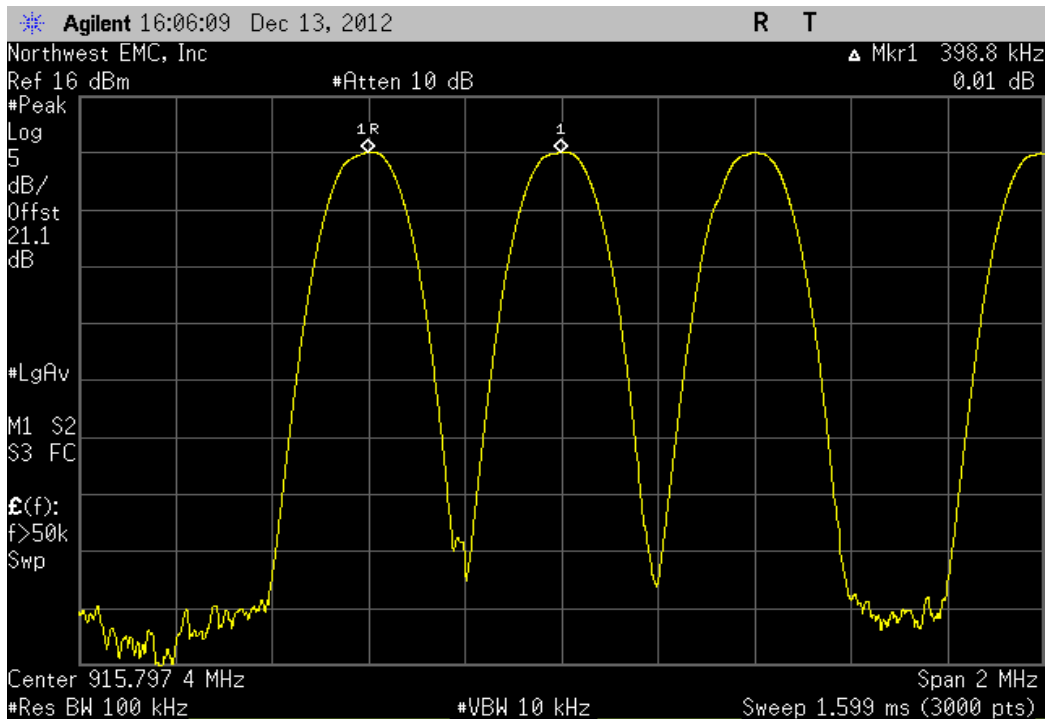
Channel Spacing

XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010384		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
Limit is based on the 20 dB occupied bandwidth.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Value	Limit
Antenna A			Result
Mid Channel, 914.59 MHz		398.8 kHz	> 65 kHz
			N/A
Antenna B			
Mid Channel, 914.59 MHz		402.1 kHz	> 65 kHz
			N/A

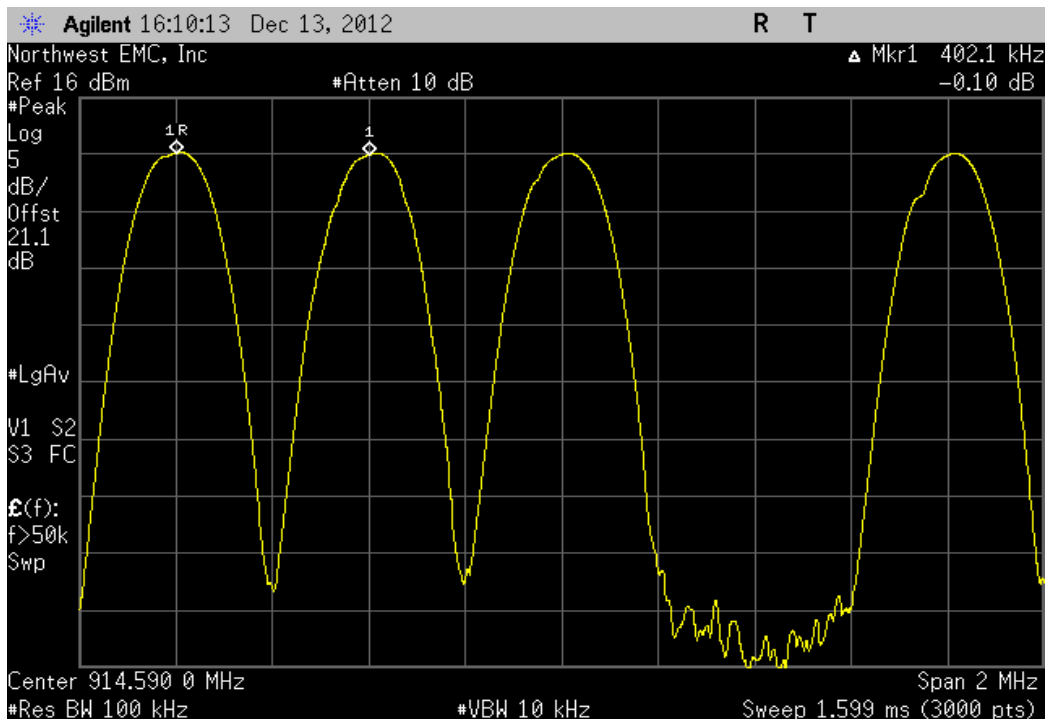
Antenna A, Mid Channel, 914.59 MHz

Value	Limit	Result
398.8 kHz	> 65 kHz	N/A



Antenna B, Mid Channel, 914.59 MHz

Value	Limit	Result
402.1 kHz	> 65 kHz	N/A



Dwell Time

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	10/5/2012	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

TEST DESCRIPTION

The average dwell time per hopping channel was measured at one hopping channel in the middle of the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

The dwell time limit is based on the Number of Hopping Channels * 400 mS. This would be 50 Channels * 400mS = 20 Sec.

On Time During 20 Sec = Pulse Width * Scale Factor

➤ Scale Factor = 20 Sec / Screen Capture Sweep Time = 20 Sec / 60 Sec = 1/3

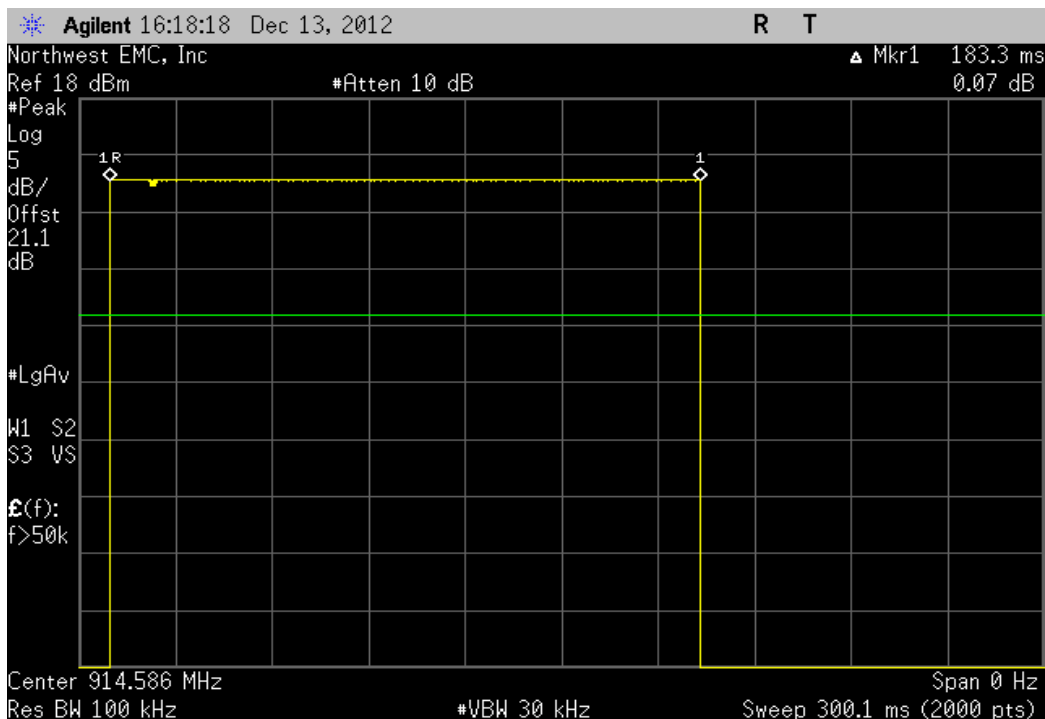


Dwell Time

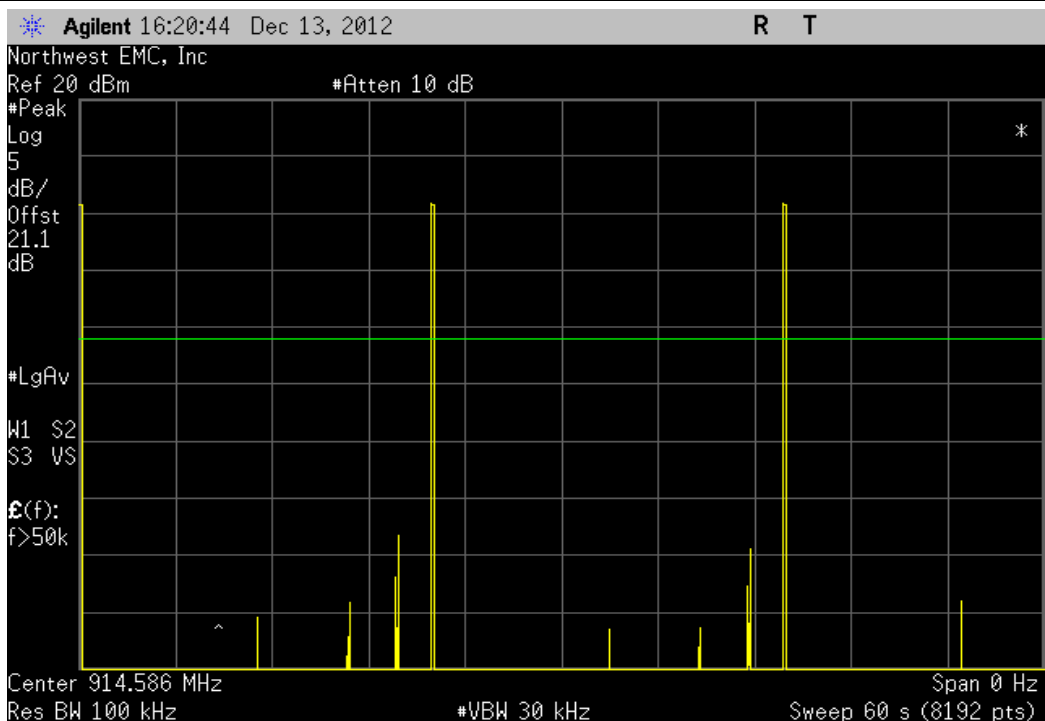
XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031						
Serial Number: 5191101 0010384		Date: 12/13/12						
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C						
Attendees: None		Humidity: 20%						
Project: None		Barometric Pres.: 1017.2						
Tested by: Trevor Buls		Power: 110VAC/60Hz						
		Job Site: MN08						
TEST SPECIFICATIONS		Test Method						
FCC 15.247:2012		ANSI C63.10:2009						
COMMENTS								
None								
DEVIATIONS FROM TEST STANDARD								
None								
Configuration #	2	Signature <i>Trevor Buls</i>						
		Pulse Width (mS)	Number of Pulses	Average High Time (mS)	Scale Factor	On Time (mS) During 20 S	Limit (mS)	Result
Antenna A	Mid Channel, 914.59 MHz	183.335	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 914.59 MHz	N/A	3	550.005	1/3	183.335	400	Pass
Antenna B	Mid Channel, 914.59 MHz	183.335	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 914.59 MHz	N/A	3	550.005	1/3	183.335	400	Pass

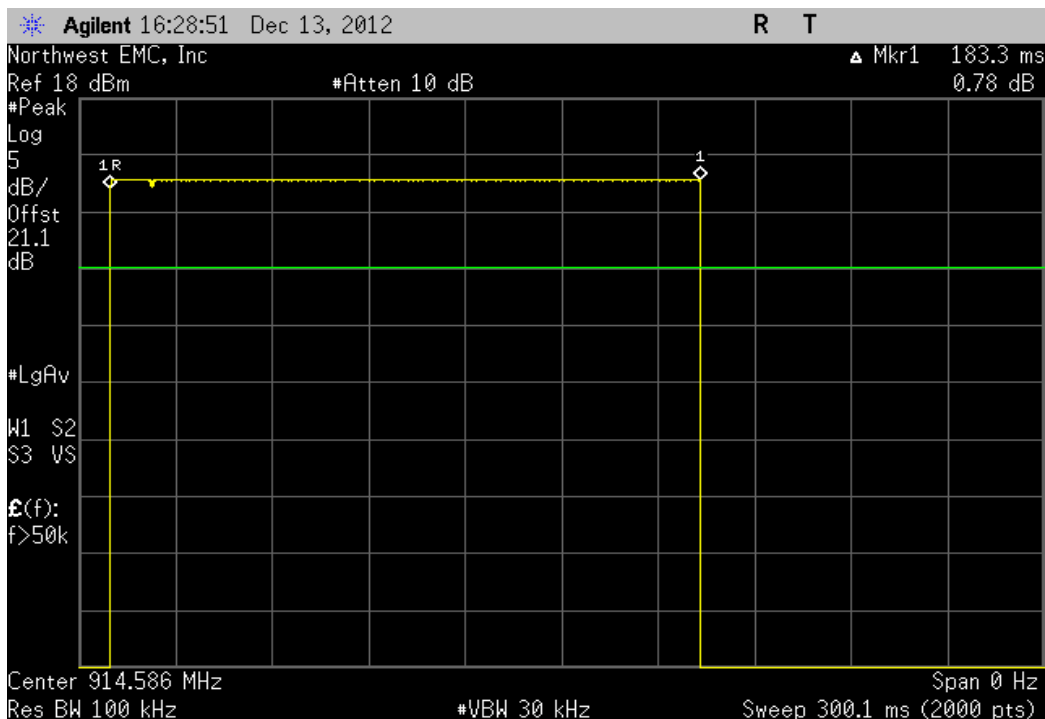
Antenna A, Mid Channel, 914.59 MHz						
Pulse Width (mS)	Number of Pulses	Average High Time (mS)	Scale Factor	On Time (mS) During 20 S	Limit (mS)	Result
183.335	N/A	N/A	N/A	N/A	N/A	N/A



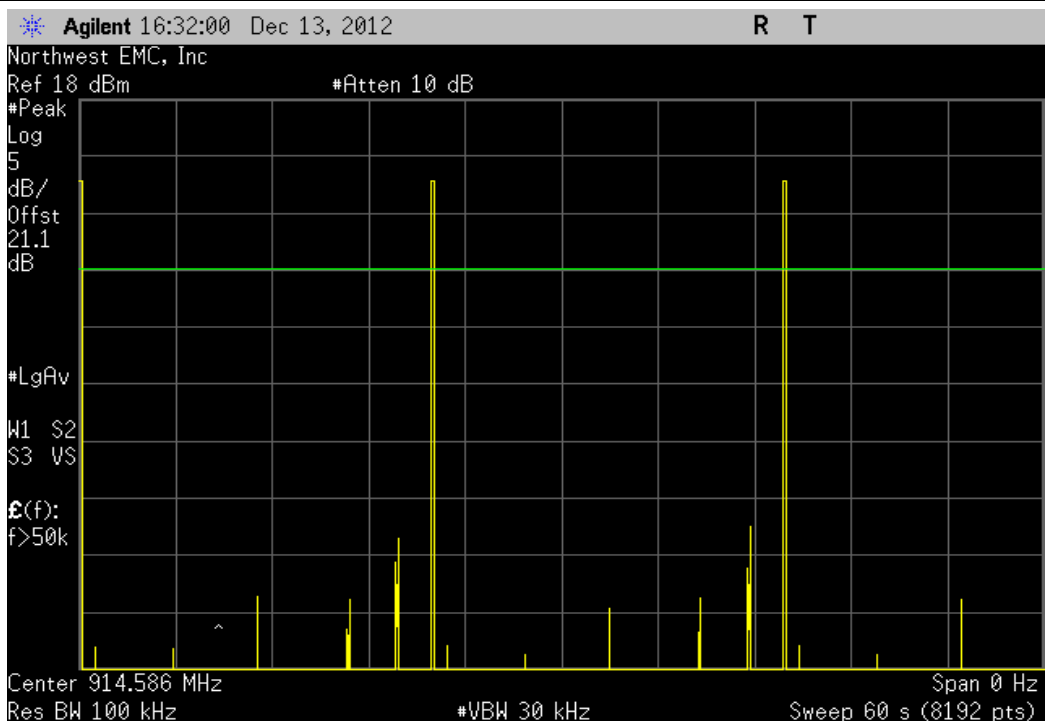
Antenna A, Mid Channel, 914.59 MHz						
Pulse Width (mS)	Number of Pulses	Average High Time (mS)	Scale Factor	On Time (mS) During 20 S	Limit (mS)	Result
N/A	3	550.0	1/3	183.3	400	Pass



Antenna B, Mid Channel, 914.59 MHz						
Pulse Width (mS)	Number of Pulses	Average High Time (mS)	Scale Factor	On Time (mS) During 20 S	Limit (mS)	Result
183.335	N/A	N/A	N/A	N/A	N/A	N/A



Antenna B, Mid Channel, 914.59 MHz						
Pulse Width (mS)	Number of Pulses	Average High Time (mS)	Scale Factor	On Time (mS) During 20 S	Limit (mS)	Result
N/A	3	550.0	1/3	183.3	400	Pass





Number of Hopping Frequencies

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 - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	10/5/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

TEST DESCRIPTION

The number of hopping frequencies was measured across the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

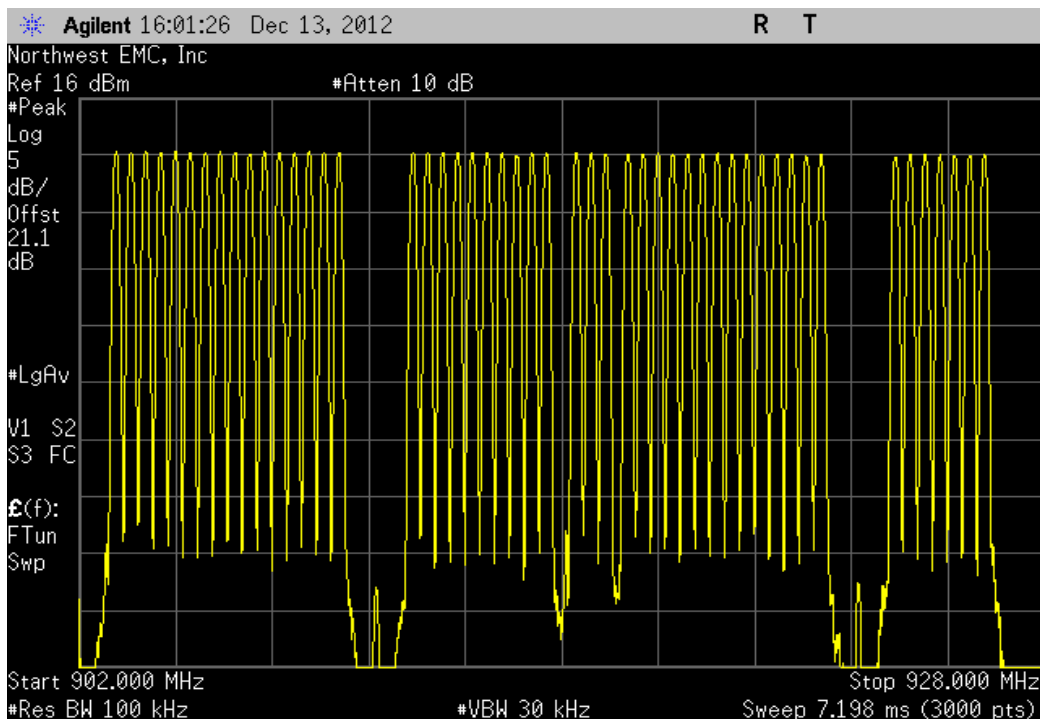


Number of Hopping Frequencies

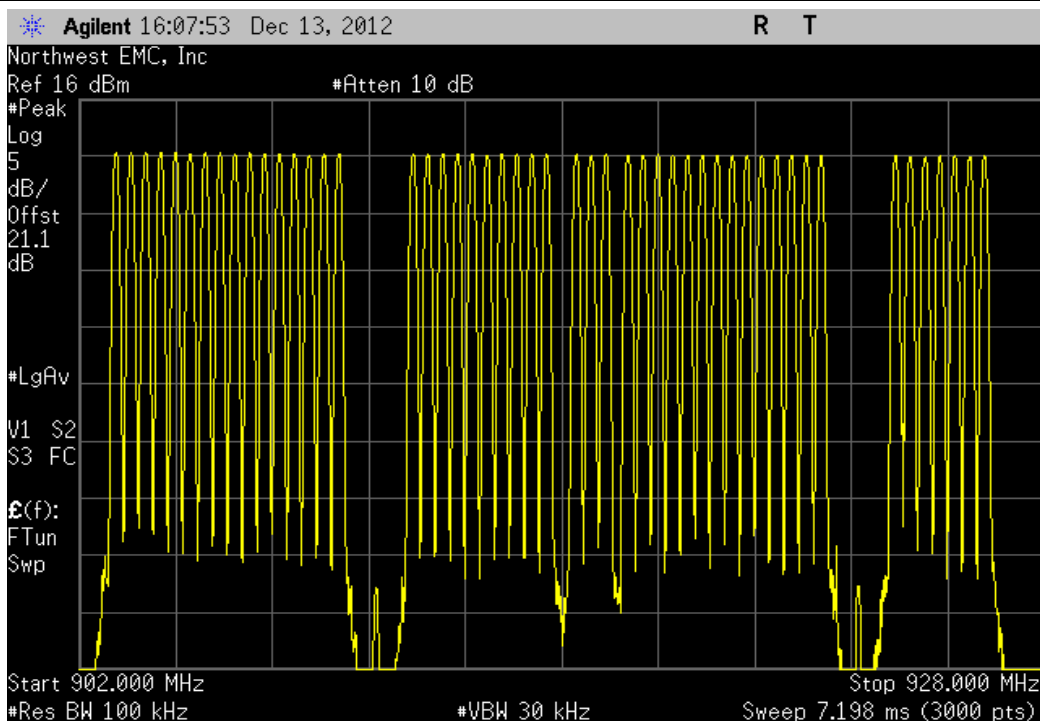
XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010384		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Number of Channels	Limit
Antenna A			Result
Mid Channel, 914.59 MHz		50	≥ 50 Pass
Antenna B			
Mid Channel, 914.59 MHz		50	≥ 50 Pass

Antenna A, Mid Channel, 914.59 MHz						
				Number of Channels	Limit	Result
				50	≥ 50	Pass



Antenna B, Mid Channel, 914.59 MHz						
				Number of Channels	Limit	Result
				50	≥ 50	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	10/5/2012	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

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 the data rate(s) listed in the datasheet in a no-hop mode.



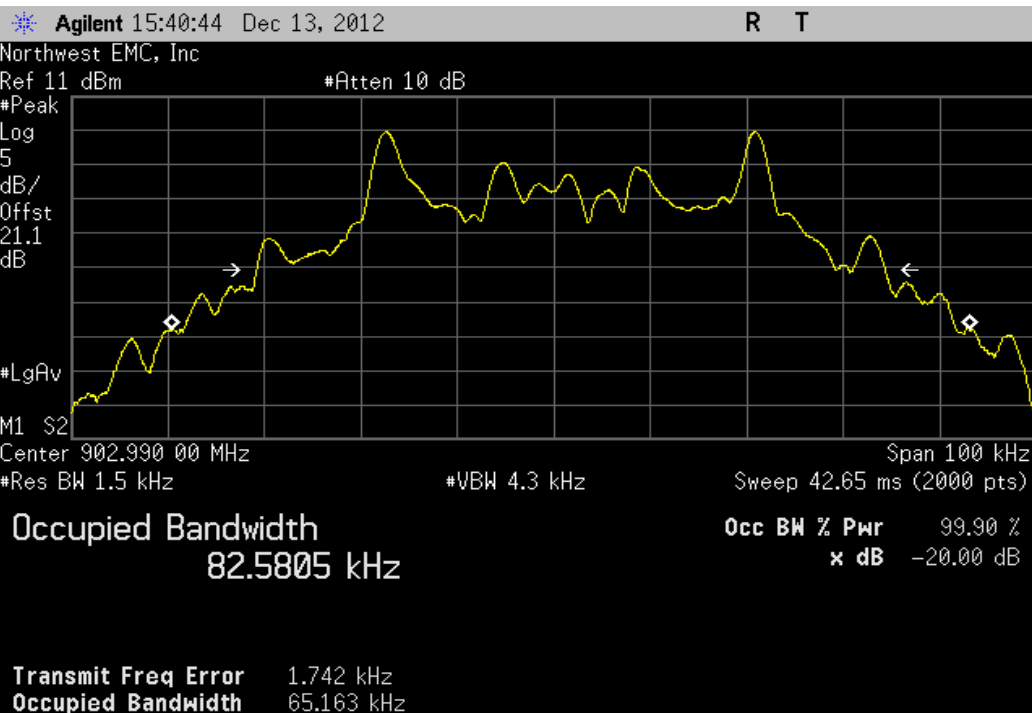
OCCUPIED BANDWIDTH

XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010383		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Value	Limit
Antenna A			Result
Low Channel, 902.99 MHz		65.163 kHz	< 250 kHz
Mid Channel, 914.59 MHz		65.171 kHz	< 250 kHz
High Channel, 926.39 MHz		65.147 kHz	< 250 kHz
Antenna B			Result
Low Channel, 902.99 MHz		65.153 kHz	< 250 kHz
Mid Channel, 914.59 MHz		65.202 kHz	< 250 kHz
High Channel, 926.39 MHz		65.149 kHz	< 250 kHz

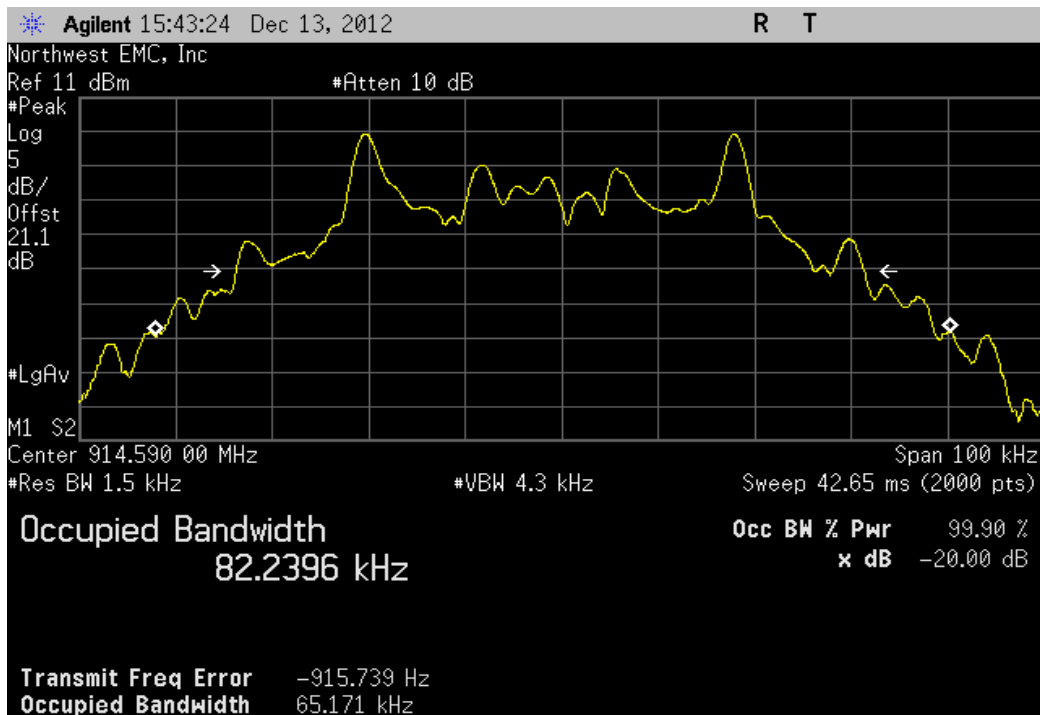
Antenna A, Low Channel, 902.99 MHz

Value	Limit	Result
65.163 kHz	< 250 kHz	Pass

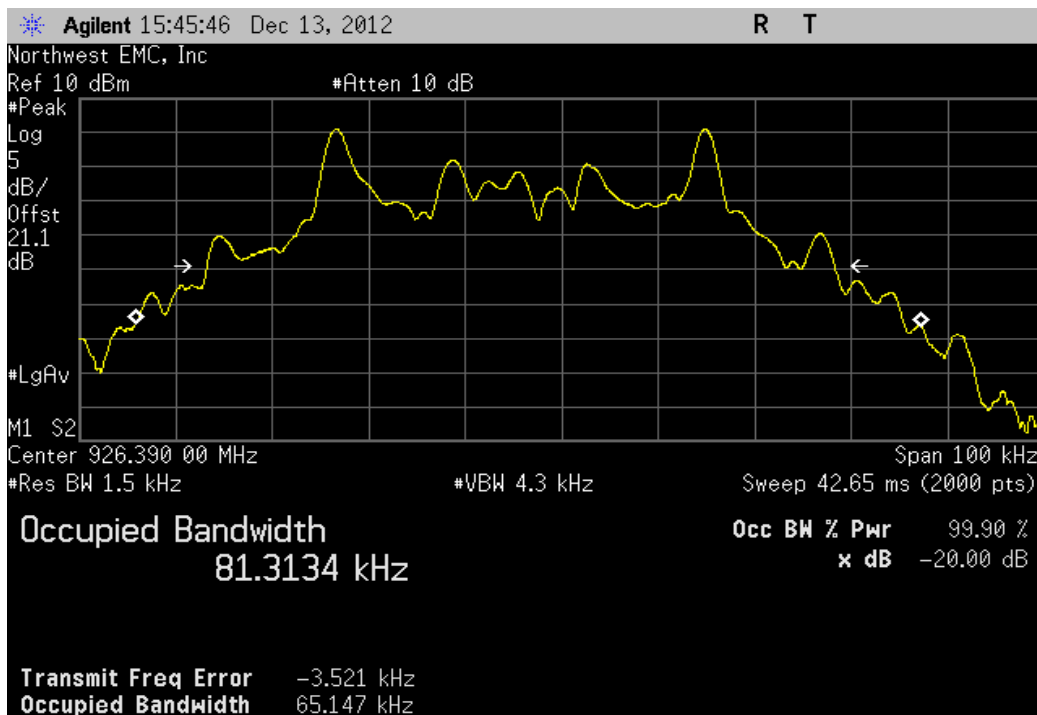


Antenna A, Mid Channel, 914.59 MHz

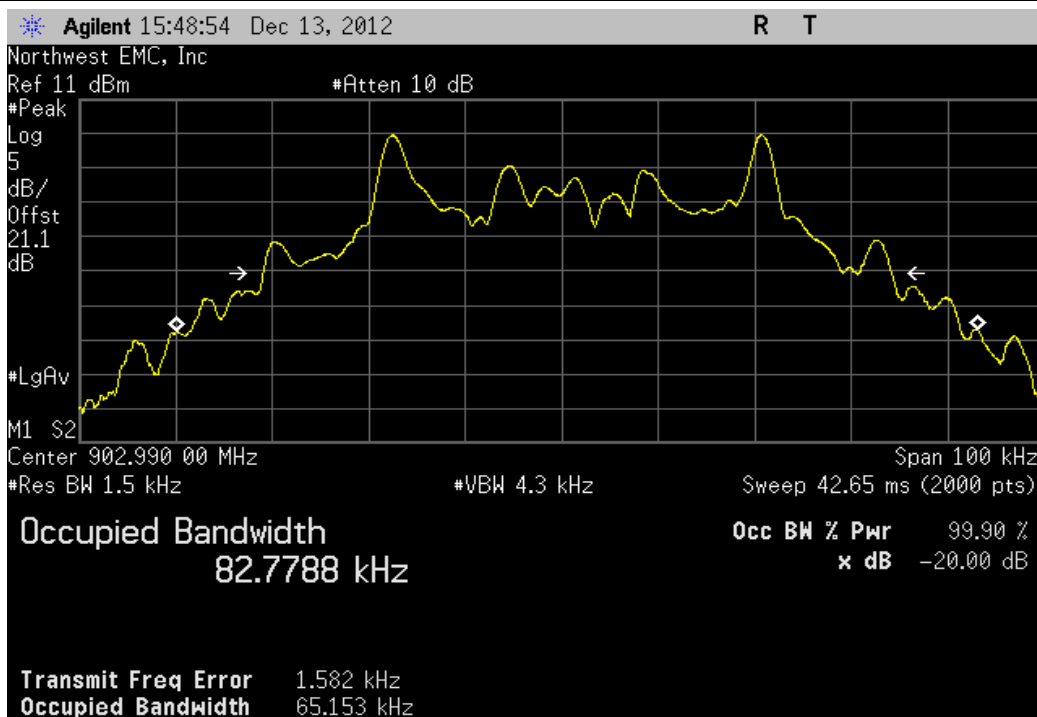
Value	Limit	Result
65.171 kHz	< 250 kHz	Pass



Antenna A, High Channel, 926.39 MHz						
				Value	Limit	Result
				65.147 kHz	< 250 kHz	Pass

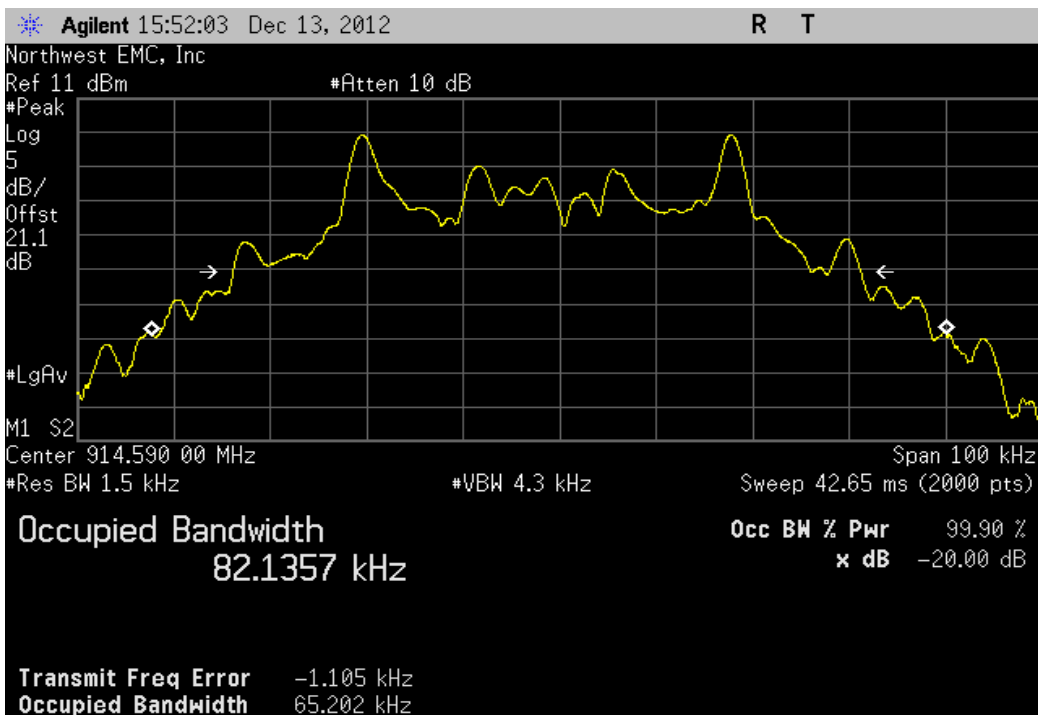


Antenna B, Low Channel, 902.99 MHz						
				Value	Limit	Result
				65.153 kHz	< 250 kHz	Pass



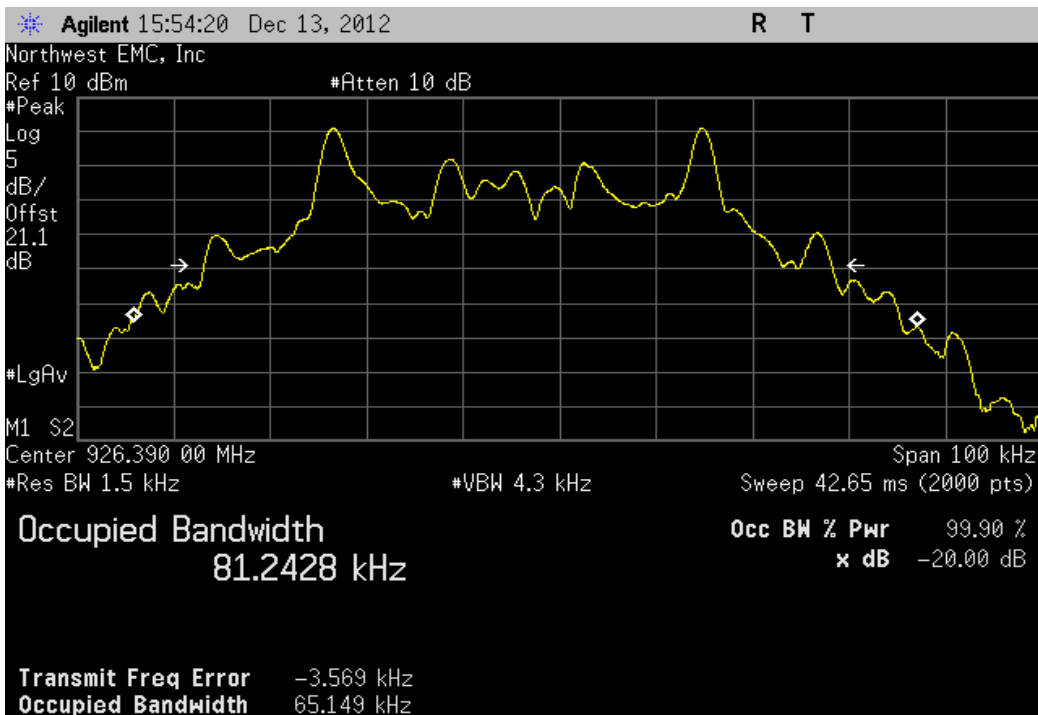
Antenna B, Mid Channel, 914.59 MHz

Value	Limit	Result
65.202 kHz	< 250 kHz	Pass



Antenna B, High Channel, 926.39 MHz

Value	Limit	Result
65.149 kHz	< 250 kHz	Pass



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
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	10/5/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

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 in a no hop mode at the data rate(s) listed in the datasheet.

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



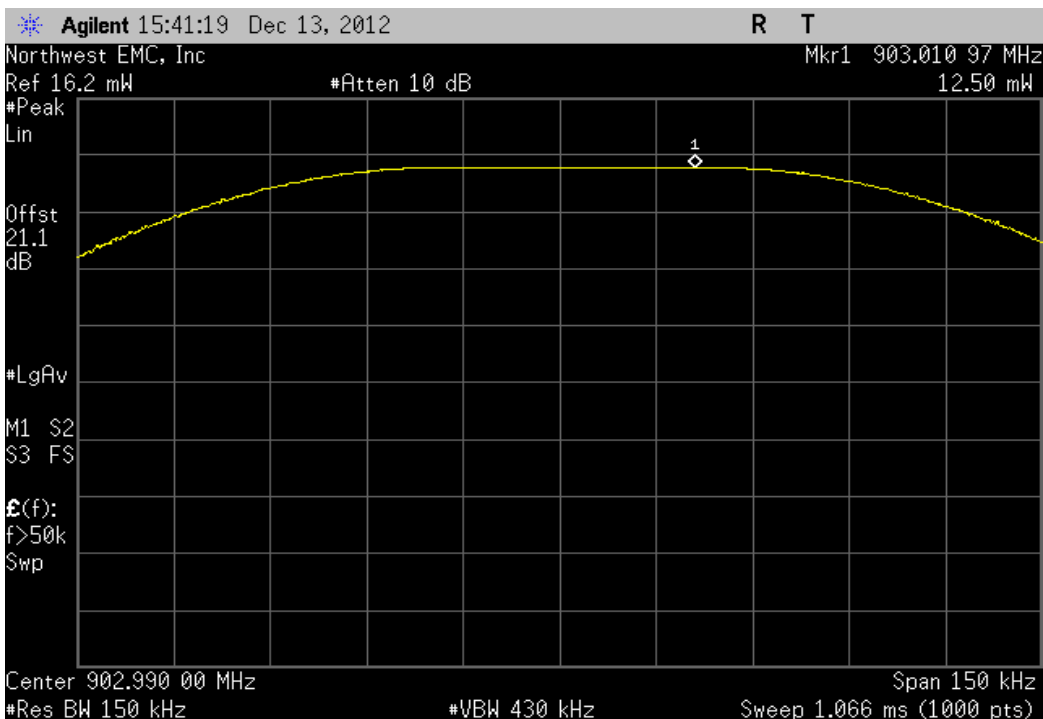
OUTPUT POWER

XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010383		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Value	Limit
Antenna A			Result
Low Channel, 902.99 MHz		12.5 mW	< 1 W
Mid Channel, 914.59 MHz		12.123 mW	< 1 W
High Channel, 926.39 MHz		11.66 mW	< 1 W
Antenna B			
Low Channel, 902.99 MHz		12.503 mW	< 1 W
Mid Channel, 914.59 MHz		12.123 mW	< 1 W
High Channel, 926.39 MHz		11.66 mW	< 1 W

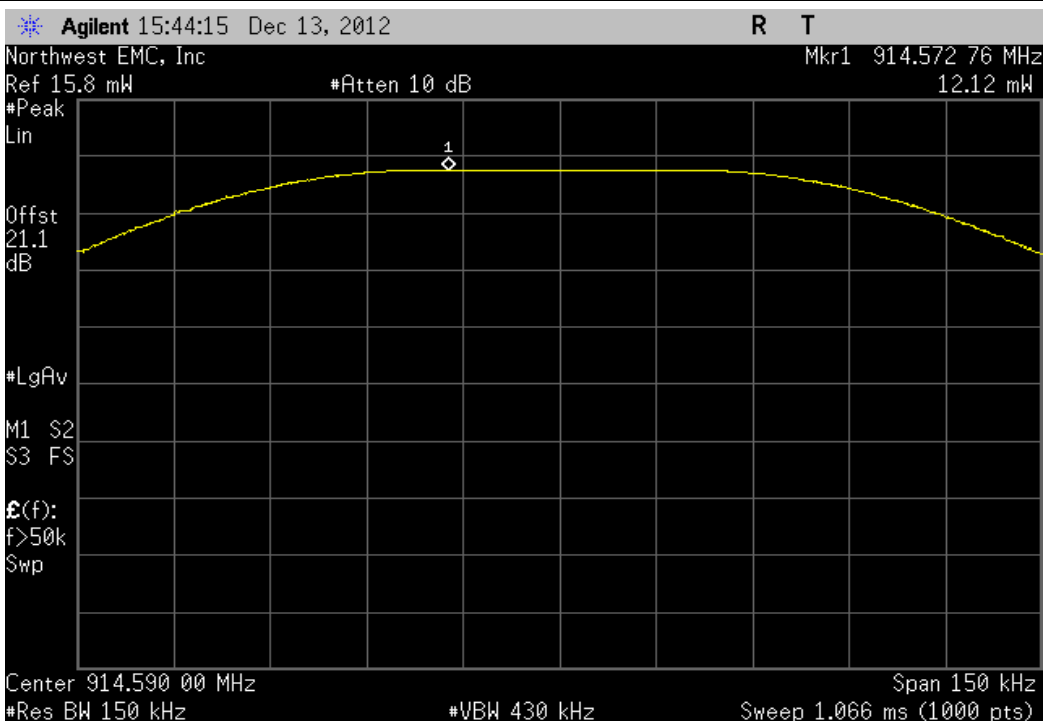
Antenna A, Low Channel, 902.99 MHz

				Value	Limit	Result
				12.5 mW	< 1 W	Pass

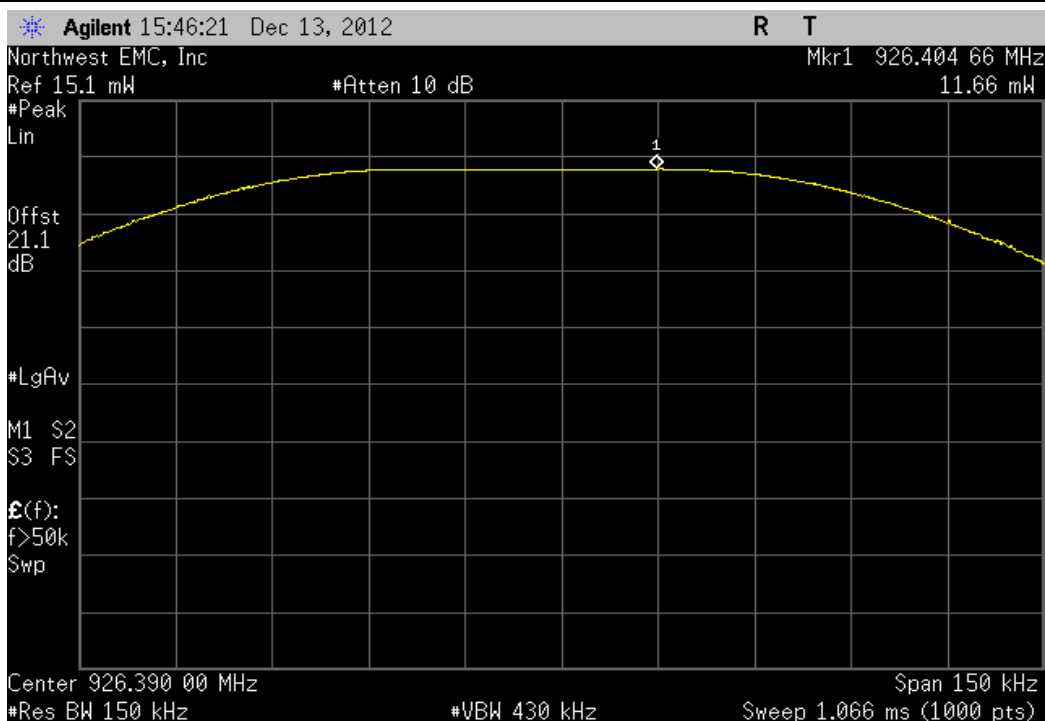


Antenna A, Mid Channel, 914.59 MHz

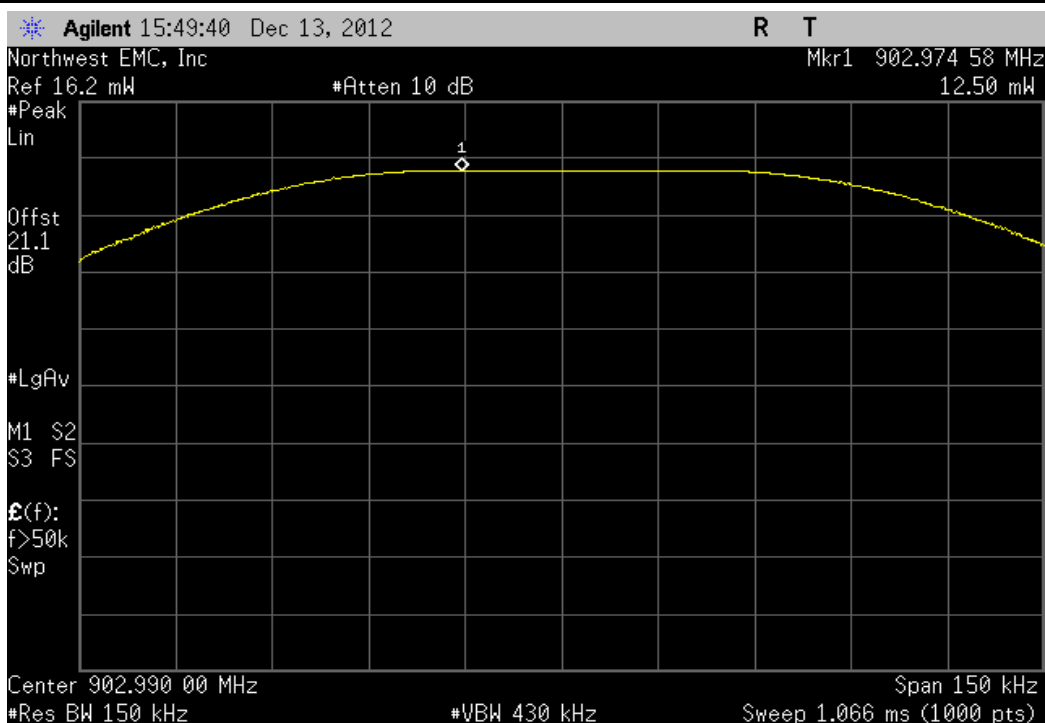
				Value	Limit	Result
				12.123 mW	< 1 W	Pass



Antenna A, High Channel, 926.39 MHz						
				Value	Limit	Result
				11.66 mW	< 1 W	Pass

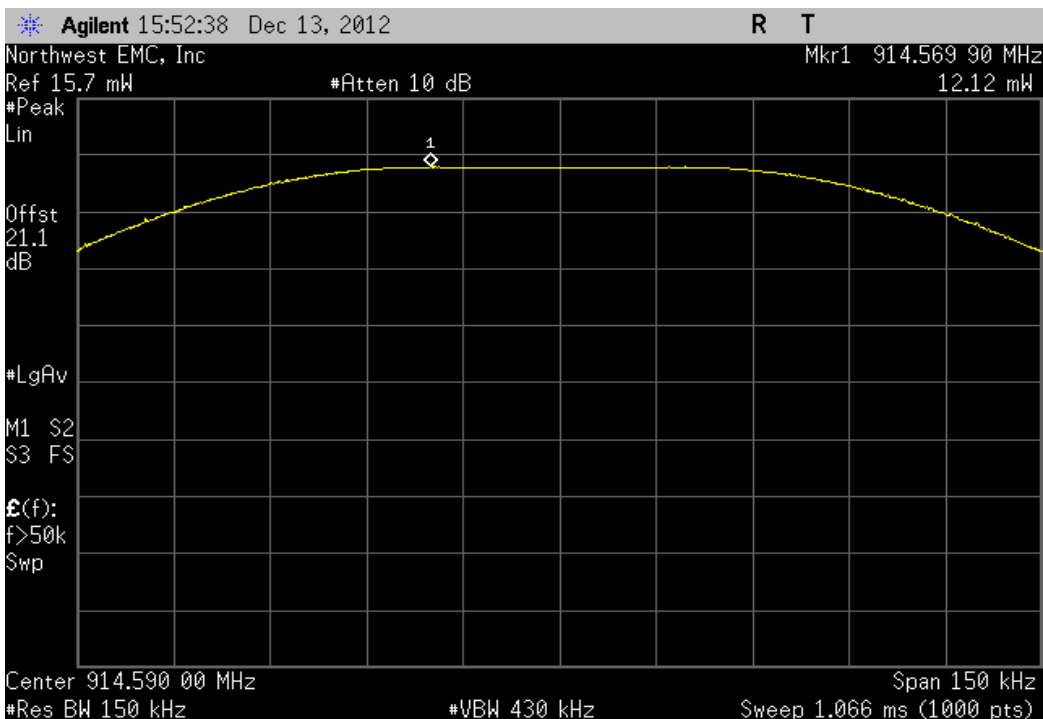


Antenna B, Low Channel, 902.99 MHz						
				Value	Limit	Result
				12.503 mW	< 1 W	Pass



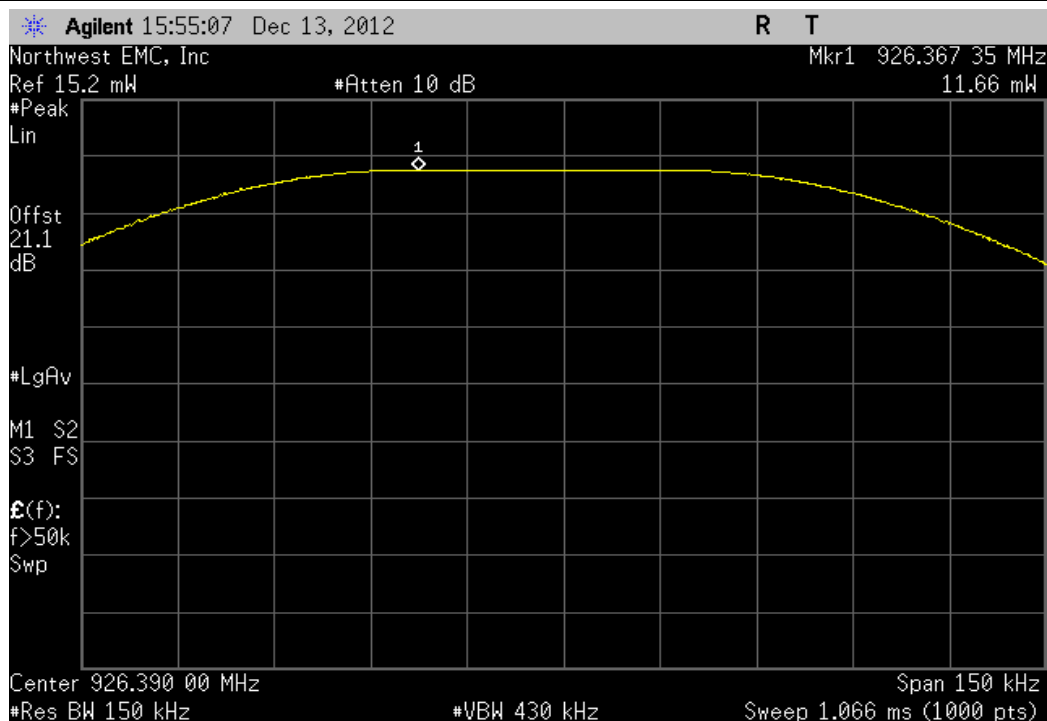
Antenna B, Mid Channel, 914.59 MHz

Value	Limit	Result
12.123 mW	< 1 W	Pass



Antenna B, High Channel, 926.39 MHz

Value	Limit	Result
11.66 mW	< 1 W	Pass





BAND EDGE COMPLIANCE - HOPING MODE

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	10/5/2012	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to its normal pseudo-random hopping sequence. 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.



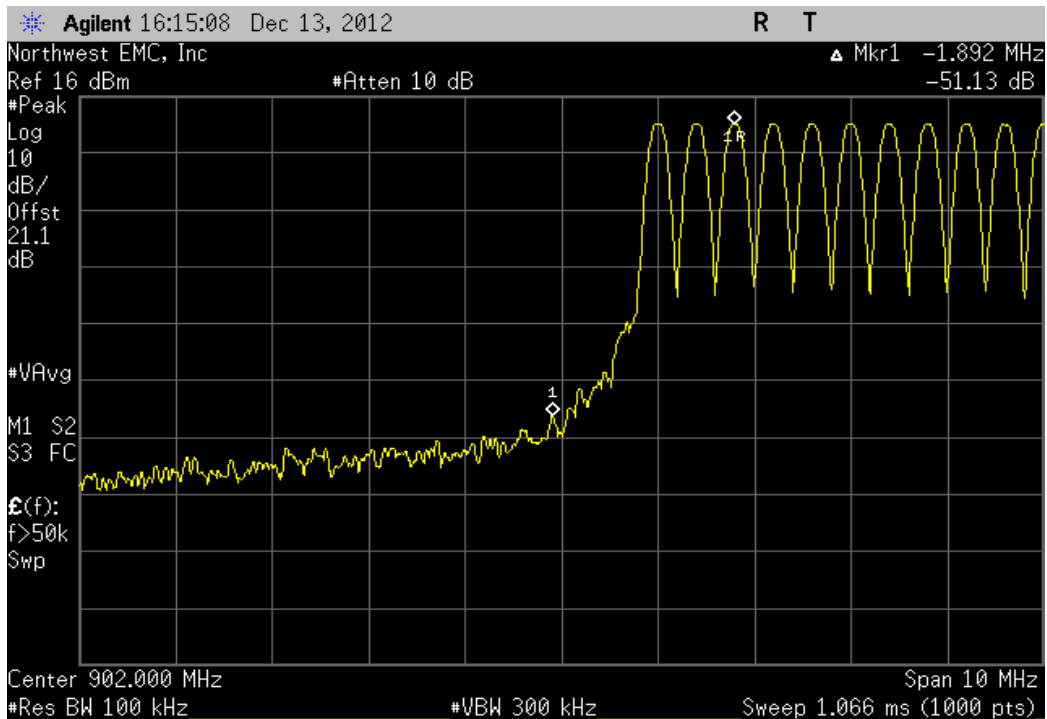
BAND EDGE COMPLIANCE - HOPPING MODE

XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010383		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Value	Limit
Antenna A			Result
Low Channel, 902.99 MHz		-51.13 dBc	≤ -20 dBc
High Channel, 926.39 MHz		-40.14 dBc	≤ -20 dBc
Antenna B			Result
Low Channel, 902.99 MHz		-51.27 dBc	≤ -20 dBc
High Channel, 926.39 MHz		-52.38 dBc	≤ -20 dBc

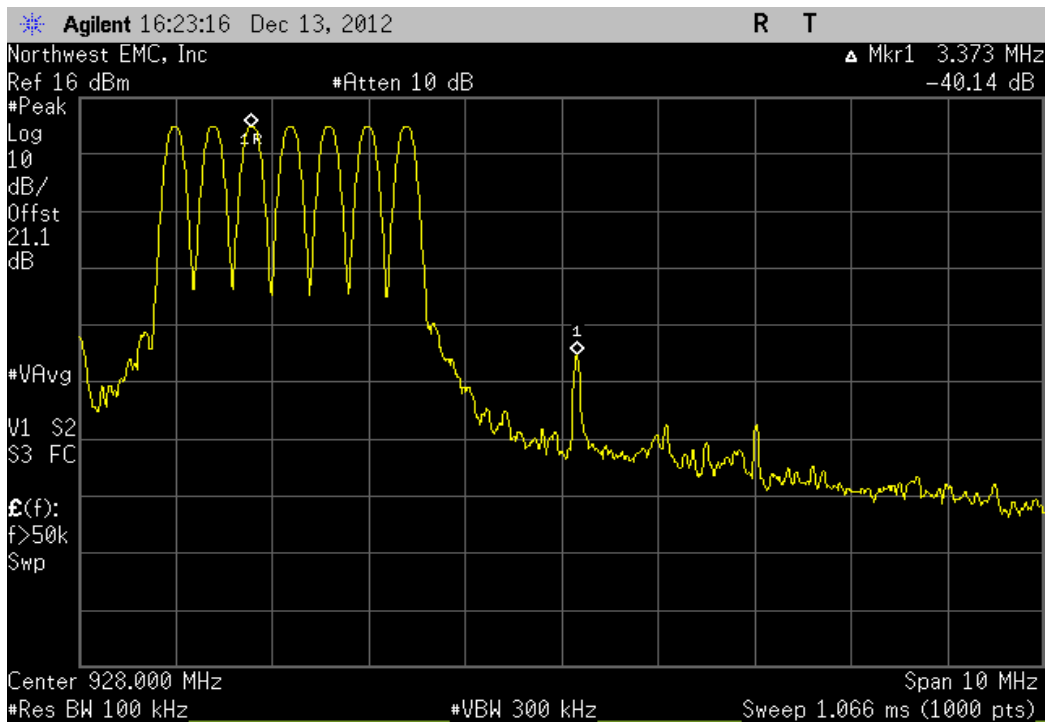
Antenna A, Low Channel, 902.99 MHz

Value	Limit	Result
-51.13 dBc	≤ -20 dBc	Pass



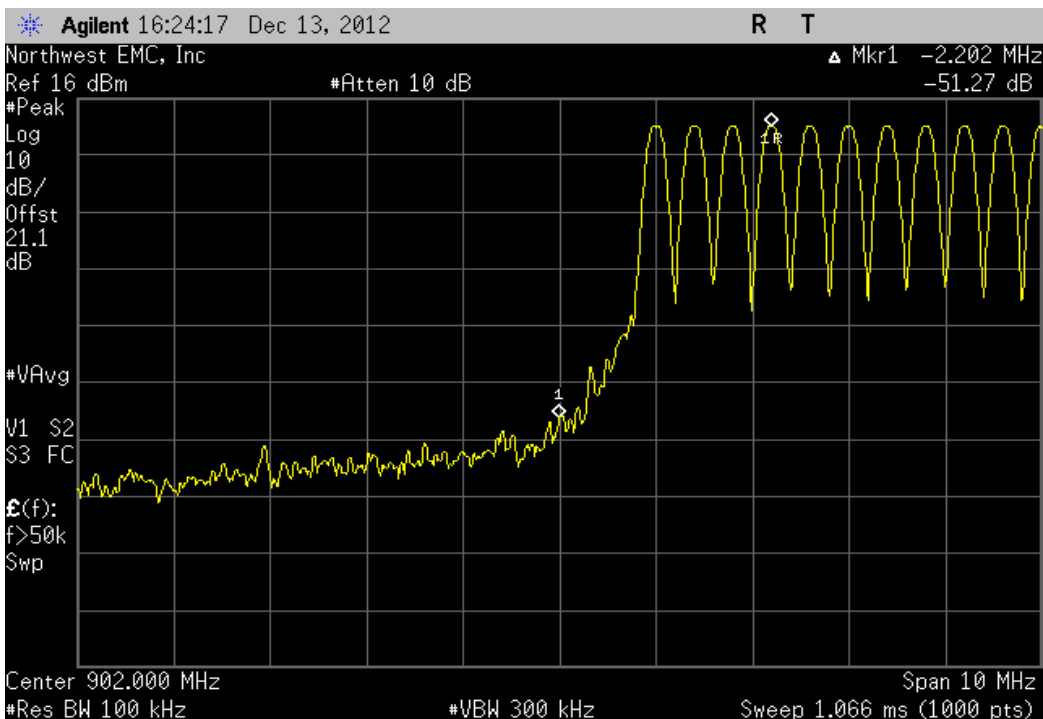
Antenna A, High Channel, 926.39 MHz

Value	Limit	Result
-40.14 dBc	≤ -20 dBc	Pass



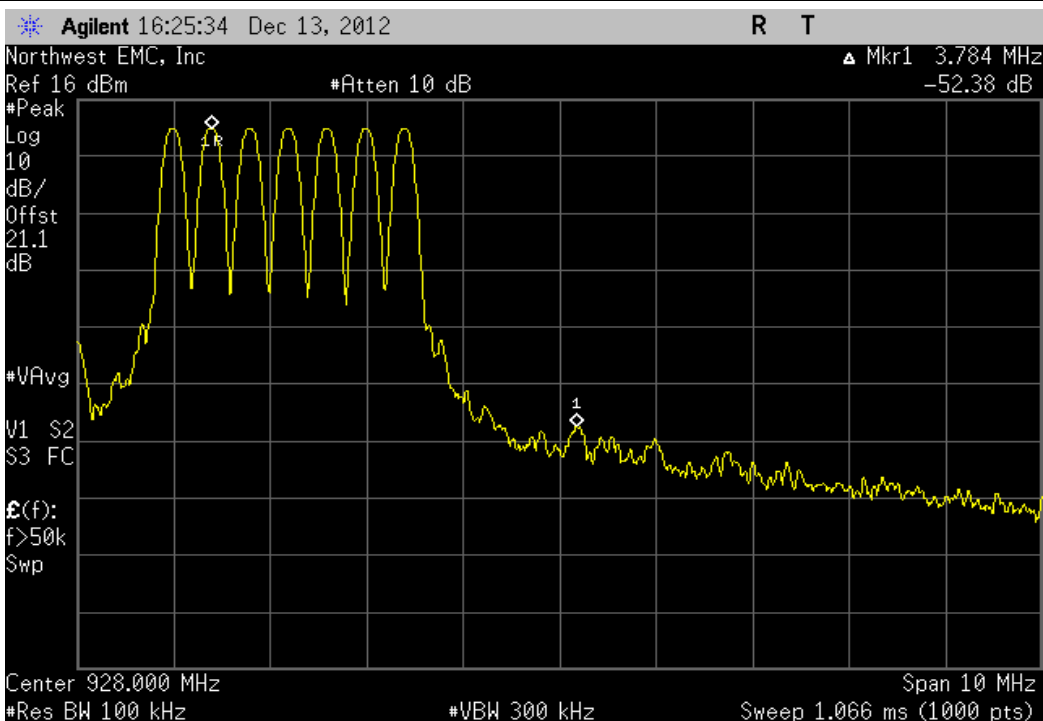
Antenna B, Low Channel, 902.99 MHz

Value	Limit	Result
-51.27 dBc	≤ -20 dBc	Pass



Antenna B, High Channel, 926.39 MHz

Value	Limit	Result
-52.38 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	10/5/2012	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to low 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 the data rate(s) listed in the datasheet in a no hop mode. The channels closest to the band edges were selected.

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



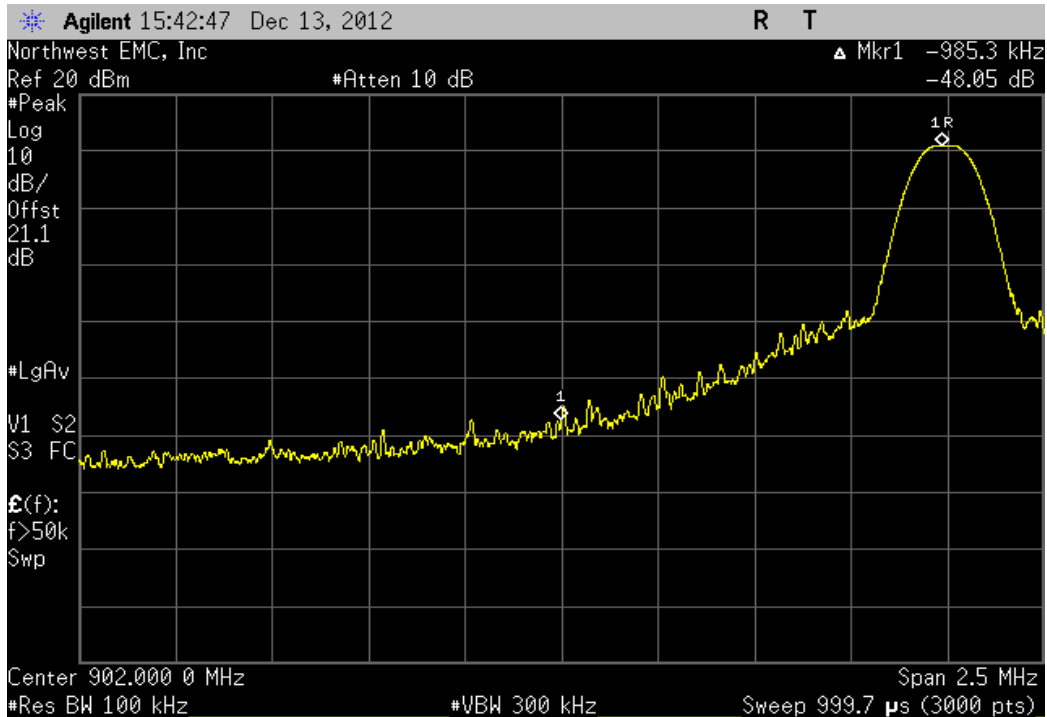
BAND EDGE COMPLIANCE

XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010383		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Value	Limit
Antenna A			Result
Low Channel, 902.99 MHz		-48.05 dBc	≤ -20 dBc
High Channel, 926.39 MHz		-52.84 dBc	≤ -20 dBc
Antenna B			Result
Low Channel, 902.99 MHz		-48.01 dBc	≤ -20 dBc
High Channel, 926.39 MHz		-50.9 dBc	≤ -20 dBc

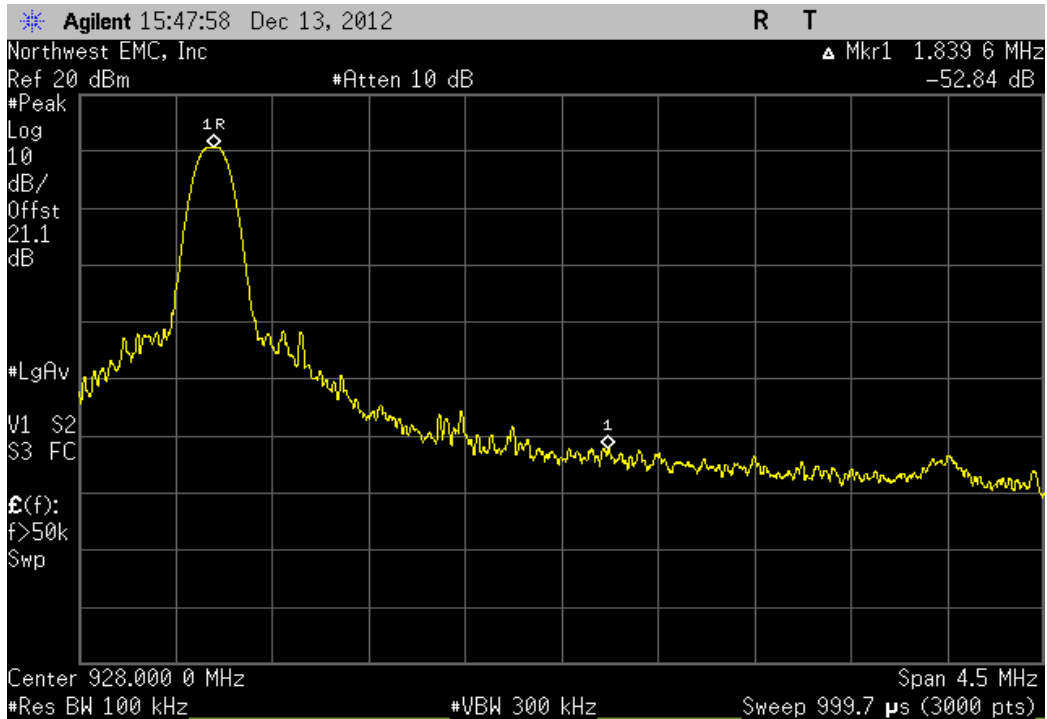
Antenna A, Low Channel, 902.99 MHz

Value	Limit	Result
-48.05 dBc	≤ -20 dBc	Pass



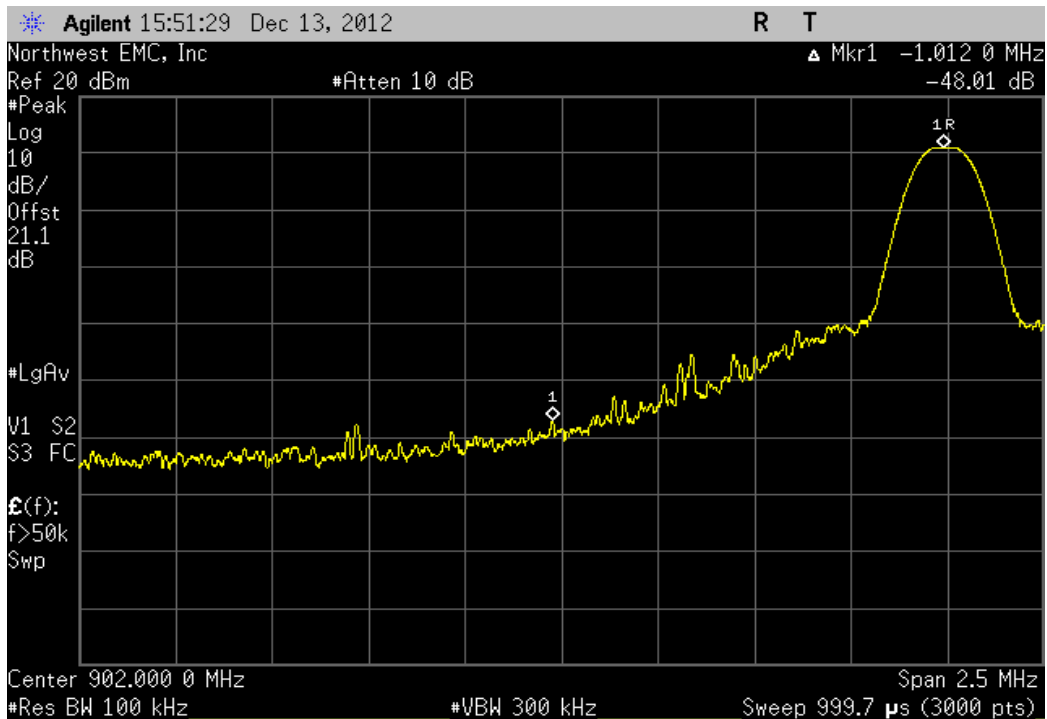
Antenna A, High Channel, 926.39 MHz

Value	Limit	Result
-52.84 dBc	≤ -20 dBc	Pass



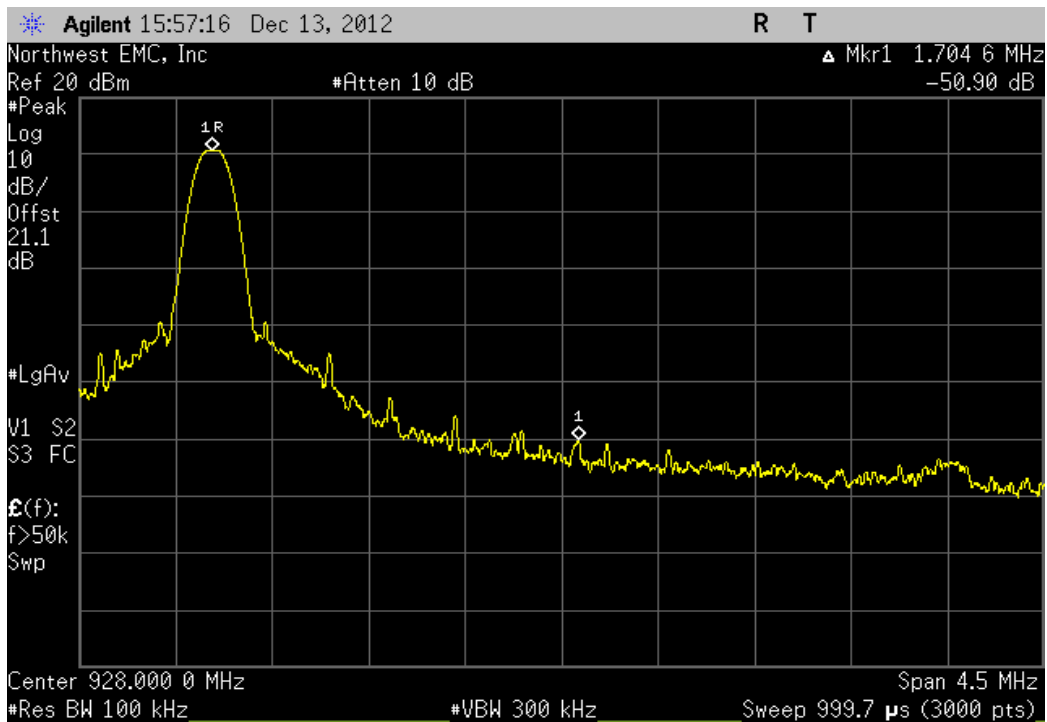
Antenna B, Low Channel, 902.99 MHz

Value	Limit	Result
-48.01 dBc	≤ -20 dBc	Pass



Antenna B, High Channel, 926.39 MHz

Value	Limit	Result
-50.9 dBc	≤ -20 dBc	Pass





SPURIOUS CONDUCTED EMISSIONS

XMit 2012.09.20

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 - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/19/2012	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	10/5/2012	12
Signal Generator	Agilent	N5183A	TIA	1/27/2012	24
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	12

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 in a no-hop mode. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

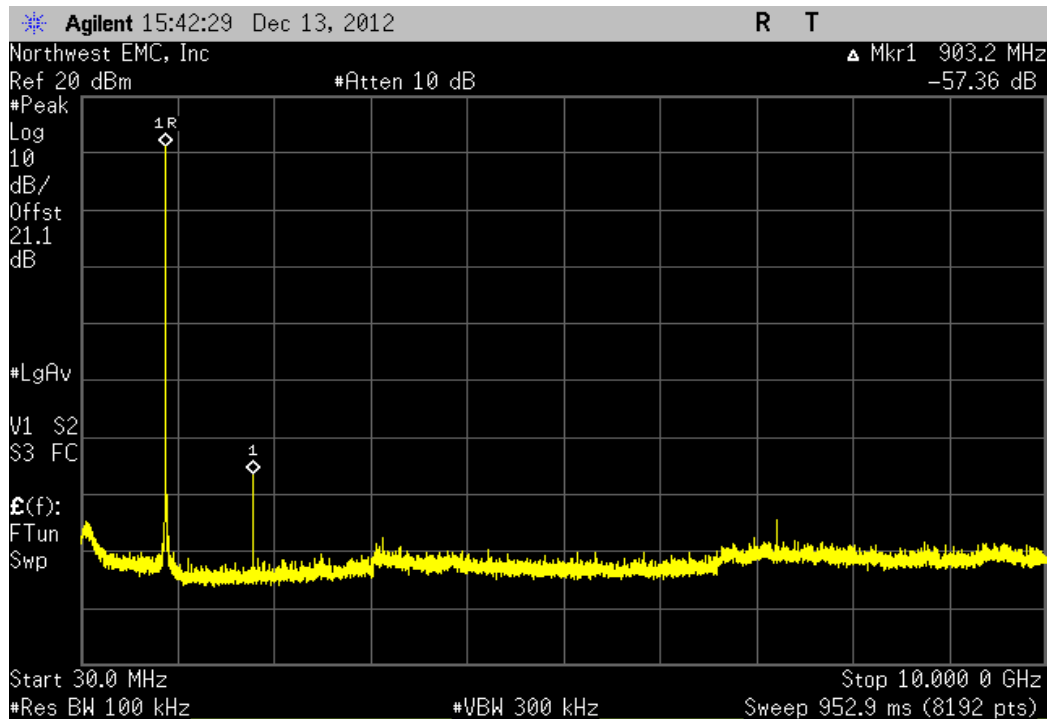


SPURIOUS CONDUCTED EMISSIONS

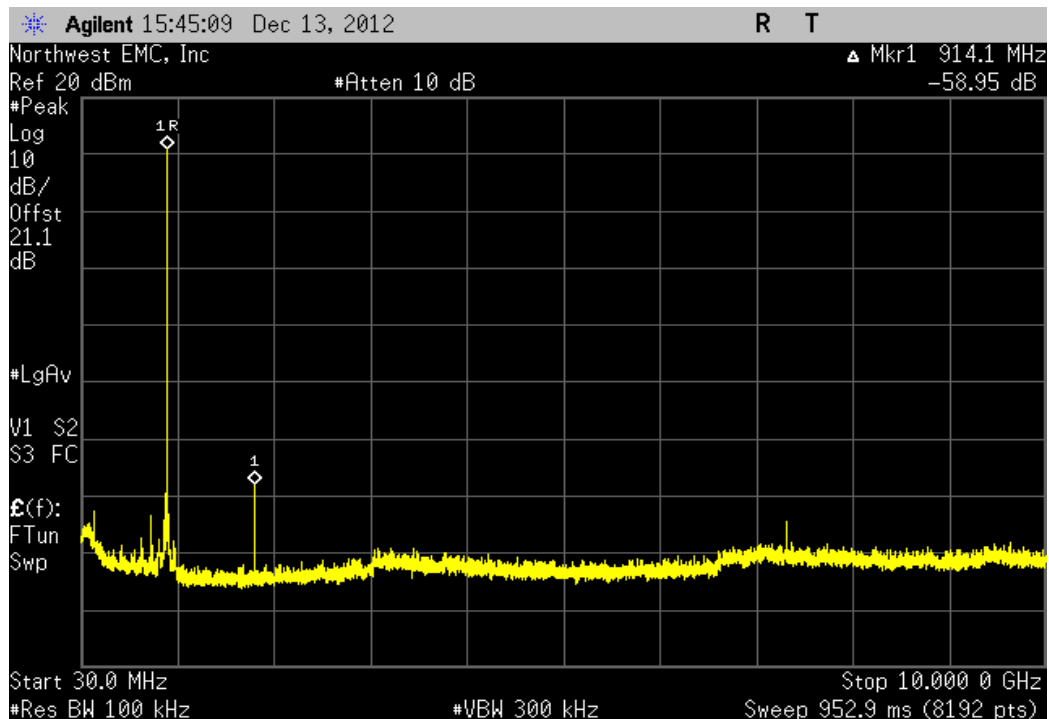
XMit 2012.09.20
PsaTx 2012.11.16

EUT: TH8321R1001		Work Order: HNYW0031	
Serial Number: 5191101 0010383		Date: 12/13/12	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.65°C	
Attendees: None		Humidity: 20%	
Project: None		Barometric Pres.: 1017.2	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2012		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Trevor Buls</i>	
		Frequency Range	Value Limit Result
Antenna A			
	Low Channel, 902.99 MHz	30 MHz - 10 GHz	-57.36 dBc ≤ -20 dBc Pass
	Mid Channel, 914.59 MHz	30 MHz - 10 GHz	-58.95 dBc ≤ -20 dBc Pass
	High Channel, 926.39 MHz	30 MHz - 10 GHz	-62.52 dBc ≤ -20 dBc Pass
Antenna B			
	Low Channel, 902.99 MHz	30 MHz - 10 GHz	-57.28 dBc ≤ -20 dBc Pass
	Mid Channel, 914.59 MHz	30 MHz - 10 GHz	-59.03 dBc ≤ -20 dBc Pass
	High Channel, 926.39 MHz	30 MHz - 10 GHz	-62.52 dBc ≤ -20 dBc Pass

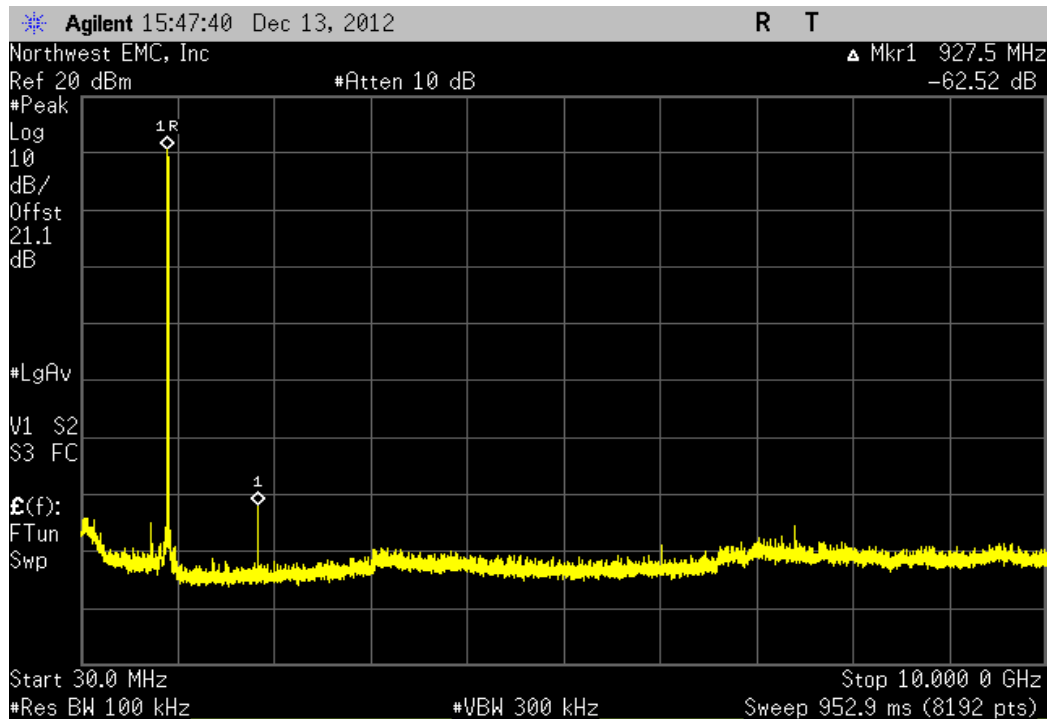
Antenna A, Low Channel, 902.99 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-57.36 dBc	≤ -20 dBc	Pass	



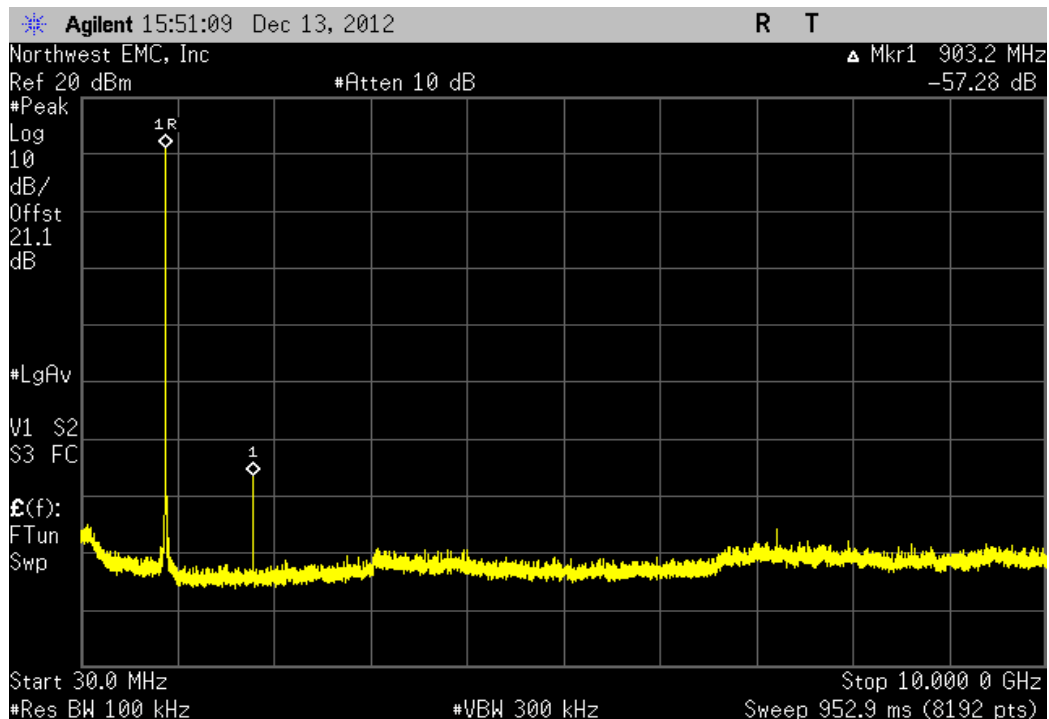
Antenna A, Mid Channel, 914.59 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-58.95 dBc	≤ -20 dBc	Pass	



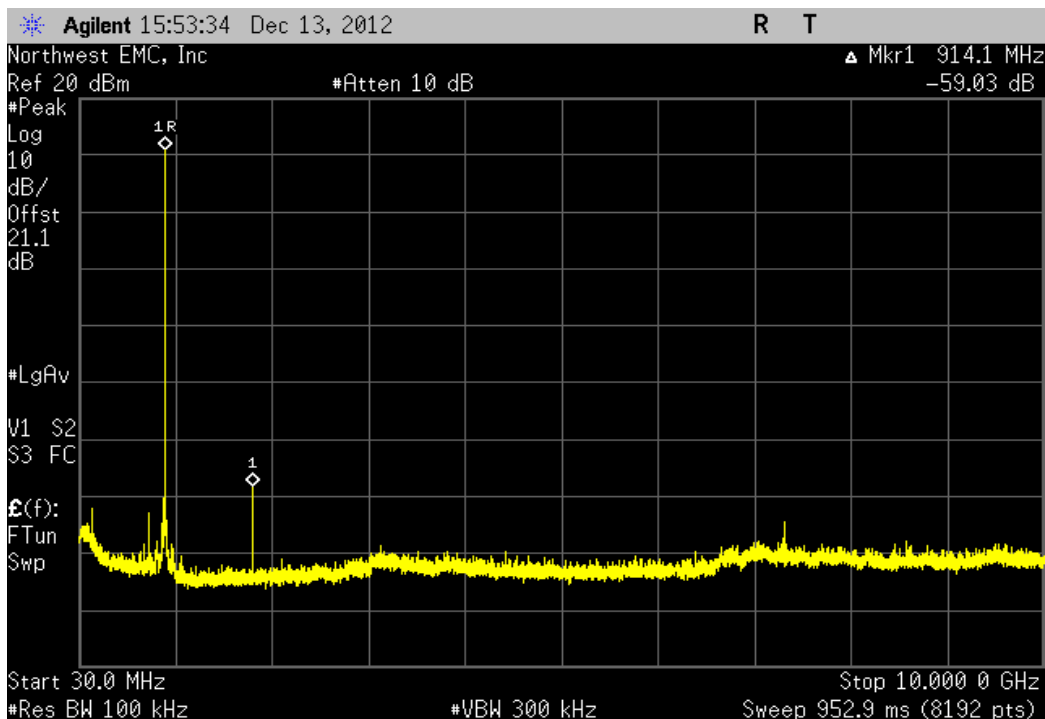
Antenna A, High Channel, 926.39 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-62.52 dBc	≤ -20 dBc	Pass	



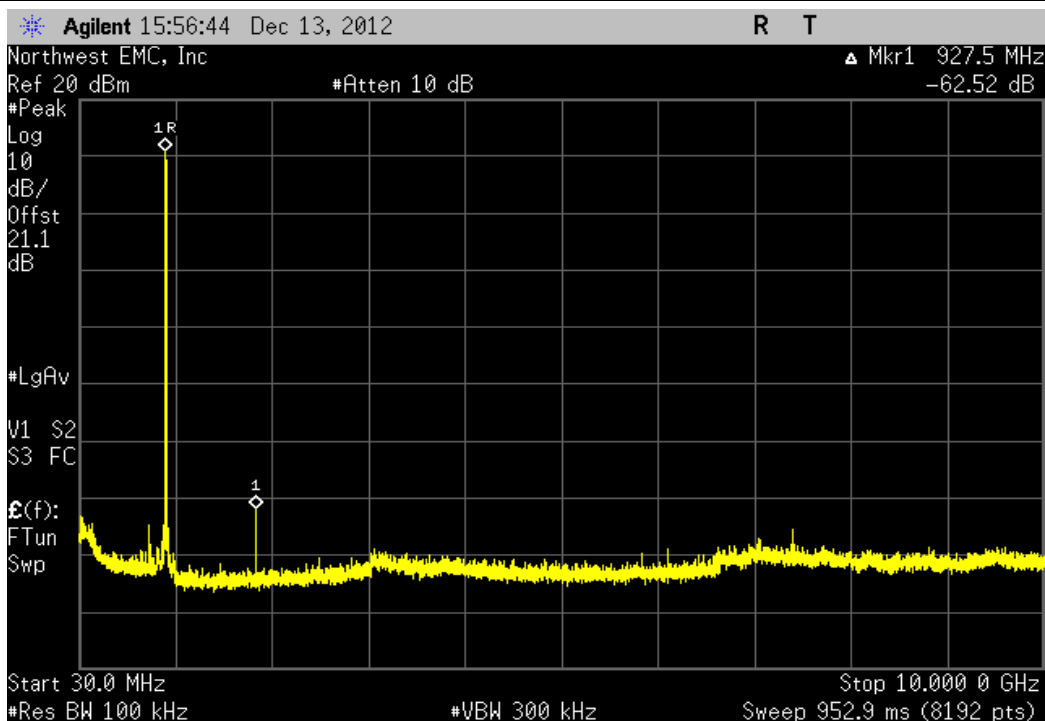
Antenna B, Low Channel, 902.99 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-57.28 dBc	≤ -20 dBc	Pass	



Antenna B, Mid Channel, 914.59 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-59.03 dBc	≤ -20 dBc	Pass	



Antenna B, High Channel, 926.39 MHz				
Frequency Range	Value	Limit	Result	
30 MHz - 10 GHz	-62.52 dBc	≤ -20 dBc	Pass	



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 Antenna B, Modulated, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.

Transmitting Antenna A, Modulated, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0031 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	10 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, 10db, 'SMA'	S.M. Electronics	SA18H-10	REN	5/31/2012	12 mo
Low Pass Filter 0-425 MHz	Micro-Tronics	LPM50003	HGO	5/31/2012	24 mo
High Pass Filter	Micro-Tronics	HPM50108	HGP	5/31/2012	24 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	5/30/2012	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	5/30/2012	12 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	5/30/2012	12 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	5/30/2012	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	6/29/2011	24 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXO	1/27/2012	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	8/28/2012	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/31/2012	12 mo
Spectrum Analyzer	Agilent	E4446A	AAT	6/28/2012	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

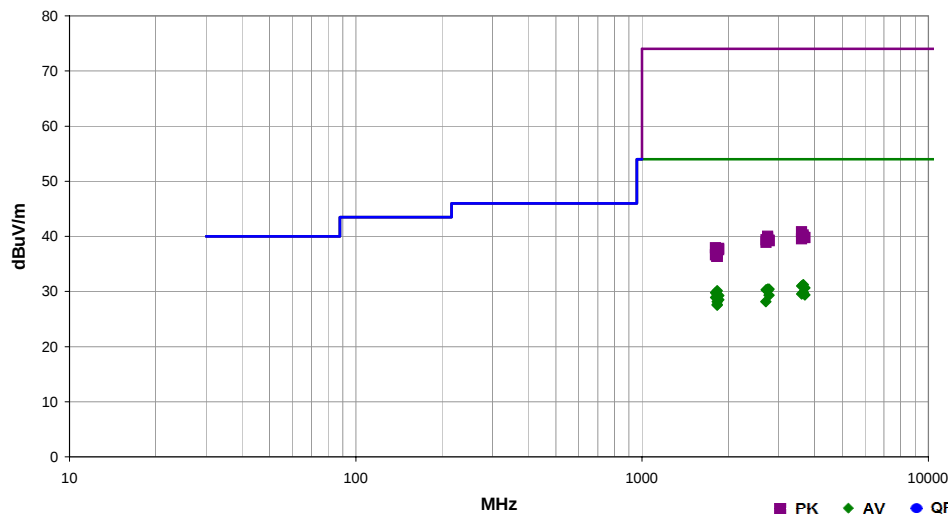
TEST DESCRIPTION

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:	HNYW0031	Date:	12/13/12	<i>Trevor Buls</i>	
Project:	None	Temperature:	24.37 °C		
Job Site:	MN05	Humidity:	17.4% RH		
Serial Number:	5191101 0010384	Barometric Pres.:	1014.7 mbar		
EUT:	TH8321R1001			Tested by:	Trevor Buls
Configuration:	1				
Customer:	Honeywell, Automation and Control Solutions				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting Antenna A, Modulated, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.				
Deviations:	None				
Comments:	None				

Test Specifications	FCC 15.247.2012	Test Method	ANSI C63.10:2009
---------------------	-----------------	-------------	------------------

Run #	5	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
-------	---	-------------------	---	-------------------	------	---------	------

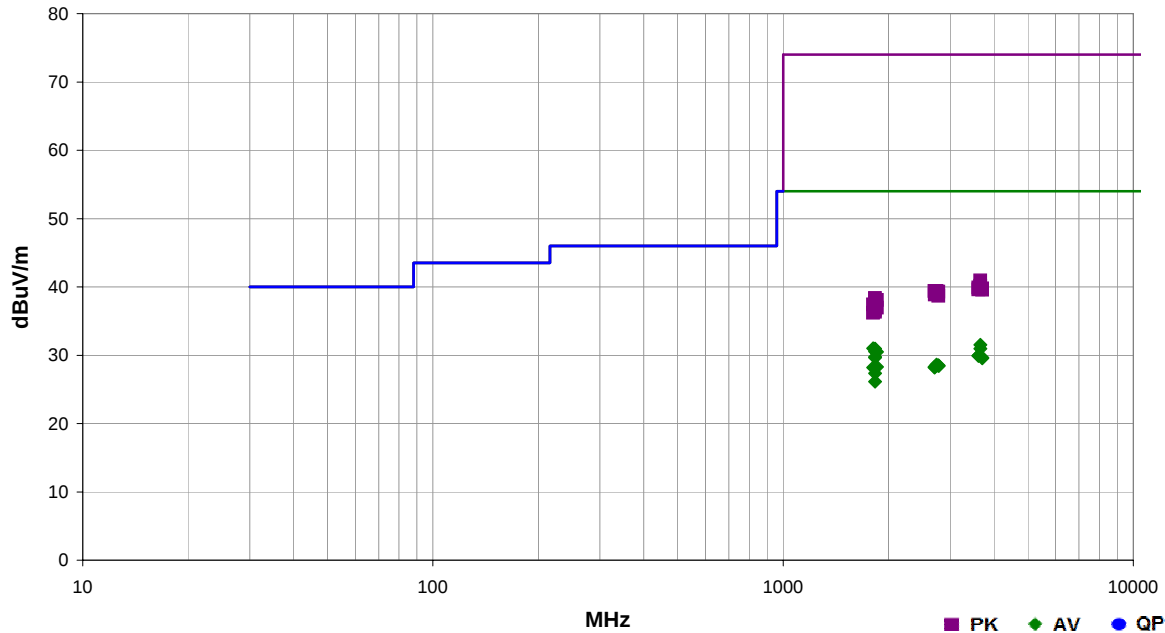


Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
3658.358	31.8	-0.6	1.0	137.0	3.0	0.0	Horz	AV	0.0	31.2	54.0	-22.8	EUT on Side, Mid Ch
3611.783	31.9	-0.9	1.0	81.0	3.0	0.0	Horz	AV	0.0	31.0	54.0	-23.0	EUT on Side, Low Ch
3705.492	30.9	-0.2	1.0	308.0	3.0	0.0	Horz	AV	0.0	30.7	54.0	-23.3	EUT on Side, High Ch
2779.158	33.6	-3.2	1.0	59.0	3.0	0.0	Vert	AV	0.0	30.4	54.0	-23.6	EUT Vertical, High Ch
2743.783	33.6	-3.2	1.0	65.0	3.0	0.0	Vert	AV	0.0	30.4	54.0	-23.6	EUT Vertical, Mid Ch
2708.992	33.5	-3.2	1.0	33.0	3.0	0.0	Horz	AV	0.0	30.3	54.0	-23.7	EUT on Side, Low Ch
2743.783	33.4	-3.2	1.0	10.0	3.0	0.0	Horz	AV	0.0	30.2	54.0	-23.8	EUT on Side, Mid Ch
1829.175	35.4	-5.3	1.1	231.0	3.0	0.0	Horz	AV	0.0	30.1	54.0	-23.9	EUT on Side, Mid Ch
3658.242	30.4	-0.6	1.0	160.0	3.0	0.0	Vert	AV	0.0	29.8	54.0	-24.2	EUT Vertical, Mid Ch
1805.892	35.4	-5.6	1.0	196.0	3.0	0.0	Vert	AV	0.0	29.8	54.0	-24.2	EUT Vertical, Low Ch
3612.067	30.4	-0.9	1.5	166.0	3.0	0.0	Vert	AV	0.0	29.5	54.0	-24.5	EUT Vertical, Low Ch
1829.250	34.7	-5.3	1.3	65.0	3.0	0.0	Horz	AV	0.0	29.4	54.0	-24.6	EUT Vertical, Mid Ch
3705.892	29.6	-0.2	1.0	350.0	3.0	0.0	Vert	AV	0.0	29.4	54.0	-24.6	EUT Vertical, High Ch
2779.200	32.5	-3.2	1.0	62.0	3.0	0.0	Horz	AV	0.0	29.3	54.0	-24.7	EUT on Side, High Ch
1852.783	34.2	-4.9	1.0	203.0	3.0	0.0	Vert	AV	0.0	29.3	54.0	-24.7	EUT Vertical, High Ch
1829.200	34.4	-5.3	1.0	21.0	3.0	0.0	Vert	AV	0.0	29.1	54.0	-24.9	EUT Vertical, Mid Ch
1806.092	34.5	-5.6	1.0	195.0	3.0	0.0	Horz	AV	0.0	28.9	54.0	-25.1	EUT on Side, Low Ch
1852.725	33.4	-4.9	1.0	244.0	3.0	0.0	Horz	AV	0.0	28.5	54.0	-25.5	EUT on Side, High Ch
2706.633	31.4	-3.2	3.9	74.0	3.0	0.0	Vert	AV	0.0	28.2	54.0	-25.8	EUT Vertical, Low Ch
1829.117	33.4	-5.3	1.1	285.0	3.0	0.0	Vert	AV	0.0	28.1	54.0	-25.9	EUT on Side, Mid Ch
1829.233	32.9	-5.3	1.0	335.0	3.0	0.0	Horz	AV	0.0	27.6	54.0	-26.4	EUT Horizontal, Mid Ch
1829.167	32.8	-5.3	1.0	207.0	3.0	0.0	Vert	AV	0.0	27.5	54.0	-26.5	EUT Horizontal, Mid Ch
3611.900	41.7	-0.9	1.0	81.0	3.0	0.0	Horz	PK	0.0	40.8	74.0	-33.2	EUT on Side, Low Ch
3656.383	40.8	-0.6	1.0	137.0	3.0	0.0	Horz	PK	0.0	40.2	74.0	-33.8	EUT on Side, Mid Ch
2743.900	43.2	-3.2	1.0	10.0	3.0	0.0	Horz	PK	0.0	40.0	74.0	-34.0	EUT on Side, Mid Ch
3655.783	40.5	-0.6	1.0	160.0	3.0	0.0	Vert	PK	0.0	39.9	74.0	-34.1	EUT Vertical, Mid Ch
3706.858	40.0	-0.2	1.0	350.0	3.0	0.0	Vert	PK	0.0	39.8	74.0	-34.2	EUT Vertical, High Ch
3706.408	40.0	-0.2	1.0	308.0	3.0	0.0	Horz	PK	0.0	39.8	74.0	-34.2	EUT on Side, High Ch
2744.092	42.9	-3.2	1.0	65.0	3.0	0.0	Vert	PK	0.0	39.7	74.0	-34.3	EUT Vertical, Mid Ch
3612.725	40.4	-0.9	1.5	166.0	3.0	0.0	Vert	PK	0.0	39.5	74.0	-34.5	EUT Vertical, Low Ch
2709.158	42.6	-3.2	1.0	33.0	3.0	0.0	Horz	PK	0.0	39.4	74.0	-34.6	EUT on Side, Low Ch
2779.042	42.5	-3.2	1.0	62.0	3.0	0.0	Horz	PK	0.0	39.3	74.0	-34.7	EUT on Side, High Ch
2779.333	42.4	-3.2	1.0	59.0	3.0	0.0	Vert	PK	0.0	39.2	74.0	-34.8	EUT Vertical, High Ch
2709.958	42.1	-3.2	3.8	74.0	3.0	0.0	Vert	PK	0.0	38.9	74.0	-35.1	EUT Vertical, Low Ch
1805.908	43.5	-5.6	1.0	196.0	3.0	0.0	Vert	PK	0.0	37.9	74.0	-36.1	EUT Vertical, Low Ch
1853.217	42.7	-4.9	1.0	244.0	3.0	0.0	Horz	PK	0.0	37.8	74.0	-36.2	EUT on Side, High Ch
1828.942	43.0	-5.3	1.3	65.0	3.0	0.0	Horz	PK	0.0	37.7	74.0	-36.3	EUT Vertical, Mid Ch
1829.075	42.9	-5.3	1.1	231.0	3.0	0.0	Horz	PK	0.0	37.6	74.0	-36.4	EUT on Side, Mid Ch
1852.767	42.5	-4.9	1.0	203.0	3.0	0.0	Vert	PK	0.0	37.6	74.0	-36.4	EUT Vertical, High Ch
1829.183	42.1	-5.3	1.0	21.0	3.0	0.0	Vert	PK	0.0	36.8	74.0	-37.2	EUT Vertical, Mid Ch
1806.183	42.2	-5.6	1.0	195.0	3.0	0.0	Horz	PK	0.0	36.6	74.0	-37.4	EUT on Side, Low Ch
1829.317	41.6	-5.3	1.0	207.0	3.0	0.0	Vert	PK	0.0	36.3	74.0	-37.7	EUT Horizontal, Mid Ch
1829.242	41.6	-5.3	1.1	285.0	3.0	0.0	Vert	PK	0.0	36.3	74.0	-37.7	EUT on Side, Mid Ch
1829.158	41.6	-5.3	1.0	335.0	3.0	0.0	Horz	PK	0.0	36.3	74.0	-37.7	EUT Horizontal, Mid Ch

Work Order:	HNYW0031	Date:	12/13/12	
Project:	None	Temperature:	24.37 °C	
Job Site:	MN05	Humidity:	17.4% RH	
Serial Number:	5191101 0010384	Barometric Pres.:	1014.7 mbar	
EUT:	TH8321R1001			
Configuration:	1			
Customer:	Honeywell, Automation and Control Solutions			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting Antenna B, Modulated, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 15.247:2012	ANSI C63.10:2009

Run #	16	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
3658.417	32.1	-0.6	1.0	1.0	3.0	0.0	Vert	AV	0.0	31.5	54.0	-22.5	EUT on Side, Mid Ch
1805.967	36.6	-5.6	1.1	49.0	3.0	0.0	Horz	AV	0.0	31.0	54.0	-23.0	EUT Vertical, Low Ch
3658.308	31.5	-0.6	1.0	326.0	3.0	0.0	Horz	AV	0.0	30.9	54.0	-23.1	EUT Vertical, Mid Ch
1829.150	36.2	-5.3	1.0	58.0	3.0	0.0	Horz	AV	0.0	30.9	54.0	-23.1	EUT Vertical, Mid Ch
1829.208	35.8	-5.3	1.0	219.0	3.0	0.0	Horz	AV	0.0	30.5	54.0	-23.5	EUT on Side, Mid Ch
1852.725	35.4	-4.9	1.0	51.0	3.0	0.0	Horz	AV	0.0	30.5	54.0	-23.5	EUT Vertical, High Ch
3611.908	30.8	-0.9	1.0	13.0	3.0	0.0	Horz	AV	0.0	29.9	54.0	-24.1	EUT Vertical, Low Ch
3611.875	30.8	-0.9	1.0	14.0	3.0	0.0	Vert	AV	0.0	29.9	54.0	-24.1	EUT on Side, Low Ch
1829.158	35.0	-5.3	1.0	359.0	3.0	0.0	Vert	AV	0.0	29.7	54.0	-24.3	EUT on Side, Mid Ch
3705.425	29.9	-0.2	1.9	344.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	EUT Vertical, High Ch
1829.208	34.9	-5.3	1.0	203.0	3.0	0.0	Vert	AV	0.0	29.6	54.0	-24.4	EUT Vertical, Mid Ch
3705.575	29.8	-0.2	1.0	41.0	3.0	0.0	Vert	AV	0.0	29.6	54.0	-24.4	EUT on Side, High Ch
2743.608	31.8	-3.2	1.0	213.0	3.0	0.0	Vert	AV	0.0	28.6	54.0	-25.4	EUT on Side, Mid Ch
2778.958	31.7	-3.2	1.1	151.0	3.0	0.0	Horz	AV	0.0	28.5	54.0	-25.5	EUT Vertical, High Ch
2745.450	31.7	-3.2	2.8	257.0	3.0	0.0	Horz	AV	0.0	28.5	54.0	-25.5	EUT Vertical, Mid Ch
2780.000	31.6	-3.2	2.9	212.0	3.0	0.0	Vert	AV	0.0	28.4	54.0	-25.6	EUT on Side, High Ch
2708.958	31.5	-3.2	1.0	80.0	3.0	0.0	Horz	AV	0.0	28.3	54.0	-25.7	EUT Vertical, Low Ch
1852.750	33.2	-4.9	1.0	97.0	3.0	0.0	Vert	AV	0.0	28.3	54.0	-25.7	EUT on Side, High Ch
1806.033	33.8	-5.6	1.0	112.0	3.0	0.0	Vert	AV	0.0	28.2	54.0	-25.8	EUT on Side, Low Ch
2708.267	31.4	-3.2	1.0	46.0	3.0	0.0	Vert	AV	0.0	28.2	54.0	-25.8	EUT on Side, Low Ch

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

Receiving Antenna B, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.

Receiving Antenna A, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0031 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	10 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
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	5/30/2012	12 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	5/30/2012	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	5/30/2012	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	6/29/2011	24 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	5/30/2012	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	8/28/2012	12 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXO	1/27/2012	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/31/2012	12 mo
Spectrum Analyzer	Agilent	E4446A	AAT	6/28/2012	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

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 receive 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 was used for this test in order to provide sufficient measurement sensitivity.



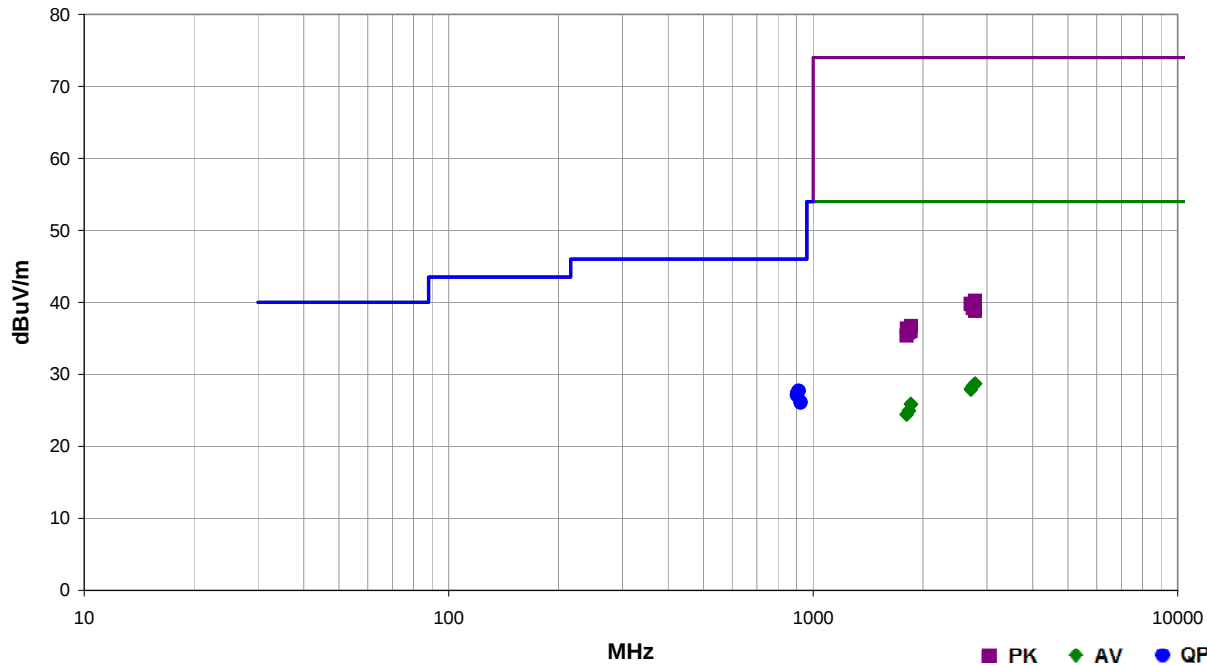
SPURIOUS RADIATED EMISSIONS - RECEIVE

PSA-ESCI 2012.12.14
PSA-ESCI Version 2011.12.21

Work Order:	HNYW0031	Date:	12/17/12	<i>Trevor Buls</i>
Project:	None	Temperature:	24.25 °C	
Job Site:	MN05	Humidity:	16.87% RH	
Serial Number:	5191101 0010384	Barometric Pres.:	1009.8 mbar	
EUT:	TH8321R1001			
Configuration:	1			
Customer:	Honeywell, Automation and Control Solutions			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Receiving Antenna A, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 15.247:2012	ANSI C63.10:2009

Run #	35	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
913.291	17.0	10.7	1.0	141.0	3.0	0.0	Vert	QP	0.0	27.7	46.0	-18.3	EUT Vertical, Mid Ch
913.629	17.0	10.7	1.0	53.0	3.0	0.0	Horz	QP	0.0	27.7	46.0	-18.3	EUT Vertical, Mid Ch
904.450	17.1	10.3	1.0	40.0	3.0	0.0	Horz	QP	0.0	27.4	46.0	-18.6	EUT Vertical, Low Ch
901.504	17.0	10.1	1.0	20.0	3.0	0.0	Vert	QP	0.0	27.1	46.0	-18.9	EUT Vertical, Low Ch
924.399	17.1	9.1	1.9	326.0	3.0	0.0	Vert	QP	0.0	26.2	46.0	-19.8	EUT Vertical, High Ch
924.664	17.0	9.1	1.0	314.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	EUT Vertical, High Ch
2781.225	31.9	-3.2	1.0	350.0	3.0	0.0	Horz	AV	0.0	28.7	54.0	-25.3	EUT Vertical, High Ch
2781.125	31.9	-3.2	1.8	103.0	3.0	0.0	Vert	AV	0.0	28.7	54.0	-25.3	EUT Vertical, High Ch
2742.275	31.6	-3.2	1.0	265.0	3.0	0.0	Vert	AV	0.0	28.4	54.0	-25.6	EUT Vertical, Low Ch
2742.167	31.6	-3.2	1.0	17.0	3.0	0.0	Horz	AV	0.0	28.4	54.0	-25.6	EUT Vertical, Low Ch
2711.292	31.2	-3.2	1.0	300.0	3.0	0.0	Vert	AV	0.0	28.0	54.0	-26.0	EUT Vertical, Low Ch
2711.075	31.1	-3.2	1.0	185.0	3.0	0.0	Horz	AV	0.0	27.9	54.0	-26.1	EUT Vertical, Low Ch
1853.642	30.8	-4.9	1.0	165.0	3.0	0.0	Vert	AV	0.0	25.9	54.0	-28.1	EUT Vertical, High Ch
1855.083	30.7	-4.9	1.0	250.0	3.0	0.0	Horz	AV	0.0	25.8	54.0	-28.2	EUT Vertical, High Ch
1830.508	30.2	-5.2	1.0	331.0	3.0	0.0	Horz	AV	0.0	25.0	54.0	-29.0	EUT Vertical, Low Ch
1828.725	30.2	-5.3	1.0	302.0	3.0	0.0	Vert	AV	0.0	24.9	54.0	-29.1	EUT Vertical, Low Ch
1803.642	30.1	-5.6	1.0	46.0	3.0	0.0	Vert	AV	0.0	24.5	54.0	-29.5	EUT Vertical, Low Ch
1804.967	30.0	-5.6	2.3	262.0	3.0	0.0	Horz	AV	0.0	24.4	54.0	-29.6	EUT Vertical, Low Ch

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
2779.492	43.4	-3.2	1.0	350.0	3.0	0.0	Horz	PK	0.0	40.2	74.0	-33.8	EUT Vertical, High Ch
2711.358	43.0	-3.2	1.0	300.0	3.0	0.0	Vert	PK	0.0	39.8	74.0	-34.2	EUT Vertical, Low Ch
2710.625	43.0	-3.2	1.0	185.0	3.0	0.0	Horz	PK	0.0	39.8	74.0	-34.2	EUT Vertical, Low Ch
2741.875	42.8	-3.2	1.0	265.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	EUT Vertical, Low Ch
2744.275	42.4	-3.2	1.0	17.0	3.0	0.0	Horz	PK	0.0	39.2	74.0	-34.8	EUT Vertical, Low Ch
2781.183	42.0	-3.2	1.8	103.0	3.0	0.0	Vert	PK	0.0	38.8	74.0	-35.2	EUT Vertical, High Ch
1855.000	41.6	-4.9	1.0	165.0	3.0	0.0	Vert	PK	0.0	36.7	74.0	-37.3	EUT Vertical, High Ch
1808.117	41.9	-5.6	1.0	46.0	3.0	0.0	Vert	PK	0.0	36.3	74.0	-37.7	EUT Vertical, Low Ch
1854.417	40.9	-4.9	1.0	250.0	3.0	0.0	Horz	PK	0.0	36.0	74.0	-38.0	EUT Vertical, High Ch
1829.667	41.2	-5.3	1.0	302.0	3.0	0.0	Vert	PK	0.0	35.9	74.0	-38.1	EUT Vertical, Low Ch
1827.300	41.1	-5.3	1.0	331.0	3.0	0.0	Horz	PK	0.0	35.8	74.0	-38.2	EUT Vertical, Low Ch
1805.392	41.0	-5.6	2.3	262.0	3.0	0.0	Horz	PK	0.0	35.4	74.0	-38.6	EUT Vertical, Low Ch



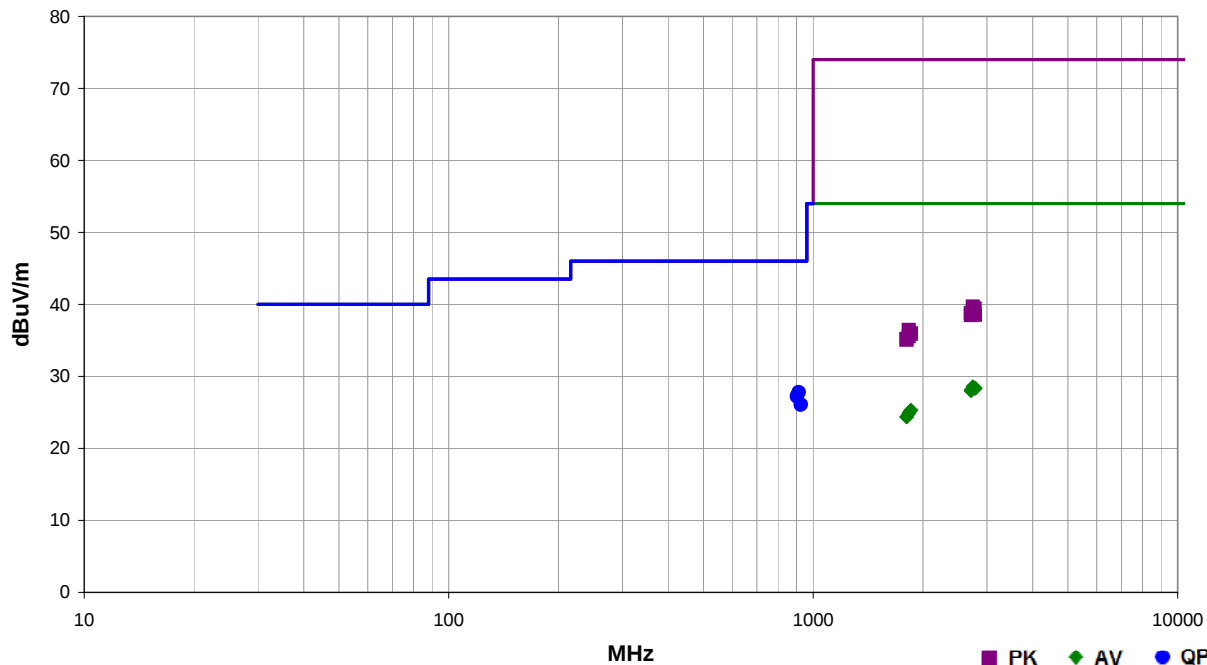
SPURIOUS RADIATED EMISSIONS - RECEIVE

PSA-ESCI 2012.12.14
PSA-ESCI Version 2011.12.21

Work Order:	HNYW0031	Date:	12/17/12	<i>Trevor Buls</i>
Project:	None	Temperature:	24.25 °C	
Job Site:	MN05	Humidity:	16.87% RH	
Serial Number:	5191101 0010384	Barometric Pres.:	1009.8 mbar	
EUT:	TH8321R1001			
Configuration:	1			
Customer:	Honeywell, Automation and Control Solutions			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Receiving Antenna B, Low, Mid, High Channels (902.9, 914.6, 926.4 MHz). See Comments.			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 15.247:2012	ANSI C63.10:2009

Run #	40	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
912.818	17.1	10.7	1.0	289.0	3.0	0.0	Vert	QP	0.0	27.8	46.0	-18.2	EUT Vertical, Mid Ch
913.134	17.0	10.7	2.3	28.0	3.0	0.0	Horz	QP	0.0	27.7	46.0	-18.3	EUT Vertical, Mid Ch
903.102	17.1	10.2	1.0	282.0	3.0	0.0	Vert	QP	0.0	27.3	46.0	-18.7	EUT Vertical, Low Ch
902.000	17.1	10.1	1.0	233.0	3.0	0.0	Horz	QP	0.0	27.2	46.0	-18.8	EUT Vertical, Low Ch
926.220	17.0	9.1	1.0	214.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	EUT Vertical, High Ch
924.927	17.0	9.0	2.8	132.0	3.0	0.0	Vert	QP	0.0	26.0	46.0	-20.0	EUT Vertical, High Ch
2742.633	31.8	-3.2	3.3	192.0	3.0	0.0	Vert	AV	0.0	28.6	54.0	-25.4	EUT Vertical, Mid Ch
2742.542	31.7	-3.2	1.0	125.0	3.0	0.0	Horz	AV	0.0	28.5	54.0	-25.5	EUT Vertical, Mid Ch
2780.983	31.6	-3.2	3.7	310.0	3.0	0.0	Horz	AV	0.0	28.4	54.0	-25.6	EUT Vertical, High Ch
2781.183	31.5	-3.2	1.0	149.0	3.0	0.0	Vert	AV	0.0	28.3	54.0	-25.7	EUT Vertical, High Ch
2711.150	31.3	-3.2	3.1	284.0	3.0	0.0	Vert	AV	0.0	28.1	54.0	-25.9	EUT Vertical, Low Ch
2711.125	31.2	-3.2	1.0	232.0	3.0	0.0	Horz	AV	0.0	28.0	54.0	-26.0	EUT Vertical, Low Ch
1852.242	30.2	-4.9	1.0	25.0	3.0	0.0	Horz	AV	0.0	25.3	54.0	-28.7	EUT Vertical, High Ch
1852.008	30.2	-4.9	2.5	64.0	3.0	0.0	Vert	AV	0.0	25.3	54.0	-28.7	EUT Vertical, High Ch
1830.100	30.2	-5.2	1.0	178.0	3.0	0.0	Vert	AV	0.0	25.0	54.0	-29.0	EUT Vertical, Mid Ch
1828.883	30.1	-5.3	4.0	71.0	3.0	0.0	Horz	AV	0.0	24.8	54.0	-29.2	EUT Vertical, Mid Ch
1805.992	30.0	-5.6	1.5	352.0	3.0	0.0	Vert	AV	0.0	24.4	54.0	-29.6	EUT Vertical, Low Ch
1803.617	30.0	-5.6	3.5	179.0	3.0	0.0	Horz	AV	0.0	24.4	54.0	-29.6	EUT Vertical, Low Ch

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
2744.533	42.9	-3.2	1.0	125.0	3.0	0.0	Horz	PK	0.0	39.7	74.0	-34.3	EUT Vertical, Mid Ch
2778.117	42.6	-3.2	3.6	310.0	3.0	0.0	Horz	PK	0.0	39.4	74.0	-34.6	EUT Vertical, High Ch
2709.333	42.0	-3.2	1.0	232.0	3.0	0.0	Horz	PK	0.0	38.8	74.0	-35.2	EUT Vertical, Low Ch
2745.433	41.9	-3.2	3.3	192.0	3.0	0.0	Vert	PK	0.0	38.7	74.0	-35.3	EUT Vertical, Mid Ch
2779.217	41.7	-3.2	1.0	149.0	3.0	0.0	Vert	PK	0.0	38.5	74.0	-35.5	EUT Vertical, High Ch
2710.242	41.7	-3.2	3.1	284.0	3.0	0.0	Vert	PK	0.0	38.5	74.0	-35.5	EUT Vertical, Low Ch
1828.567	41.7	-5.3	1.0	178.0	3.0	0.0	Vert	PK	0.0	36.4	74.0	-37.6	EUT Vertical, Mid Ch
1852.467	40.9	-4.9	1.0	25.0	3.0	0.0	Horz	PK	0.0	36.0	74.0	-38.0	EUT Vertical, High Ch
1855.242	40.8	-4.9	2.5	64.0	3.0	0.0	Vert	PK	0.0	35.9	74.0	-38.1	EUT Vertical, High Ch
1829.417	40.8	-5.3	3.8	71.0	3.0	0.0	Horz	PK	0.0	35.5	74.0	-38.5	EUT Vertical, Mid Ch
1804.083	40.8	-5.6	1.5	352.0	3.0	0.0	Vert	PK	0.0	35.2	74.0	-38.8	EUT Vertical, Low Ch
1803.875	40.7	-5.6	3.5	179.0	3.0	0.0	Horz	PK	0.0	35.1	74.0	-38.9	EUT Vertical, Low Ch

AC POWERLINE CONDUCTED EMISSIONS

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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESCI	ARG	03/22/2012	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	05/31/2012	24 mo
Attenuator, 20 dB	SM Electronics	SA01B-20	REF	12/21/2011	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	04/16/2012	12 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	05/30/2012	12 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.94 dB	-2.94 dB

CONFIGURATIONS INVESTIGATED

HNW0031-1

MODES INVESTIGATED

Transmitting Antenna A, Modulated, High Channel 926.4 MHz.
 Transmitting Antenna A, Modulated, Low Channel 902.9 MHz.
 Transmitting Antenna A, Modulated, Mid Channel 914.6 MHz.
 Transmitting Antenna B, Modulated, High Channel 926.4 MHz.
 Transmitting Antenna B, Modulated, Low Channel 902.9 MHz.
 Transmitting Antenna B, Modulated, Mid Channel 914.6 MHz.

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	1	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

None

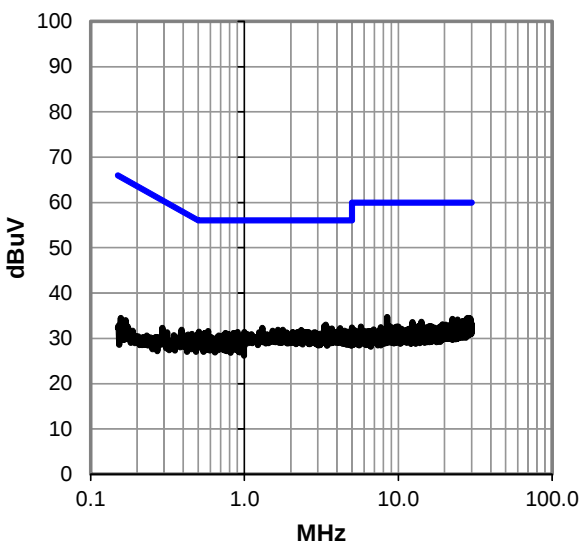
EUT OPERATING MODES

Transmitting Antenna A, Modulated, Low Channel 902.9 MHz.

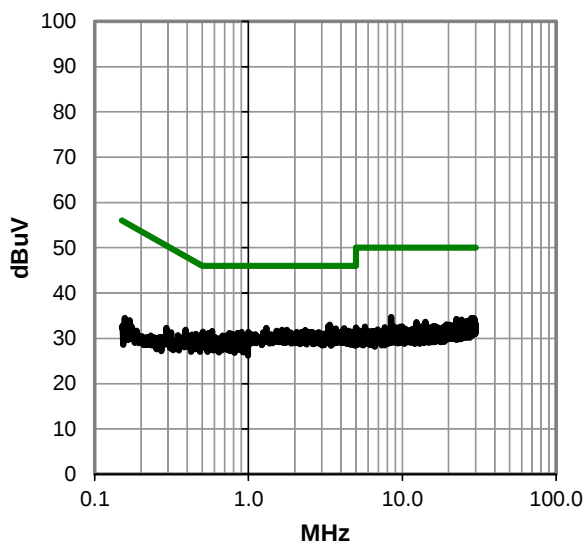
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #1

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.368	12.7	20.3	33.0	56.0	-23.0
3.296	12.3	20.3	32.6	56.0	-23.4
4.992	12.0	20.4	32.4	56.0	-23.6
3.464	12.0	20.3	32.3	56.0	-23.7
1.304	12.1	20.2	32.3	56.0	-23.7
4.192	11.9	20.4	32.3	56.0	-23.7
3.704	11.8	20.4	32.2	56.0	-23.8
1.776	11.6	20.3	31.9	56.0	-24.1
2.344	11.5	20.3	31.8	56.0	-24.2
0.580	11.4	20.2	31.6	56.0	-24.4
0.505	11.3	20.2	31.5	56.0	-24.5
0.901	11.2	20.2	31.4	56.0	-24.6
0.555	11.0	20.2	31.2	56.0	-24.8
0.753	11.0	20.2	31.2	56.0	-24.8
0.850	11.0	20.2	31.2	56.0	-24.8
0.876	11.0	20.2	31.2	56.0	-24.8
0.774	10.8	20.2	31.0	56.0	-25.0
0.782	10.8	20.2	31.0	56.0	-25.0
8.490	14.1	20.6	34.7	60.0	-25.3
0.680	10.4	20.2	30.6	56.0	-25.4
28.220	12.3	22.2	34.5	60.0	-25.5
28.950	12.2	22.3	34.5	60.0	-25.5
0.934	10.2	20.2	30.4	56.0	-25.6
29.430	12.0	22.3	34.3	60.0	-25.7
0.968	10.1	20.2	30.3	56.0	-25.7
22.500	12.7	21.6	34.3	60.0	-25.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.368	12.7	20.3	33.0	46.0	-13.0
3.296	12.3	20.3	32.6	46.0	-13.4
4.992	12.0	20.4	32.4	46.0	-13.6
3.464	12.0	20.3	32.3	46.0	-13.7
1.304	12.1	20.2	32.3	46.0	-13.7
4.192	11.9	20.4	32.3	46.0	-13.7
3.704	11.8	20.4	32.2	46.0	-13.8
1.776	11.6	20.3	31.9	46.0	-14.1
2.344	11.5	20.3	31.8	46.0	-14.2
0.580	11.4	20.2	31.6	46.0	-14.4
0.505	11.3	20.2	31.5	46.0	-14.5
0.901	11.2	20.2	31.4	46.0	-14.6
0.555	11.0	20.2	31.2	46.0	-14.8
0.753	11.0	20.2	31.2	46.0	-14.8
0.850	11.0	20.2	31.2	46.0	-14.8
0.876	11.0	20.2	31.2	46.0	-14.8
0.774	10.8	20.2	31.0	46.0	-15.0
0.782	10.8	20.2	31.0	46.0	-15.0
8.490	14.1	20.6	34.7	50.0	-15.3
0.680	10.4	20.2	30.6	46.0	-15.4
28.220	12.3	22.2	34.5	50.0	-15.5
28.950	12.2	22.3	34.5	50.0	-15.5
0.934	10.2	20.2	30.4	46.0	-15.6
29.430	12.0	22.3	34.3	50.0	-15.7
0.968	10.1	20.2	30.3	46.0	-15.7
22.500	12.7	21.6	34.3	50.0	-15.7

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	2	Line:	Neutral	Ext. Attenuation (dB):	20
--------	---	-------	---------	------------------------	----

COMMENTS

None

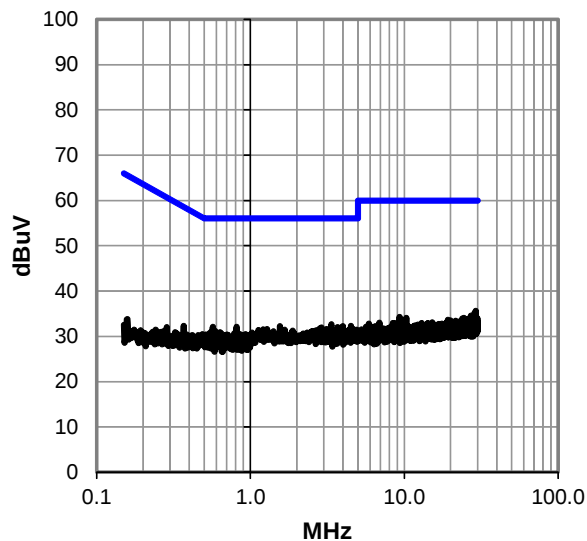
EUT OPERATING MODES

Transmitting Antenna A, Modulated, Low Channel 902.9 MHz.

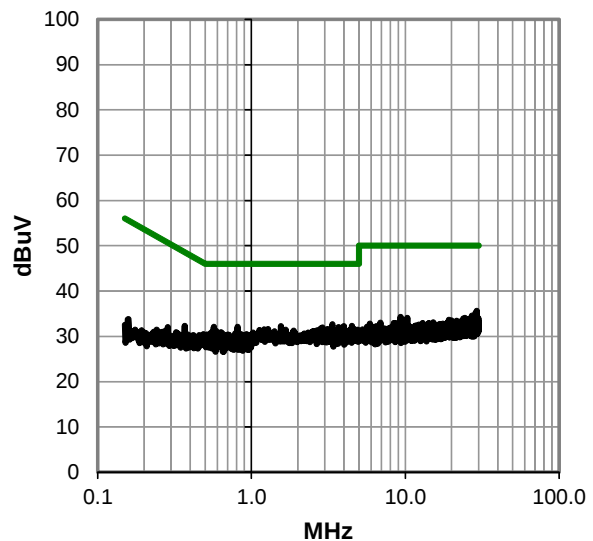
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #2

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.352	12.3	20.3	32.6	56.0	-23.4
4.504	11.9	20.4	32.3	56.0	-23.7
3.984	11.9	20.4	32.3	56.0	-23.7
1.552	12.0	20.3	32.3	56.0	-23.7
0.570	11.9	20.2	32.1	56.0	-23.9
0.811	11.9	20.2	32.1	56.0	-23.9
3.680	11.7	20.4	32.1	56.0	-23.9
2.896	11.6	20.3	31.9	56.0	-24.1
1.280	11.4	20.2	31.6	56.0	-24.4
29.200	13.3	22.3	35.6	60.0	-24.4
0.590	11.0	20.2	31.2	56.0	-24.8
28.670	12.9	22.3	35.2	60.0	-24.8
0.635	10.7	20.2	30.9	56.0	-25.1
0.546	10.6	20.2	30.8	56.0	-25.2
0.786	10.5	20.2	30.7	56.0	-25.3
27.120	12.5	22.1	34.6	60.0	-25.4
0.857	10.3	20.2	30.5	56.0	-25.5
0.929	10.3	20.2	30.5	56.0	-25.5
0.703	10.2	20.2	30.4	56.0	-25.6
9.310	13.6	20.7	34.3	60.0	-25.7
29.070	11.8	22.3	34.1	60.0	-25.9
10.290	13.4	20.7	34.1	60.0	-25.9
27.090	12.0	22.1	34.1	60.0	-25.9
24.470	12.3	21.8	34.1	60.0	-25.9
29.940	11.6	22.4	34.0	60.0	-26.0
23.840	12.2	21.7	33.9	60.0	-26.1

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.352	12.3	20.3	32.6	46.0	-13.4
4.504	11.9	20.4	32.3	46.0	-13.7
3.984	11.9	20.4	32.3	46.0	-13.7
1.552	12.0	20.3	32.3	46.0	-13.7
0.570	11.9	20.2	32.1	46.0	-13.9
0.811	11.9	20.2	32.1	46.0	-13.9
3.680	11.7	20.4	32.1	46.0	-13.9
2.896	11.6	20.3	31.9	46.0	-14.1
1.280	11.4	20.2	31.6	46.0	-14.4
29.200	13.3	22.3	35.6	50.0	-14.4
0.590	11.0	20.2	31.2	46.0	-14.8
28.670	12.9	22.3	35.2	50.0	-14.8
0.635	10.7	20.2	30.9	46.0	-15.1
0.546	10.6	20.2	30.8	46.0	-15.2
0.786	10.5	20.2	30.7	46.0	-15.3
27.120	12.5	22.1	34.6	50.0	-15.4
0.857	10.3	20.2	30.5	46.0	-15.5
0.929	10.3	20.2	30.5	46.0	-15.5
0.703	10.2	20.2	30.4	46.0	-15.6
9.310	13.6	20.7	34.3	50.0	-15.7
29.070	11.8	22.3	34.1	50.0	-15.9
10.290	13.4	20.7	34.1	50.0	-15.9
27.090	12.0	22.1	34.1	50.0	-15.9
24.470	12.3	21.8	34.1	50.0	-15.9
29.940	11.6	22.4	34.0	50.0	-16.0
23.840	12.2	21.7	33.9	50.0	-16.1

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	3	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

None

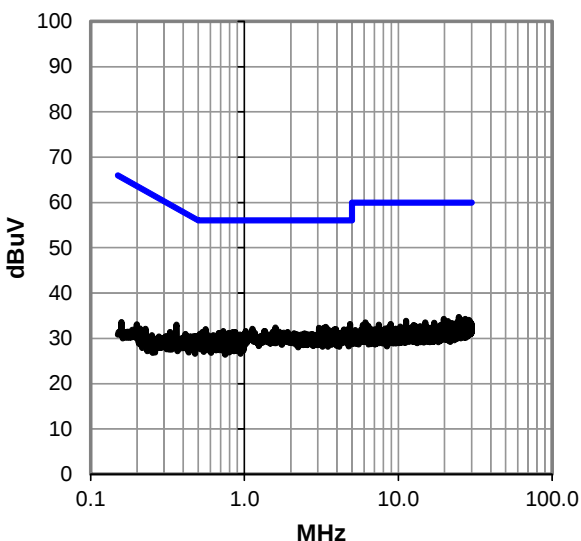
EUT OPERATING MODES

Transmitting Antenna A, Modulated, Mid Channel 914.6 MHz.

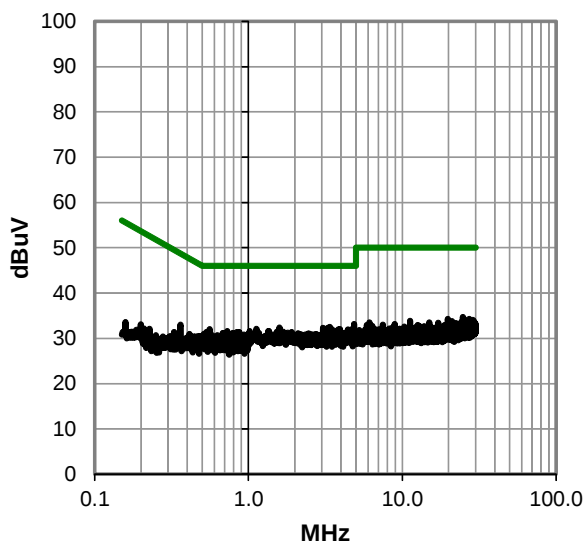
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #3

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.856	12.8	20.4	33.2	56.0	-22.8
3.368	12.2	20.3	32.5	56.0	-23.5
1.592	12.1	20.3	32.4	56.0	-23.6
3.280	12.0	20.3	32.3	56.0	-23.7
3.048	12.0	20.3	32.3	56.0	-23.7
1.128	11.9	20.2	32.1	56.0	-23.9
3.928	11.7	20.4	32.1	56.0	-23.9
0.558	11.8	20.2	32.0	56.0	-24.0
4.728	11.6	20.4	32.0	56.0	-24.0
3.576	11.4	20.4	31.8	56.0	-24.2
0.726	11.4	20.2	31.6	56.0	-24.4
0.534	11.2	20.2	31.4	56.0	-24.6
0.842	11.2	20.2	31.4	56.0	-24.6
0.869	11.1	20.2	31.3	56.0	-24.7
0.682	11.0	20.2	31.2	56.0	-24.8
0.789	11.0	20.2	31.2	56.0	-24.8
0.692	10.9	20.2	31.1	56.0	-24.9
0.512	10.8	20.2	31.0	56.0	-25.0
0.864	10.8	20.2	31.0	56.0	-25.0
0.748	10.6	20.2	30.8	56.0	-25.2
0.935	10.6	20.2	30.8	56.0	-25.2
24.780	12.9	21.8	34.7	60.0	-25.3
0.580	10.5	20.2	30.7	56.0	-25.3
0.628	10.5	20.2	30.7	56.0	-25.3
0.983	10.4	20.2	30.6	56.0	-25.4
27.330	12.2	22.1	34.3	60.0	-25.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.856	12.8	20.4	33.2	46.0	-12.8
3.368	12.2	20.3	32.5	46.0	-13.5
1.592	12.1	20.3	32.4	46.0	-13.6
3.280	12.0	20.3	32.3	46.0	-13.7
3.048	12.0	20.3	32.3	46.0	-13.7
1.128	11.9	20.2	32.1	46.0	-13.9
3.928	11.7	20.4	32.1	46.0	-13.9
0.558	11.8	20.2	32.0	46.0	-14.0
4.728	11.6	20.4	32.0	46.0	-14.0
3.576	11.4	20.4	31.8	46.0	-14.2
0.726	11.4	20.2	31.6	46.0	-14.4
0.534	11.2	20.2	31.4	46.0	-14.6
0.842	11.2	20.2	31.4	46.0	-14.6
0.869	11.1	20.2	31.3	46.0	-14.7
0.682	11.0	20.2	31.2	46.0	-14.8
0.789	11.0	20.2	31.2	46.0	-14.8
0.692	10.9	20.2	31.1	46.0	-14.9
0.512	10.8	20.2	31.0	46.0	-15.0
0.864	10.8	20.2	31.0	46.0	-15.0
0.748	10.6	20.2	30.8	46.0	-15.2
0.935	10.6	20.2	30.8	46.0	-15.2
24.780	12.9	21.8	34.7	50.0	-15.3
0.580	10.5	20.2	30.7	46.0	-15.3
0.628	10.5	20.2	30.7	46.0	-15.3
0.983	10.4	20.2	30.6	46.0	-15.4
27.330	12.2	22.1	34.3	50.0	-15.7

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	4	Line:	Neutral	Ext. Attenuation (dB):	20
--------	---	-------	---------	------------------------	----

COMMENTS

None

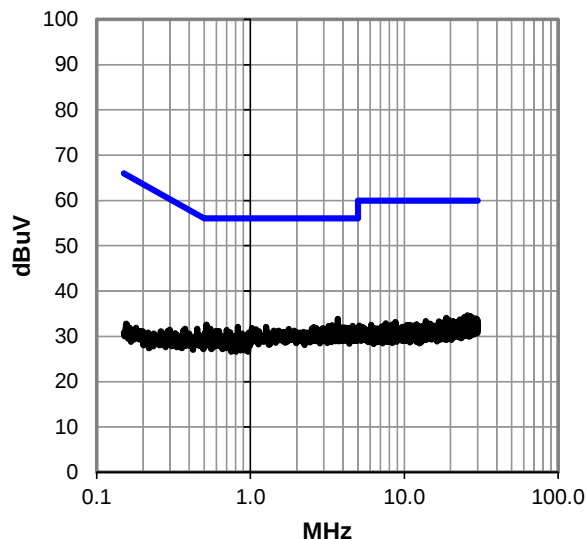
EUT OPERATING MODES

Transmitting Antenna A, Modulated, Mid Channel 914.6 MHz.

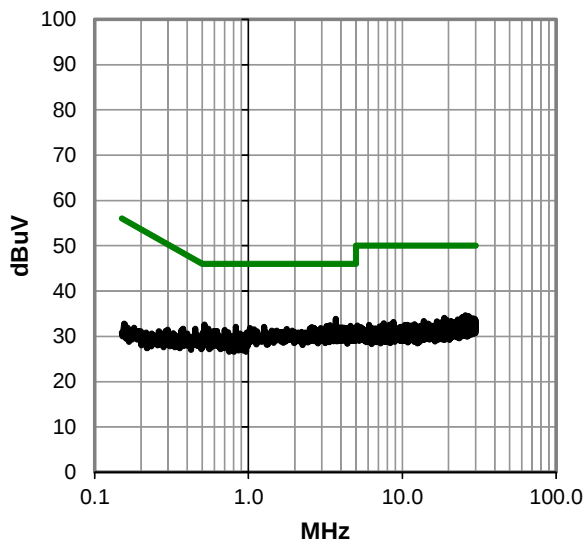
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #4

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.688	13.5	20.4	33.9	56.0	-22.1
0.519	12.4	20.2	32.6	56.0	-23.4
3.392	12.1	20.3	32.4	56.0	-23.6
4.608	11.9	20.4	32.3	56.0	-23.7
3.264	11.9	20.3	32.2	56.0	-23.8
1.264	11.9	20.2	32.1	56.0	-23.9
0.828	11.9	20.2	32.1	56.0	-23.9
2.576	11.7	20.3	32.0	56.0	-24.0
4.064	11.6	20.4	32.0	56.0	-24.0
2.952	11.5	20.3	31.8	56.0	-24.2
1.024	11.6	20.2	31.8	56.0	-24.2
0.550	11.5	20.2	31.7	56.0	-24.3
1.776	11.3	20.3	31.6	56.0	-24.4
0.701	11.2	20.2	31.4	56.0	-24.6
0.595	11.0	20.2	31.2	56.0	-24.8
0.624	11.0	20.2	31.2	56.0	-24.8
0.451	11.5	20.2	31.7	56.9	-25.2
25.730	12.7	21.9	34.6	60.0	-25.4
0.883	10.4	20.2	30.6	56.0	-25.4
0.844	10.3	20.2	30.5	56.0	-25.5
0.961	10.3	20.2	30.5	56.0	-25.5
26.940	12.4	22.1	34.5	60.0	-25.5
0.750	10.1	20.2	30.3	56.0	-25.7
27.330	12.1	22.1	34.2	60.0	-25.8
24.600	12.4	21.8	34.2	60.0	-25.8
27.720	12.0	22.2	34.2	60.0	-25.8

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.688	13.5	20.4	33.9	46.0	-12.1
0.519	12.4	20.2	32.6	46.0	-13.4
3.392	12.1	20.3	32.4	46.0	-13.6
4.608	11.9	20.4	32.3	46.0	-13.7
3.264	11.9	20.3	32.2	46.0	-13.8
1.264	11.9	20.2	32.1	46.0	-13.9
0.828	11.9	20.2	32.1	46.0	-13.9
2.576	11.7	20.3	32.0	46.0	-14.0
4.064	11.6	20.4	32.0	46.0	-14.0
2.952	11.5	20.3	31.8	46.0	-14.2
1.024	11.6	20.2	31.8	46.0	-14.2
0.550	11.5	20.2	31.7	46.0	-14.3
1.776	11.3	20.3	31.6	46.0	-14.4
0.701	11.2	20.2	31.4	46.0	-14.6
0.595	11.0	20.2	31.2	46.0	-14.8
0.624	11.0	20.2	31.2	46.0	-14.8
0.451	11.5	20.2	31.7	46.9	-15.2
25.730	12.7	21.9	34.6	50.0	-15.4
0.883	10.4	20.2	30.6	46.0	-15.4
0.844	10.3	20.2	30.5	46.0	-15.5
0.961	10.3	20.2	30.5	46.0	-15.5
26.940	12.4	22.1	34.5	50.0	-15.5
0.750	10.1	20.2	30.3	46.0	-15.7
27.330	12.1	22.1	34.2	50.0	-15.8
24.600	12.4	21.8	34.2	50.0	-15.8
27.720	12.0	22.2	34.2	50.0	-15.8

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	5	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

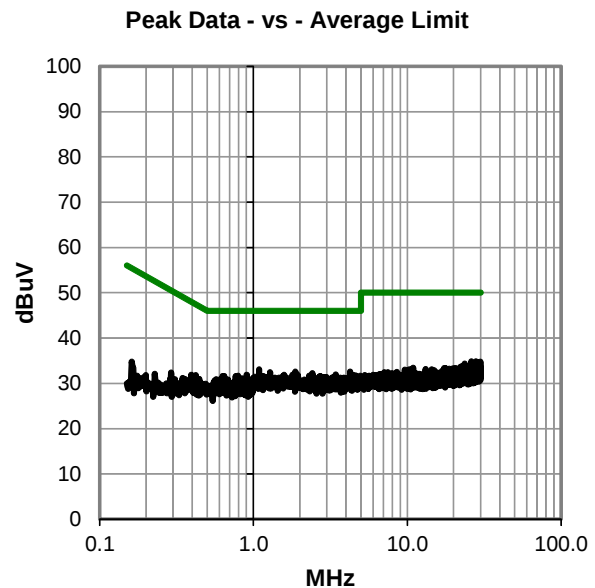
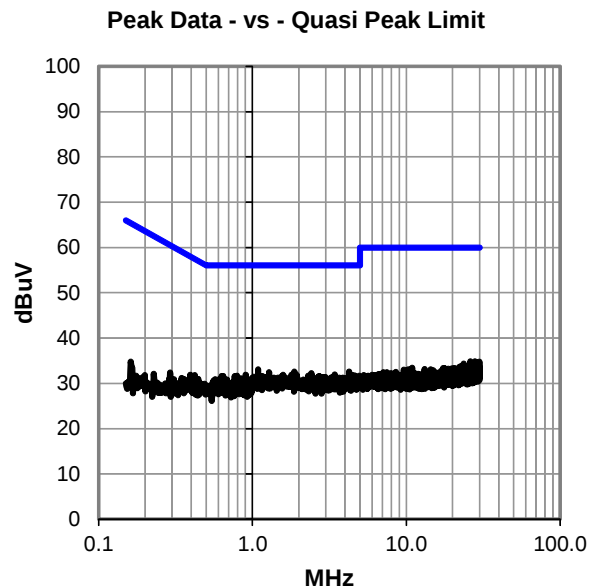
None

EUT OPERATING MODES

Transmitting Antenna A, Modulated, High Channel 926.4 MHz.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #5

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.088	12.9	20.2	33.1	56.0	-22.9
1.872	12.3	20.3	32.6	56.0	-23.4
4.248	12.2	20.4	32.6	56.0	-23.4
1.280	12.2	20.2	32.4	56.0	-23.6
2.416	11.9	20.3	32.2	56.0	-23.8
3.424	11.6	20.3	31.9	56.0	-24.1
0.905	11.7	20.2	31.9	56.0	-24.1
1.792	11.6	20.3	31.9	56.0	-24.1
4.600	11.4	20.4	31.8	56.0	-24.2
2.304	11.4	20.3	31.7	56.0	-24.3
0.794	11.5	20.2	31.7	56.0	-24.3
4.944	11.3	20.4	31.7	56.0	-24.3
0.631	11.4	20.2	31.6	56.0	-24.4
0.646	11.4	20.2	31.6	56.0	-24.4
0.767	11.4	20.2	31.6	56.0	-24.4
2.752	11.2	20.3	31.5	56.0	-24.5
2.712	11.2	20.3	31.5	56.0	-24.5
3.864	10.9	20.4	31.3	56.0	-24.7
0.889	11.0	20.2	31.2	56.0	-24.8
0.840	10.9	20.2	31.1	56.0	-24.9
0.572	10.7	20.2	30.9	56.0	-25.1
28.010	12.7	22.2	34.9	60.0	-25.1
26.100	12.9	22.0	34.9	60.0	-25.1
0.684	10.6	20.2	30.8	56.0	-25.2
29.880	12.4	22.4	34.8	60.0	-25.2
28.820	12.2	22.3	34.5	60.0	-25.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.088	12.9	20.2	33.1	46.0	-12.9
1.872	12.3	20.3	32.6	46.0	-13.4
4.248	12.2	20.4	32.6	46.0	-13.4
1.280	12.2	20.2	32.4	46.0	-13.6
2.416	11.9	20.3	32.2	46.0	-13.8
3.424	11.6	20.3	31.9	46.0	-14.1
0.905	11.7	20.2	31.9	46.0	-14.1
1.792	11.6	20.3	31.9	46.0	-14.1
4.600	11.4	20.4	31.8	46.0	-14.2
2.304	11.4	20.3	31.7	46.0	-14.3
0.794	11.5	20.2	31.7	46.0	-14.3
4.944	11.3	20.4	31.7	46.0	-14.3
0.631	11.4	20.2	31.6	46.0	-14.4
0.646	11.4	20.2	31.6	46.0	-14.4
0.767	11.4	20.2	31.6	46.0	-14.4
2.752	11.2	20.3	31.5	46.0	-14.5
2.712	11.2	20.3	31.5	46.0	-14.5
3.864	10.9	20.4	31.3	46.0	-14.7
0.889	11.0	20.2	31.2	46.0	-14.8
0.840	10.9	20.2	31.1	46.0	-14.9
0.572	10.7	20.2	30.9	46.0	-15.1
28.010	12.7	22.2	34.9	50.0	-15.1
26.100	12.9	22.0	34.9	50.0	-15.1
0.684	10.6	20.2	30.8	46.0	-15.2
29.880	12.4	22.4	34.8	50.0	-15.2
28.820	12.2	22.3	34.5	50.0	-15.5

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	6	Line:	Neutral	Ext. Attenuation (dB):	20
--------	---	-------	---------	------------------------	----

COMMENTS

None

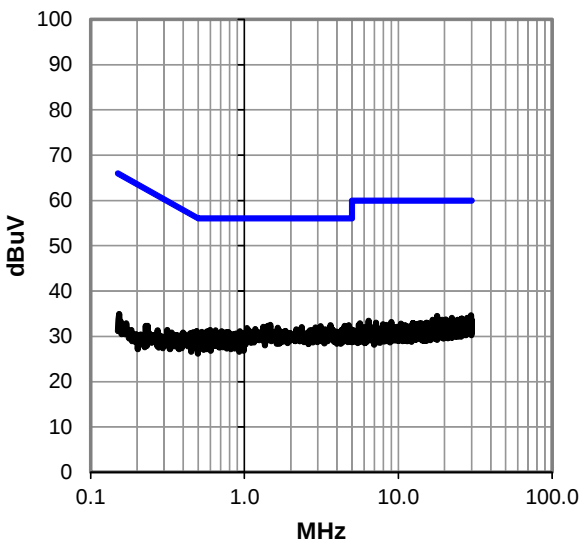
EUT OPERATING MODES

Transmitting Antenna A, Modulated, High Channel 926.4 MHz.

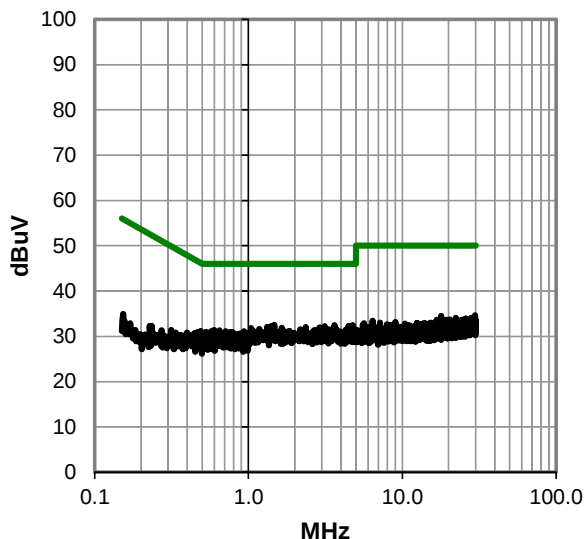
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #6

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.472	12.3	20.2	32.5	56.0	-23.5
4.768	12.1	20.4	32.5	56.0	-23.5
3.624	12.1	20.4	32.5	56.0	-23.5
1.416	12.1	20.2	32.3	56.0	-23.7
4.488	11.9	20.4	32.3	56.0	-23.7
3.128	11.9	20.3	32.2	56.0	-23.8
1.328	11.9	20.2	32.1	56.0	-23.9
2.360	11.7	20.3	32.0	56.0	-24.0
4.816	11.6	20.4	32.0	56.0	-24.0
2.896	11.6	20.3	31.9	56.0	-24.1
1.648	11.6	20.3	31.9	56.0	-24.1
1.040	11.6	20.2	31.8	56.0	-24.2
0.599	11.2	20.2	31.4	56.0	-24.6
0.648	11.1	20.2	31.3	56.0	-24.7
0.573	10.9	20.2	31.1	56.0	-24.9
0.709	10.9	20.2	31.1	56.0	-24.9
0.935	10.9	20.2	31.1	56.0	-24.9
0.488	11.0	20.2	31.2	56.2	-25.0
0.527	10.8	20.2	31.0	56.0	-25.0
0.777	10.7	20.2	30.9	56.0	-25.1
0.560	10.6	20.2	30.8	56.0	-25.2
0.753	10.6	20.2	30.8	56.0	-25.2
29.690	12.3	22.4	34.7	60.0	-25.3
0.883	10.4	20.2	30.6	56.0	-25.4
17.930	13.3	21.2	34.5	60.0	-25.5
0.854	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)
1.472	12.3	20.2	32.5	46.0	-13.5
4.768	12.1	20.4	32.5	46.0	-13.5
3.624	12.1	20.4	32.5	46.0	-13.5
1.416	12.1	20.2	32.3	46.0	-13.7
4.488	11.9	20.4	32.3	46.0	-13.7
3.128	11.9	20.3	32.2	46.0	-13.8
1.328	11.9	20.2	32.1	46.0	-13.9
2.360	11.7	20.3	32.0	46.0	-14.0
4.816	11.6	20.4	32.0	46.0	-14.0
2.896	11.6	20.3	31.9	46.0	-14.1
1.648	11.6	20.3	31.9	46.0	-14.1
1.040	11.6	20.2	31.8	46.0	-14.2
0.599	11.2	20.2	31.4	46.0	-14.6
0.648	11.1	20.2	31.3	46.0	-14.7
0.573	10.9	20.2	31.1	46.0	-14.9
0.709	10.9	20.2	31.1	46.0	-14.9
0.935	10.9	20.2	31.1	46.0	-14.9
0.488	11.0	20.2	31.2	46.2	-15.0
0.527	10.8	20.2	31.0	46.0	-15.0
0.777	10.7	20.2	30.9	46.0	-15.1
0.560	10.6	20.2	30.8	46.0	-15.2
0.753	10.6	20.2	30.8	46.0	-15.2
29.690	12.3	22.4	34.7	50.0	-15.3
0.883	10.4	20.2	30.6	46.0	-15.4
17.930	13.3	21.2	34.5	50.0	-15.5
0.854	10.3	20.2	30.5	46.0	-15.5

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	7	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

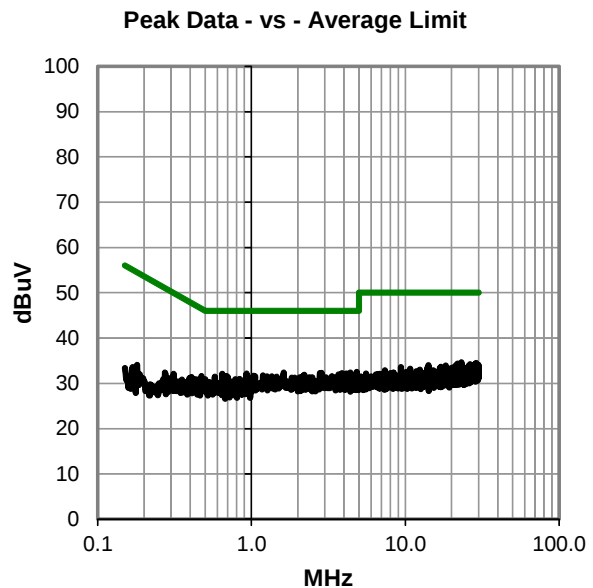
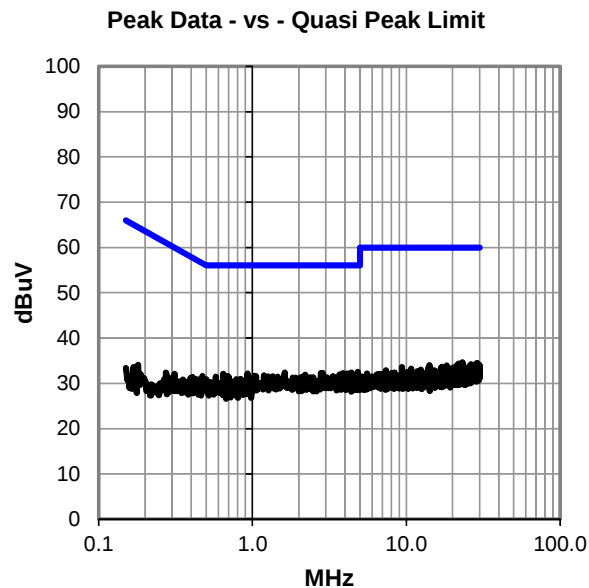
None

EUT OPERATING MODES

Transmitting Antenna B, Modulated, Low Channel 902.9 MHz.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #7

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.832	12.1	20.4	32.5	56.0	-23.5
4.400	12.0	20.4	32.4	56.0	-23.6
1.624	12.1	20.3	32.4	56.0	-23.6
2.848	12.0	20.3	32.3	56.0	-23.7
3.872	11.9	20.4	32.3	56.0	-23.7
2.784	11.9	20.3	32.2	56.0	-23.8
0.929	12.0	20.2	32.2	56.0	-23.8
4.144	11.8	20.4	32.2	56.0	-23.8
0.646	11.9	20.2	32.1	56.0	-23.9
4.064	11.6	20.4	32.0	56.0	-24.0
3.688	11.6	20.4	32.0	56.0	-24.0
2.200	11.6	20.3	31.9	56.0	-24.1
1.184	11.5	20.2	31.7	56.0	-24.3
1.032	11.5	20.2	31.7	56.0	-24.3
0.689	11.4	20.2	31.6	56.0	-24.4
4.616	11.2	20.4	31.6	56.0	-24.4
0.578	11.3	20.2	31.5	56.0	-24.5
0.949	11.3	20.2	31.5	56.0	-24.5
0.704	11.1	20.2	31.3	56.0	-24.7
0.473	11.4	20.2	31.6	56.5	-24.9
0.837	10.8	20.2	31.0	56.0	-25.0
0.787	10.7	20.2	30.9	56.0	-25.1
0.713	10.5	20.2	30.7	56.0	-25.3
23.130	13.0	21.6	34.6	60.0	-25.4
0.974	10.4	20.2	30.6	56.0	-25.4
28.930	12.2	22.3	34.5	60.0	-25.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.832	12.1	20.4	32.5	46.0	-13.5
4.400	12.0	20.4	32.4	46.0	-13.6
1.624	12.1	20.3	32.4	46.0	-13.6
2.848	12.0	20.3	32.3	46.0	-13.7
3.872	11.9	20.4	32.3	46.0	-13.7
2.784	11.9	20.3	32.2	46.0	-13.8
0.929	12.0	20.2	32.2	46.0	-13.8
4.144	11.8	20.4	32.2	46.0	-13.8
0.646	11.9	20.2	32.1	46.0	-13.9
4.064	11.6	20.4	32.0	46.0	-14.0
3.688	11.6	20.4	32.0	46.0	-14.0
2.200	11.6	20.3	31.9	46.0	-14.1
1.184	11.5	20.2	31.7	46.0	-14.3
1.032	11.5	20.2	31.7	46.0	-14.3
0.689	11.4	20.2	31.6	46.0	-14.4
4.616	11.2	20.4	31.6	46.0	-14.4
0.578	11.3	20.2	31.5	46.0	-14.5
0.949	11.3	20.2	31.5	46.0	-14.5
0.704	11.1	20.2	31.3	46.0	-14.7
0.473	11.4	20.2	31.6	46.5	-14.9
0.837	10.8	20.2	31.0	46.0	-15.0
0.787	10.7	20.2	30.9	46.0	-15.1
0.713	10.5	20.2	30.7	46.0	-15.3
23.130	13.0	21.6	34.6	50.0	-15.4
0.974	10.4	20.2	30.6	46.0	-15.4
28.930	12.2	22.3	34.5	50.0	-15.5

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	8	Line:	Neutral	Ext. Attenuation (dB):	20
--------	---	-------	---------	------------------------	----

COMMENTS

None

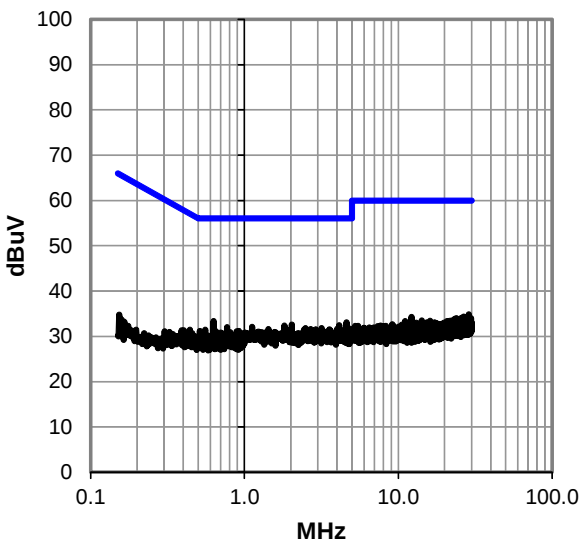
EUT OPERATING MODES

Transmitting Antenna B, Modulated, Low Channel 902.9 MHz.

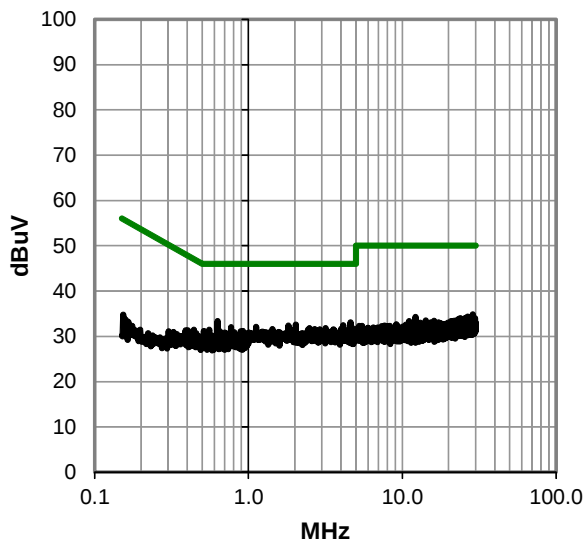
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #8

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.629	13.2	20.2	33.4	56.0	-22.6
4.600	12.7	20.4	33.1	56.0	-22.9
2.032	12.3	20.3	32.6	56.0	-23.4
4.120	12.1	20.4	32.5	56.0	-23.5
1.816	12.1	20.3	32.4	56.0	-23.6
1.120	11.9	20.2	32.1	56.0	-23.9
0.770	11.8	20.2	32.0	56.0	-24.0
3.176	11.5	20.3	31.8	56.0	-24.2
2.496	11.5	20.3	31.8	56.0	-24.2
1.432	11.4	20.2	31.6	56.0	-24.4
0.556	11.3	20.2	31.5	56.0	-24.5
0.514	11.0	20.2	31.2	56.0	-24.8
0.918	11.0	20.2	31.2	56.0	-24.8
0.653	10.9	20.2	31.1	56.0	-24.9
0.891	10.9	20.2	31.1	56.0	-24.9
0.810	10.7	20.2	30.9	56.0	-25.1
28.730	12.6	22.3	34.9	60.0	-25.1
0.701	10.6	20.2	30.8	56.0	-25.2
0.442	11.3	20.2	31.5	57.0	-25.5
26.650	12.3	22.0	34.3	60.0	-25.7
12.220	13.5	20.8	34.3	60.0	-25.7
27.190	12.1	22.1	34.2	60.0	-25.8
27.660	12.0	22.2	34.2	60.0	-25.8
0.585	9.9	20.2	30.1	56.0	-25.9
25.790	12.1	21.9	34.0	60.0	-26.0
23.910	12.3	21.7	34.0	60.0	-26.0

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.629	13.2	20.2	33.4	46.0	-12.6
4.600	12.7	20.4	33.1	46.0	-12.9
2.032	12.3	20.3	32.6	46.0	-13.4
4.120	12.1	20.4	32.5	46.0	-13.5
1.816	12.1	20.3	32.4	46.0	-13.6
1.120	11.9	20.2	32.1	46.0	-13.9
0.770	11.8	20.2	32.0	46.0	-14.0
3.176	11.5	20.3	31.8	46.0	-14.2
2.496	11.5	20.3	31.8	46.0	-14.2
1.432	11.4	20.2	31.6	46.0	-14.4
0.556	11.3	20.2	31.5	46.0	-14.5
0.514	11.0	20.2	31.2	46.0	-14.8
0.918	11.0	20.2	31.2	46.0	-14.8
0.653	10.9	20.2	31.1	46.0	-14.9
0.891	10.9	20.2	31.1	46.0	-14.9
0.810	10.7	20.2	30.9	46.0	-15.1
28.730	12.6	22.3	34.9	50.0	-15.1
0.701	10.6	20.2	30.8	46.0	-15.2
0.442	11.3	20.2	31.5	47.0	-15.5
26.650	12.3	22.0	34.3	50.0	-15.7
12.220	13.5	20.8	34.3	50.0	-15.7
27.190	12.1	22.1	34.2	50.0	-15.8
27.660	12.0	22.2	34.2	50.0	-15.8
0.585	9.9	20.2	30.1	46.0	-15.9
25.790	12.1	21.9	34.0	50.0	-16.0
23.910	12.3	21.7	34.0	50.0	-16.0

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	9	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

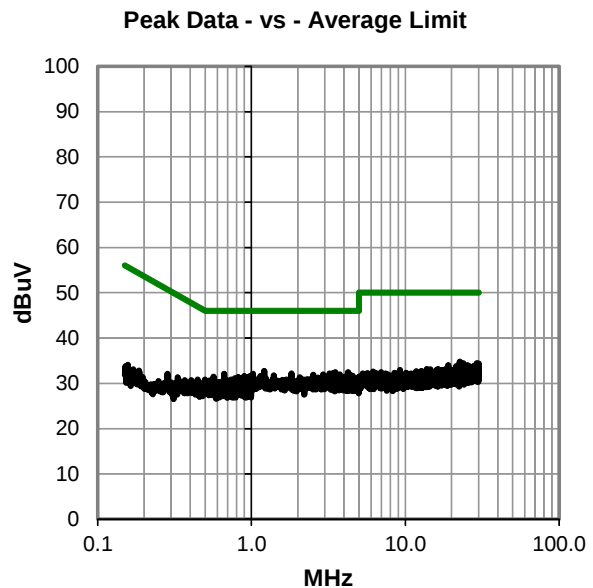
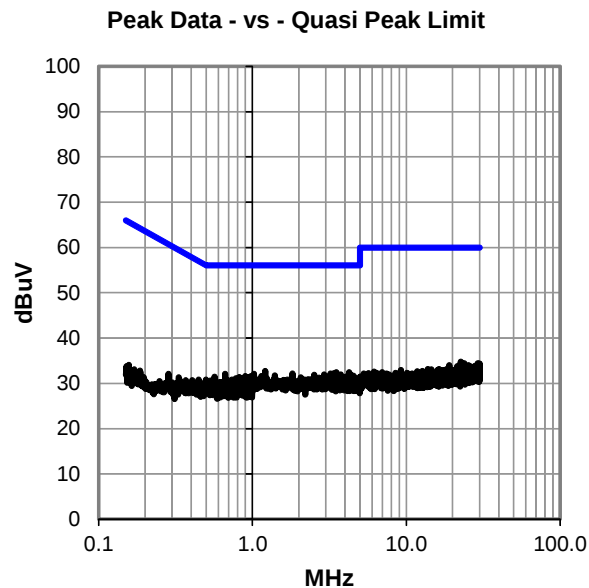
None

EUT OPERATING MODES

Transmitting Antenna B, Modulated, Mid Channel 914.6 MHz.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #9

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.208	12.5	20.2	32.7	56.0	-23.3
4.248	12.1	20.4	32.5	56.0	-23.5
3.512	12.1	20.4	32.5	56.0	-23.5
3.384	11.9	20.3	32.2	56.0	-23.8
1.816	11.9	20.3	32.2	56.0	-23.8
3.216	11.8	20.3	32.1	56.0	-23.9
1.024	11.9	20.2	32.1	56.0	-23.9
0.665	11.9	20.2	32.1	56.0	-23.9
4.352	11.6	20.4	32.0	56.0	-24.0
3.752	11.6	20.4	32.0	56.0	-24.0
2.928	11.6	20.3	31.9	56.0	-24.1
2.520	11.6	20.3	31.9	56.0	-24.1
1.400	11.5	20.2	31.7	56.0	-24.3
0.900	11.4	20.2	31.6	56.0	-24.4
0.981	11.4	20.2	31.6	56.0	-24.4
4.088	11.2	20.4	31.6	56.0	-24.4
0.568	11.3	20.2	31.5	56.0	-24.5
0.820	11.2	20.2	31.4	56.0	-24.6
2.056	11.0	20.3	31.3	56.0	-24.7
0.934	11.1	20.2	31.3	56.0	-24.7
0.777	10.9	20.2	31.1	56.0	-24.9
0.842	10.9	20.2	31.1	56.0	-24.9
22.660	13.2	21.6	34.8	60.0	-25.2
0.682	10.6	20.2	30.8	56.0	-25.2
0.735	10.6	20.2	30.8	56.0	-25.2
0.798	10.6	20.2	30.8	56.0	-25.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.208	12.5	20.2	32.7	46.0	-13.3
4.248	12.1	20.4	32.5	46.0	-13.5
3.512	12.1	20.4	32.5	46.0	-13.5
3.384	11.9	20.3	32.2	46.0	-13.8
1.816	11.9	20.3	32.2	46.0	-13.8
3.216	11.8	20.3	32.1	46.0	-13.9
1.024	11.9	20.2	32.1	46.0	-13.9
0.665	11.9	20.2	32.1	46.0	-13.9
4.352	11.6	20.4	32.0	46.0	-14.0
3.752	11.6	20.4	32.0	46.0	-14.0
2.928	11.6	20.3	31.9	46.0	-14.1
2.520	11.6	20.3	31.9	46.0	-14.1
1.400	11.5	20.2	31.7	46.0	-14.3
0.900	11.4	20.2	31.6	46.0	-14.4
0.981	11.4	20.2	31.6	46.0	-14.4
4.088	11.2	20.4	31.6	46.0	-14.4
0.568	11.3	20.2	31.5	46.0	-14.5
0.820	11.2	20.2	31.4	46.0	-14.6
2.056	11.0	20.3	31.3	46.0	-14.7
0.934	11.1	20.2	31.3	46.0	-14.7
0.777	10.9	20.2	31.1	46.0	-14.9
0.842	10.9	20.2	31.1	46.0	-14.9
22.660	13.2	21.6	34.8	50.0	-15.2
0.682	10.6	20.2	30.8	46.0	-15.2
0.735	10.6	20.2	30.8	46.0	-15.2
0.798	10.6	20.2	30.8	46.0	-15.2

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	10	Line:	Neutral	Ext. Attenuation (dB):	20
--------	----	-------	---------	------------------------	----

COMMENTS

None

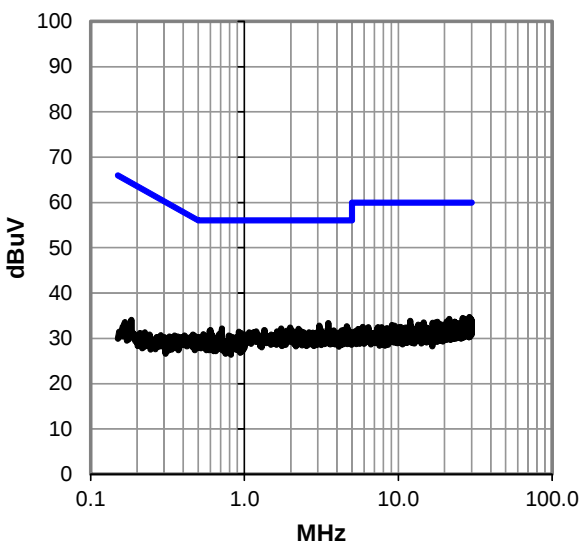
EUT OPERATING MODES

Transmitting Antenna B, Modulated, Mid Channel 914.6 MHz.

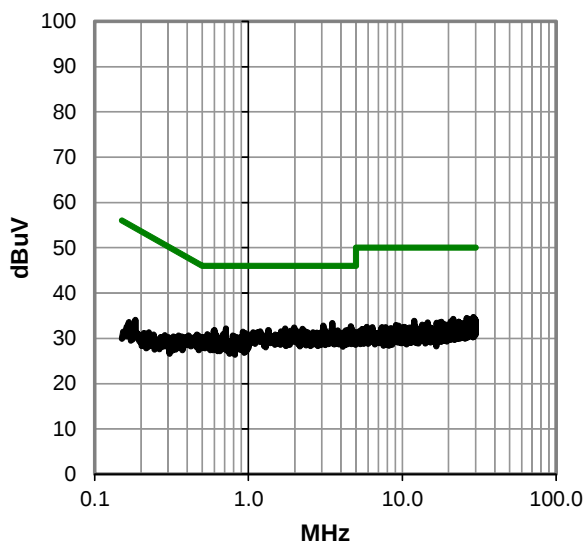
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #10

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.512	13.0	20.4	33.4	56.0	-22.6
3.072	12.5	20.3	32.8	56.0	-23.2
4.624	12.3	20.4	32.7	56.0	-23.3
1.984	12.1	20.3	32.4	56.0	-23.6
0.713	12.0	20.2	32.2	56.0	-23.8
4.688	11.8	20.4	32.2	56.0	-23.8
1.736	11.9	20.3	32.2	56.0	-23.8
2.248	11.8	20.3	32.1	56.0	-23.9
1.352	11.6	20.2	31.8	56.0	-24.2
0.602	11.6	20.2	31.8	56.0	-24.2
4.296	11.4	20.4	31.8	56.0	-24.2
3.808	11.4	20.4	31.8	56.0	-24.2
2.312	11.4	20.3	31.7	56.0	-24.3
0.595	11.5	20.2	31.7	56.0	-24.3
1.192	11.3	20.2	31.5	56.0	-24.5
0.920	11.3	20.2	31.5	56.0	-24.5
0.952	11.0	20.2	31.2	56.0	-24.8
0.541	10.7	20.2	30.9	56.0	-25.1
29.090	12.4	22.3	34.7	60.0	-25.3
0.587	10.5	20.2	30.7	56.0	-25.3
0.789	10.4	20.2	30.6	56.0	-25.4
26.200	12.5	22.0	34.5	60.0	-25.5
21.510	12.8	21.5	34.3	60.0	-25.7
27.190	12.2	22.1	34.3	60.0	-25.7
29.690	11.9	22.4	34.3	60.0	-25.7
29.070	11.9	22.3	34.2	60.0	-25.8

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
3.512	13.0	20.4	33.4	46.0	-12.6
3.072	12.5	20.3	32.8	46.0	-13.2
4.624	12.3	20.4	32.7	46.0	-13.3
1.984	12.1	20.3	32.4	46.0	-13.6
0.713	12.0	20.2	32.2	46.0	-13.8
4.688	11.8	20.4	32.2	46.0	-13.8
1.736	11.9	20.3	32.2	46.0	-13.8
2.248	11.8	20.3	32.1	46.0	-13.9
1.352	11.6	20.2	31.8	46.0	-14.2
0.602	11.6	20.2	31.8	46.0	-14.2
4.296	11.4	20.4	31.8	46.0	-14.2
3.808	11.4	20.4	31.8	46.0	-14.2
2.312	11.4	20.3	31.7	46.0	-14.3
0.595	11.5	20.2	31.7	46.0	-14.3
1.192	11.3	20.2	31.5	46.0	-14.5
0.920	11.3	20.2	31.5	46.0	-14.5
0.952	11.0	20.2	31.2	46.0	-14.8
0.541	10.7	20.2	30.9	46.0	-15.1
29.090	12.4	22.3	34.7	50.0	-15.3
0.587	10.5	20.2	30.7	46.0	-15.3
0.789	10.4	20.2	30.6	46.0	-15.4
26.200	12.5	22.0	34.5	50.0	-15.5
21.510	12.8	21.5	34.3	50.0	-15.7
27.190	12.2	22.1	34.3	50.0	-15.7
29.690	11.9	22.4	34.3	50.0	-15.7
29.070	11.9	22.3	34.2	50.0	-15.8

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	11	Line:	High Line	Ext. Attenuation (dB):	20
--------	----	-------	-----------	------------------------	----

COMMENTS

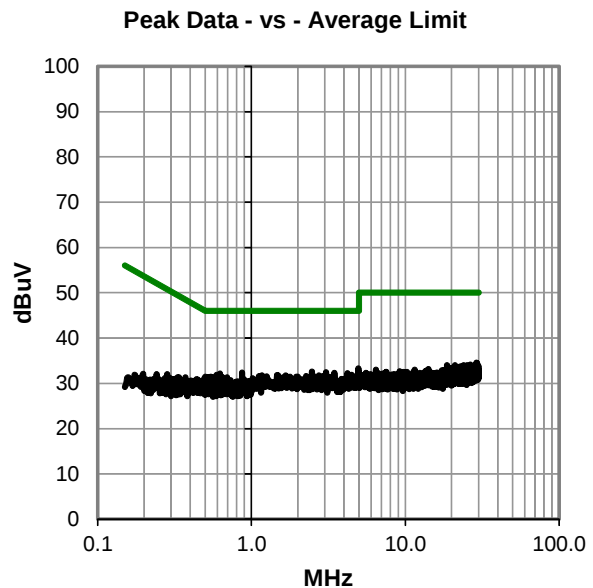
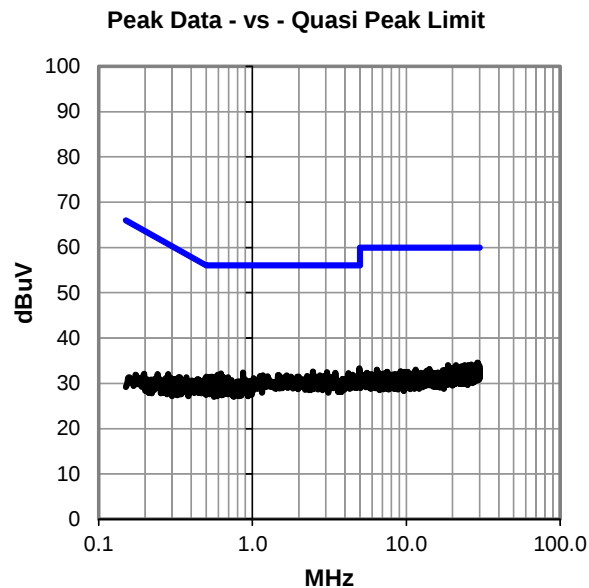
None

EUT OPERATING MODES

Transmitting Antenna B, Modulated, High Channel 926.4 MHz.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #11

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.952	12.9	20.4	33.3	56.0	-22.7
2.472	12.3	20.3	32.6	56.0	-23.4
3.048	12.1	20.3	32.4	56.0	-23.6
0.869	12.2	20.2	32.4	56.0	-23.6
4.992	12.0	20.4	32.4	56.0	-23.6
3.464	12.0	20.3	32.3	56.0	-23.7
4.208	11.9	20.4	32.3	56.0	-23.7
0.624	12.0	20.2	32.2	56.0	-23.8
0.594	11.7	20.2	31.9	56.0	-24.1
1.464	11.6	20.2	31.8	56.0	-24.2
3.080	11.4	20.3	31.7	56.0	-24.3
2.744	11.4	20.3	31.7	56.0	-24.3
1.120	11.4	20.2	31.6	56.0	-24.4
2.272	11.3	20.3	31.6	56.0	-24.4
0.500	11.3	20.2	31.5	56.0	-24.5
0.544	11.3	20.2	31.5	56.0	-24.5
0.643	11.3	20.2	31.5	56.0	-24.5
0.526	11.2	20.2	31.4	56.0	-24.6
0.553	11.1	20.2	31.3	56.0	-24.7
0.694	11.1	20.2	31.3	56.0	-24.7
0.493	10.9	20.2	31.1	56.1	-25.0
29.100	12.3	22.3	34.6	60.0	-25.4
29.390	12.1	22.3	34.4	60.0	-25.6
0.799	10.2	20.2	30.4	56.0	-25.6
0.825	10.2	20.2	30.4	56.0	-25.6
0.570	10.1	20.2	30.3	56.0	-25.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.952	12.9	20.4	33.3	46.0	-12.7
2.472	12.3	20.3	32.6	46.0	-13.4
3.048	12.1	20.3	32.4	46.0	-13.6
0.869	12.2	20.2	32.4	46.0	-13.6
4.992	12.0	20.4	32.4	46.0	-13.6
3.464	12.0	20.3	32.3	46.0	-13.7
4.208	11.9	20.4	32.3	46.0	-13.7
0.624	12.0	20.2	32.2	46.0	-13.8
0.594	11.7	20.2	31.9	46.0	-14.1
1.464	11.6	20.2	31.8	46.0	-14.2
3.080	11.4	20.3	31.7	46.0	-14.3
2.744	11.4	20.3	31.7	46.0	-14.3
1.120	11.4	20.2	31.6	46.0	-14.4
2.272	11.3	20.3	31.6	46.0	-14.4
0.500	11.3	20.2	31.5	46.0	-14.5
0.544	11.3	20.2	31.5	46.0	-14.5
0.643	11.3	20.2	31.5	46.0	-14.5
0.526	11.2	20.2	31.4	46.0	-14.6
0.553	11.1	20.2	31.3	46.0	-14.7
0.694	11.1	20.2	31.3	46.0	-14.7
0.493	10.9	20.2	31.1	46.1	-15.0
29.100	12.3	22.3	34.6	50.0	-15.4
29.390	12.1	22.3	34.4	50.0	-15.6
0.799	10.2	20.2	30.4	46.0	-15.6
0.825	10.2	20.2	30.4	46.0	-15.6
0.570	10.1	20.2	30.3	46.0	-15.7

CONCLUSION

Pass

Trevor Buls
Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321R1001	Work Order:	HNYW0031
Serial Number:	5191101 0010384	Date:	12/17/2012
Customer:	Honeywell, Automation and Control Solutions	Temperature:	24.32°C
Attendees:	None	Relative Humidity:	16.88%
Customer Project:	None	Bar. Pressure:	1007.1 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0031-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2012	ANSI C63.10:2009

TEST PARAMETERS

Run #:	12	Line:	Neutral	Ext. Attenuation (dB):	20
--------	----	-------	---------	------------------------	----

COMMENTS

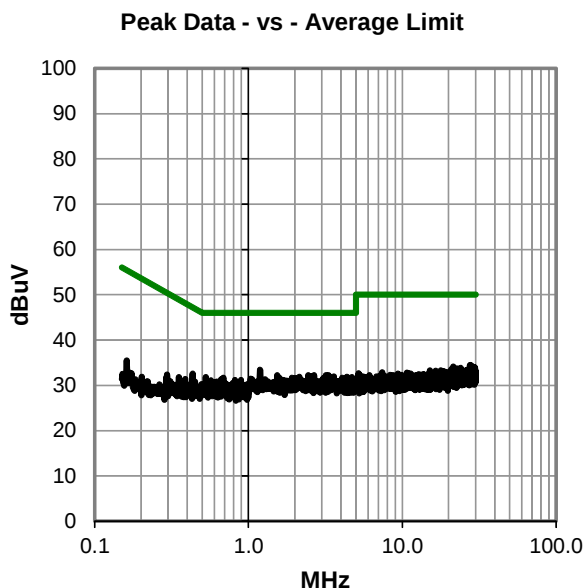
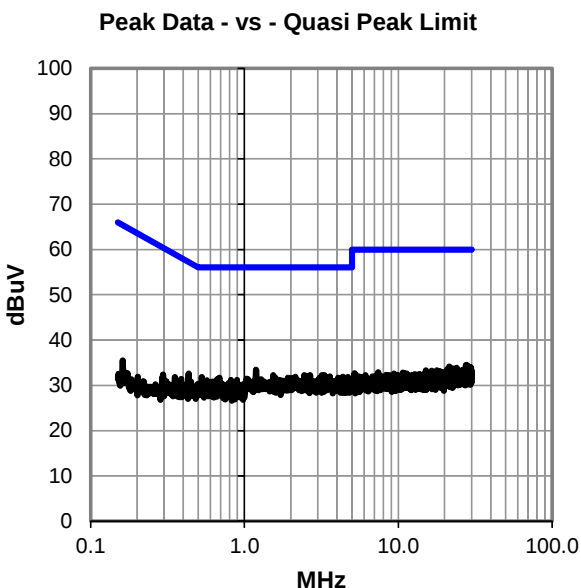
None

EUT OPERATING MODES

Transmitting Antenna B, Modulated, High Channel 926.4 MHz.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #12

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.184	13.2	20.2	33.4	56.0	-22.6
1.536	12.0	20.3	32.3	56.0	-23.7
3.312	11.9	20.3	32.2	56.0	-23.8
3.184	11.9	20.3	32.2	56.0	-23.8
2.672	11.9	20.3	32.2	56.0	-23.8
2.448	11.9	20.3	32.2	56.0	-23.8
2.536	11.7	20.3	32.0	56.0	-24.0
3.584	11.6	20.4	32.0	56.0	-24.0
2.144	11.6	20.3	31.9	56.0	-24.1
4.368	11.5	20.4	31.9	56.0	-24.1
0.529	11.6	20.2	31.8	56.0	-24.2
4.704	11.4	20.4	31.8	56.0	-24.2
0.686	11.5	20.2	31.7	56.0	-24.3
4.072	11.3	20.4	31.7	56.0	-24.3
1.592	11.4	20.3	31.7	56.0	-24.3
3.072	11.3	20.3	31.6	56.0	-24.4
0.434	12.4	20.2	32.6	57.2	-24.6
0.815	11.0	20.2	31.2	56.0	-24.8
0.893	11.0	20.2	31.2	56.0	-24.8
0.570	10.9	20.2	31.1	56.0	-24.9
0.623	10.6	20.2	30.8	56.0	-25.2
0.611	10.5	20.2	30.7	56.0	-25.3
0.830	10.4	20.2	30.6	56.0	-25.4
27.810	12.3	22.2	34.5	60.0	-25.5
27.490	12.3	22.1	34.4	60.0	-25.6
28.300	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)
1.184	13.2	20.2	33.4	46.0	-12.6
1.536	12.0	20.3	32.3	46.0	-13.7
3.312	11.9	20.3	32.2	46.0	-13.8
3.184	11.9	20.3	32.2	46.0	-13.8
2.672	11.9	20.3	32.2	46.0	-13.8
2.448	11.9	20.3	32.2	46.0	-13.8
2.536	11.7	20.3	32.0	46.0	-14.0
3.584	11.6	20.4	32.0	46.0	-14.0
2.144	11.6	20.3	31.9	46.0	-14.1
4.368	11.5	20.4	31.9	46.0	-14.1
0.529	11.6	20.2	31.8	46.0	-14.2
4.704	11.4	20.4	31.8	46.0	-14.2
0.686	11.5	20.2	31.7	46.0	-14.3
4.072	11.3	20.4	31.7	46.0	-14.3
1.592	11.4	20.3	31.7	46.0	-14.3
3.072	11.3	20.3	31.6	46.0	-14.4
0.434	12.4	20.2	32.6	47.2	-14.6
0.815	11.0	20.2	31.2	46.0	-14.8
0.893	11.0	20.2	31.2	46.0	-14.8
0.570	10.9	20.2	31.1	46.0	-14.9
0.623	10.6	20.2	30.8	46.0	-15.2
0.611	10.5	20.2	30.7	46.0	-15.3
0.830	10.4	20.2	30.6	46.0	-15.4
27.810	12.3	22.2	34.5	50.0	-15.5
27.490	12.3	22.1	34.4	50.0	-15.6
28.300	12.1	22.2	34.3	50.0	-15.7

CONCLUSION

Pass

Trevor Buls
Tested By