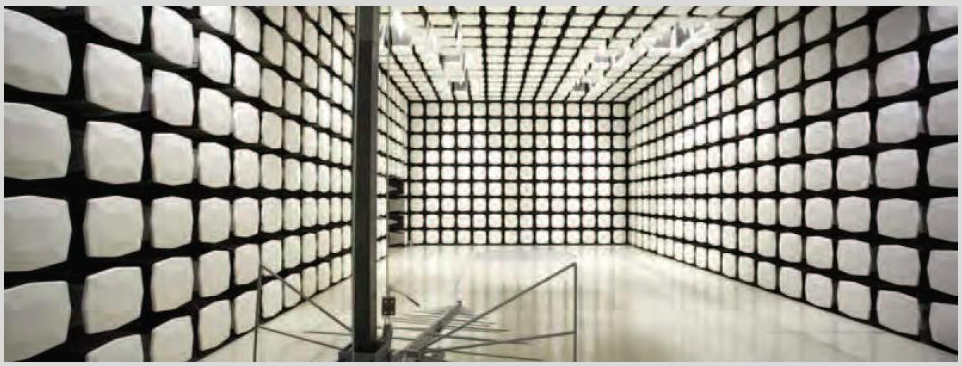
NORTHWEST EMC

Honeywell, Automation and Control Solutions

5881ENHCVE

Report # HNYW0166



NVLAP TESTING

NVLAP Lab Code: 200881-0

CERTIFICATE OF TEST

NORTHWEST EMC
2014-12-10

Last Date of Test: July 19, 2016
Honeywell, Automation and Control Solutions
Model: 5881ENHCVE

Emissions

Standards

Specification	Method
FCC 15.109:2016 Class B	ANSI C63.4:2014
ICES-003:2016 Class B	ANSI C63.4:2014

Results

Test Description	Applied	Results	Comments
Radiated Emissions	Yes	Pass	
Radiated Emissions High Frequency	Yes	Pass	
Receiver Spurious Emissions	Yes	Pass	

Deviations from Test Standards

None

Approved By:

Jeremiah Darden, Operations Manager

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. 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. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

NORTHWEST EMC
REV 2016.3.22

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 17065 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 Notified Body under the R&TTE Directive.

Australia/New Zealand

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

Korea

MSIP / 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.

Israel

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

Hong Kong

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

Vietnam

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

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/
http://gsi.nist.gov/global/docs/cabs/designations.html

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 QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. 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 16-4-2 as applicable), and are available upon request.

Measurement Bandwidths

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

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

Sample Calculations

Radiated Emissions:

Field Strength		Measured Level		Antenna Factor		Cable Factor		Amplifier Gain		Distance Adjustment Factor		External Attenuation
33.5	=	42.6	+	28.6	+	3.1	-	40.8	+	0.0	+	0.0

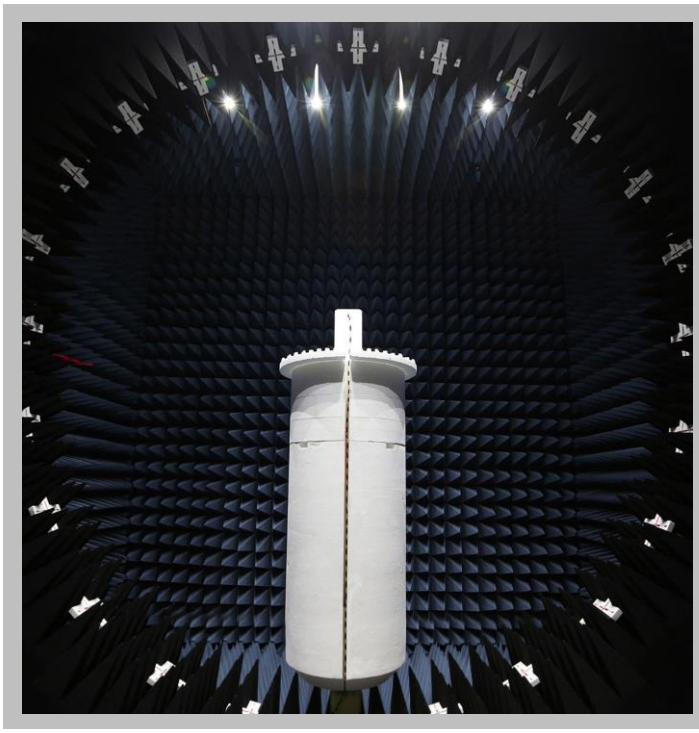
Conducted Emissions:

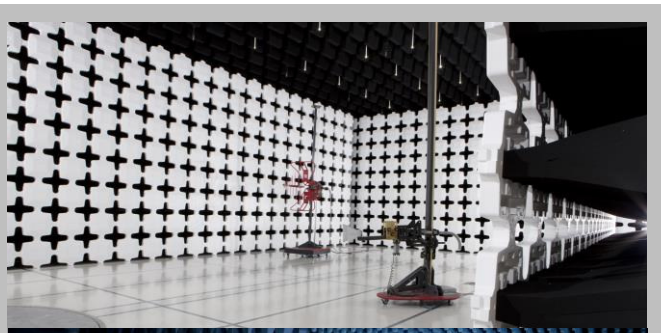
Adjusted Level		Measured Level		Transducer Factor		Cable Factor		External Attenuation
47.1	=	26.7	+	0.3	+	0.1	+	20.0

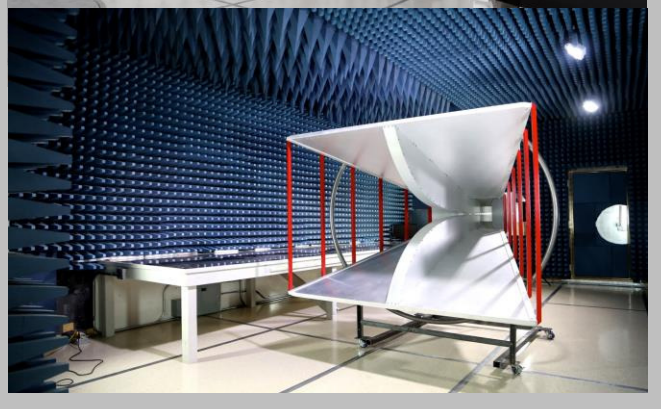
FACILITIES

NORTHWEST EMC
REV 2015.2.19

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-*2*	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157







PRODUCT DESCRIPTION

NORTHWEST EMC
2014-12-10

Client and Equipment Under Test (EUT) Information

Company Name:	Honeywell, Automation and Control Solutions
Address:	2 Corporate Center Drive
City, State, Zip:	Melville, NY 11747-3265
Test Requested By:	Andrew Roussin
Model:	5881ENHCVE
First Date of Test:	July 19, 2016
Last Date of Test:	July 19, 2016
Receipt Date of Samples:	July 19, 2016
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

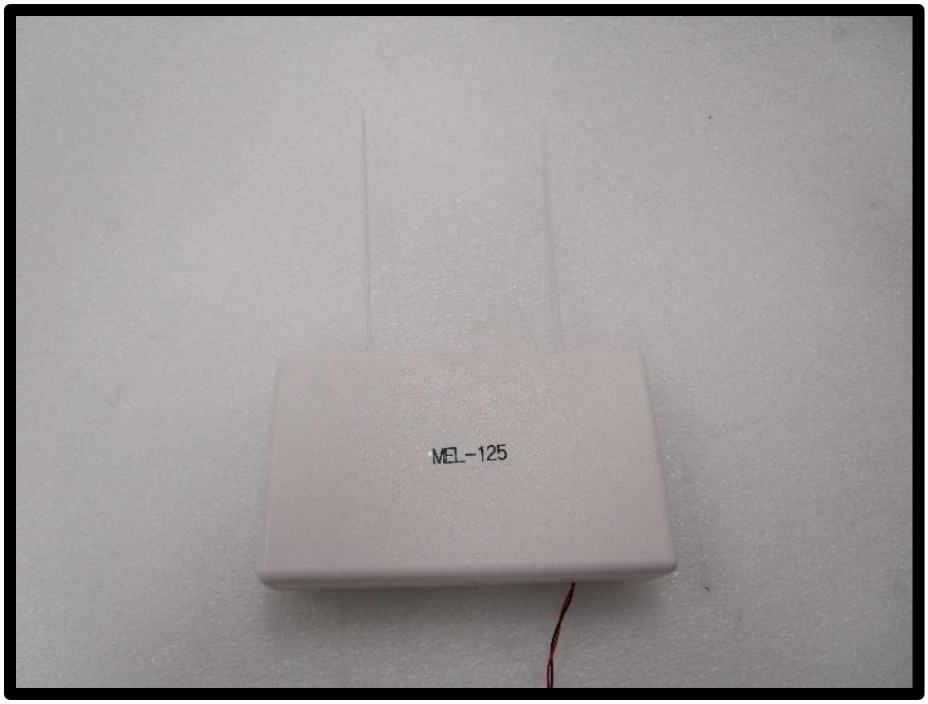
Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Wireless Receiver

Highest frequency generated or used in the device:
Assumes > 108 MHz and < 1 GHz

Testing Objective:
To demonstrate compliance to FCC 15.109 receiver specifications.

EUT Photo



CONFIGURATIONS

NORTHWEST EMC 2014-12-10

Configuration HNYW0166- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RF Receiver	Honeywell, Automation and Control Solutions	5881ENHCVE	MEL-125

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC/DC Adapter	Honeywell, Automation and Control Solutions	MGT12500RTS	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power	No	1.4m	No	RF Receiver	AC/DC Adapter

MODIFICATIONS

NORTHWEST EMC
2014-12-10

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	7/19/2016	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.
2	7/19/2016	Radiated Emissions High Frequency	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	7/19/2016	Receiver Spurious Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

RADIATED EMISSIONS

NORTHWEST EMC
WTD.2016.05.18

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level was detected. This required the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search was utilized for frequency scans of the EUT field strength with both polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the periphery of the EUT. Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance was 3 meters or 10 meters (from antenna to boundary of EUT). At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna was increased so that the lowest point of the bottom of the antenna cleared the ground surface by at least 25 cm.

The EUT arrangement is configured as equivalent to that occurring in normal use. Tabletop equipment is placed on a 0.8 meter high non-conductive table & for Floor-standing equipment, it is placed on, but insulated from a ground reference plane by the use of its own rollers or stand-off supports. If measurements above 1 GHz were required, the test setup was modified to meet the regulatory requirements for higher frequency measurements. If required, RF absorber was placed on the floor between the measurement antenna and EUT. If required, per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables.

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.

The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	10/29/2015	10/29/2016
Antenna - Biconilog	ETS Lindgren	3143B	AYF	4/13/2016	4/13/2018
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	5/31/2016	5/31/2017
Amplifier - Pre-Amplifier	Miteq	AM-1551	PAH	9/18/2015	9/18/2016

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	4.8 dB	-4.8 dB

FREQUENCY RANGE INVESTIGATED

30 MHz TO 1000 MHz

POWER INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0166-1

MODES INVESTIGATED

Idle Mode

RADIATED EMISSIONS

EUT:	5881ENHCVE	Work Order:	HNYW0166
Serial Number:	MEL-125	Date:	07/19/2016
Customer:	Honeywell, Automation and Control Solutions	Temperature:	21°C
Attendees:	None	Relative Humidity:	56%
Customer Project:	None	Bar. Pressure:	1025 mb
Tested By:	Jonathan Kiefer	Job Site:	TX02
Power:	110VAC/60Hz	Configuration:	HNYW0166-1

TEST SPECIFICATIONS

Specification: Equipment Class B	Method:
FCC 15.109:2016	ANSI C63.4:2014
ICES-003:2016	ANSI C63.4:2014

TEST PARAMETERS

Run #:	2	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)

COMMENTS

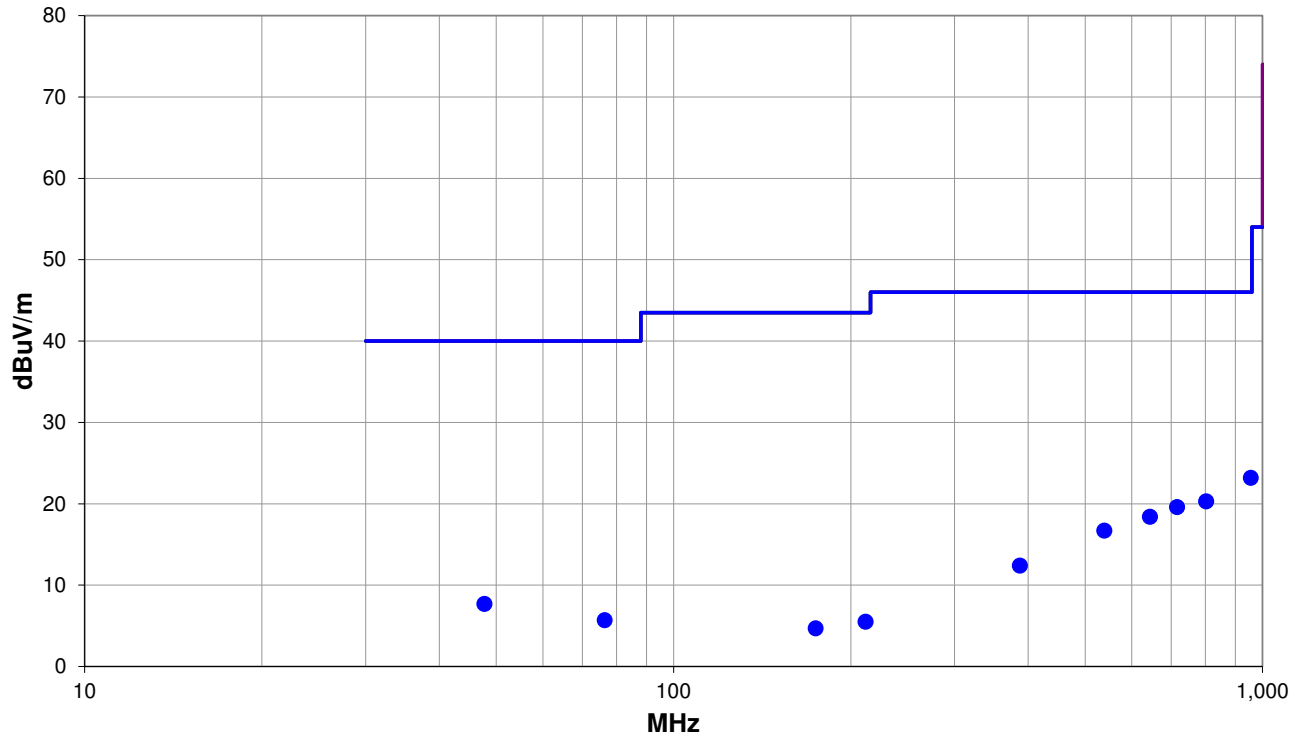
None

EUT OPERATING MODES

Idle Mode

DEVIATIONS FROM TEST STANDARD

None



Run #: 2 ■ PK ◆ AV ● QP

RADIATED EMISSIONS

NORTHWEST EMC
WTD.2016.05.18

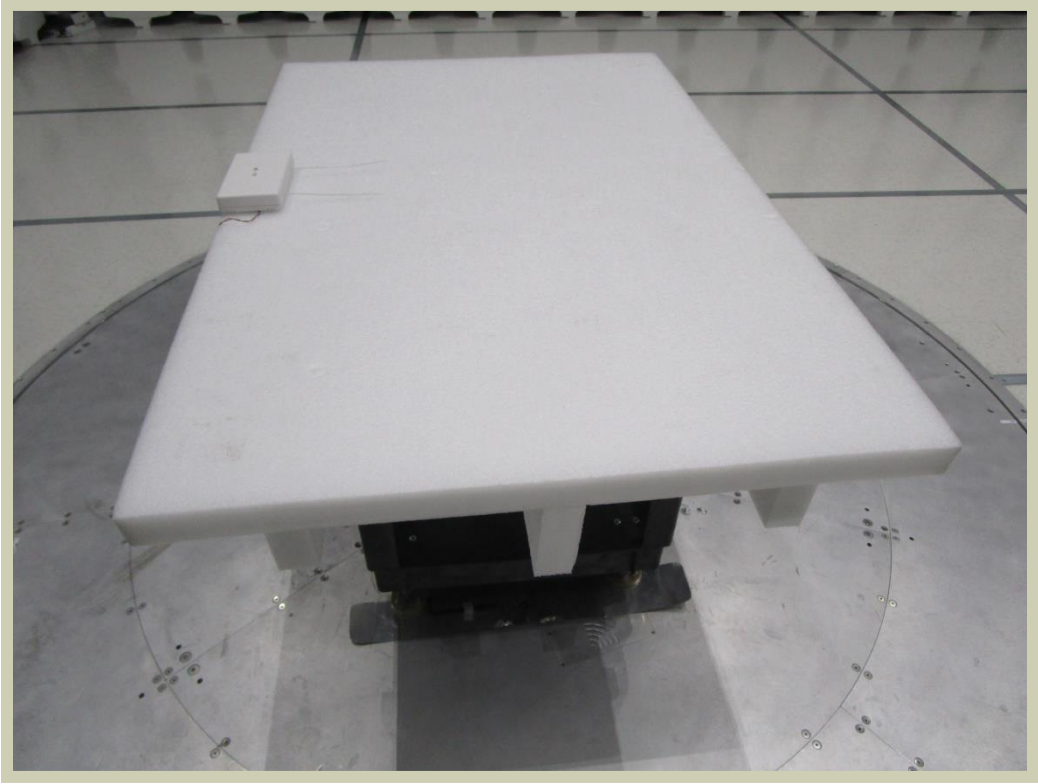
RESULTS - Run #2

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Ant. Height (m)	Azimuth (deg.)	Test Dist. (m)	Ext. Atten. (dB)	Polar. Trans. Type	Detect.	Dist. Adjust. (dB)	Adj. (dBuV/m)	Spec. Limit (dBuV/m)	Margin. (dB)
955.734	32.2	-9.0	1.9	129.0	3.0	0.0	Vert	QP	0.0	23.2	46.0	-22.8
802.746	32.3	-12.0	3.3	195.0	3.0	0.0	Horz	QP	0.0	20.3	46.0	-25.7
716.056	32.7	-13.1	1.5	333.9	3.0	0.0	Horz	QP	0.0	19.6	46.0	-26.4
644.115	32.7	-14.3	1.5	228.0	3.0	0.0	Vert	QP	0.0	18.4	46.0	-27.6
539.011	32.5	-15.8	1.5	328.9	3.0	0.0	Vert	QP	0.0	16.7	46.0	-29.3
47.740	40.3	-32.6	1.5	188.0	3.0	0.0	Vert	QP	0.0	7.7	40.0	-32.3
387.265	32.7	-20.3	2.0	289.0	3.0	0.0	Vert	QP	0.0	12.4	46.0	-33.6
76.376	38.0	-32.3	2.2	255.0	3.0	0.0	Vert	QP	0.0	5.7	40.0	-34.3
211.841	32.7	-27.2	1.5	19.0	3.0	0.0	Vert	QP	0.0	5.5	43.5	-38.0
174.272	32.6	-27.9	2.8	183.9	3.0	0.0	Horz	QP	0.0	4.7	43.5	-38.8

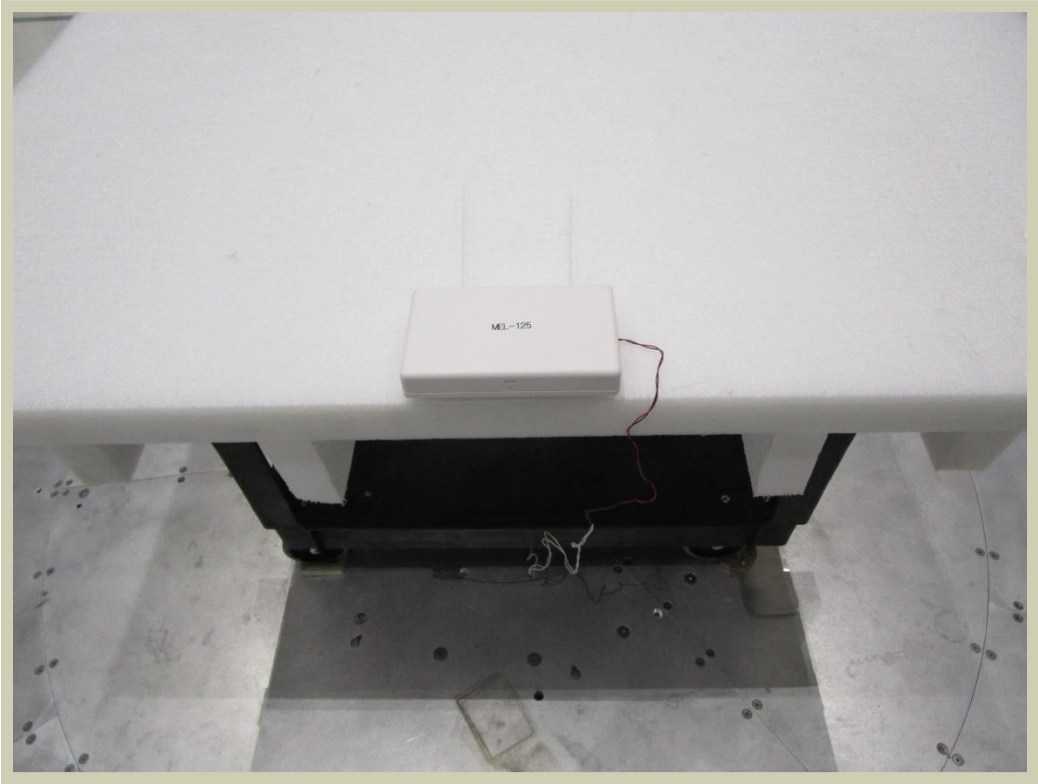
CONCLUSION

Pass

Tested By



RADIATED EMISSIONS



RADIATED EMISSIONS HIGH FREQUENCY

NORTHWEST EMC
WTD.2016.05.18

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level was detected. This required the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search was utilized for frequency scans of the EUT field strength with both polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the periphery of the EUT. Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance was 3 meters or 10 meters (from antenna to boundary of EUT). At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna was increased so that the lowest point of the bottom of the antenna cleared the ground surface by at least 25 cm.

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The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.

The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	10/29/2015	10/29/2016
Antenna - Double Ridge	ETS Lindgren	3115	AJL	9/15/2014	9/15/2016
Cable	Northwest EMC	1-8.2 GHz	TXC	5/31/2016	5/31/2017
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAJ	5/31/2016	5/31/2017

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	4.8 dB	-4.8 dB

FREQUENCY RANGE INVESTIGATED

1 GHz TO 6 GHz

POWER INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0166-1

MODES INVESTIGATED

Idle Mode

RADIATED EMISSIONS HIGH FREQUENCY

EUT:	5881ENHCVE	Work Order:	HNYW0166
Serial Number:	MEL-125	Date:	07/19/2016
Customer:	Honeywell, Automation and Control Solutions	Temperature:	21°C
Attendees:	None	Relative Humidity:	56%
Customer Project:	None	Bar. Pressure:	1025 mb
Tested By:	Jonathan Kiefer	Job Site:	TX02
Power:	110VAC/60Hz	Configuration:	HNYW0166-1

TEST SPECIFICATIONS

Specification: Equipment Class B	Method:
FCC 15.109:2016	ANSI C63.4:2014
ICES-003:2016	ANSI C63.4:2014

TEST PARAMETERS

Run #:	3	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)

COMMENTS

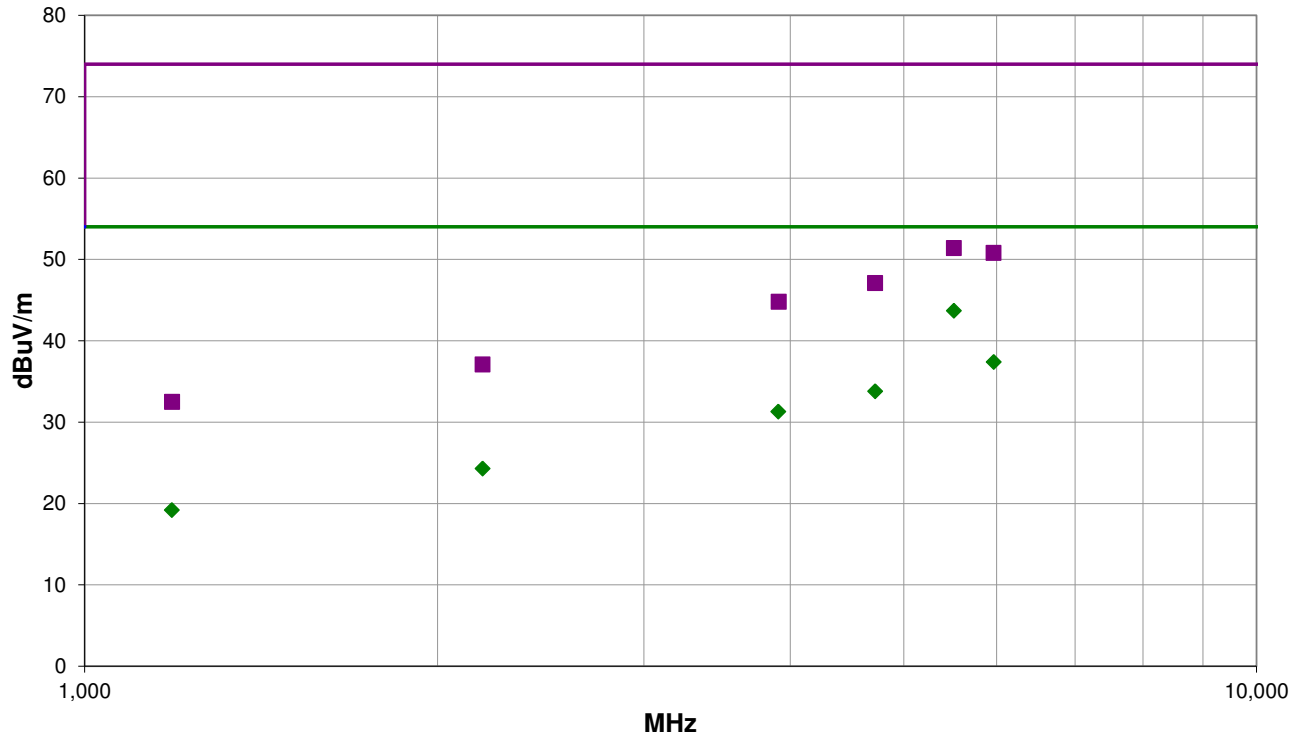
None

EUT OPERATING MODES

Idle Mode

DEVIATIONS FROM TEST STANDARD

None



Run #: 3 PK AV QP

RADIATED EMISSIONS HIGH FREQUENCY

NORTHWEST EMC
WTD.2016.05.18

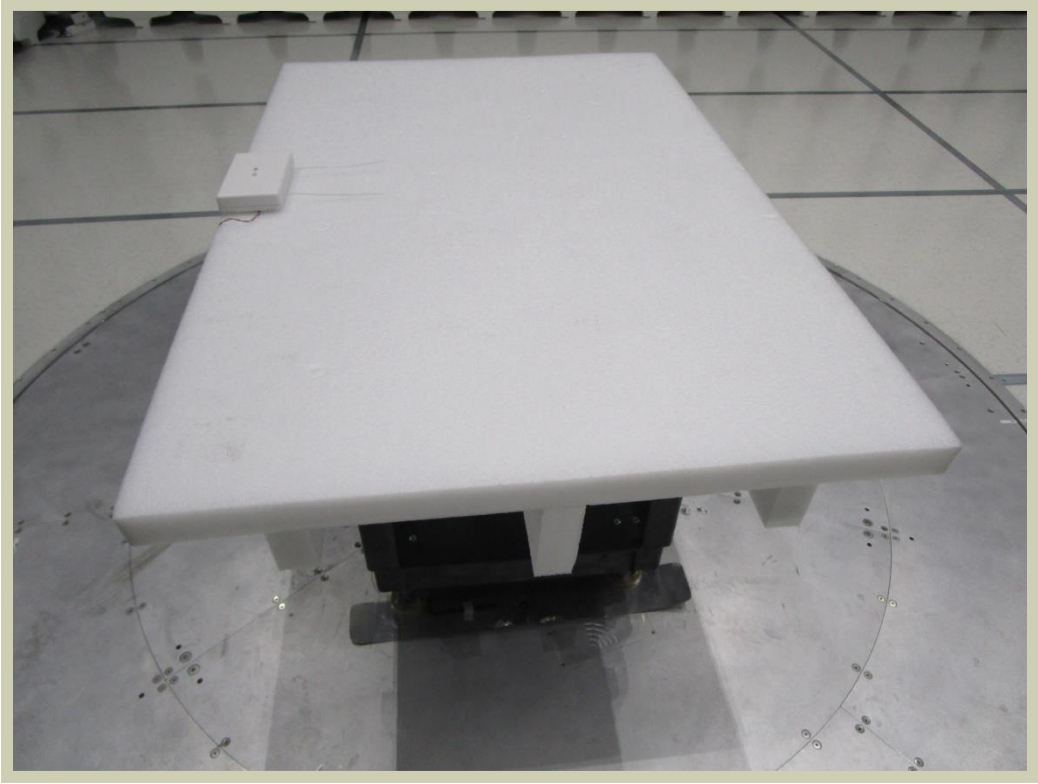
RESULTS - Run #3

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Ant. Height (m)	Azimuth (deg.)	Test Dist. (m)	Ext. Atten. (dB)	Polar. Trans. Type	Detect.	Dist. Adjust. (dB)	Adj. (dBuV/m)	Spec. Limit (dBuV/m)	Margin. (dB)
5517.075	35.0	8.7	4.0	174.0	3.0	0.0	Vert	AV	0.0	43.7	54.0	-10.3
5966.500	26.6	10.8	1.2	129.9	3.0	0.0	Horz	AV	0.0	37.4	54.0	-16.6
4726.500	28.0	5.8	1.2	63.0	3.0	0.0	Horz	AV	0.0	33.8	54.0	-20.2
5517.058	42.7	8.7	4.0	174.0	3.0	0.0	Vert	PK	0.0	51.4	74.0	-22.6
3907.225	28.4	2.9	1.2	18.0	3.0	0.0	Vert	AV	0.0	31.3	54.0	-22.7
5964.158	40.0	10.8	1.2	129.9	3.0	0.0	Horz	PK	0.0	50.8	74.0	-23.2
4725.192	41.3	5.8	1.2	63.0	3.0	0.0	Horz	PK	0.0	47.1	74.0	-26.9
3910.492	41.9	2.9	1.2	18.0	3.0	0.0	Vert	PK	0.0	44.8	74.0	-29.2
2185.467	29.3	-5.0	1.2	144.0	3.0	0.0	Horz	AV	0.0	24.3	54.0	-29.7
1186.700	28.7	-9.5	1.2	154.9	3.0	0.0	Vert	AV	0.0	19.2	54.0	-34.8
2185.267	42.1	-5.0	1.2	144.0	3.0	0.0	Horz	PK	0.0	37.1	74.0	-36.9
1187.067	42.0	-9.5	1.2	154.9	3.0	0.0	Vert	PK	0.0	32.5	74.0	-41.5

CONCLUSION

Pass

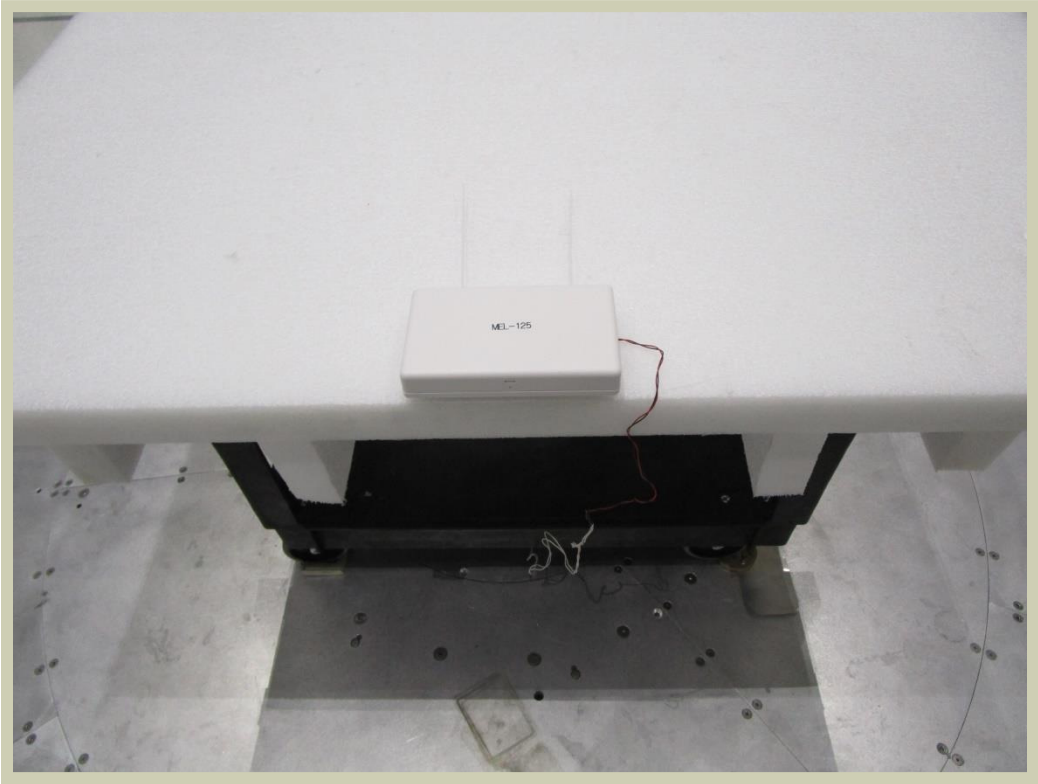
Tested By



RADIATED EMISSIONS HIGH FREQUENCY

NORTHWEST EMC

WTD.2016.05.18



RECEIVER SPURIOUS EMISSIONS

PSA-ESCI 2016.04.26.1

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

Receive Mode

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0166 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	8200 MHz

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
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAJ	5/31/2016	12 mo
Cable	Northwest EMC	1-8.2 GHz	TXC	5/31/2016	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AJL	9/15/2014	24 mo
Amplifier - Pre-Amplifier	Miteq	AM-1551	PAH	9/18/2015	12 mo
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	5/31/2016	12 mo
Antenna - Biconilog	ETS Lindgren	3143B	AYF	4/13/2016	24 mo
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	10/29/2015	12 mo

TEST DESCRIPTION

The EUT was configured for receive mode. The spectrum was scanned throughout the specified range. 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.

RECEIVER SPURIOUS EMISSIONS

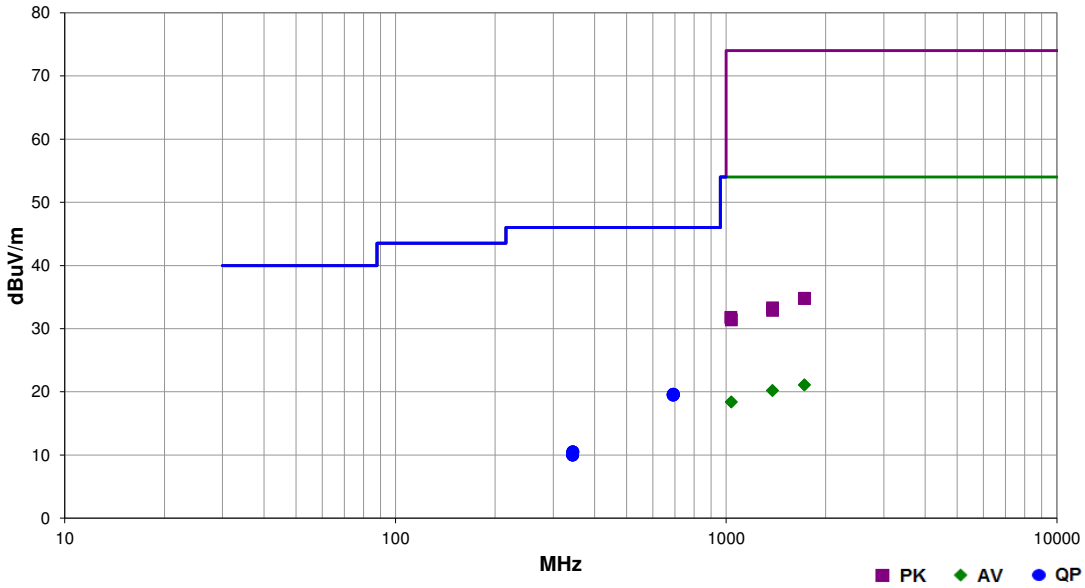
NORTHWEST EMC

PSA-ESCI 2016.04.26.1
EmiR5 2016.03.11

Work Order:	HNYW0166	**Date:**	07/19/16		
Project:	None	**Temperature:**	21 °C		
Job Site:	TX02	**Humidity:**	56% RH		
Serial Number:	MEL-125	**Barometric Pres.:**	1025 mbar	**Tested by:**	Jonathan Kiefer
EUT:	5881ENHCVE				
Configuration:	1				
Customer:	Honeywell, Automation and Control Solutions				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Receive Mode				
Deviations:	None				
Comments:	Receiver operating at 345 MHz.				

Test Specifications	**Class B**	**Test Method**	
FCC 15.109:2016		ANSI C63.4:2014	
ICES-003:2016		ANSI C63.4:2014	

Run #	4	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**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
691.733	32.7	-13.1	3.9	158.0	3.0	0.0	Horz	QP	0.0	19.6	46.0	-26.4	EUT Horizontal
691.937	32.7	-13.1	1.2	117.9	3.0	0.0	Vert	QP	0.0	19.6	46.0	-26.4	EUT Horizontal
691.980	32.7	-13.1	1.2	313.0	3.0	0.0	Horz	QP	0.0	19.6	46.0	-26.4	EUT On Side
691.567	32.6	-13.1	1.2	301.0	3.0	0.0	Horz	QP	0.0	19.5	46.0	-26.5	EUT Vertical
691.718	32.6	-13.1	1.2	272.0	3.0	0.0	Vert	QP	0.0	19.5	46.0	-26.5	EUT Vertical
691.327	32.6	-13.1	1.2	104.0	3.0	0.0	Vert	QP	0.0	19.5	46.0	-26.5	EUT On Side
1725.092	28.8	-7.7	3.4	26.0	3.0	0.0	Horz	AV	0.0	21.1	54.0	-32.9	EUT Horizontal
1725.533	28.8	-7.7	1.2	196.9	3.0	0.0	Vert	AV	0.0	21.1	54.0	-32.9	EUT Horizontal
1381.067	28.7	-8.5	1.2	75.0	3.0	0.0	Horz	AV	0.0	20.2	54.0	-33.8	EUT Horizontal
1381.617	28.7	-8.5	1.2	261.9	3.0	0.0	Vert	AV	0.0	20.2	54.0	-33.8	EUT Horizontal
343.648	33.0	-22.5	1.2	219.0	3.0	0.0	Vert	QP	0.0	10.5	46.0	-35.5	EUT Horizontal
343.638	33.0	-22.5	1.2	360.0	3.0	0.0	Vert	QP	0.0	10.5	46.0	-35.5	EUT Vertical
343.648	33.0	-22.5	1.2	351.9	3.0	0.0	Vert	QP	0.0	10.5	46.0	-35.5	EUT On Side
1036.742	29.0	-10.6	1.2	38.0	3.0	0.0	Horz	AV	0.0	18.4	54.0	-35.6	EUT Horizontal
1036.717	29.0	-10.6	1.2	360.0	3.0	0.0	Vert	AV	0.0	18.4	54.0	-35.6	EUT Horizontal
343.133	32.6	-22.6	1.2	145.0	3.0	0.0	Horz	QP	0.0	10.0	46.0	-36.0	EUT Horizontal
343.232	32.5	-22.5	1.2	303.9	3.0	0.0	Horz	QP	0.0	10.0	46.0	-36.0	EUT Vertical
343.063	32.6	-22.6	2.1	82.9	3.0	0.0	Horz	QP	0.0	10.0	46.0	-36.0	EUT On Side
1726.783	42.5	-7.7	3.4	26.0	3.0	0.0	Horz	PK	0.0	34.8	74.0	-39.2	EUT Horizontal
1724.958	42.5	-7.7	1.2	196.9	3.0	0.0	Vert	PK	0.0	34.8	74.0	-39.2	EUT Horizontal
1381.975	41.8	-8.5	1.2	75.0	3.0	0.0	Horz	PK	0.0	33.3	74.0	-40.7	EUT Horizontal
1380.650	41.4	-8.5	1.2	261.9	3.0	0.0	Vert	PK	0.0	32.9	74.0	-41.1	EUT Horizontal
1032.700	42.4	-10.6	1.2	360.0	3.0	0.0	Vert	PK	0.0	31.8	74.0	-42.2	EUT Horizontal
1037.283	42.0	-10.6	1.2	38.0	3.0	0.0	Horz	PK	0.0	31.4	74.0	-42.6	EUT Horizontal

RECEIVER SPURIOUS EMISSIONS

NORTHWEST EMC

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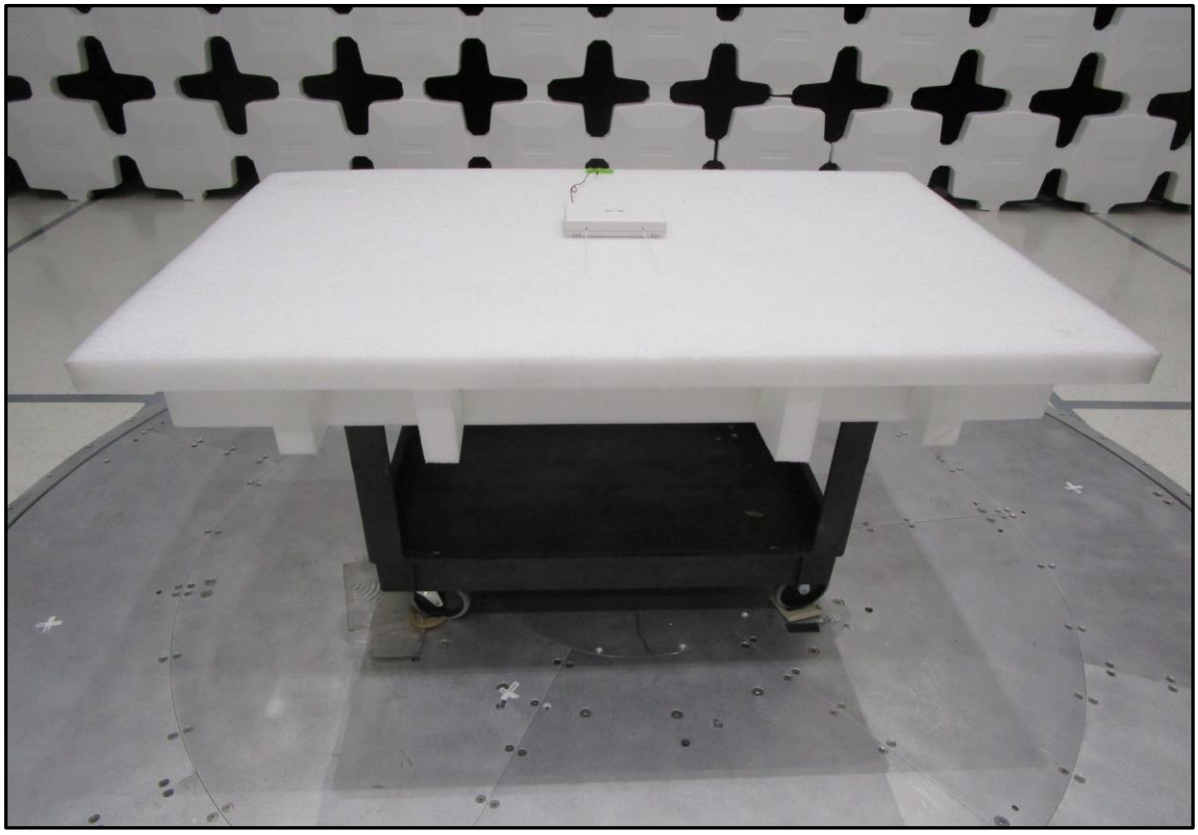

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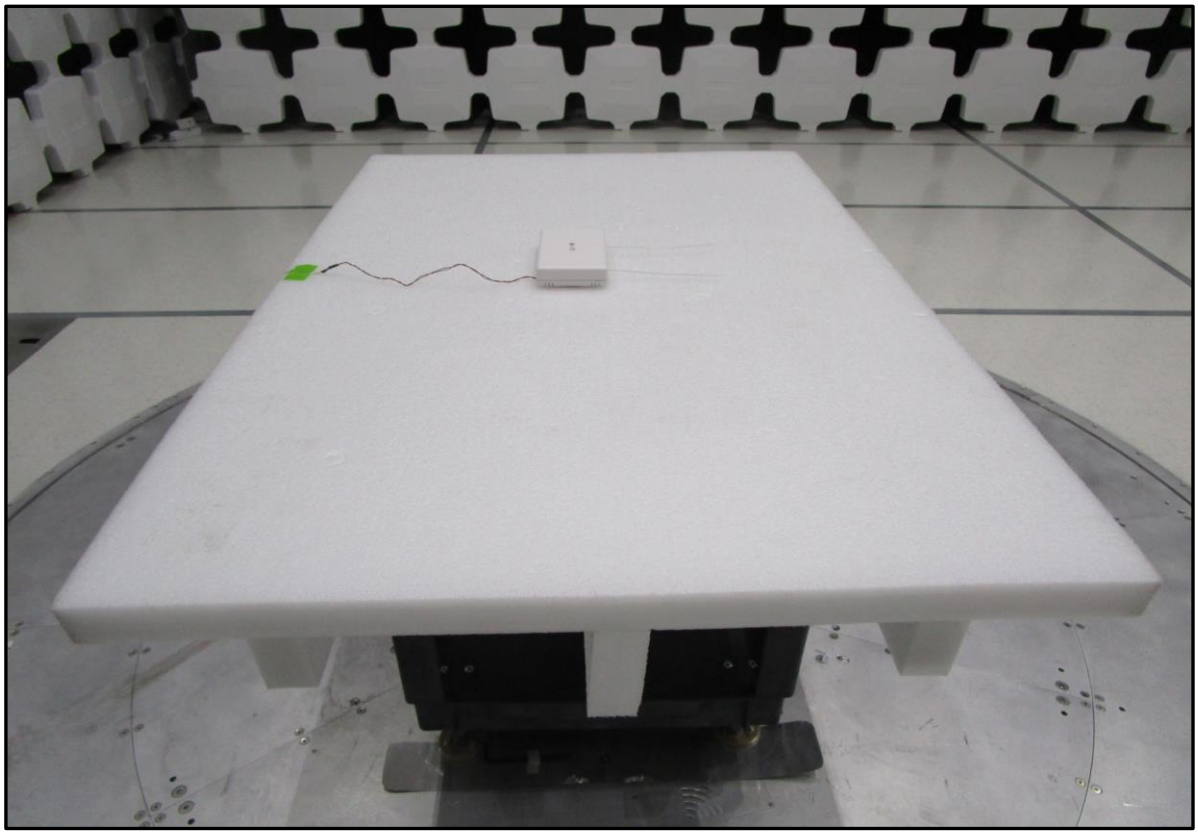

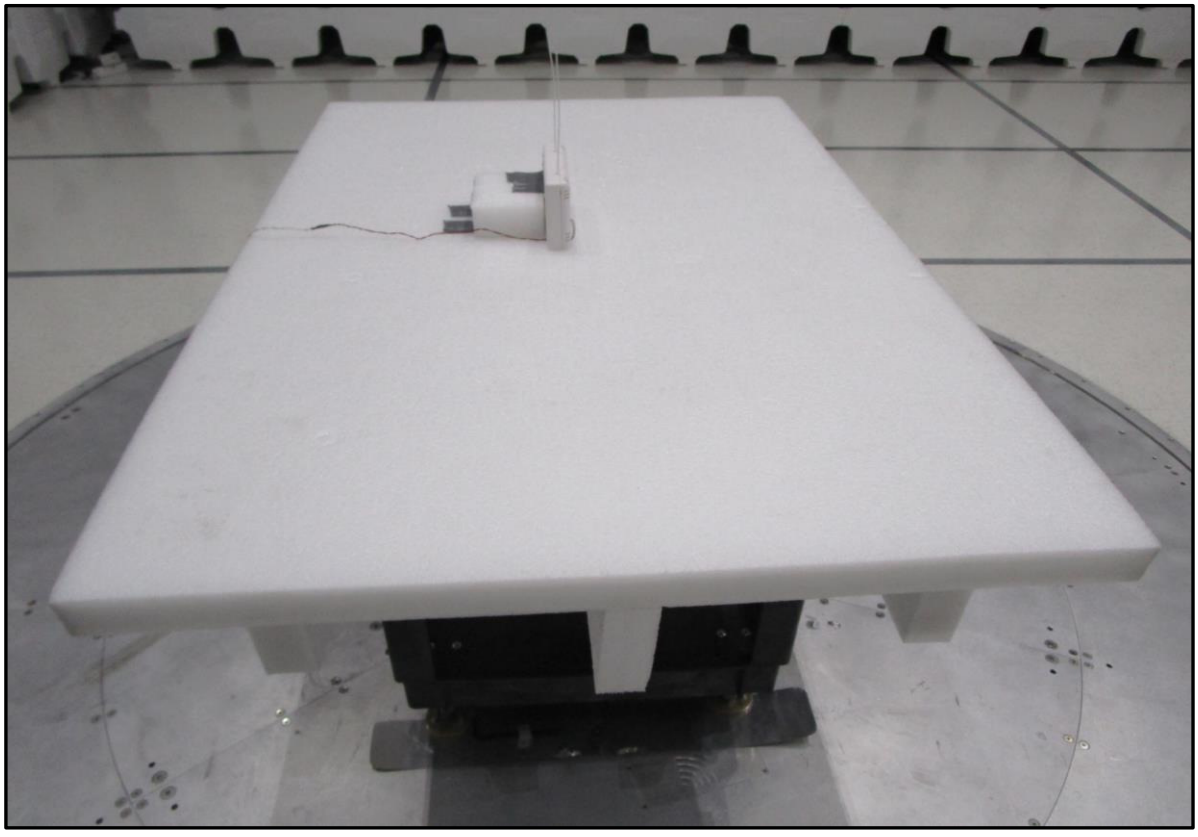

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