

Product Creation Studio

EKT3000B

Report No. PROU0030.1

Report Prepared By



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

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EMC Test Report

Certificate of Test

Last Date of Test: September 19, 2011
Product Creation Studio
Model: EKT3000B

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Field Strength of Fundamental	FCC 15.249:2011	ANSI C63.10:2009	Pass
Duty Cycle	FCC 15.249:2011	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.249:2011	ANSI C63.10:2009	Pass

Modifications made to the product

See the Modifications section of this report

Test Facility

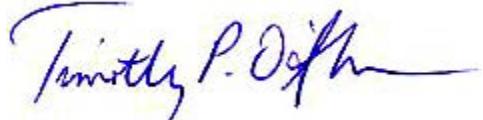
The measurement facility used to collect the data is located at:

Northwest EMC, Inc.
22975 NW Evergreen Parkway, Suite 400
Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826

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

Approved By:



Tim O'Shea, Operations Manager



NVLAP Lab Code: 200630-0

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

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

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.



Accreditations and Authorizations

FCC

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

NVLAP

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

Industry Canada

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

CAB

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

Australia/New Zealand

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



Accreditations and Authorizations

VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (*Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-3265, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634*).

BSMI

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

GOST

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

KCC

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

VIETNAM

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

SCOPE

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



Northwest EMC Locations



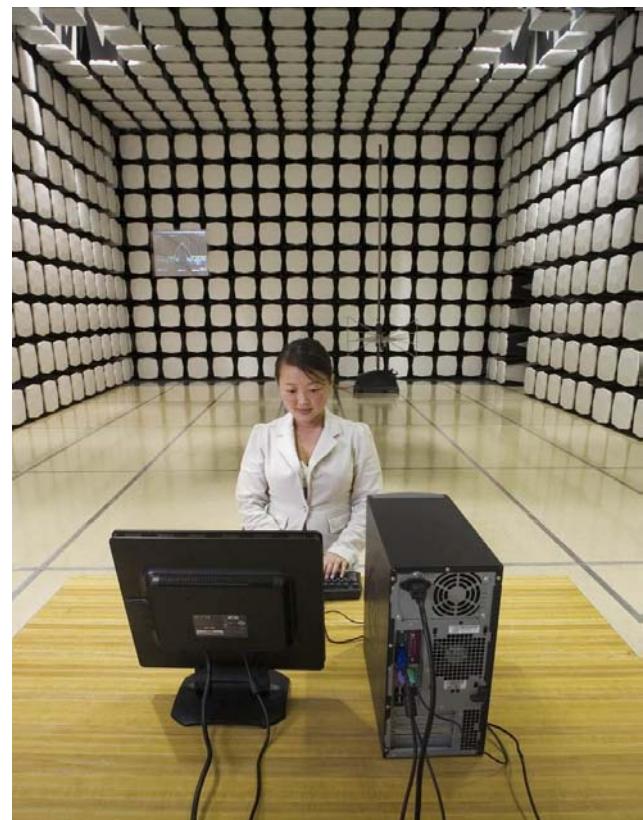
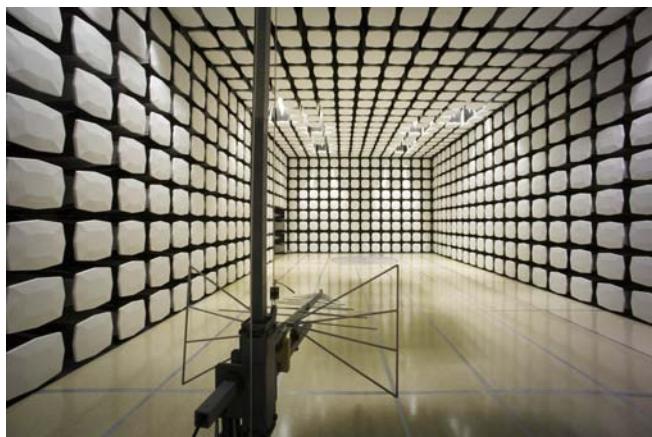
Oregon
Labs EV01-EV12
22975 NW Evergreen Pkwy
Suite 400
Hillsboro, OR 97124
(503) 844-4066

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

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

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

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



Party Requesting the Test

Company Name:	Product Creation Studio
Address:	425 Westlake Ave. N.
City, State, Zip:	Seattle, WA 98109
Test Requested By:	Keith Brown
Model:	EKT3000B
First Date of Test:	September 12, 2011
Last Date of Test:	October 4, 2011
Receipt Date of Samples:	August 25, 2011
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test**Functional Description of the EUT (Equipment Under Test):**

Low Power transceiver operating at 900 MHz.

Testing Objective:

To demonstrate compliance to FCC 15.249 specifications

CONFIGURATION 1 PROU0030

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Keyfob (Transmit)	Product Creation Studio	EKT3000K	None
Belt Clip (Transmit)	Product Creation Studio	EKT3000B	None

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	9/12/2011	Duty Cycle	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	10/4/2011	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	10/4/2011	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

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

MODES OF OPERATION

Transmitting with 100% duty cycle

POWER SETTINGS INVESTIGATED

Battery

FREQUENCY RANGE INVESTIGATED

Start Frequency	905 MHz	Stop Frequency	905 MHz
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CLOCKS AND OSCILLATORS

905 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
Antenna, Biconilog	EMCO	3142	AXB	3/28/2011	12
OC10 Cables	N/A	10kHz-1GHz RE Cables	OCH	6/24/2011	12
Spectrum Analyzer	Agilent	E4446A	AAY	1/11/2011	12

MEASUREMENT BANDWIDTHS

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

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

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation is available upon request.

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was transmitting and while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT and EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009).

FIELD STRENGTH OF FUNDAMENTAL

EUT:	EKT3000B	Work Order:	PROU0030
Serial Number:	None	Date:	10/04/11
Customer:	Product Creation Studio	Temperature:	24
Attendees:	None	Humidity:	38%
Project:	None	Barometric Pres.:	30.15
Tested by:	Jaemi Suh	Power:	Battery
Job Site:	OC10		

TEST SPECIFICATIONS

FCC 15.249:2011 Test Method

ANSI C63.10:2009

TEST PARAMETERS

Antenna Height(s) (m) 1 - 4 Test Distance (m) 3

COMMENTS

None

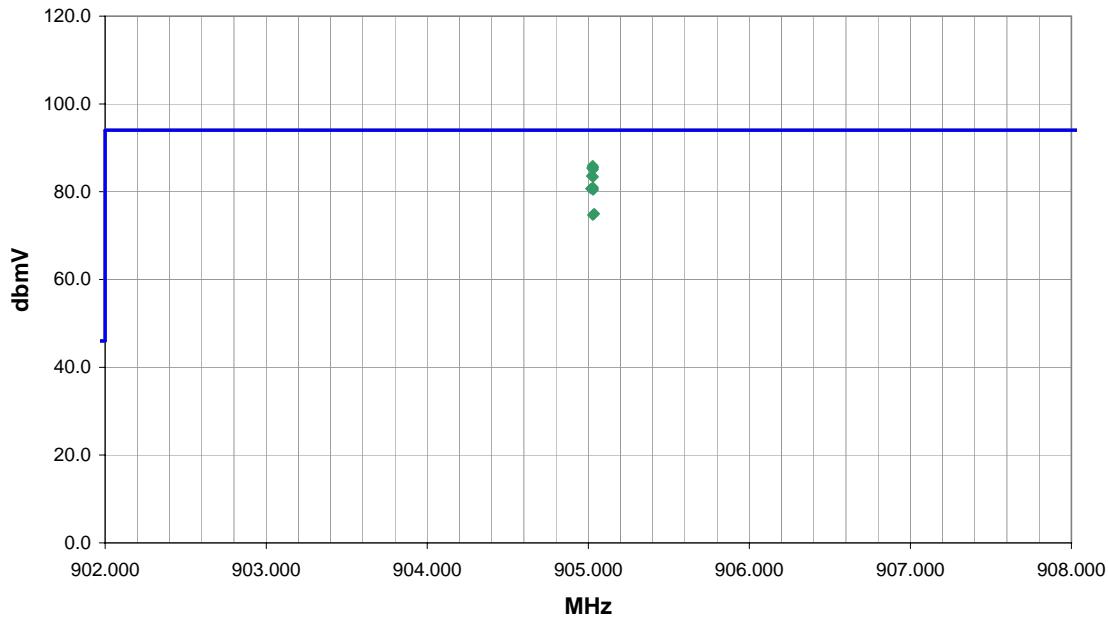
EUT OPERATING MODES

Transmitting with 100% duty cycle

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	1
Results	Pass

Signature 

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dbmV	Spec. Limit dbmV	Compared to Spec. (dB)	Comments
905.028	52.5	33.4	83.0	1.0	3.0	0.0	V-Bilog	PK	0.0	85.9	94.0	-8.1	Y-Axis
905.031	52.2	33.4	83.0	1.0	3.0	0.0	V-Bilog	QP	0.0	85.6	94.0	-8.4	Y-Axis
905.024	52.0	33.4	243.0	1.0	3.0	0.0	V-Bilog	PK	0.0	85.4	94.0	-8.6	X-Axis
905.030	51.7	33.4	243.0	1.0	3.0	0.0	V-Bilog	QP	0.0	85.1	94.0	-8.9	X-Axis
905.022	50.2	33.4	162.0	1.0	3.0	0.0	H-Bilog	PK	0.0	83.6	94.0	-10.4	Z-Axis
905.030	50.0	33.4	162.0	1.0	3.0	0.0	H-Bilog	QP	0.0	83.4	94.0	-10.6	Z-Axis
905.029	47.6	33.4	15.0	1.5	3.0	0.0	V-Bilog	PK	0.0	81.0	94.0	-13.0	Z-Axis
905.029	47.4	33.4	15.0	1.5	3.0	0.0	V-Bilog	QP	0.0	80.8	94.0	-13.2	Z-Axis
905.016	47.3	33.4	290.0	1.0	3.0	0.0	H-Bilog	PK	0.0	80.7	94.0	-13.3	Y-Axis
905.030	47.0	33.4	290.0	1.0	3.0	0.0	H-Bilog	QP	0.0	80.4	94.0	-13.6	Y-Axis
905.037	41.6	33.4	205.0	2.0	3.0	0.0	H-Bilog	PK	0.0	75.0	94.0	-19.0	X-Axis
905.028	41.3	33.4	205.0	2.0	3.0	0.0	H-Bilog	QP	0.0	74.7	94.0	-19.3	X-Axis

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
Antenna, Bilog	Teseq	CBL 6141B	AXR	11/29/2010	12
EV01 Cables	N/A	Bilog Cables	EVA	6/28/2011	12
Spectrum Analyzer	Agilent	E4446A	AAQ	6/24/2011	12

MEASUREMENT UNCERTAINTY

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

TEST DESCRIPTION

To determine average emission measurements, a duty cycle correction factor per 15.35(c) was utilized:

Duty Cycle = On time/100 milliseconds (or the period, whichever is less)

Where "On time" = $N1L1 + N2L2 + \dots$

Where $N1$ is the number of type 1 pulses, $L1$ is length of type 1 pulses, $N2$ is the number of type 2 pulses, $L2$ is the length of type 2 pulses, etc.

Therefore, Duty Cycle = $(N1L1 + N2L2 + \dots)/100mS$ or T , whichever is less, where T is the period of the pulse train.

The measured values for the EUT's pulse train are as follows:

Period = 400 mSec

Pulsewidth of Pulse= 6.28 mSec

Number of Pulses = 1

Duty Cycle = $20 \log [6.28/100] = -24 \text{ dB}$

The duty cycle correction factor of -24 dB was added to the average readings to determine the average levels. The transmitter was tested in a constant transmit mode for spurious emissions and field strength of the fundamental.

EMC

DUTY CYCLE

EUT: EKT3000B

Work Order: PROU0030

Serial Number: None

Date: 09/12/11

Customer: Product Creation Studio

Temperature: 24.1°C

Attendees: None

Humidity: 46%

Project: None

Barometric Pres.: 1019

Tested by: Ethan Schoonover

Power: Battery

Job Site: EV01

Test Method

TEST SPECIFICATIONS

FCC 15.249:2011

ANSI C63.10:2009

COMMENTS

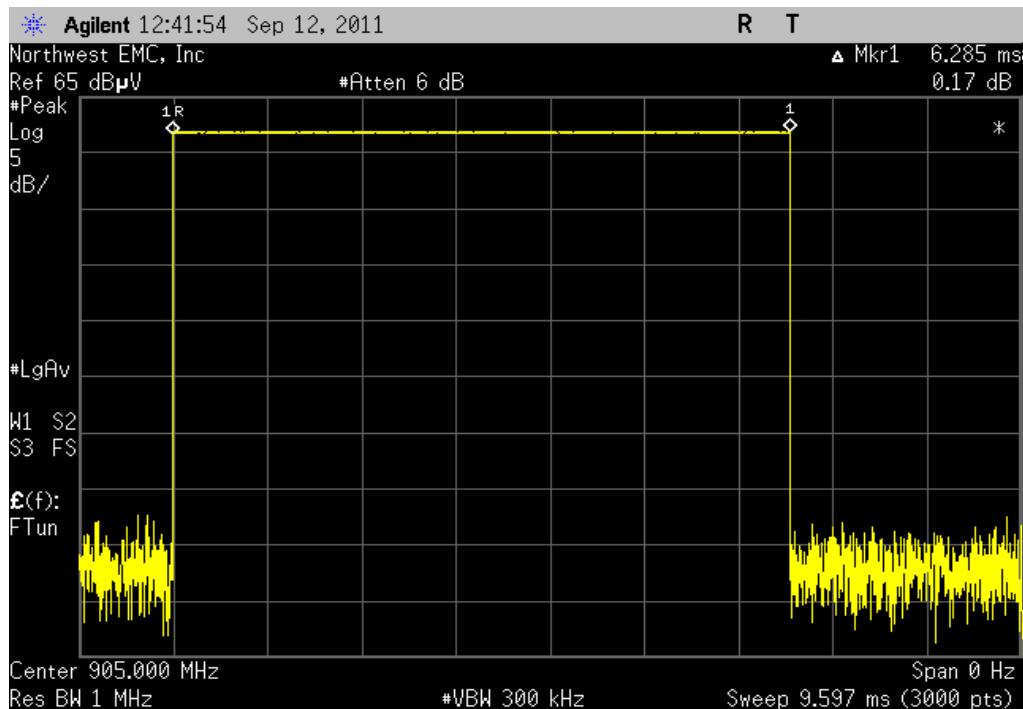
Typical transmission: Duty Cycle is = (6.28 ms)/100ms = 0.0628

DEVIATIONS FROM TEST STANDARD

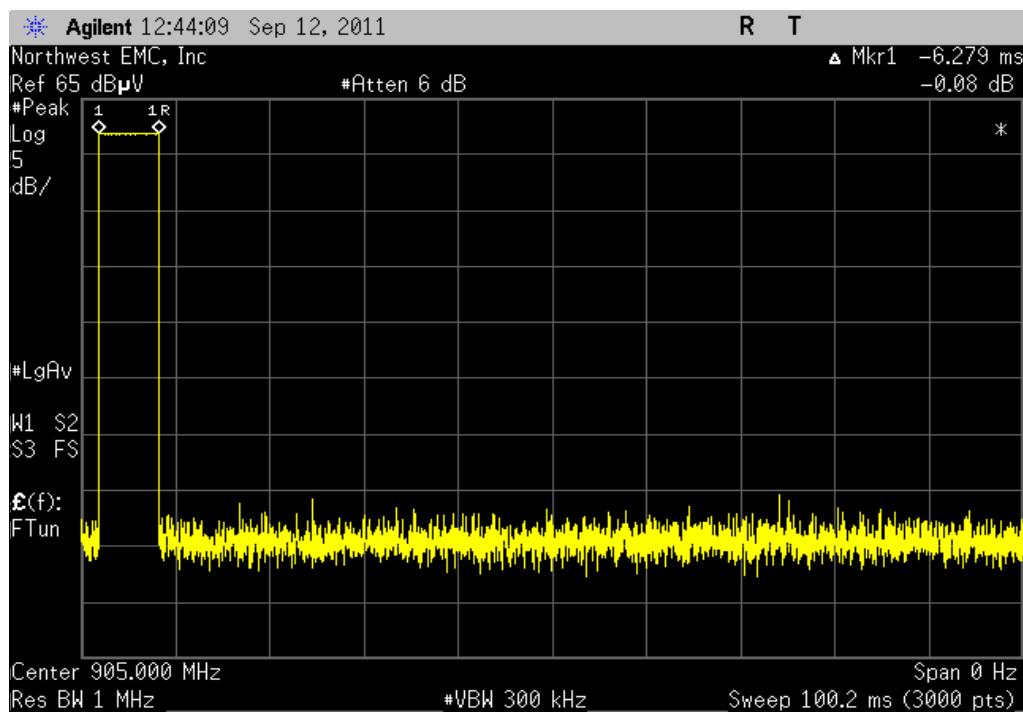
No Deviations

Configuration #	1	Signature	Value	Limit	Results
Pulse Width 1			6.28 ms	N/A	N/A
100 ms			6.28 ms	N/A	N/A
Period			418.8 ms	N/A	N/A

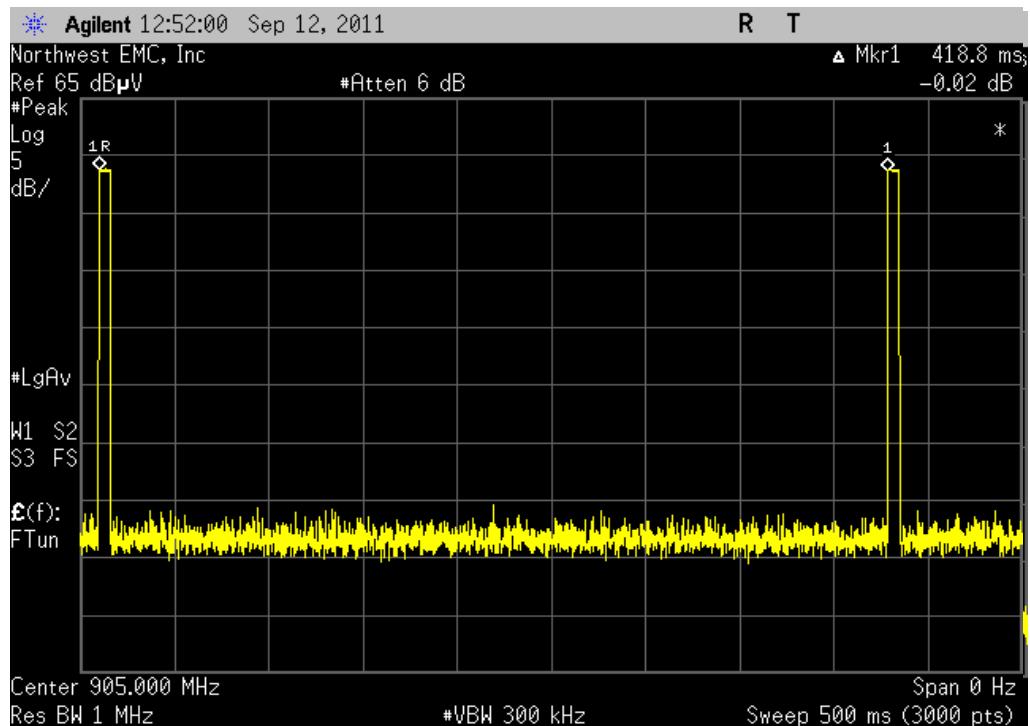
Pulse Width 1		
Result: N/A	Value: 6.28 ms	Limit: N/A



Result:	N/A	Value:	6.28 ms	Limit:	N/A
100 ms					



Result: N/A	Period	Value: 418.8 ms	Limit: N/A
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EMC**SPURIOUS RADIATED EMISSIONS**

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

MODES OF OPERATION

Transmit Mode with 100% Duty Cycle

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

PROU0030 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 12.4 GHz

CLOCKS AND OSCILLATORS

905 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
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AOE	11/17/2010	12 mo
Antenna, Horn	ETS	3160-07	AHR	NCR	0 mo
OC 10 Cables	N/A	12-18GHz RE Cables	OCO	6/24/2011	12 mo
Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	6/24/2011	12 mo
Antenna, Horn	EMCO	3115	AHB	3/8/2011	24 mo
OC10 Cables	N/A	1-8GHz RE Cables	OCJ	6/10/2011	12 mo
Antenna, Biconilog	EMCO	3142	AXB	3/28/2011	12 mo
OC10 Cables	N/A	10kHz-1GHz RE Cables	OCH	6/24/2011	12 mo
Pre-Amplifier	Miteq	AM-1064-9079	AOO	6/28/2011	12 mo
Spectrum Analyzer	Agilent	E4446A	AAY	1/11/2011	12 mo

MEASUREMENT BANDWIDTHS

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

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

MEASUREMENT UNCERTAINTY

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

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and orientation in 3 orthogonal plane, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003).

Work Order:	PROU0030	Date:	10/04/11	
Project:	None	Temperature:	22.24	
Job Site:	OC10	Humidity:	42.12	
Serial Number:	None	Barometric Pres.:	1014.2	
				<i>Jaemi Suh</i>
EUT:	EKT3000B			
Configuration:	1			
Customer:	Product Creation Studio			
Attendees:	None			
EUT Power:	Battery			
Operating Mode:	Transmit Mode with 100% duty cycle.			
Deviations:	No deviations.			
Comments:	Worst case axis: Y-Axis			

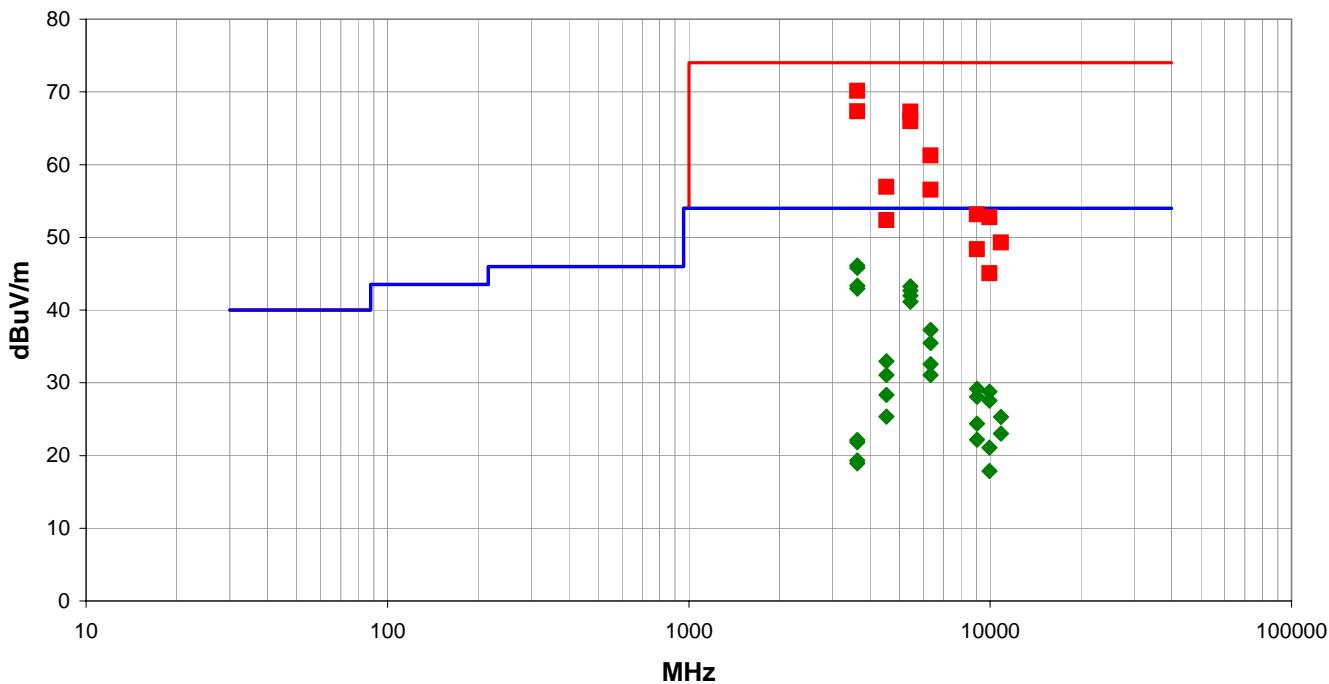
Test Specifications

FCC 15.249:2011

Test Method

ANSI C63.10:2009

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



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)
3620.079	63.8	6.3	1.2	298.0	0.0	0.0	Horz	PK	0.0	70.1	74.0	-3.9
3620.026	61.0	6.3	1.2	277.0	0.0	0.0	Vert	PK	0.0	67.3	74.0	-6.7
5430.085	55.0	12.3	1.2	330.0	0.0	0.0	Horz	PK	0.0	67.3	74.0	-6.7
3620.079	63.8	6.3	1.2	298.0	24.0	0.0	Horz	AV	0.0	46.1	54.0	-7.9
5430.162	53.7	12.3	1.2	291.0	0.0	0.0	Vert	PK	0.0	66.0	74.0	-8.0
3620.112	63.5	6.3	1.2	298.0	24.0	0.0	Horz	AV	0.0	45.8	54.0	-8.2
3620.026	61.0	6.3	1.2	277.0	24.0	0.0	Vert	AV	0.0	43.3	54.0	-10.7
5430.085	55.0	12.3	1.2	330.0	24.0	0.0	Horz	AV	0.0	43.3	54.0	-10.7

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)
3620.119	60.6	6.3	1.2	277.0	24.0	0.0	Vert	AV	0.0	42.9	54.0	-11.1
5430.151	54.4	12.3	1.2	330.0	24.0	0.0	Horz	AV	0.0	42.7	54.0	-11.3
5430.162	53.7	12.3	1.2	291.0	24.0	0.0	Vert	AV	0.0	42.0	54.0	-12.0
6335.216	47.8	13.5	1.0	345.0	0.0	0.0	Horz	PK	0.0	61.3	74.0	-12.7
5430.155	52.9	12.3	1.2	291.0	24.0	0.0	Vert	AV	0.0	41.2	54.0	-12.8
6335.216	47.8	13.5	1.0	345.0	24.0	0.0	Horz	AV	0.0	37.3	54.0	-16.7
4525.134	48.6	8.4	2.0	171.0	0.0	0.0	Horz	PK	0.0	57.0	74.0	-17.0
6334.980	43.1	13.5	1.0	309.0	0.0	0.0	Vert	PK	0.0	56.6	74.0	-17.4
6335.183	46.0	13.5	1.0	345.0	24.0	0.0	Horz	AV	0.0	35.5	54.0	-18.5
4525.134	48.6	8.4	2.0	171.0	24.0	0.0	Horz	AV	0.0	33.0	54.0	-21.0
6334.980	43.1	13.5	1.0	309.0	24.0	0.0	Vert	AV	0.0	32.6	54.0	-21.4
4525.144	44.0	8.4	1.2	281.0	0.0	0.0	Vert	PK	0.0	52.4	74.0	-21.6
4525.148	46.7	8.4	2.0	171.0	24.0	0.0	Horz	AV	0.0	31.1	54.0	-22.9
6335.200	41.6	13.5	1.0	309.0	24.0	0.0	Vert	AV	0.0	31.1	54.0	-22.9
4525.144	44.0	8.4	1.2	281.0	24.0	0.0	Vert	AV	0.0	28.4	54.0	-25.6
4525.137	41.0	8.4	1.2	281.0	24.0	0.0	Vert	AV	0.0	25.4	54.0	-28.6
3620.079	63.8	6.3	1.2	298.0	24.0	0.0	Horz	AV	0.0	22.1	54.0	-31.9
3620.112	63.5	6.3	1.2	298.0	24.0	0.0	Horz	AV	0.0	21.8	54.0	-32.2
3620.026	61.0	6.3	1.2	277.0	24.0	0.0	Vert	AV	0.0	19.3	54.0	-34.7
3620.119	60.6	6.3	1.2	277.0	24.0	0.0	Vert	AV	0.0	18.9	54.0	-35.1
9050.219	62.2	-9.0	1.4	275.0	0.0	0.0	Horz	PK	0.0	53.2	74.0	-20.8
9955.130	61.3	-8.5	1.2	249.0	0.0	0.0	Horz	PK	0.0	52.8	74.0	-21.2
10860.200	58.2	-8.9	1.2	78.0	0.0	0.0	Horz	PK	0.0	49.3	74.0	-24.7
9050.312	57.4	-9.0	1.2	59.0	0.0	0.0	Vert	PK	0.0	48.4	74.0	-25.6
9955.430	53.6	-8.5	1.2	98.0	0.0	0.0	Vert	PK	0.0	45.1	74.0	-28.9
9050.219	62.2	-9.0	1.4	275.0	24.0	0.0	Horz	AV	0.0	29.2	54.0	-24.8
9955.130	61.3	-8.5	1.2	249.0	24.0	0.0	Horz	AV	0.0	28.8	54.0	-25.2
9050.239	61.1	-9.0	1.4	275.0	24.0	0.0	Horz	AV	0.0	28.1	54.0	-25.9
9955.250	60.1	-8.5	1.2	249.0	24.0	0.0	Horz	AV	0.0	27.6	54.0	-26.4
10860.200	58.2	-8.9	1.2	78.0	24.0	0.0	Horz	AV	0.0	25.3	54.0	-28.7
9050.312	57.4	-9.0	1.2	59.0	24.0	0.0	Vert	AV	0.0	24.4	54.0	-29.6
10860.280	55.9	-8.9	1.2	78.0	24.0	0.0	Horz	AV	0.0	23.0	54.0	-31.0
9050.245	55.2	-9.0	1.2	59.0	24.0	0.0	Vert	AV	0.0	22.2	54.0	-31.8
9955.430	53.6	-8.5	1.2	98.0	24.0	0.0	Vert	AV	0.0	21.1	54.0	-32.9
9955.270	50.4	-8.5	1.2	98.0	24.0	0.0	Vert	AV	0.0	17.9	54.0	-36.1