Controltek, Inc.

Mega M.O.L.E.

April 11, 2008

Report No. CNTR0018

Report Prepared By

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

EMC Test Report

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: April 11, 2008
Controltek, Inc.
Model: Mega M.O.L.E.

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Spurious Radiated Emissions	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
Output Power	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
Occupied Bandwidth	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
Band Edge Compliance	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
Spurious Conducted Emissions	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
Power Spectral Density	FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
AC Powerline Conducted Emissions	FCC 15.207:2007	ANSI C63.4:2003	**Pass**
Radiated Emission	FCC 15.109(g) (CISPR 22:1997):2007	ANSI C63.4:2003	**Pass**

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

Test Facility

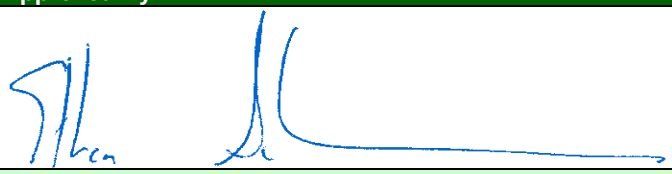
The measurement facility used to collect the data is located at:

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 #3496A).

Approved By:



Ethan Schoonover, Sultan Lab 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		

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 United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. 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.

NVLAP LAB CODE 200629-0
NVLAP LAB CODE 200630-0
NVLAP LAB CODE 200676-0
NVLAP LAB CODE 200761-0

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 212, Issue 1 (Provisional) 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.

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.

TÜV Product Service: Included in TUV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TUV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TUV's current Listing of CARAT Laboratories, available from TUV. A certificate was issued to represent that this laboratory continues to meet TUV's CARAT Program requirements. Certificate No. USA0604C.

TÜV Rheinland: Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.

NEMKO: Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).

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).

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, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294).*

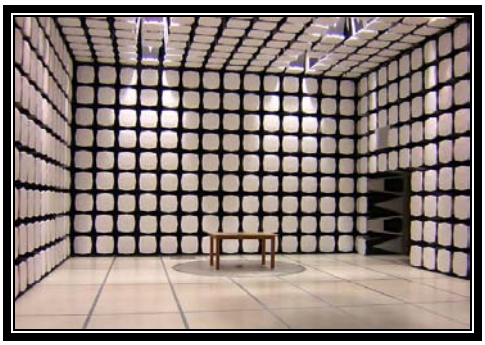
BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.

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

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

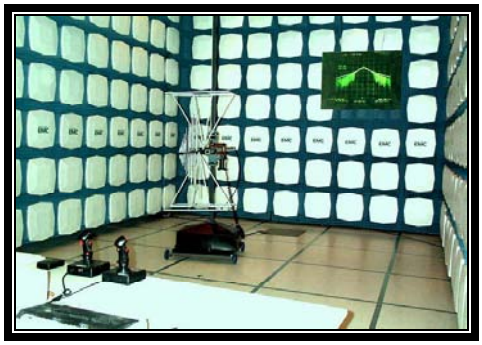
SCOPE

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



California – Orange County Facility
Labs OC01 – OC13

41 Tesla Ave. Irvine, CA 92618
(888) 364-2378 Fax: (503) 844-3826



Oregon – Evergreen Facility
Labs EV01 – EV11

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124
(503) 844-4066 Fax: (503) 844-3826

Washington – Sultan Facility
Labs SU01 – SU07

14128 339th Ave. SE Sultan, WA 98294
(888) 364-2378

Party Requesting the Test

Company Name:	Controltek, Inc.
Address:	3905 NE 112th Avenue
City, State, Zip:	Vancouver, WA 98682
Test Requested By:	Sam Battaglia
Model:	Mega M.O.L.E.
First Date of Test:	March 26, 2008
Last Date of Test:	March 27, 2008
Receipt Date of Samples:	March 26, 2008
Equipment Design Stage:	Preproduction
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Digital Transmission System (DTS) radio with +4 dBm output power and operating at 2.4 GHz. Device is set up to broadcast - round robin to each channel requesting a beacon.

Testing Objective:
Seeking TCB certification under 15.247.

CONFIGURATION 1 CNTR0018

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Controltek, Inc.	Mega M.O.L.E	Unit 1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
I/O module	Controltek, Inc.	I/O Pod 20	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Host PC	HP	Unknown	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.0	No	EUT	Host PC
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 CNTR0018

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Controltek, Inc.	Mega M.O.L.E	Unit 1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
I/O module	Controltek, Inc.	I/O Pod 20	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Host PC	HP	Unknown	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB Power	Yes	1.0	No	EUT	AC Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 CNTR0018

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Controltek, Inc.	Mega M.O.L.E	Unit 1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
I/O module	Controltek, Inc.	I/O Pod 20	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.0	No	EUT	Host PC
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 4 CNTR0018

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Controltek, Inc.	Mega M.O.L.E	Unit 1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
I/O module	Controltek, Inc.	I/O Pod 20	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Host PC	HP	Unknown	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.5	No	EUT	Host PC
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 13 CNTR0019

Software/Firmware Running during test	
Description	**Version**
Windows xp	5.1 build 2600xpsp_sp2
CTEK RF Messenger	0.01
Hyper Terminal	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - Emissions	Controltek, Inc.	Mega M.O.L.E	Unit 1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
I/O module	Controltek, Inc.	I/O Pod 20	None
Wire Whip Antenna	ECD	E47-6342-11	Lot 9546
Host Computer	Dell	Dimension 1100	H163W81
Monitor	IBM	6558-03N	55-70151
Keyboard	Dell	RT7D20	-07VA
Mouse	Logitech	M-CAA42	LZA14813499
Printer	Epson	LX-300	1YLY179968

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.0	No	EUT	Host PC
Thermocouples (x20)	No	1.0m	No	I/O Pod 20	Unterminated
Keyboard	PA	1.8m	PA	Host Computer	Keyboard
Mouse	PA	1.8m	PA	Host Computer	Mouse
Video	Yes	1.8m	Yes	Host Computer	Monitor
Parallel	Yes	1.8m	No	Host Computer	Printer
AC Power	No	1.8m	No	Host Computer	AC Mains
AC Power	No	1.8m	No	Monitor	AC Mains
AC Power	PA	1.8m	PA	Printer	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	3/26/2008	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.
2	3/26/2008	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	3/26/2008	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	3/26/2008	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	3/26/2008	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	3/27/2008	AC Powerline 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.
7	3/27/2008	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.
8	4/10/2008	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
Tx & Rx radio ch.11, Record data streaming to wireless software and USB hyperterminal

POWER SETTINGS INVESTIGATED
230V/50Hz
120V/60Hz

CONFIGURATIONS INVESTIGATED
CNTR0019 - 13) Basic Configuration with PC Host

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30 MHz	Stop Frequency	1000 MHz

CLOCKS AND OSCILLATORS
None Provided

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	1/15/2008	24 mo
EV11 Cables		10m Test Distance Cables	EVL	5/1/2007	13 mo
Pre-Amplifier	Miteq	AM-1551	AOY	5/1/2007	13 mo
Spectrum Analyzer	Agilent	E4443A	AAS	12/7/2007	13 mo

MEASUREMENT BANDWIDTHS

	Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0
Measurements were made using the bandwidths and detectors specified. No video filter was used.				

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

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 will be detected. This requires the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search is 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 shall be 3 meters or 10 meters. 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 shall be increased so that the lowest point of the bottom of the antenna clears the ground surface by at least 25 cm.

NORTHWEST

EMC

RADIATED EMISSIONS

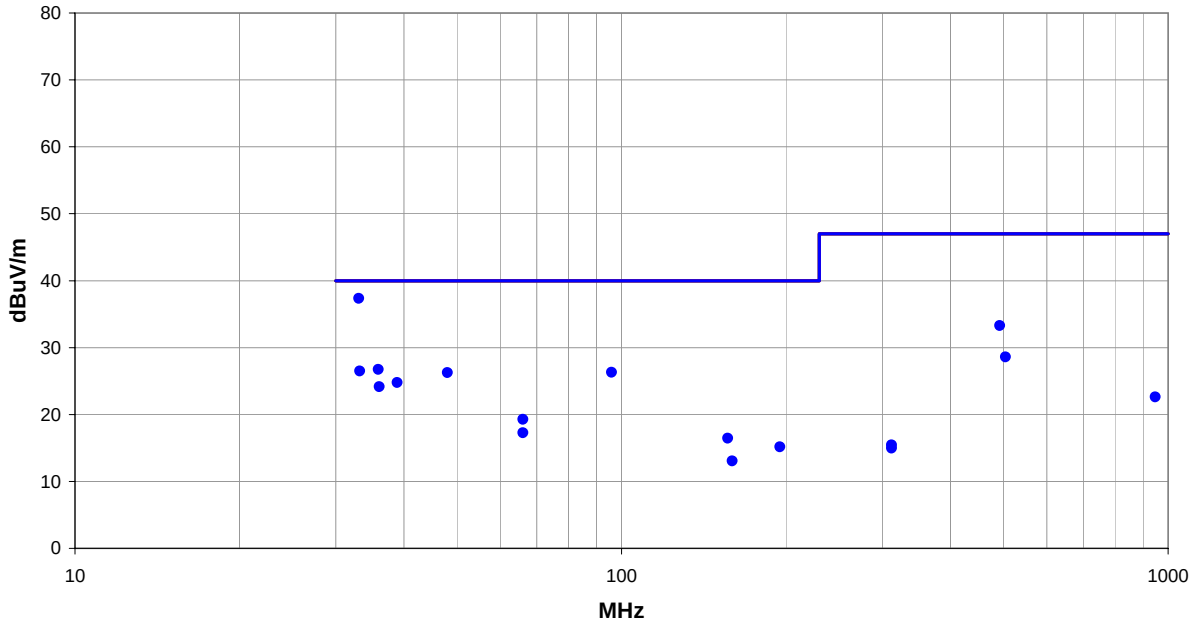
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0019	**Date:**	04/10/08		
Project:	None	**Temperature:**	22 °C		
Job Site:	EV11	**Humidity:**	36.5		
Serial Number:	Unit 1	**Barometric Pres.:**	1018.0mb	**Tested by:**	David Divergigelis

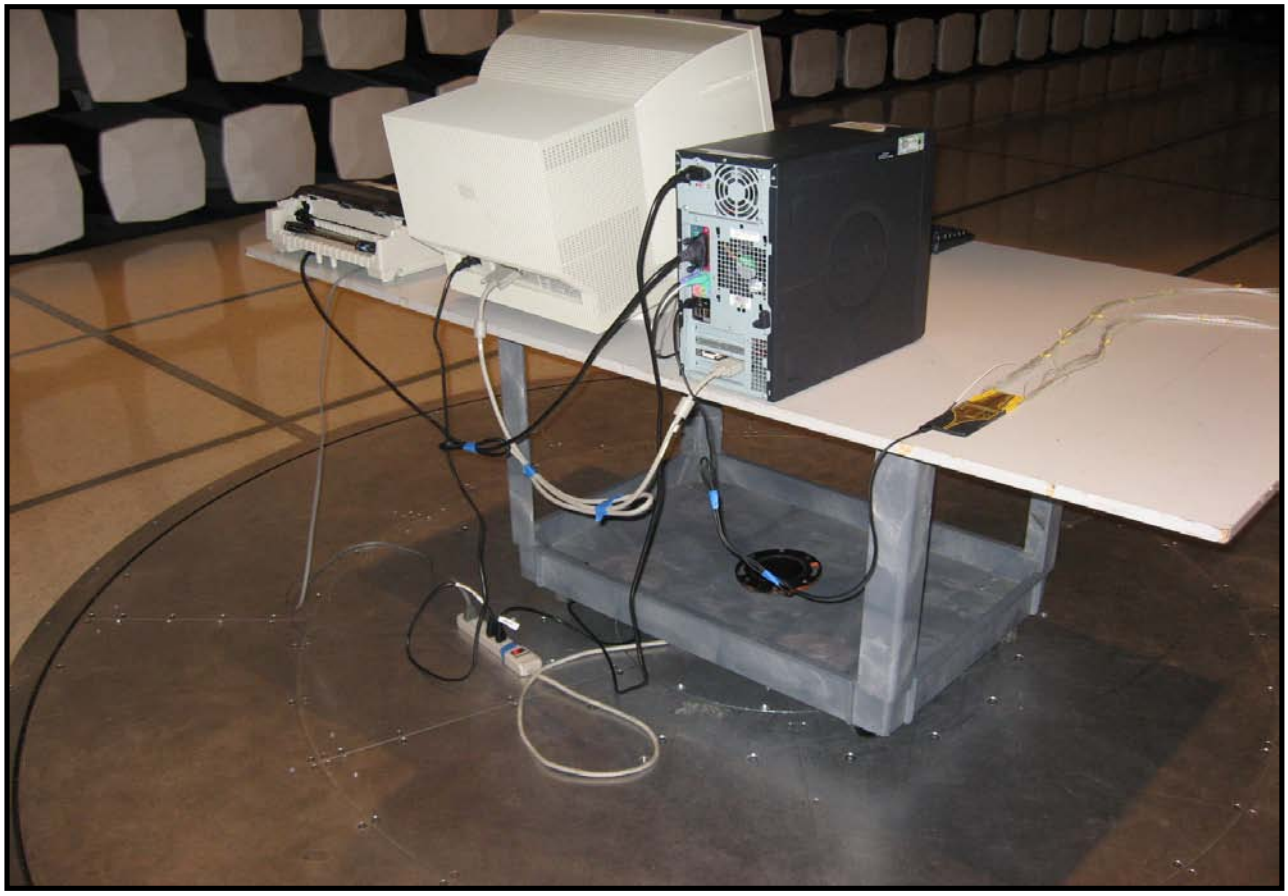
EUT:	Mega M.O.L.E.
Configuration:	13 - Basic Configuration with PC Host
Customer:	Controltek, Inc.
Attendees:	None
EUT Power:	120V/60Hz
Operating Mode:	Tx & Rx radio ch.11, Record data streaming to wireless software and USB hyperterminal
Deviations:	No deviations.
Comments:	None

Test Specifications	**Class A**	**Test Method**
EN 55022: 2006		CISPR 22:2005 (Amended by A1:2005 and A2:2006)
FCC 15.109(g) (CISPR 22:1997):2007		ANSI C63.4:2003

Run #	8	**Test Distance (m)**	10	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq	Amplitude	Factor	Antenna Height	Azimuth (degrees)	Test Distance	External Attenuation	Polarity/ Transducer Type	Detector	Distance Adjustment	Adjusted	Spec. Limit	Compared to Spec. (dB)
33.054	54.4	-17.0	1.0	17.0	10.0	0.0	Vert	QP	0.0	37.4	40.0	-2.6
35.887	45.1	-18.4	1.0	308.0	10.0	0.0	Vert	QP	0.0	26.7	40.0	-13.3
33.197	43.6	-17.1	2.1	0.0	10.0	0.0	Horz	QP	0.0	26.5	40.0	-13.5
492.058	47.9	-14.6	1.7	317.0	10.0	0.0	Horz	QP	0.0	33.3	47.0	-13.7
95.962	53.3	-27.0	4.0	104.0	10.0	0.0	Horz	QP	0.0	26.3	40.0	-13.7
48.000	49.6	-23.3	1.2	233.0	10.0	0.0	Vert	QP	0.0	26.3	40.0	-13.7
38.882	44.7	-19.9	1.0	51.0	10.0	0.0	Vert	QP	0.0	24.8	40.0	-15.2
36.040	42.6	-18.4	3.9	328.0	10.0	0.0	Horz	QP	0.0	24.2	40.0	-15.8
504.017	43.0	-14.4	1.6	318.0	10.0	0.0	Horz	QP	0.0	28.6	47.0	-18.4
66.000	46.4	-27.1	1.5	318.0	10.0	0.0	Vert	QP	0.0	19.3	40.0	-20.7
66.000	44.4	-27.1	3.3	219.0	10.0	0.0	Horz	QP	0.0	17.3	40.0	-22.7
156.358	41.5	-25.0	1.0	207.0	10.0	0.0	Vert	QP	0.0	16.5	40.0	-23.5
947.693	30.8	-8.2	1.0	82.0	10.0	0.0	Horz	QP	0.0	22.6	47.0	-24.4
194.846	38.6	-23.5	3.0	179.0	10.0	0.0	Horz	QP	0.0	15.1	40.0	-24.9
159.437	37.8	-24.8	1.0	80.0	10.0	0.0	Vert	QP	0.0	13.0	40.0	-27.0
312.000	34.4	-18.9	1.1	226.0	10.0	0.0	Vert	QP	0.0	15.5	47.0	-31.5
312.000	33.9	-18.9	3.2	186.0	10.0	0.0	Horz	QP	0.0	15.0	47.0	-32.0



RADIATED SPURIOUS EMISSIONS

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

MODES OF OPERATION
Transmitting low channel
Transmitting mid channel
Transmitting high channel

POWER SETTINGS INVESTIGATED
3.7 VDC battery via USB power

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30 MHz	Stop Frequency	25 GHz

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2007	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	1/16/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	16
Antenna, Biconilog	EMCO	3141	AXE	1/15/2008	24
EV01 Cables		Bilog Cables	EVA	10/23/2007	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	1/3/2008	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	24
EV01 Cables		Double Ridge Horn Cables	EVB	1/3/2008	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	6/22/2007	13
Antenna, Horn	ETS	3160-07	AHU	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	10/23/2007	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	6/22/2007	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	10/23/2007	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	7/25/2007	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 Cables		18-26GHz Standard Gain Horn Cable	EVD	7/25/2007	13

MEASUREMENT BANDWIDTHS

	Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0
Measurements were made using the bandwidths and detectors specified. No video filter was used.				

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

Power via USB from PC host remote

EUT OPERATING MODES

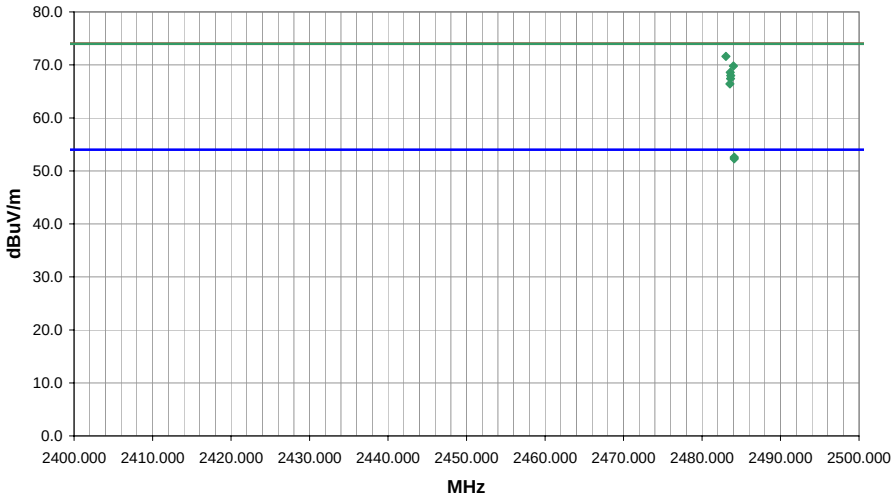
Transmitting high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	4
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
2483.517	31.8	2.2	305.0	1.0	3.0	20.0	H-Horn	AV	0.0	54.0	54.0	0.0	EUT on side, Antenna horizontal
2483.222	31.7	2.2	287.0	1.1	3.0	20.0	H-Horn	AV	0.0	53.9	54.0	-0.1	EUT on end, Antenna horizontal
2483.503	30.8	2.2	101.0	1.0	3.0	20.0	V-Horn	AV	0.0	53.0	54.0	-1.0	EUT horizontal, Antenna vertical
2483.507	30.8	2.2	10.0	1.0	3.0	20.0	V-Horn	AV	0.0	53.0	54.0	-1.0	EUT on end, Antenna horizontal
2480.190	64.4	2.2	148.0	1.0	3.0	20.0	H-Horn	AV	0.0	86.6			Fundamental, EUT horizontal, Antenna vertical
2484.100			148.0	1.0	3.0	20.0	H-Horn	AV	0.0	52.6	54.0	-1.4	EUT horizontal, Antenna vertical. Marker Delta calculated from 86.6 - 34.0 = 52.5
2480.160	64.2	2.2	112.0	1.1	3.0	20.0	V-Horn	AV	0.0	86.4			Fundamental, EUT on side, Antenna horizontal
2484.100			112.0	1.1	3.0	20.0	V-Horn	AV	0.0	52.3	54.0	-1.7	EUT on side, Antenna horizontal. Marker Delta calculated from 86.4 - 34.1 = 52.4
2483.043	49.4	2.2	190.0	1.0	3.0	20.0	H-Horn	PK	0.0	71.6	74.0	-2.4	EUT horizontal, Antenna vertical
2484.000	47.6	2.2	111.0	1.1	3.0	20.0	V-Horn	PK	0.0	69.8	74.0	-4.2	EUT on side, Antenna horizontal
2483.597	46.4	2.2	305.0	1.0	3.0	20.0	H-Horn	PK	0.0	68.6	74.0	-5.4	EUT on side, Antenna horizontal
2483.645	45.8	2.2	287.0	1.1	3.0	20.0	H-Horn	PK	0.0	68.0	74.0	-6.0	EUT on end, Antenna horizontal
2483.623	45.2	2.2	10.0	1.0	3.0	20.0	V-Horn	PK	0.0	67.4	74.0	-6.6	EUT on end, Antenna horizontal
2483.547	44.2	2.2	100.0	1.0	3.0	20.0	V-Horn	PK	0.0	66.4	74.0	-7.6	EUT horizontal, Antenna vertical

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Power via USB from PC host remote: EUT horizontal, EUT Antenna vertical, Measurement Antenna Horizontal

EUT OPERATING MODES

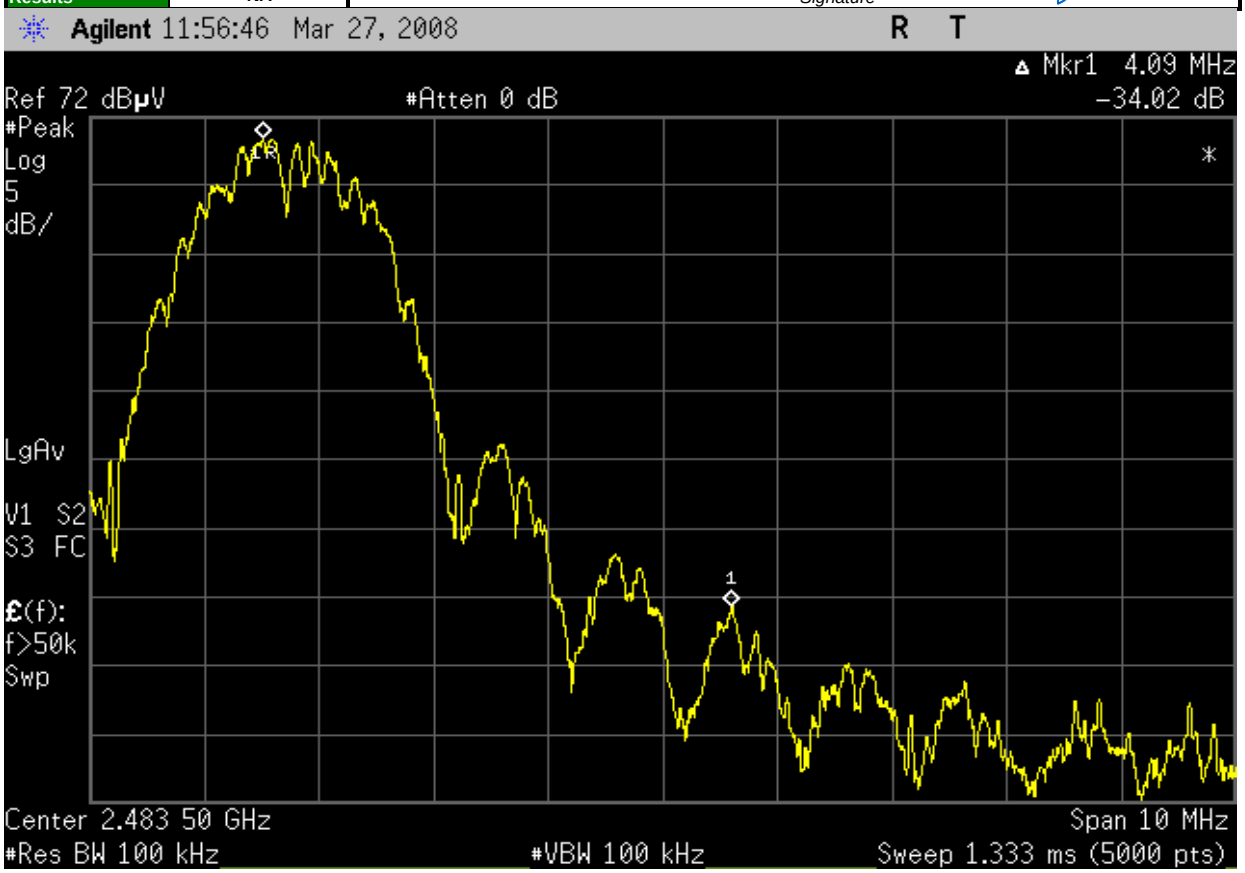
Transmitting high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	4
Results	NA

Signature



NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

Power via USB from PC host remote, EUT on side, EUT Antenna Horizontal, Measurement Antenna Vertical

EUT OPERATING MODES

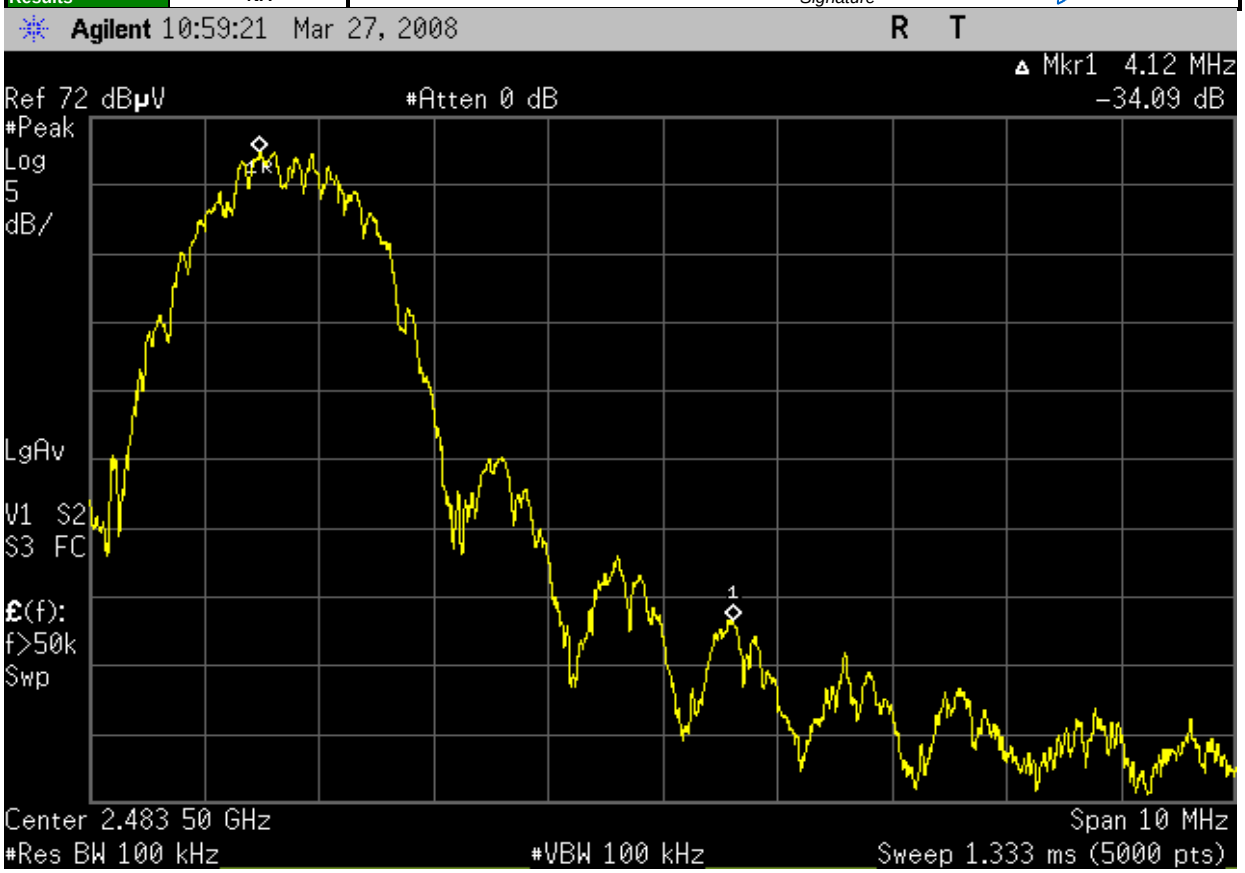
Transmitting high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	4
Results	NA

Signature



NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

Power via USB from PC host remote

EUT OPERATING MODES

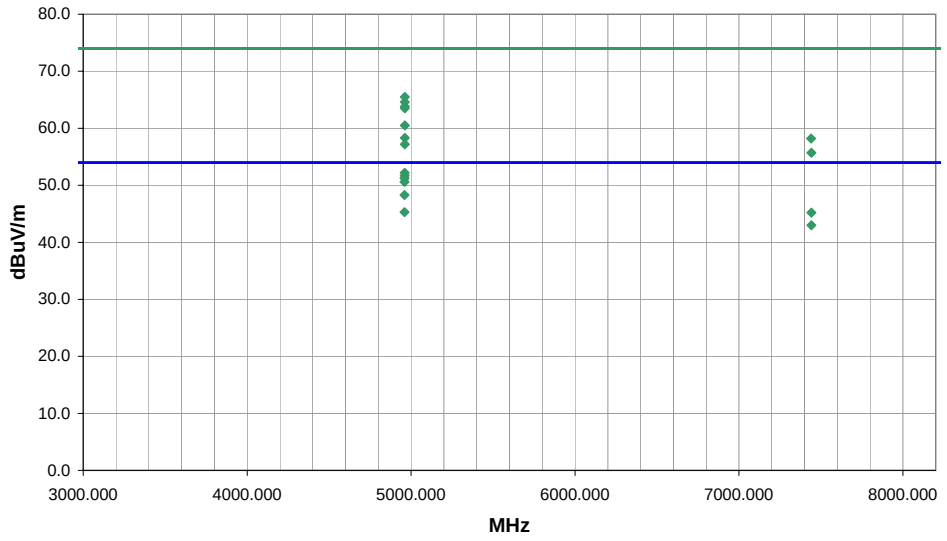
Transmitting high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	2
Configuration #	4
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4960.273	41.2	11.0	103.0	1.1	3.0	0.0	V-Horn	AV	0.0	52.2	54.0	-1.8	EUT on side, Antenna horizontal
4960.265	40.7	11.0	156.0	1.1	3.0	0.0	H-Horn	AV	0.0	51.7	54.0	-2.3	EUT on side, Antenna horizontal
4959.380	40.2	11.0	344.0	1.1	3.0	0.0	V-Horn	AV	0.0	51.2	54.0	-2.8	EUT horizontal, Antenna vertical
4960.238	39.6	11.0	144.0	1.0	3.0	0.0	H-Horn	AV	0.0	50.6	54.0	-3.4	EUT on end, Antenna horizontal
4959.360	37.3	11.0	17.0	1.0	3.0	0.0	V-Horn	AV	0.0	48.3	54.0	-5.7	EUT on end, Antenna horizontal
4961.453	54.5	11.0	103.0	1.1	3.0	0.0	V-Horn	PK	0.0	65.5	74.0	-8.5	EUT on side, Antenna horizontal
4959.485	34.3	11.0	65.0	1.9	3.0	0.0	H-Horn	AV	0.0	45.3	54.0	-8.7	EUT horizontal, Antenna vertical
7442.010	27.5	17.7	121.0	1.3	3.0	0.0	H-Horn	AV	0.0	45.2	54.0	-8.8	EUT on side, Antenna horizontal
4961.378	53.6	11.0	156.0	1.1	3.0	0.0	H-Horn	PK	0.0	64.6	74.0	-9.4	EUT on side, Antenna horizontal
4961.333	52.8	11.0	344.0	1.1	3.0	0.0	V-Horn	PK	0.0	63.8	74.0	-10.2	EUT horizontal, Antenna vertical
4961.471	52.5	11.0	144.0	1.0	3.0	0.0	H-Horn	PK	0.0	63.5	74.0	-10.5	EUT on end, Antenna horizontal
7441.983	25.3	17.7	71.0	1.2	3.0	0.0	V-Horn	AV	0.0	43.0	54.0	-11.0	EUT on side, Antenna horizontal
4961.360	49.5	11.0	17.0	1.0	3.0	0.0	V-Horn	PK	0.0	60.5	74.0	-13.5	EUT on end, Antenna horizontal
4961.410	47.3	11.0	99.0	1.0	3.0	0.0	V-Horn	PK	0.0	58.3	74.0	-15.7	100 kHz, 30 kHz
7439.420	40.5	17.7	121.0	1.3	3.0	0.0	H-Horn	PK	0.0	58.2	74.0	-15.8	EUT on side, Antenna horizontal
4961.518	46.2	11.0	64.0	1.9	3.0	0.0	H-Horn	PK	0.0	57.2	74.0	-16.8	EUT horizontal, Antenna vertical
7441.998	38.0	17.7	71.0	1.2	3.0	0.0	V-Horn	PK	0.0	55.7	74.0	-18.3	EUT on side, Antenna horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

Power via USB from PC host remote

EUT OPERATING MODES

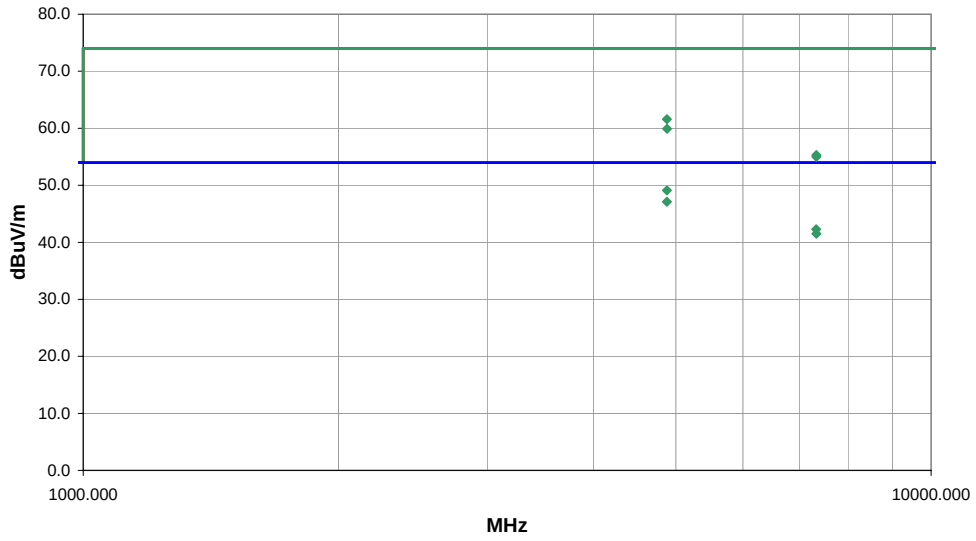
Transmitting mid channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3
Configuration #	4
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4879.480	38.6	10.5	95.0	1.0	3.0	0.0	V-Horn	AV	0.0	49.1	54.0	-4.9	EUT on side, Antenna horizontal
4879.445	36.6	10.5	165.0	1.1	3.0	0.0	H-Horn	AV	0.0	47.1	54.0	-6.9	EUT on side, Antenna horizontal
7319.297	25.2	17.1	318.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.3	54.0	-11.7	EUT on side, Antenna horizontal
4879.467	51.1	10.5	95.0	1.0	3.0	0.0	V-Horn	PK	0.0	61.6	74.0	-12.4	EUT on side, Antenna horizontal
7322.028	24.4	17.1	343.0	1.1	3.0	0.0	V-Horn	AV	0.0	41.5	54.0	-12.5	EUT on side, Antenna horizontal
4881.425	49.4	10.5	165.0	1.1	3.0	0.0	H-Horn	PK	0.0	59.9	74.0	-14.1	EUT on side, Antenna horizontal
7321.850	38.2	17.1	318.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.3	74.0	-18.7	EUT on side, Antenna horizontal
7322.008	37.9	17.1	343.0	1.1	3.0	0.0	V-Horn	PK	0.0	55.0	74.0	-19.0	EUT on side, Antenna horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

Power via USB from PC host remote

EUT OPERATING MODES

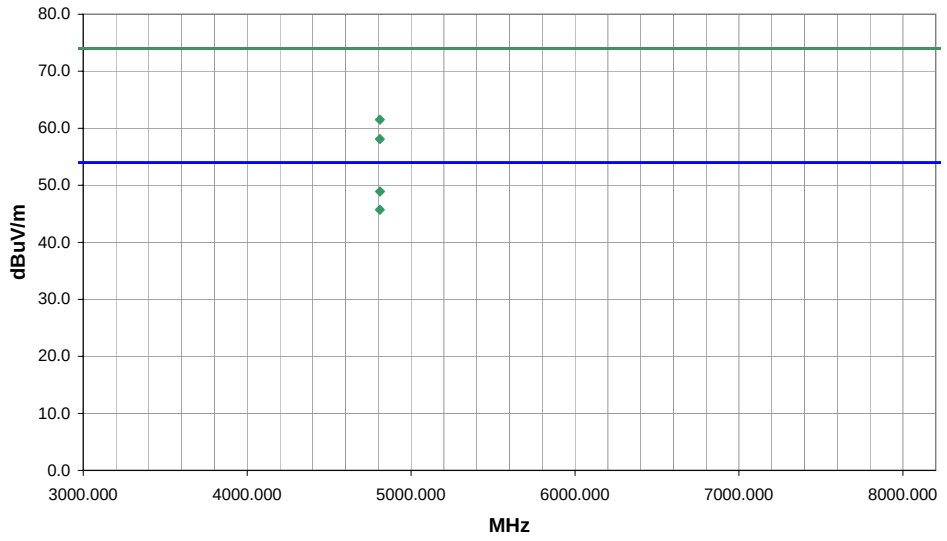
Transmitting low channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4
Configuration #	4
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4810.231	38.8	10.1	125.0	1.8	3.0	0.0	H-Horn	AV	0.0	48.9	54.0	-5.1	EUT on side, Antenna horizontal
4809.493	35.6	10.1	337.0	1.1	3.0	0.0	V-Horn	AV	0.0	45.7	54.0	-8.3	EUT on side, Antenna horizontal
4809.525	51.4	10.1	125.0	1.8	3.0	0.0	H-Horn	PK	0.0	61.5	74.0	-12.5	EUT on side, Antenna horizontal
4809.280	48.0	10.1	337.0	1.1	3.0	0.0	V-Horn	PK	0.0	58.1	74.0	-15.9	EUT on side, Antenna horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2006.11.29

EUT:	Mega M.O.L.E.	Work Order:	CNTR0018
Serial Number:	Unit 1	Date:	03/27/08
Customer:	Controltek, Inc.	Temperature:	22°C
Attendees:	None	Humidity:	25%
Project:	None	Barometric Pres.:	30.37
Tested by:	Rod Peloquin	Power: 3.7 VDC and USB	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Power via USB from PC host remote

EUT OPERATING MODES

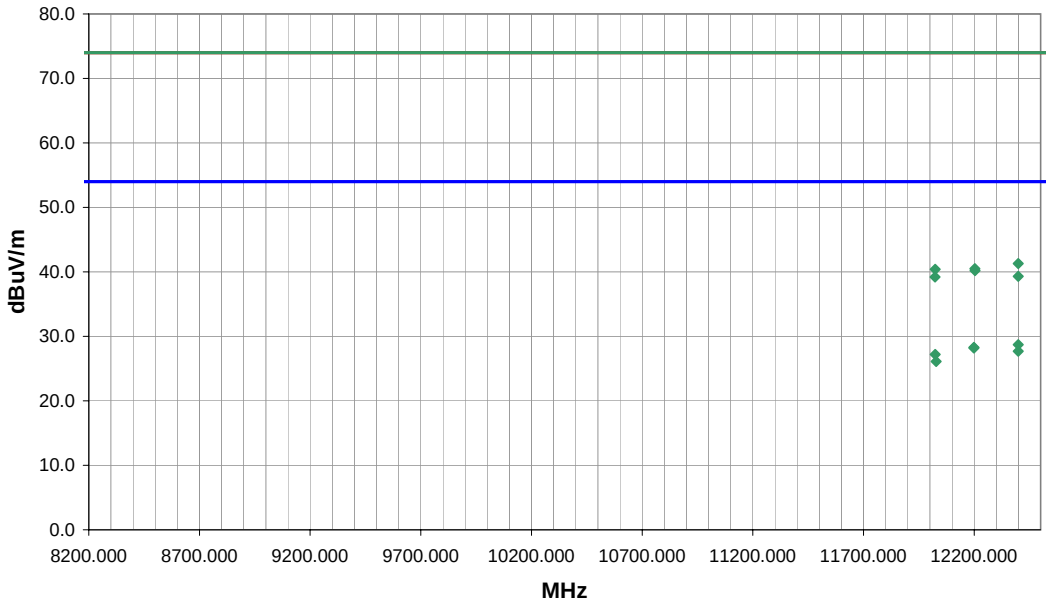
Transmitting, see comments for channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5
Configuration #	4
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12398.580	31.9	-3.2	117.0	1.1	3.0	0.0	H-Horn	AV	0.0	28.7	54.0	-25.3	High channel
12198.630	33.0	-4.7	90.0	1.4	3.0	0.0	V-Horn	AV	0.0	28.3	54.0	-25.7	Mid channel
12198.620	32.9	-4.7	270.0	1.1	3.0	0.0	H-Horn	AV	0.0	28.2	54.0	-25.8	Mid channel
12398.590	30.9	-3.2	102.0	1.2	3.0	0.0	V-Horn	AV	0.0	27.7	54.0	-26.3	High channel
12023.520	33.3	-6.1	118.0	1.1	3.0	0.0	H-Horn	AV	0.0	27.2	54.0	-26.8	Low channel
12028.330	32.2	-6.1	259.0	1.1	3.0	0.0	V-Horn	AV	0.0	26.1	54.0	-27.9	Low channel
12398.460	44.5	-3.2	117.0	1.1	3.0	0.0	H-Horn	PK	0.0	41.3	74.0	-32.7	High channel
12203.060	45.2	-4.7	270.0	1.1	3.0	0.0	H-Horn	PK	0.0	40.5	74.0	-33.5	Mid channel
12023.530	46.4	-6.0	118.0	1.1	3.0	0.0	H-Horn	PK	0.0	40.4	74.0	-33.6	Low channel
12203.760	44.9	-4.7	90.0	1.4	3.0	0.0	V-Horn	PK	0.0	40.2	74.0	-33.8	Mid channel
12398.680	42.5	-3.2	102.0	1.2	3.0	0.0	V-Horn	PK	0.0	39.3	74.0	-34.7	High channel
12023.200	45.2	-6.0	259.0	1.1	3.0	0.0	V-Horn	PK	0.0	39.2	74.0	-34.8	Low channel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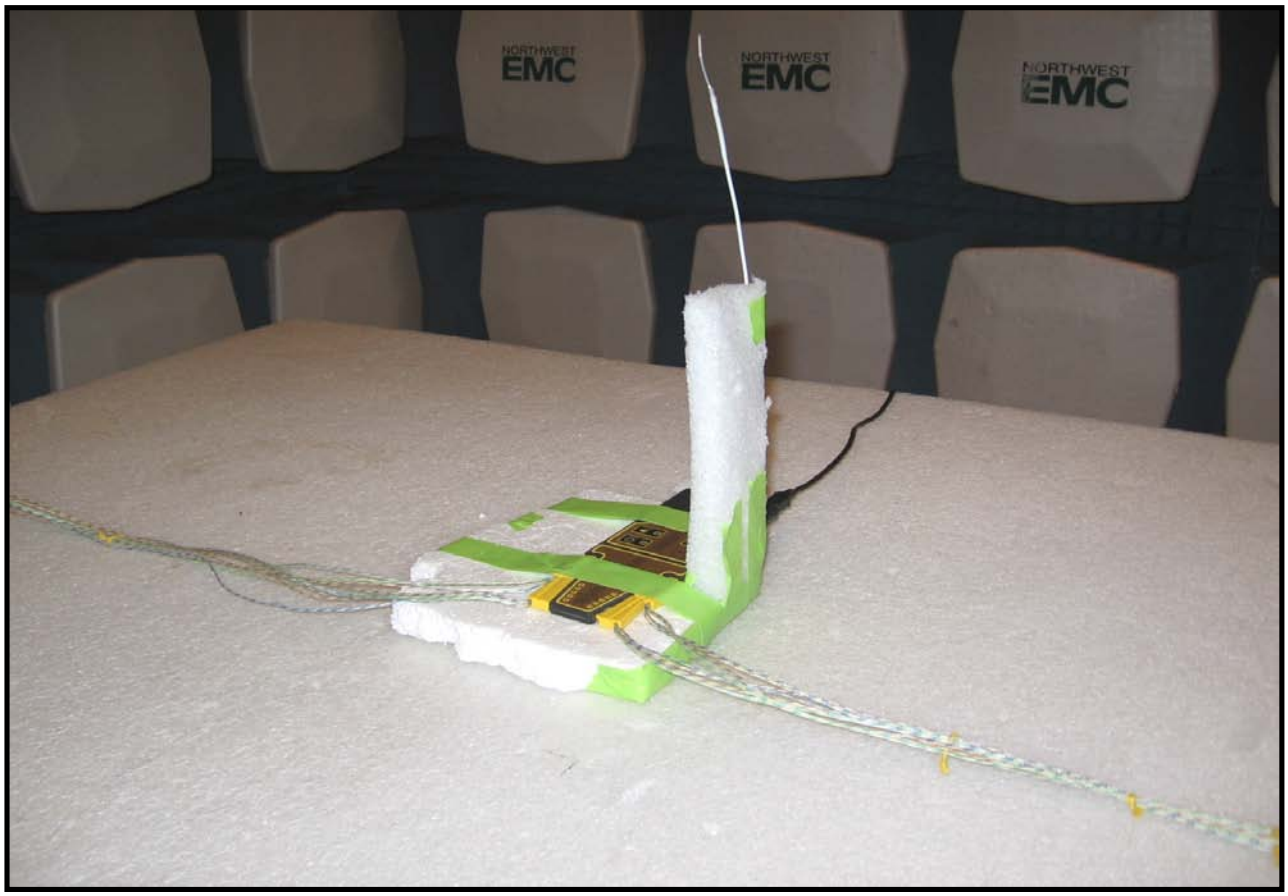
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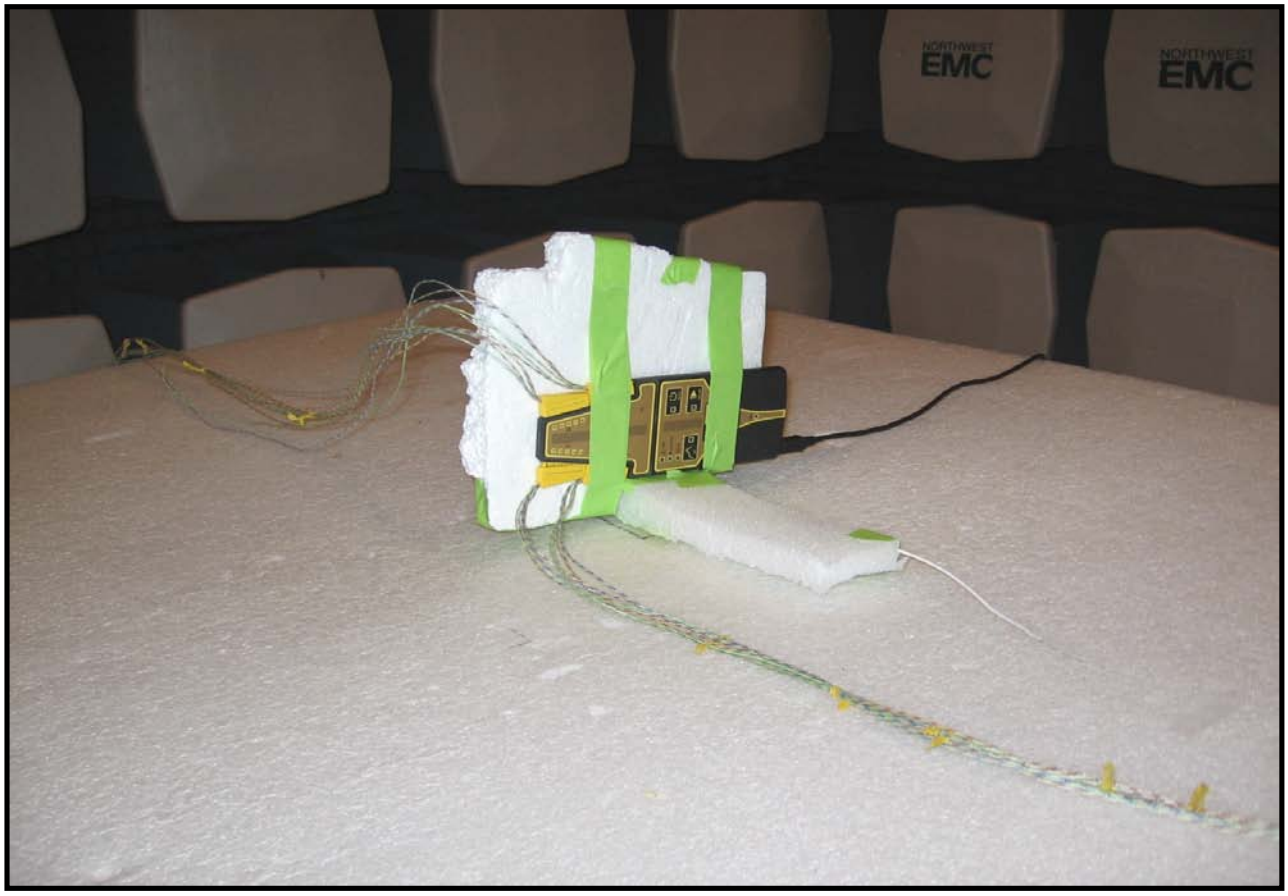
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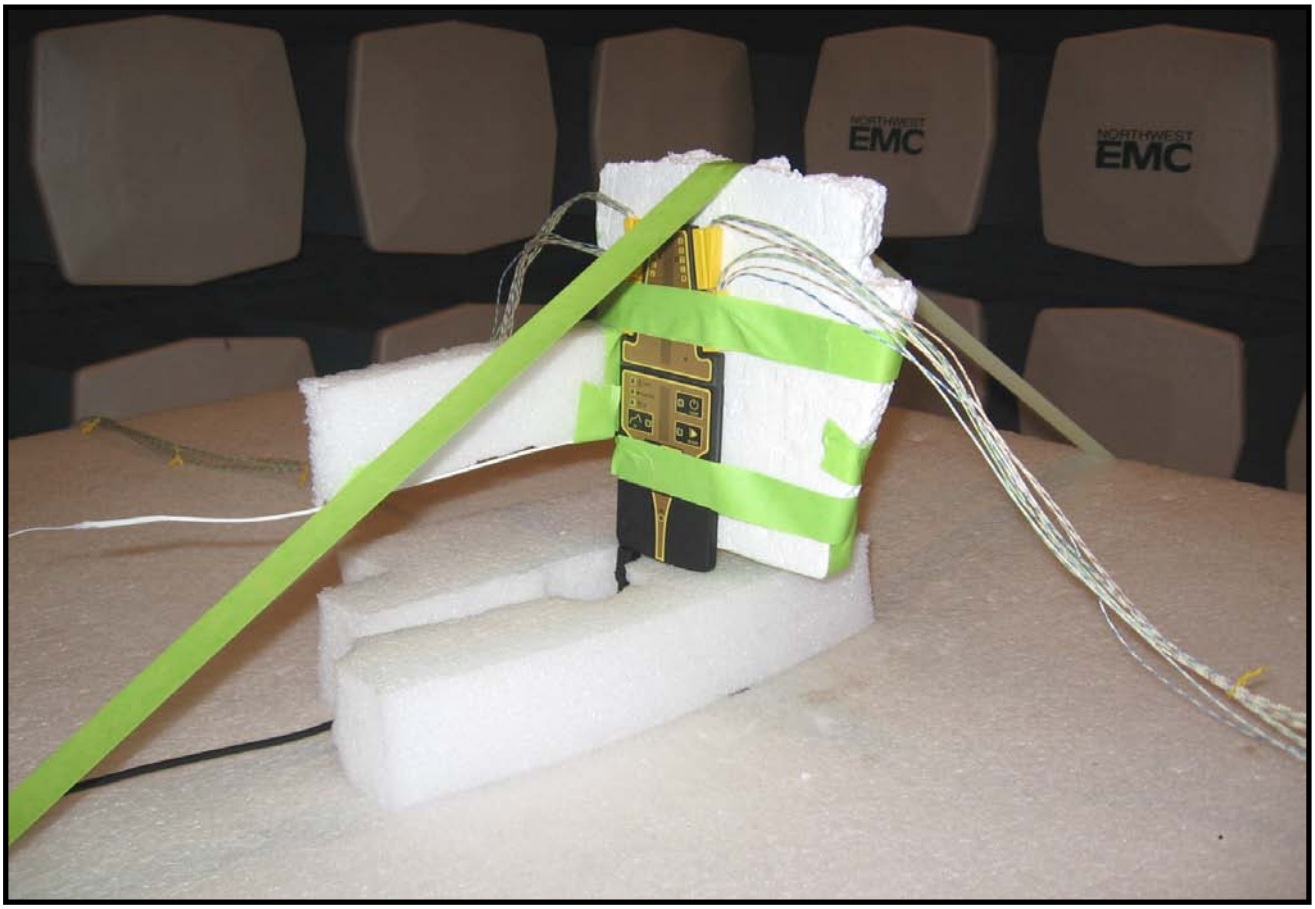
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NORTHWEST
EMC

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
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/8/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

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

NORTHWEST EMC

OCCUPIED BANDWIDTH

XMit 2007.06.13

EUT:	Mega M.O.L.E.			**Work Order:**	CNTR0018
Serial Number:	Unit 1			**Date:**	03/26/08
Customer:	Controltek, Inc.			**Temperature:**	23°C
Attendees:	Sean Scott, Paul			**Humidity:**	25%
Project:	None			**Barometric Pres.:**	29.95
Tested by:	Rod Peloquin	**Power:**	3.7 V DC nominal	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074

COMMENTS

None

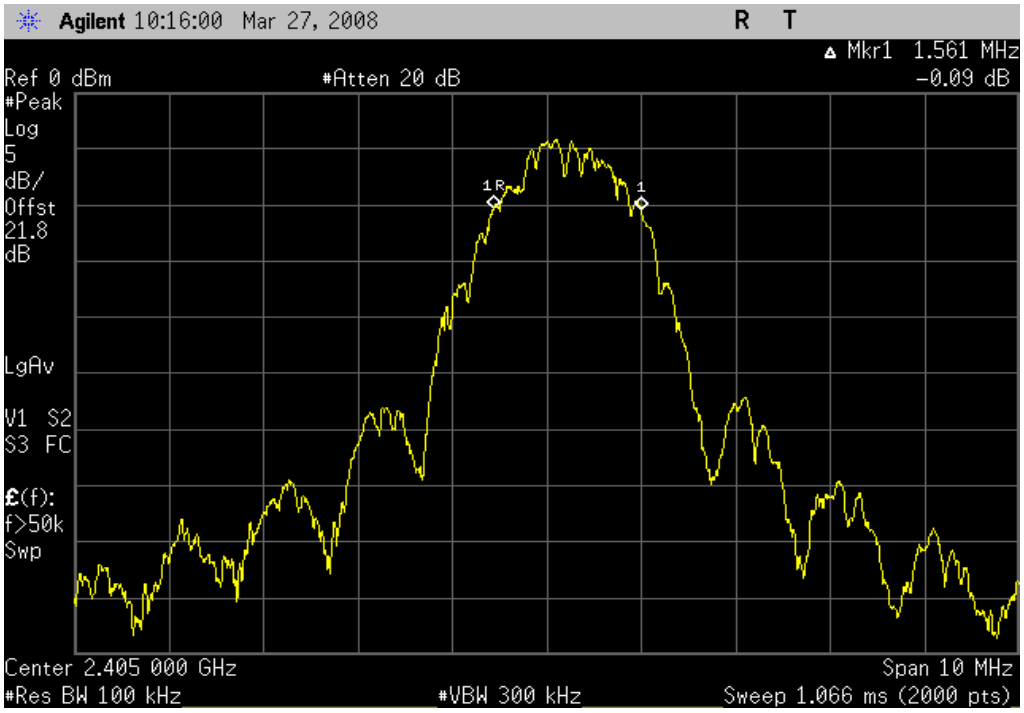
DEVIATIONS FROM TEST STANDARD

None

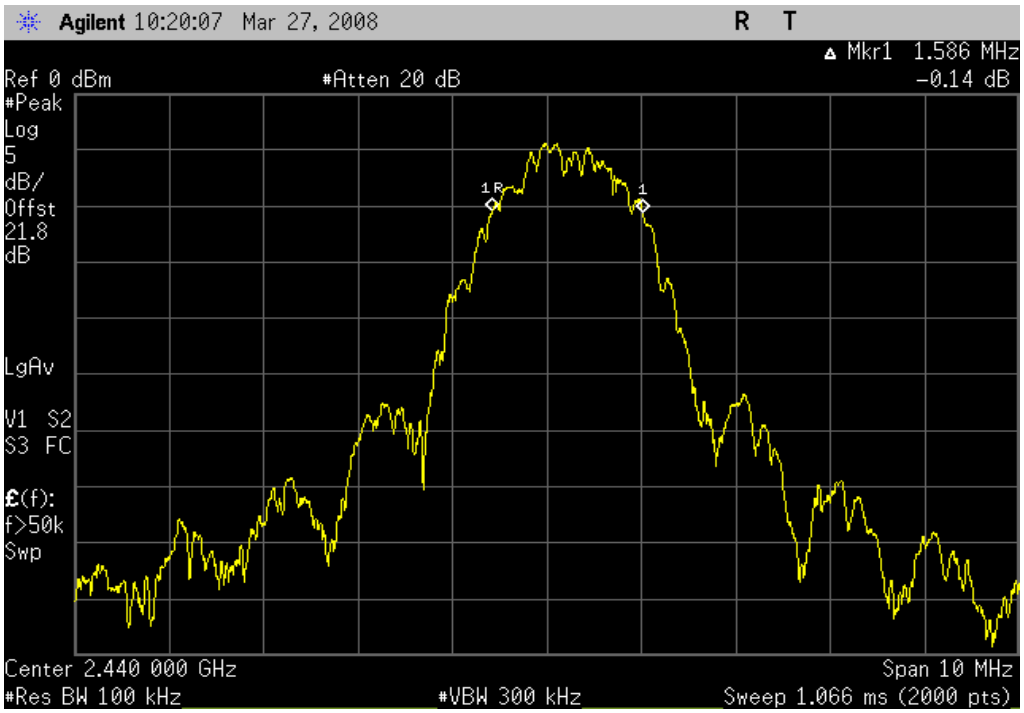
Configuration #	1	Signature

	Value	Limit	Results
Low Channel	1.56 MHz	> 500 kHz	Pass
Mid Channel	1.58 MHz	> 500 kHz	Pass
High Channel	1.66 MHz	> 500 kHz	Pass

Low Channel					
Result:	Pass	**Value:**	1.56 MHz	**Limit:**	> 500 kHz

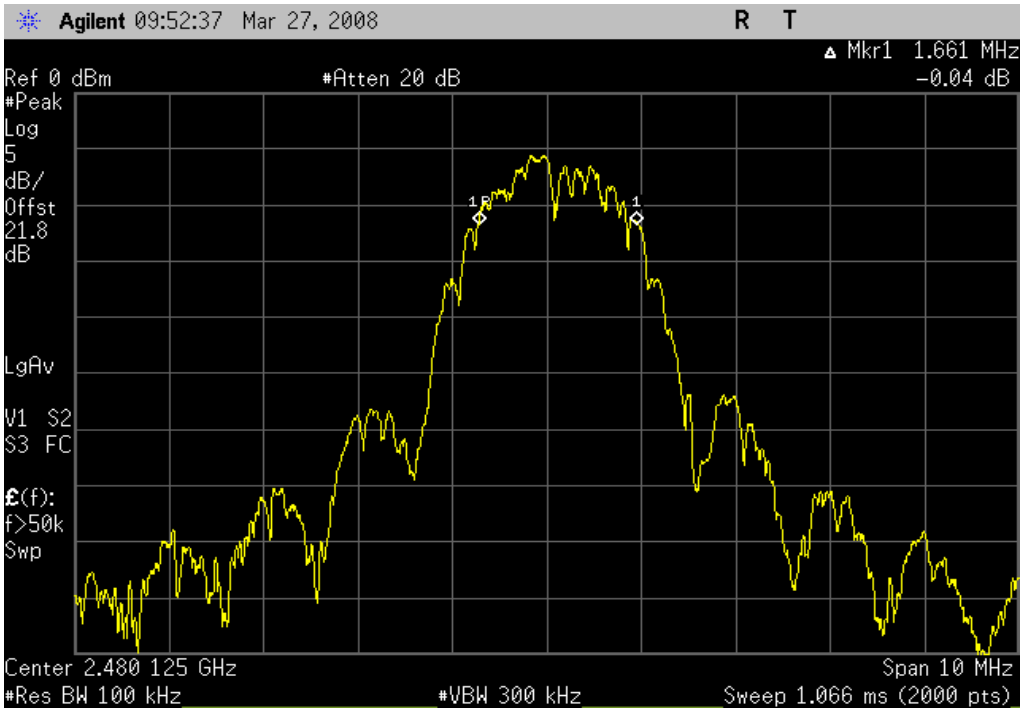


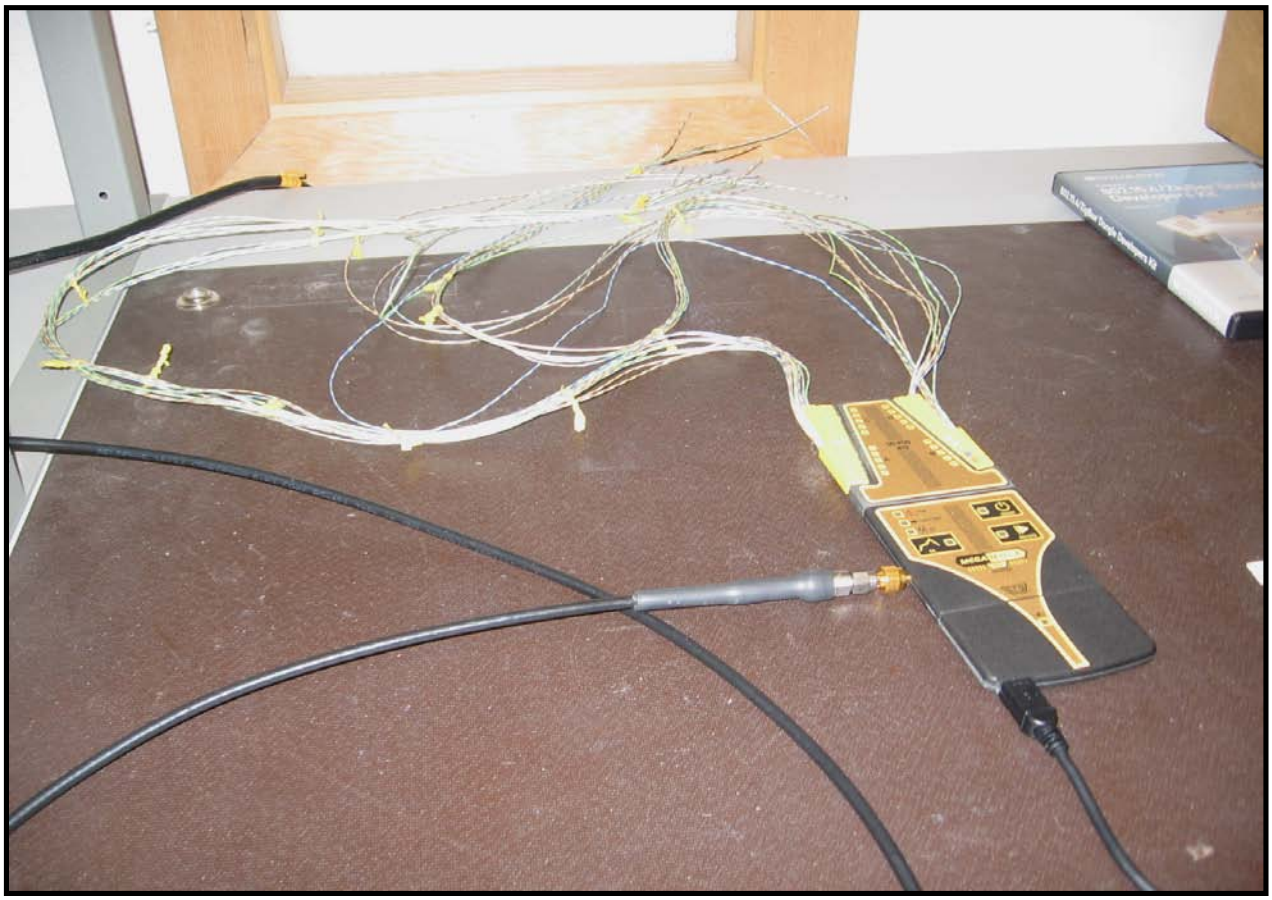
Mid Channel					
Result:	Pass	**Value:**	1.58 MHz	**Limit:**	> 500 kHz



OCCUPIED BANDWIDTH

High Channel					
Result:	Pass	**Value:**	1.66 MHz	**Limit:**	> 500 kHz





OUTPUT POWER

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/8/2007	13
Power Sensor	Gigatronics	80701A	SPL	12/7/2007	13
Power Meter	Gigatronics	8651A	SPM	12/7/2007	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/7/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

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

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

NORTHWEST EMC

OUTPUT POWER

XMit 2007.06.13

EUT:	Mega M.O.L.E.			**Work Order:**	CNTR0018
Serial Number:	Unit 1			**Date:**	03/26/08
Customer:	Controltek, Inc.			**Temperature:**	23°C
Attendees:	Sean Scott, Paul			**Humidity:**	25%
Project:	None			**Barometric Pres.:**	29.95
Tested by:	Rod Peloquin	**Power:**	3.7 V DC nominal	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

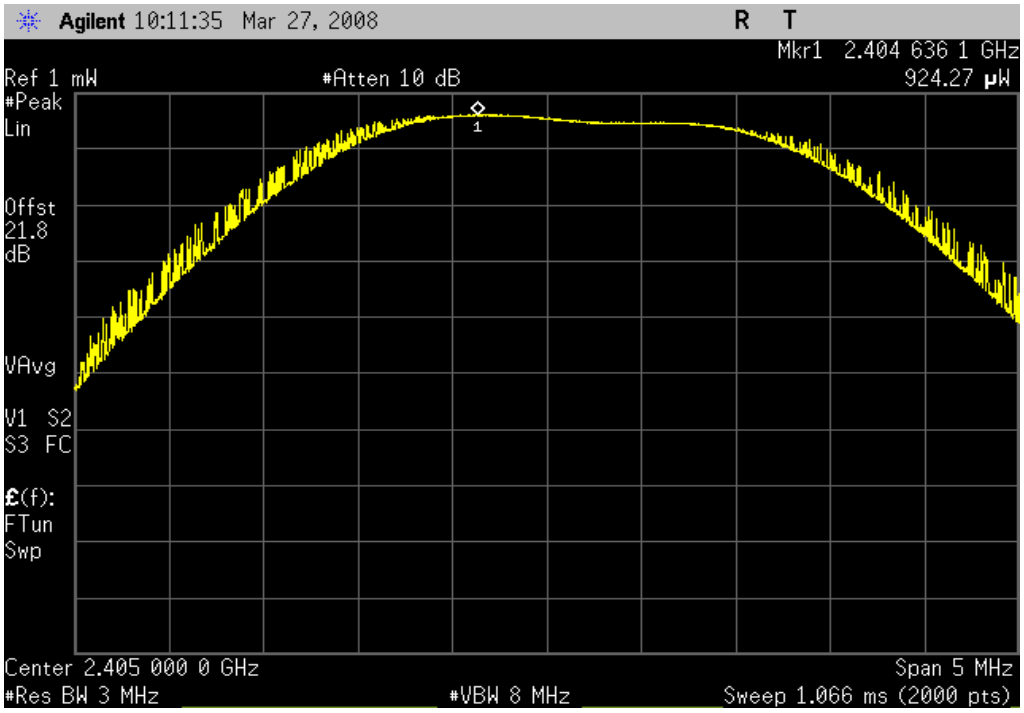
None

Configuration #	1	Signature

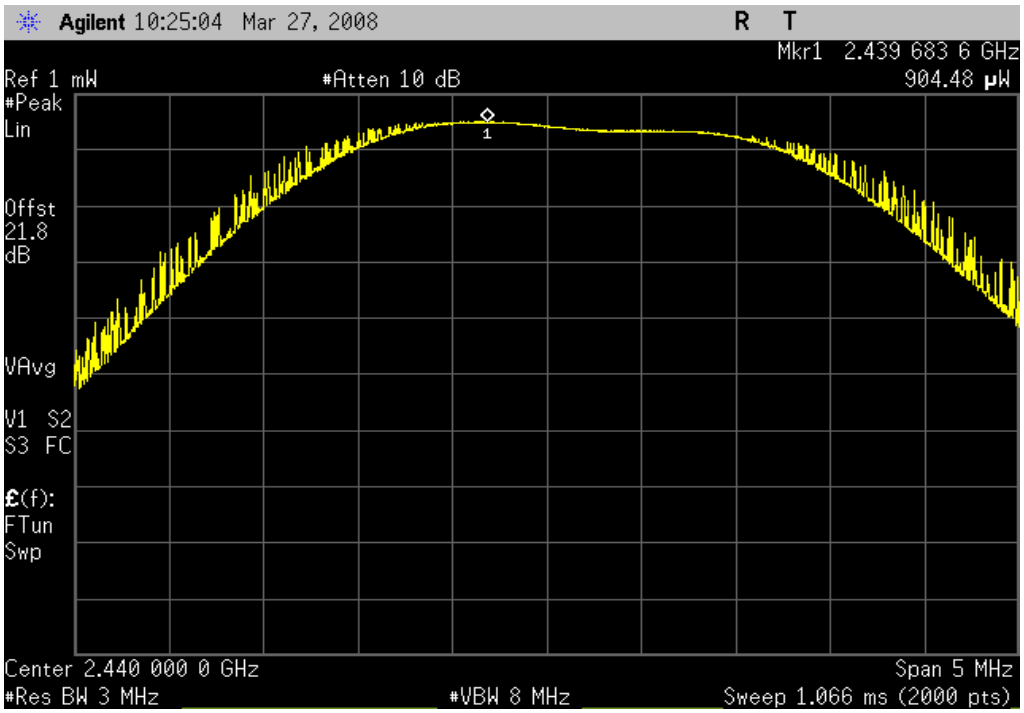
	Value	Limit	Results
Low Channel	0.924 mW	1 Watt	Pass
Mid Channel	0.904 mW	1 Watt	Pass
High Channel	0.811 mW	1 Watt	Pass

OUTPUT POWER

Low Channel					
Result:	Pass	**Value:**	0.924 mW	**Limit:**	1 Watt

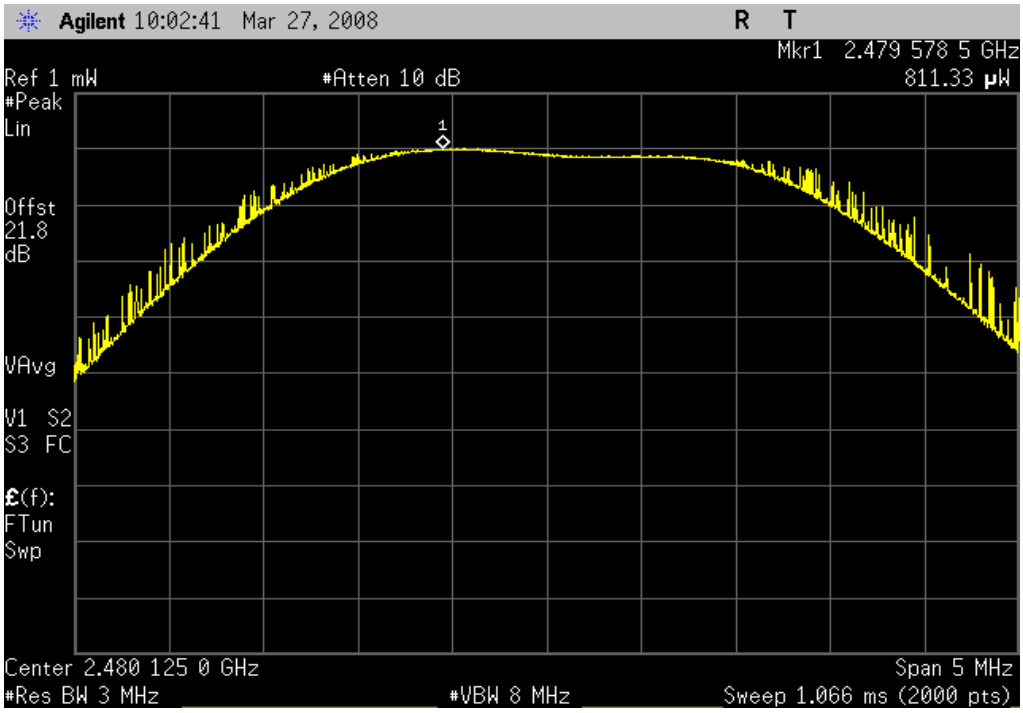


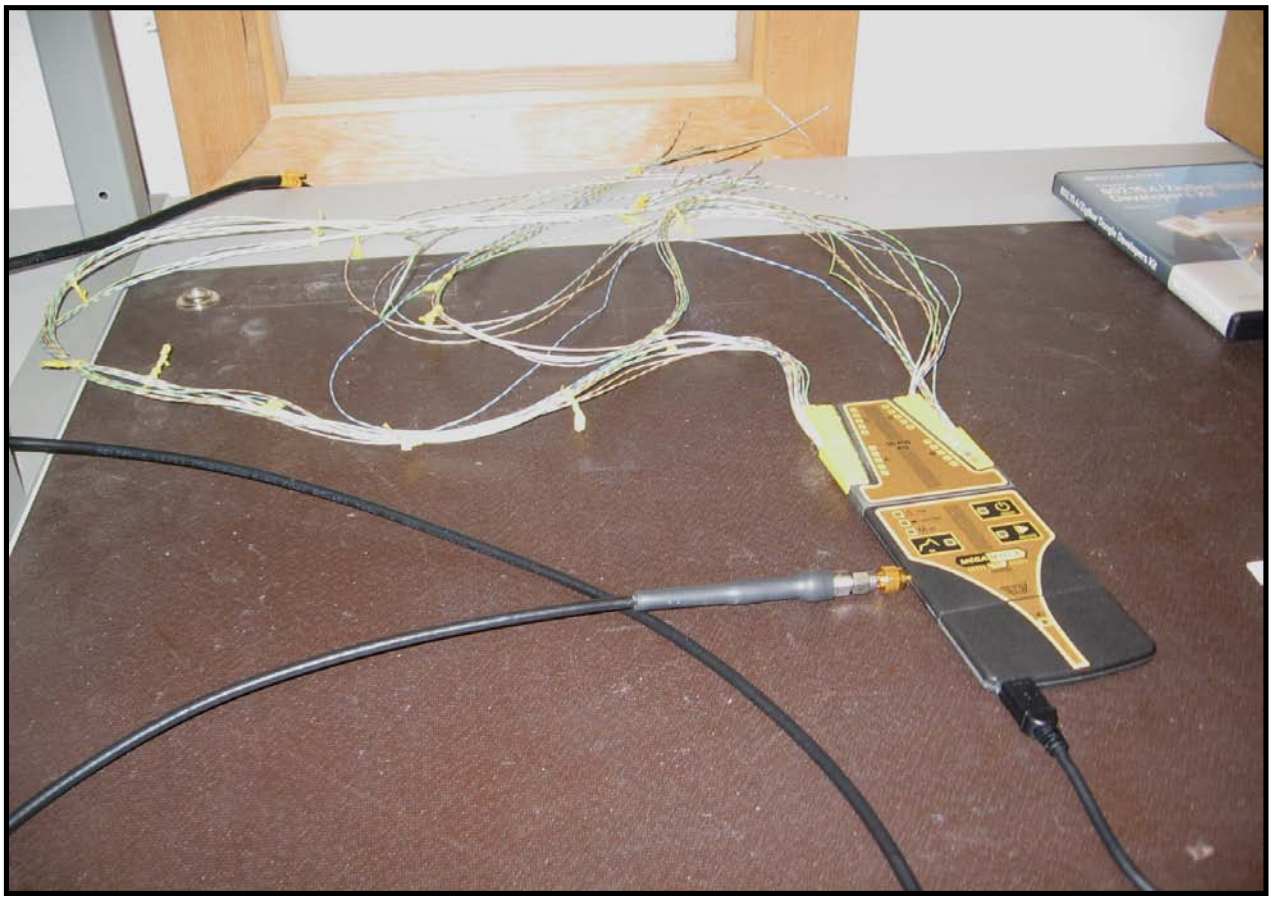
Mid Channel					
Result:	Pass	**Value:**	0.904 mW	**Limit:**	1 Watt



OUTPUT POWER

High Channel					
Result:	Pass	**Value:**	0.811 mW	**Limit:**	1 Watt





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
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/8/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The requirements of FCC 15.247(d) for emissions at least 20dB below the carrier in any 100kHz bandwidth outside the allowable band was 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 its maximum data rate using direct sequence modulation. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 10 MHz below the band edge to 10 MHz above the band edge.

NORTHWEST EMC

BAND EDGE COMPLIANCE

XMit 2007.06.13

EUT:	Mega M.O.L.E.			Work Order:	CNTR0018
Serial Number:	Unit 1			Date:	03/26/08
Customer:	Controltek, Inc.			Temperature:	23°C
Attendees:	Sean Scott, Paul Austen			Humidity:	25%
Project:	None			Barometric Pres.:	29.95
Tested by:	Rod Peloquin	Power:	3.7 V DC nominal	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074

COMMENTS

None

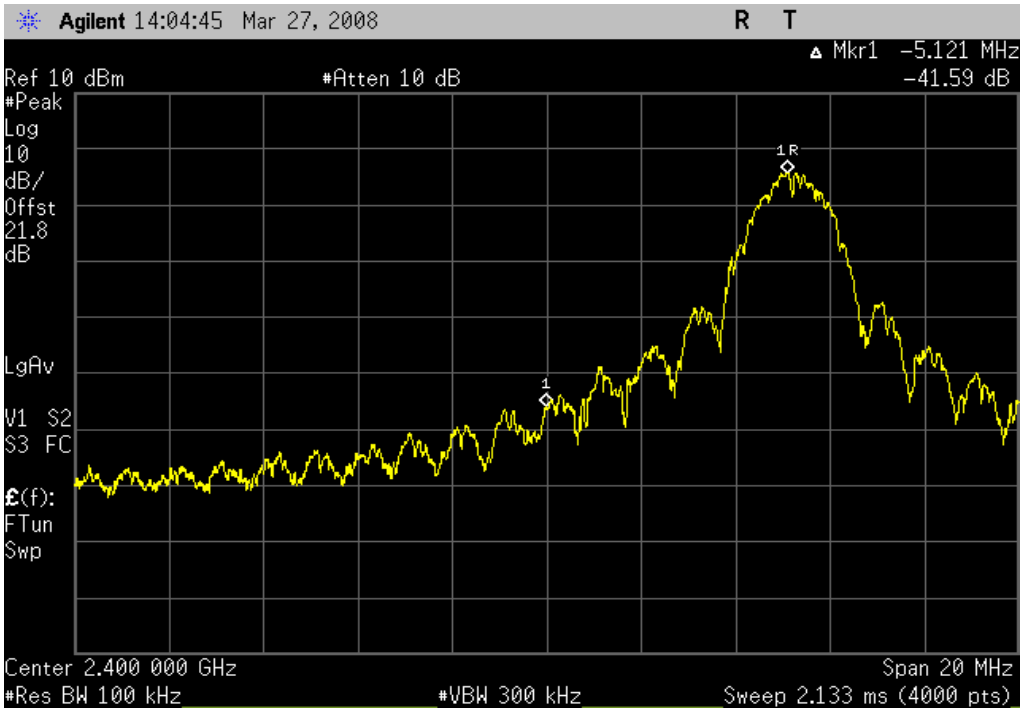
DEVIATIONS FROM TEST STANDARD

Configuration #	1	Signature

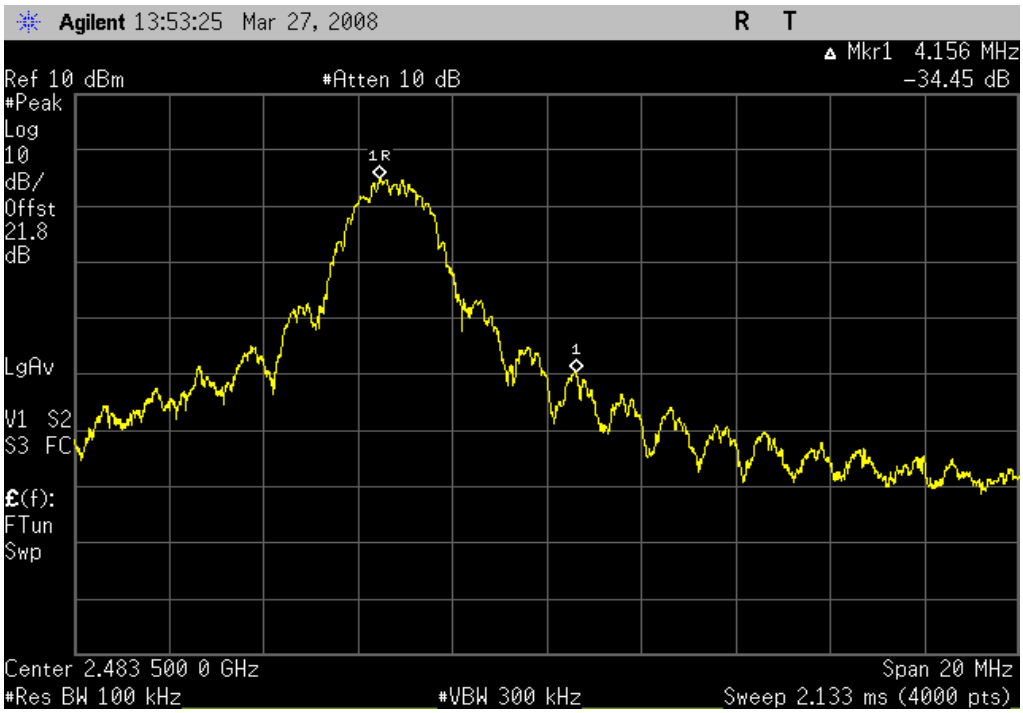
	Value	Limit	Results
Low Channel	-41.6 dBc	≤ -20 dBc	Pass
High Channel	-34.5 dBc	≤ -20 dBc	Pass

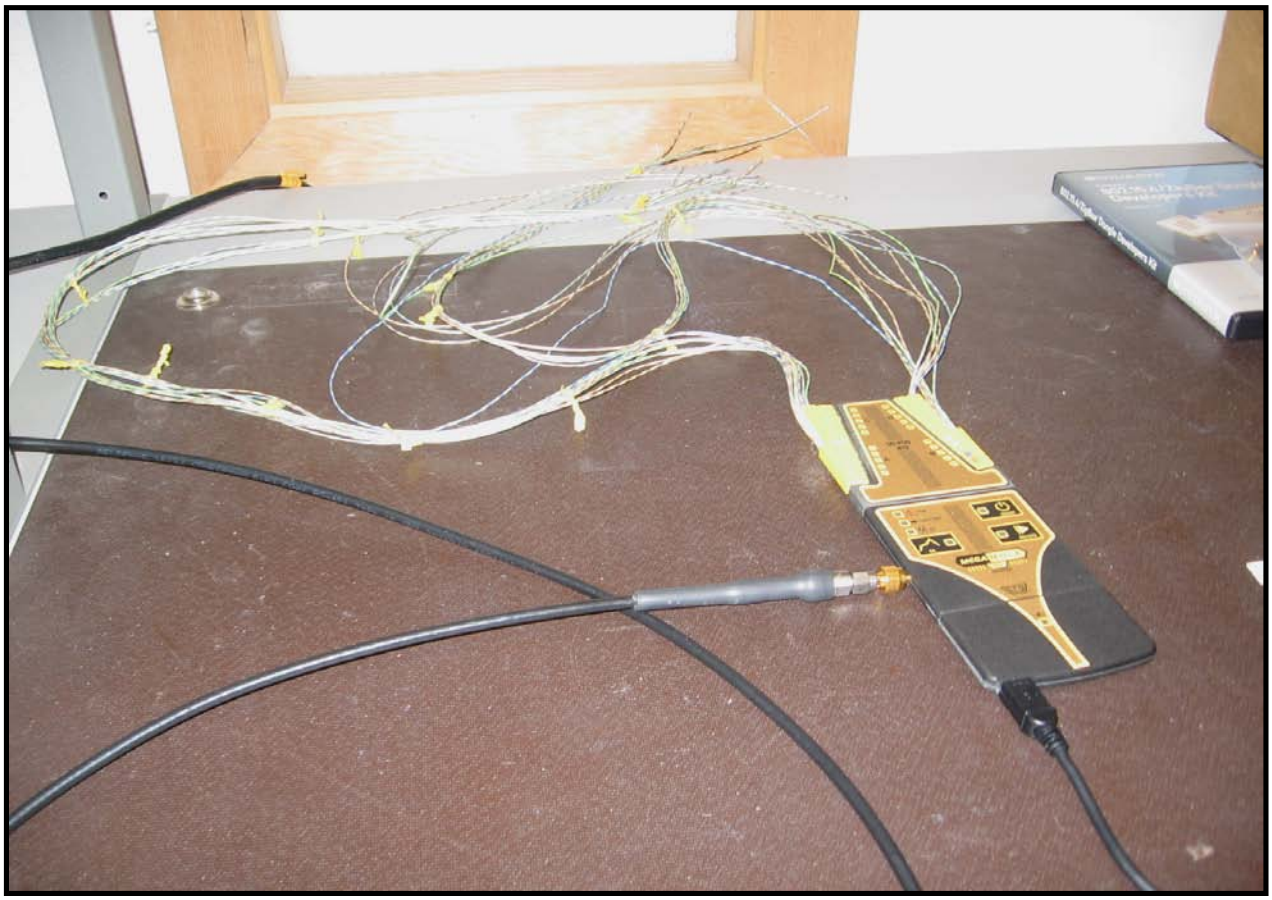
BAND EDGE COMPLIANCE

Low Channel					
Result:	Pass	**Value:**	-41.6 dBc	**Limit:**	≤ -20 dBc



High Channel					
Result:	Pass	**Value:**	-34.5 dBc	**Limit:**	≤ -20 dBc





SPURIOUS CONDUCTED EMISSIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/8/2007	13
Power Sensor	Gigatronics	80701A	SPL	12/7/2007	13
Power Meter	Gigatronics	8651A	SPM	12/7/2007	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/7/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

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

NORTHWEST EMC

SPURIOUS CONDUCTED EMISSIONS

XMit 2007.06.13

EUT:	Mega M.O.L.E.			**Work Order:**	CNTR0018
Serial Number:	Unit 1			**Date:**	03/26/08
Customer:	Controltek, Inc.			**Temperature:**	23°C
Attendees:	Sean Scott, Paul Austen			**Humidity:**	25%
Project:	None			**Barometric Pres.:**	29.95
Tested by:	Rod Peloquin	**Power:**	3.7 V DC nominal	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074

COMMENTS

None

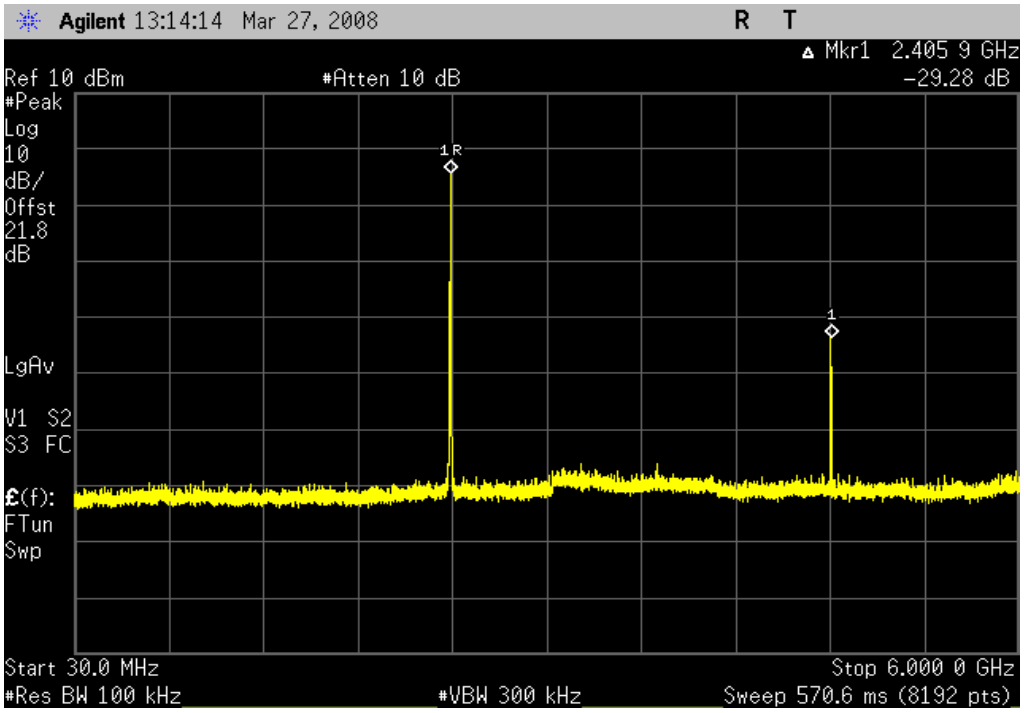
DEVIATIONS FROM TEST STANDARD

None

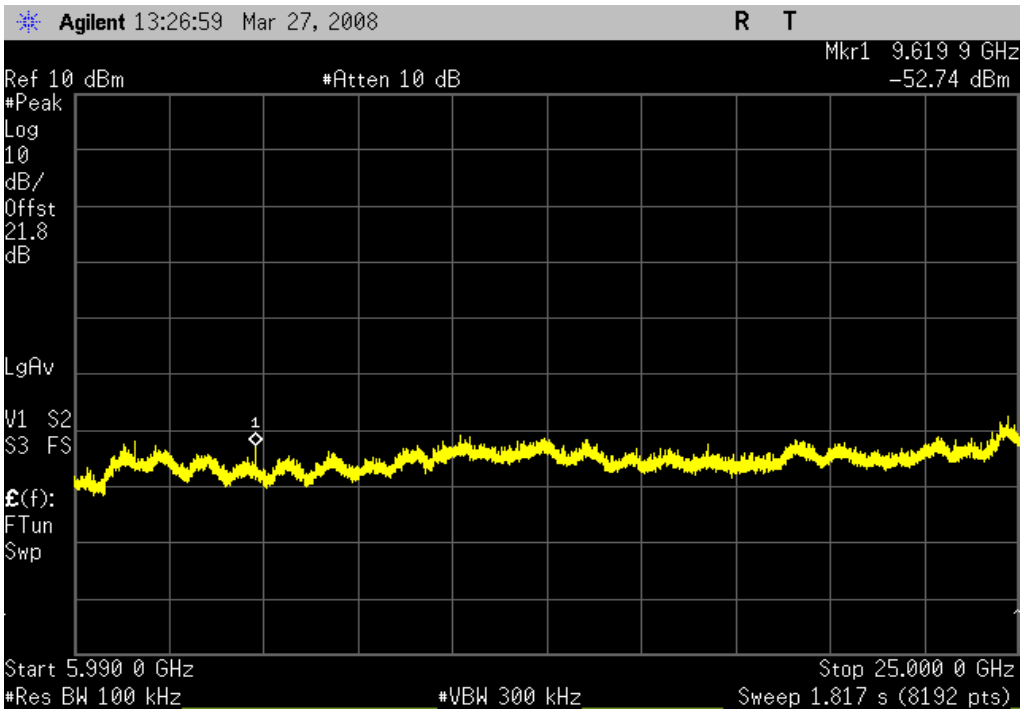
Configuration #	1	Signature

		Value	Limit	Results
Low Channel				
	0MHz - 6GHz	-29.28 dBc	≤ -20 dBc	Pass
	5.9GHz - 25GHz	< -40 dBc	≤ -20 dBc	Pass
Mid Channel				
	0MHz - 6GHz	-28.85 dBc	≤ -20 dBc	Pass
	5.9GHz - 25GHz	< -40 dBc	≤ -20 dBc	Pass
High Channel				
	0MHz - 6GHz	-28.03 dBc	≤ -20 dBc	Pass
	5.9GHz - 25GHz	< -40 dBc	≤ -20 dBc	Pass

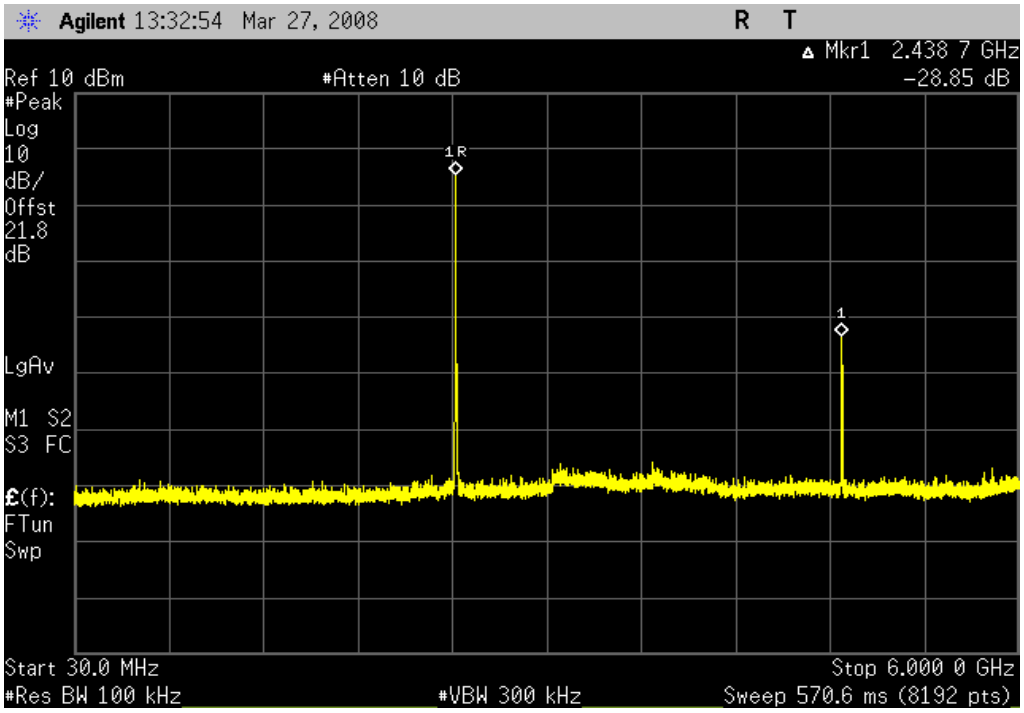
Low Channel, 0MHz - 6GHz					
Result:	Pass	**Value:**	-29.28 dBc	**Limit:**	≤ -20 dBc



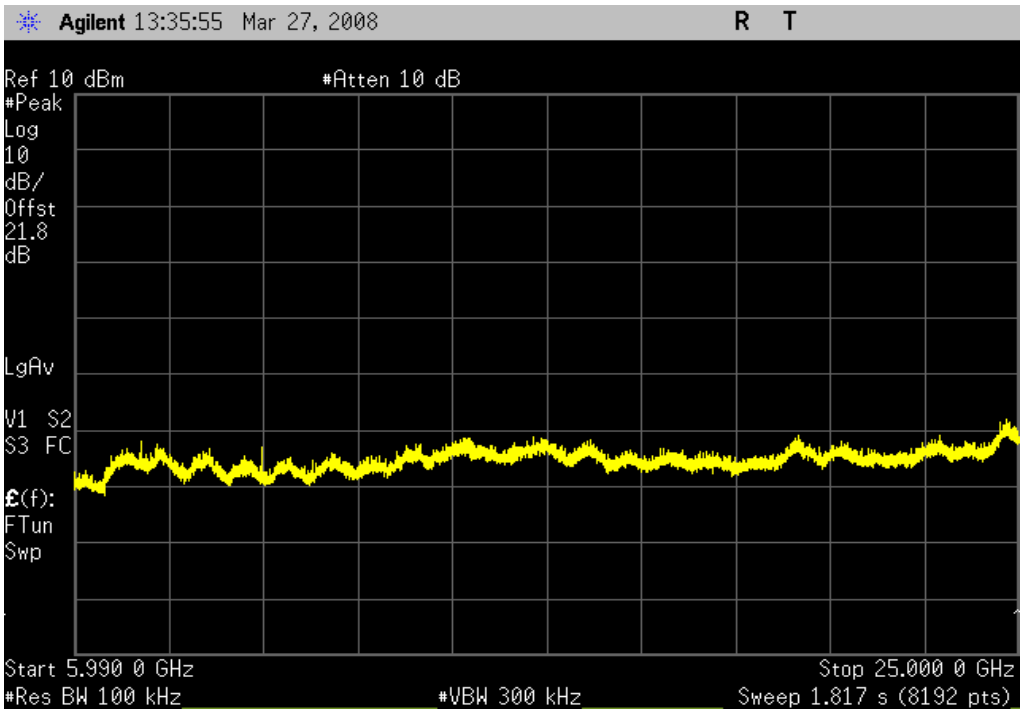
Low Channel, 5.9GHz - 25GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ -20 dBc



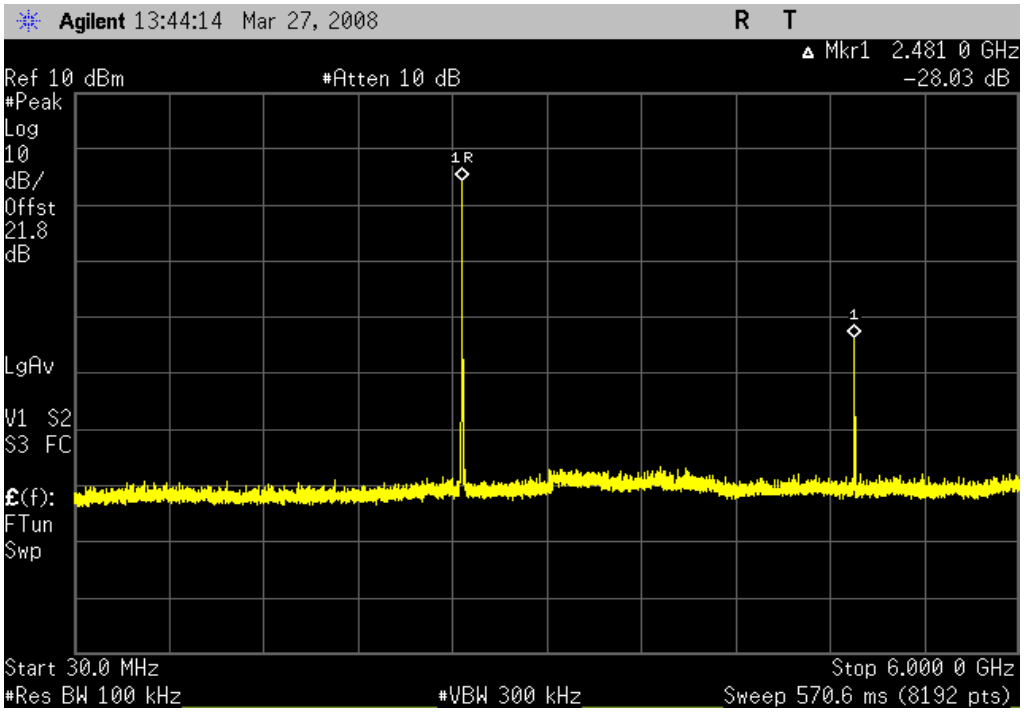
Mid Channel, 0MHz - 6GHz					
Result:	Pass	**Value:**	-28.85 dBc	**Limit:**	≤ -20 dBc



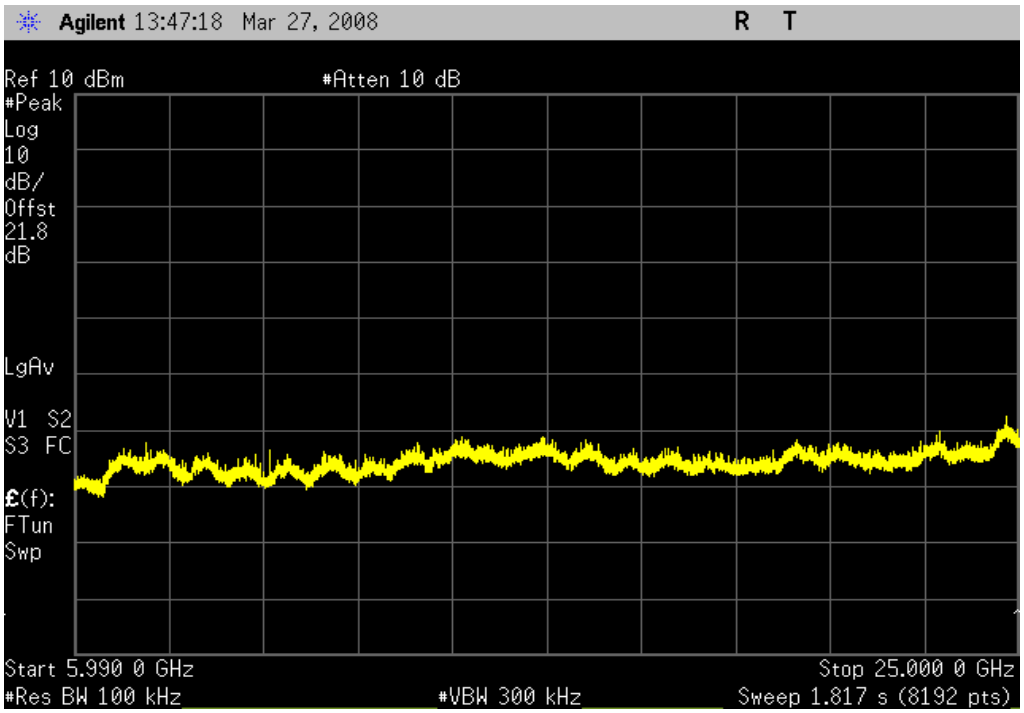
Mid Channel, 5.9GHz - 25GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ -20 dBc

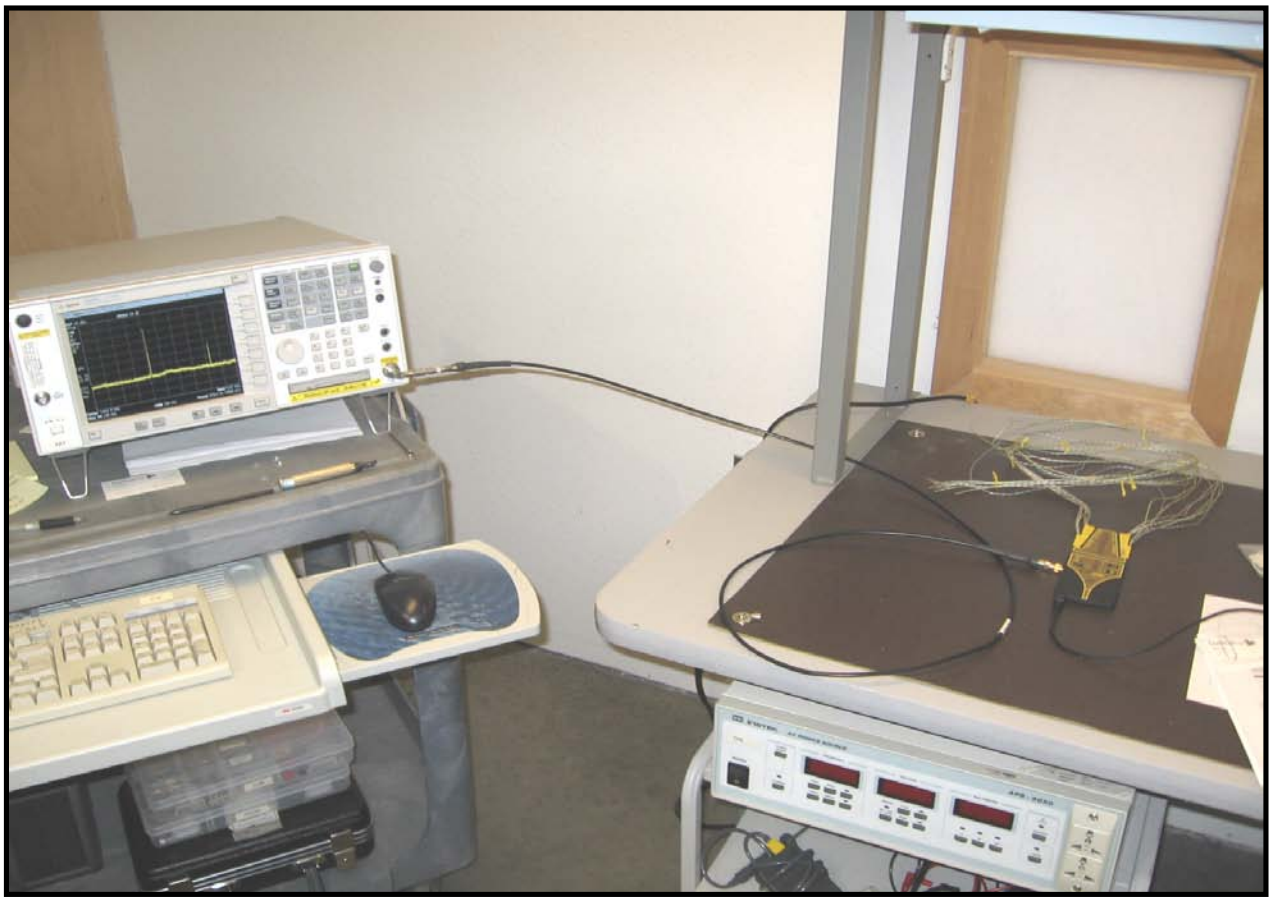


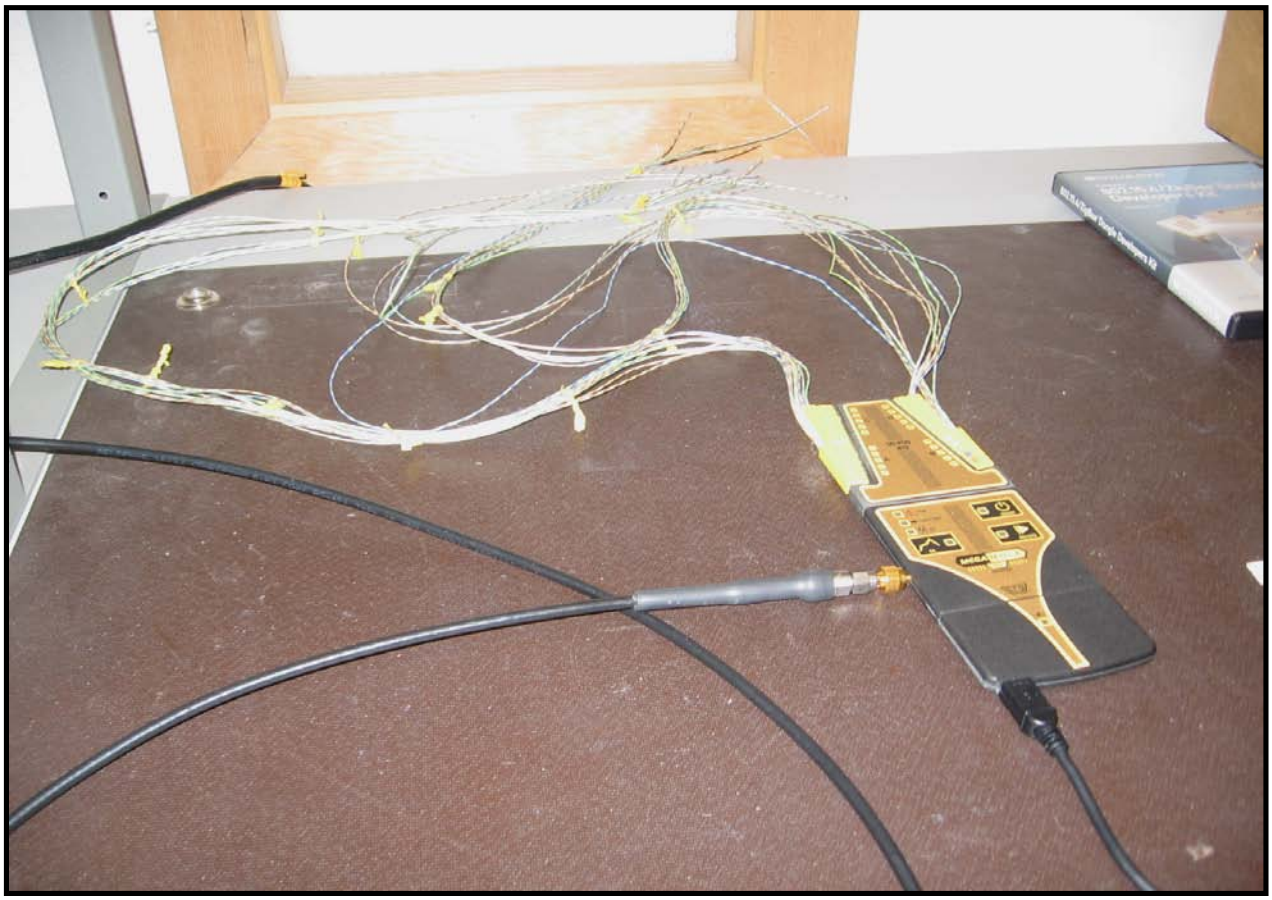
High Channel, 0MHz - 6GHz					
Result:	Pass	**Value:**	-28.03 dBc	**Limit:**	≤ -20 dBc



High Channel, 5.9GHz - 25GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ -20 dBc







POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/8/2007	13
Power Sensor	Gigatronics	80701A	SPL	12/7/2007	13
Power Meter	Gigatronics	8651A	SPM	12/7/2007	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/7/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. Per the procedure outlined in FCC 97-114, the spectrum analyzer was used as follows:

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

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 34.8 dB for correction to 3 kHz."

NORTHWEST EMC

POWER SPECTRAL DENSITY

XMit 2007.06.13

EUT:	Mega M.O.L.E.			**Work Order:**	CNTR0018
Serial Number:	Unit 1			**Date:**	03/26/08
Customer:	Controltek, Inc.			**Temperature:**	23°C
Attendees:	Sean Scott, Paul Austen			**Humidity:**	25%
Project:	None			**Barometric Pres.:**	29.95
Tested by:	Rod Peloquin	**Power:**	3.7 V DC nominal	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003 KDB No. 558074

COMMENTS

None

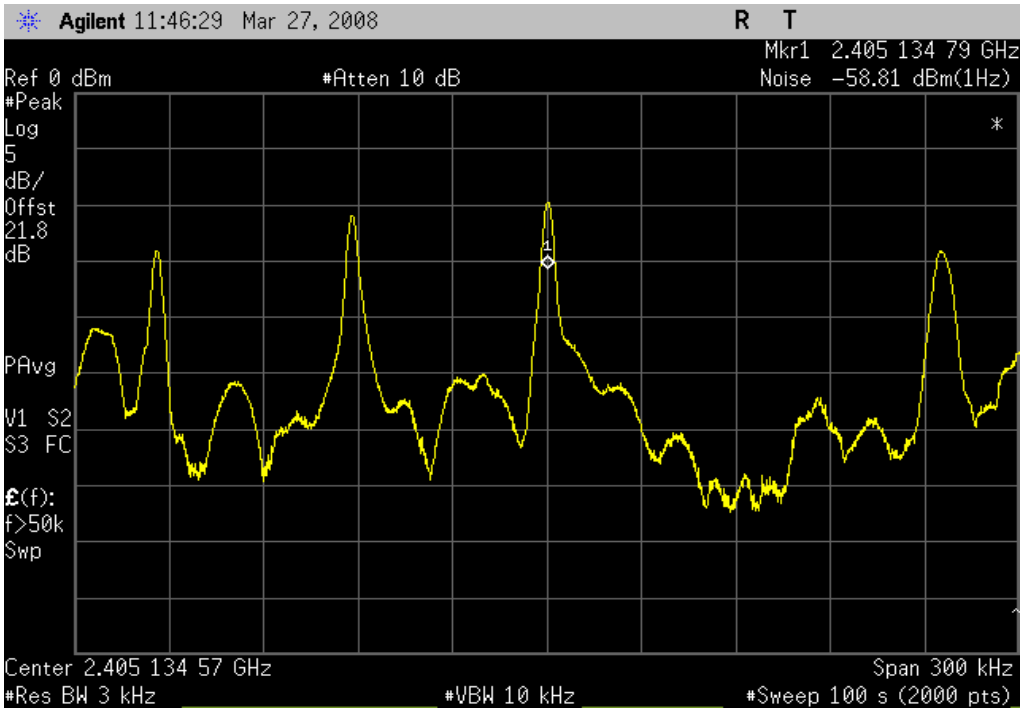
DEVIATIONS FROM TEST STANDARD

None

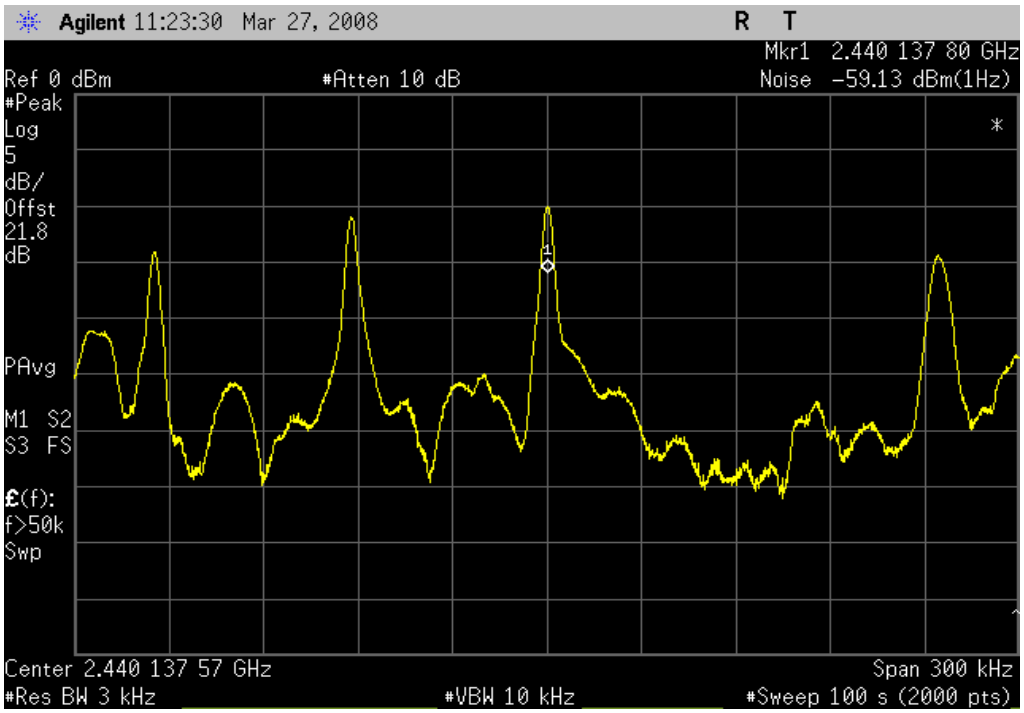
Configuration #	1	Signature

	Value	Limit	Results
Low Channel	-24.01 dBm / 3 kHz	8 dBm / 3 kHz	Pass
Mid Channel	-24.33 dBm / 3 kHz	8 dBm / 3 kHz	Pass
High Channel	-25.4 dBm / 3 kHz	8 dBm / 3 kHz	Pass

Low Channel					
Result:	Pass	**Value:**	-24.01 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz

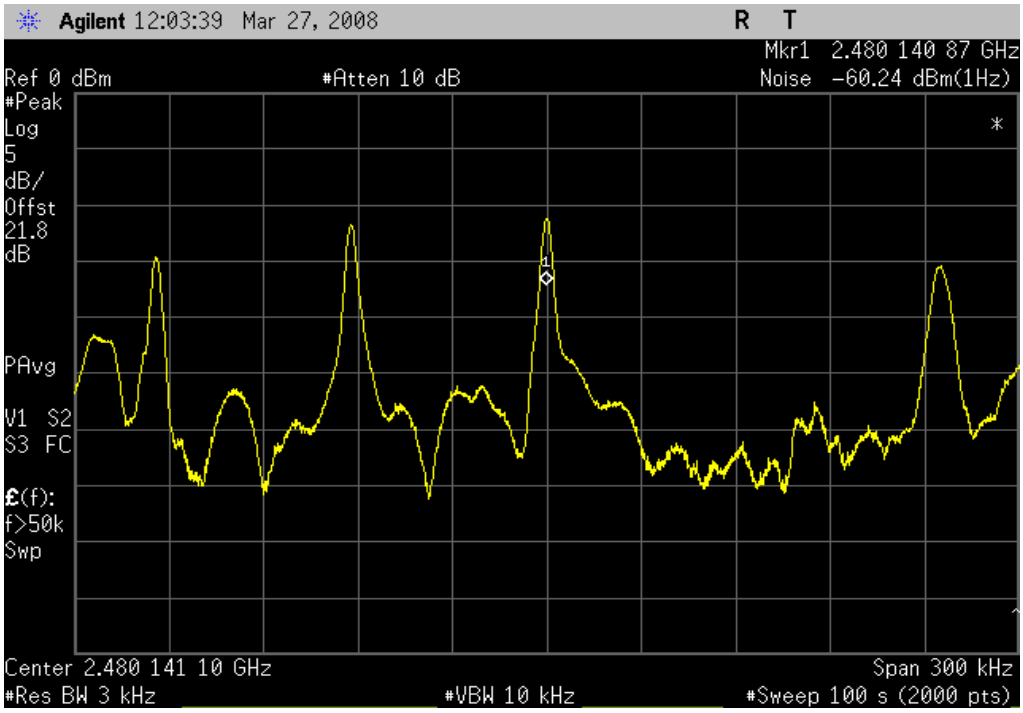


Mid Channel					
Result:	Pass	**Value:**	-24.33 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



POWER SPECTRAL DENSITY

High Channel					
Result:	Pass	**Value:**	-25.4 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



Power Spectral Density

AC POWERLINE CONDUCTED EMISSIONS

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

MODES OF OPERATION
Transmitting high channel
Transmitting mid channel
Transmitting low channel

POWER SETTINGS INVESTIGATED
120V/60Hz

CONFIGURATIONS INVESTIGATED
CNTR0018 - 3) AC Power line Conducted - PC Host
CNTR0018 - 2) AC Power line Conducted - Adapter

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwartz	ESCI	ARG	12/7/2007	13 mo
Attenuator	Coaxicom	66702 2910-20	ATO	5/25/2007	13 mo
High Pass Filter	T.T.E.	7766	HFG	2/5/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIP	1/4/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIR	1/4/2008	13 mo
EV07 Cables		Conducted Cables	EVG	4/17/2007	13 mo

MEASUREMENT BANDWIDTHS

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

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

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

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

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

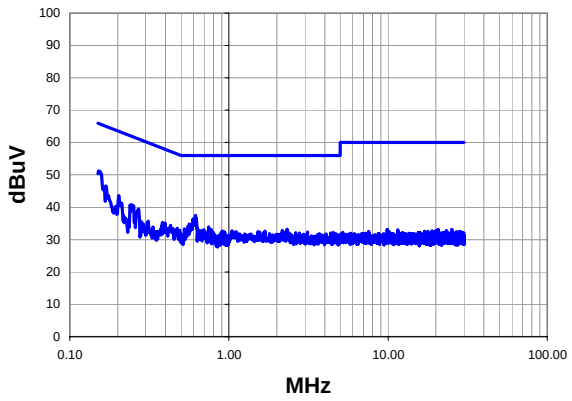
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting low channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

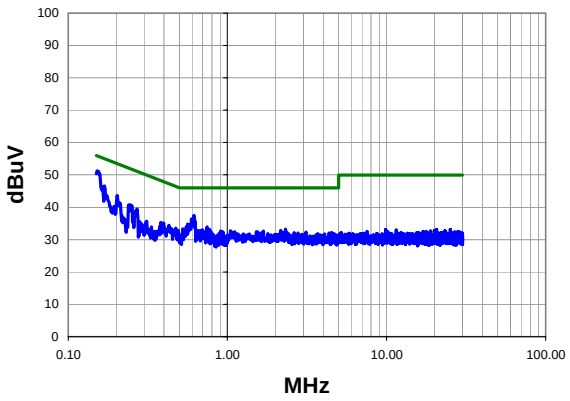
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	1	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.152	29.3	22.0	51.3	65.9	-14.6
0.169	25.0	21.6	46.6	65.0	-18.4
0.616	16.7	20.7	37.4	56.0	-18.6
0.203	22.6	21.0	43.6	63.5	-19.9
0.240	19.8	21.0	40.8	62.1	-21.3
0.271	18.5	21.0	39.5	61.1	-21.6
0.745	13.3	20.7	34.0	56.0	-22.0
0.526	12.5	20.8	33.3	56.0	-22.7
0.431	13.6	20.9	34.5	57.2	-22.8
2.320	12.7	20.5	33.2	56.0	-22.8
0.398	14.2	20.9	35.1	57.9	-22.8
0.776	12.5	20.6	33.1	56.0	-22.9
0.383	14.4	20.9	35.3	58.2	-22.9
0.473	12.7	20.8	33.5	56.5	-22.9
0.696	12.3	20.7	33.0	56.0	-23.0
0.653	12.1	20.7	32.8	56.0	-23.2
2.168	12.3	20.5	32.8	56.0	-23.2
1.048	12.2	20.5	32.7	56.0	-23.3
0.906	12.1	20.6	32.7	56.0	-23.3
1.688	12.1	20.5	32.6	56.0	-23.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.152	29.3	22.0	51.3	55.9	-4.6
0.169	25.0	21.6	46.6	55.0	-8.4
0.616	16.7	20.7	37.4	46.0	-8.6
0.203	22.6	21.0	43.6	53.5	-9.9
0.240	19.8	21.0	40.8	52.1	-11.3
0.271	18.5	21.0	39.5	51.1	-11.6
0.745	13.3	20.7	34.0	46.0	-12.0
0.526	12.5	20.8	33.3	46.0	-12.7
0.431	13.6	20.9	34.5	47.2	-12.8
2.320	12.7	20.5	33.2	46.0	-12.8
0.398	14.2	20.9	35.1	47.9	-12.8
0.776	12.5	20.6	33.1	46.0	-12.9
0.383	14.4	20.9	35.3	48.2	-12.9
0.473	12.7	20.8	33.5	46.5	-12.9
0.696	12.3	20.7	33.0	46.0	-13.0
0.653	12.1	20.7	32.8	46.0	-13.2
2.168	12.3	20.5	32.8	46.0	-13.2
1.048	12.2	20.5	32.7	46.0	-13.3
0.906	12.1	20.6	32.7	46.0	-13.3
1.688	12.1	20.5	32.6	46.0	-13.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

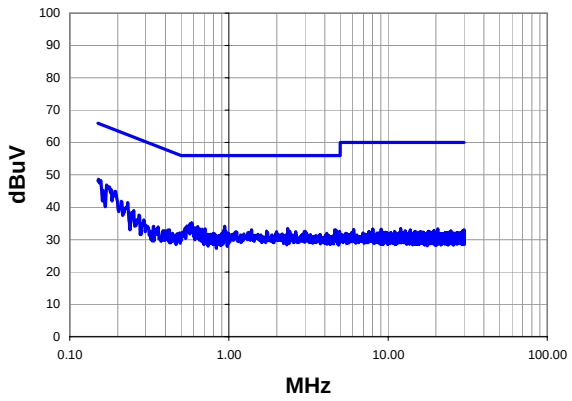
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting low channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

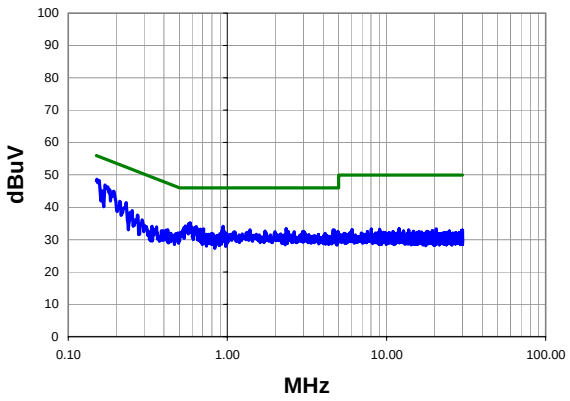
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	2	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.152	26.7	22.0	48.7	65.9	-17.2
0.170	25.3	21.6	46.9	64.9	-18.0
0.193	23.8	21.2	45.0	63.9	-19.0
0.162	23.4	21.8	45.2	65.4	-20.2
0.580	14.4	20.8	35.2	56.0	-20.8
0.232	20.5	21.0	41.5	62.4	-20.9
0.211	20.8	21.0	41.8	63.2	-21.4
0.939	13.6	20.5	34.1	56.0	-21.9
0.636	13.3	20.7	34.0	56.0	-22.0
0.531	12.8	20.8	33.6	56.0	-22.4
2.344	12.9	20.5	33.4	56.0	-22.6
0.708	12.7	20.7	33.4	56.0	-22.6
0.252	18.0	21.0	39.0	61.7	-22.7
0.658	12.5	20.7	33.2	56.0	-22.8
0.679	12.5	20.7	33.2	56.0	-22.8
1.384	12.5	20.5	33.0	56.0	-23.0
4.616	12.5	20.5	33.0	56.0	-23.0
4.712	12.4	20.5	32.9	56.0	-23.1
0.923	12.2	20.5	32.7	56.0	-23.3
0.954	12.1	20.5	32.6	56.0	-23.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.152	26.7	22.0	48.7	55.9	-7.2
0.170	25.3	21.6	46.9	54.9	-8.0
0.193	23.8	21.2	45.0	53.9	-9.0
0.162	23.4	21.8	45.2	55.4	-10.2
0.580	14.4	20.8	35.2	46.0	-10.8
0.232	20.5	21.0	41.5	52.4	-10.9
0.211	20.8	21.0	41.8	53.2	-11.4
0.939	13.6	20.5	34.1	46.0	-11.9
0.636	13.3	20.7	34.0	46.0	-12.0
0.531	12.8	20.8	33.6	46.0	-12.4
2.344	12.9	20.5	33.4	46.0	-12.6
0.708	12.7	20.7	33.4	46.0	-12.6
0.252	18.0	21.0	39.0	51.7	-12.7
0.658	12.5	20.7	33.2	46.0	-12.8
0.679	12.5	20.7	33.2	46.0	-12.8
1.384	12.5	20.5	33.0	46.0	-13.0
4.616	12.5	20.5	33.0	46.0	-13.0
4.712	12.4	20.5	32.9	46.0	-13.1
0.923	12.2	20.5	32.7	46.0	-13.3
0.954	12.1	20.5	32.6	46.0	-13.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

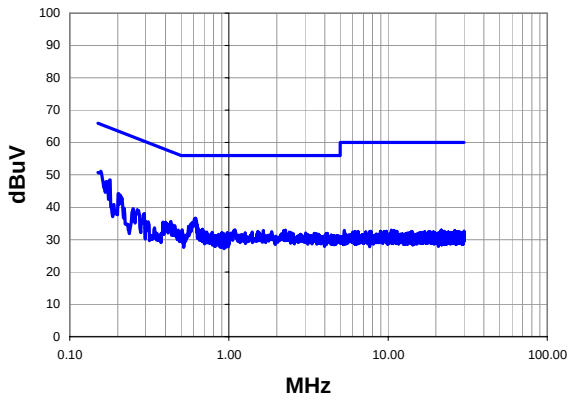
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting mid channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

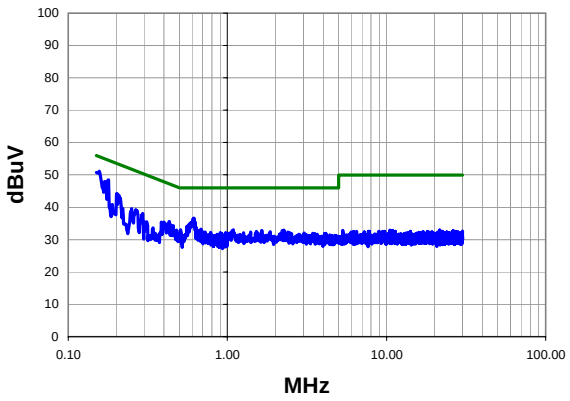
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.157	29.3	21.9	51.2	65.6	-14.5
0.179	27.0	21.4	48.4	64.5	-16.1
0.170	26.4	21.6	48.0	64.9	-16.9
0.614	15.9	20.7	36.6	56.0	-19.4
0.201	23.2	21.0	44.2	63.6	-19.4
0.432	14.8	20.9	35.7	57.2	-21.6
0.266	18.3	21.0	39.3	61.3	-22.0
0.250	18.6	21.0	39.6	61.7	-22.2
0.636	13.0	20.7	33.7	56.0	-22.3
0.295	17.1	20.9	38.0	60.4	-22.4
0.441	13.8	20.8	34.6	57.0	-22.4
0.456	13.5	20.8	34.3	56.8	-22.4
0.400	14.5	20.9	35.4	57.9	-22.5
0.385	14.5	20.9	35.4	58.2	-22.8
0.684	12.5	20.7	33.2	56.0	-22.8
0.509	12.2	20.8	33.0	56.0	-23.0
1.088	12.5	20.5	33.0	56.0	-23.0
0.674	12.2	20.7	32.9	56.0	-23.1
2.264	12.4	20.5	32.9	56.0	-23.1
1.648	12.3	20.5	32.8	56.0	-23.2

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.157	29.3	21.9	51.2	55.6	-4.5
0.179	27.0	21.4	48.4	54.5	-6.1
0.170	26.4	21.6	48.0	54.9	-6.9
0.614	15.9	20.7	36.6	46.0	-9.4
0.201	23.2	21.0	44.2	53.6	-9.4
0.432	14.8	20.9	35.7	47.2	-11.6
0.266	18.3	21.0	39.3	51.3	-12.0
0.250	18.6	21.0	39.6	51.7	-12.2
0.636	13.0	20.7	33.7	46.0	-12.3
0.295	17.1	20.9	38.0	50.4	-12.4
0.441	13.8	20.8	34.6	47.0	-12.4
0.456	13.5	20.8	34.3	46.8	-12.4
0.400	14.5	20.9	35.4	47.9	-12.5
0.385	14.5	20.9	35.4	48.2	-12.8
0.684	12.5	20.7	33.2	46.0	-12.8
0.509	12.2	20.8	33.0	46.0	-13.0
1.088	12.5	20.5	33.0	46.0	-13.0
0.674	12.2	20.7	32.9	46.0	-13.1
2.264	12.4	20.5	32.9	46.0	-13.1
1.648	12.3	20.5	32.8	46.0	-13.2

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

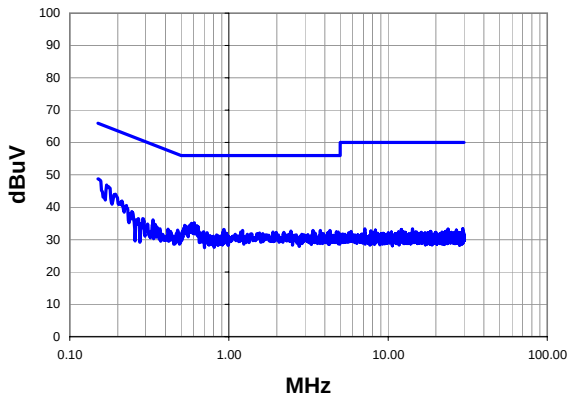
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting mid channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

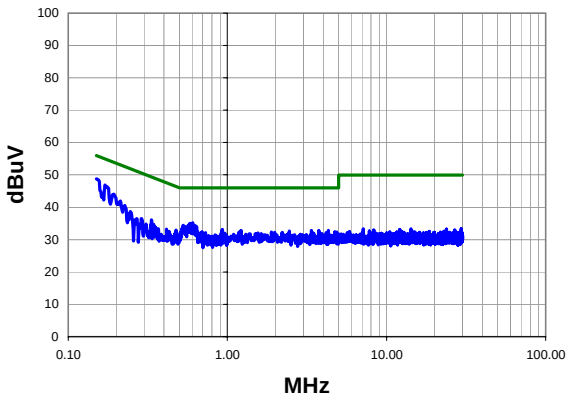
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	26.8	22.0	48.8	66.0	-17.2
0.170	25.3	21.6	46.9	64.9	-18.0
0.193	22.9	21.2	44.1	63.9	-19.9
0.606	14.5	20.7	35.2	56.0	-20.8
0.582	14.3	20.8	35.1	56.0	-20.9
0.527	13.6	20.8	34.4	56.0	-21.6
0.929	12.6	20.5	33.1	56.0	-22.9
1.216	12.3	20.5	32.8	56.0	-23.2
3.376	12.3	20.5	32.8	56.0	-23.2
3.752	12.3	20.5	32.8	56.0	-23.2
4.320	12.3	20.5	32.8	56.0	-23.2
0.334	15.2	20.9	36.1	59.4	-23.2
0.245	17.7	21.0	38.7	61.9	-23.2
0.922	12.1	20.5	32.6	56.0	-23.4
2.456	12.1	20.5	32.6	56.0	-23.4
0.476	12.1	20.8	32.9	56.4	-23.5
0.694	11.8	20.7	32.5	56.0	-23.5
4.728	11.9	20.5	32.4	56.0	-23.6
1.888	11.8	20.5	32.3	56.0	-23.7
0.728	11.5	20.7	32.2	56.0	-23.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	26.8	22.0	48.8	56.0	-7.2
0.170	25.3	21.6	46.9	54.9	-8.0
0.193	22.9	21.2	44.1	53.9	-9.9
0.606	14.5	20.7	35.2	46.0	-10.8
0.582	14.3	20.8	35.1	46.0	-10.9
0.527	13.6	20.8	34.4	46.0	-11.6
0.929	12.6	20.5	33.1	46.0	-12.9
1.216	12.3	20.5	32.8	46.0	-13.2
3.376	12.3	20.5	32.8	46.0	-13.2
3.752	12.3	20.5	32.8	46.0	-13.2
4.320	12.3	20.5	32.8	46.0	-13.2
0.334	15.2	20.9	36.1	49.4	-13.2
0.245	17.7	21.0	38.7	51.9	-13.2
0.922	12.1	20.5	32.6	46.0	-13.4
2.456	12.1	20.5	32.6	46.0	-13.4
0.476	12.1	20.8	32.9	46.4	-13.5
0.694	11.8	20.7	32.5	46.0	-13.5
4.728	11.9	20.5	32.4	46.0	-13.6
1.888	11.8	20.5	32.3	46.0	-13.7
0.728	11.5	20.7	32.2	46.0	-13.8

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

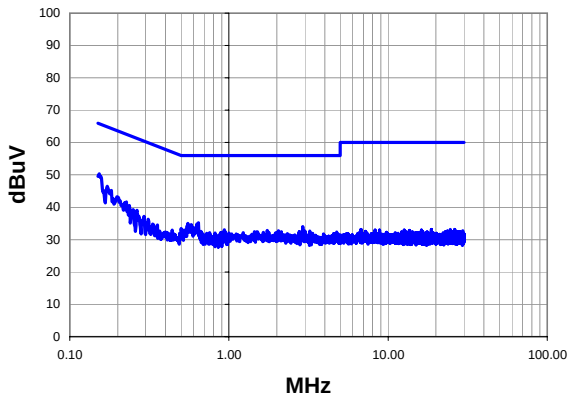
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting mid channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

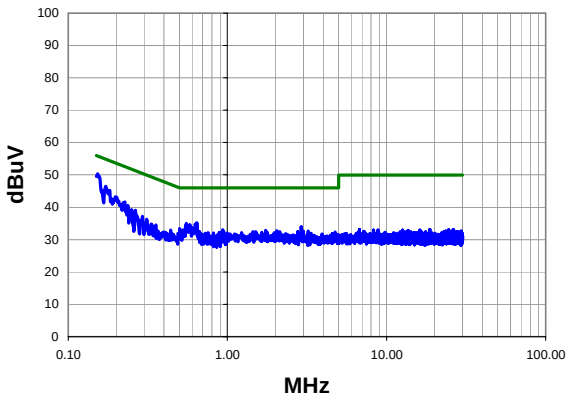
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.153	28.4	21.9	50.3	65.8	-15.5
0.172	24.9	21.6	46.5	64.9	-18.4
0.643	14.5	20.7	35.2	56.0	-20.8
0.553	14.2	20.8	35.0	56.0	-21.0
2.912	13.5	20.5	34.0	56.0	-22.0
0.264	18.1	21.0	39.1	61.3	-22.2
0.250	18.3	21.0	39.3	61.7	-22.5
0.502	12.6	20.8	33.4	56.0	-22.6
0.934	12.5	20.5	33.0	56.0	-23.0
1.744	12.3	20.5	32.8	56.0	-23.2
2.048	12.2	20.5	32.7	56.0	-23.3
0.293	16.2	20.9	37.1	60.4	-23.3
3.000	12.1	20.5	32.6	56.0	-23.4
3.224	12.1	20.5	32.6	56.0	-23.4
0.312	15.4	20.9	36.3	59.9	-23.6
1.448	11.9	20.5	32.4	56.0	-23.6
1.504	11.9	20.5	32.4	56.0	-23.6
2.760	11.9	20.5	32.4	56.0	-23.6
4.760	11.9	20.5	32.4	56.0	-23.6
0.906	11.7	20.6	32.3	56.0	-23.7

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.153	28.4	21.9	50.3	55.8	-5.5
0.172	24.9	21.6	46.5	54.9	-8.4
0.643	14.5	20.7	35.2	46.0	-10.8
0.553	14.2	20.8	35.0	46.0	-11.0
2.912	13.5	20.5	34.0	46.0	-12.0
0.264	18.1	21.0	39.1	51.3	-12.2
0.250	18.3	21.0	39.3	51.7	-12.5
0.502	12.6	20.8	33.4	46.0	-12.6
0.934	12.5	20.5	33.0	46.0	-13.0
1.744	12.3	20.5	32.8	46.0	-13.2
2.048	12.2	20.5	32.7	46.0	-13.3
0.293	16.2	20.9	37.1	50.4	-13.3
3.000	12.1	20.5	32.6	46.0	-13.4
3.224	12.1	20.5	32.6	46.0	-13.4
0.312	15.4	20.9	36.3	49.9	-13.6
1.448	11.9	20.5	32.4	46.0	-13.6
1.504	11.9	20.5	32.4	46.0	-13.6
2.760	11.9	20.5	32.4	46.0	-13.6
4.760	11.9	20.5	32.4	46.0	-13.6
0.906	11.7	20.6	32.3	46.0	-13.7

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

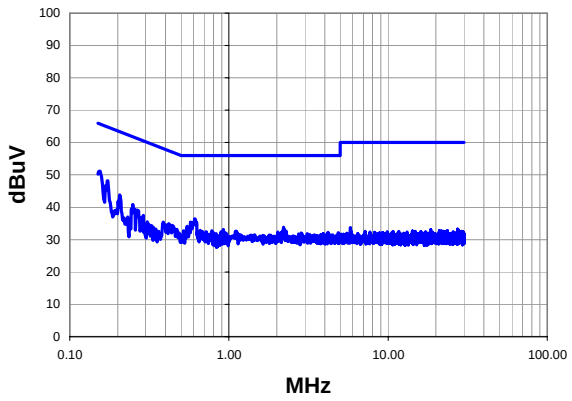
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	2 - AC Power line Conducted - Adapter				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting mid channel				
Deviations:	No Deviations				
Comments:	AC Power Adapter				

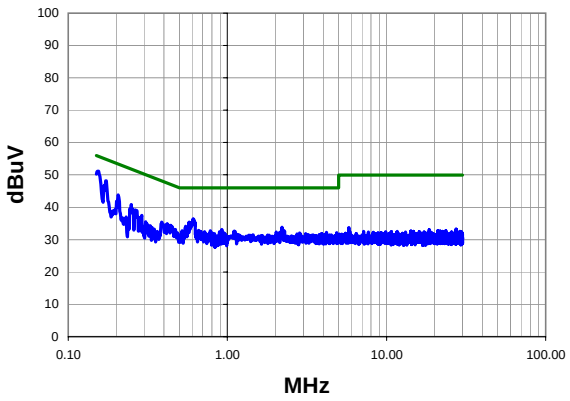
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.153	29.2	21.9	51.1	65.8	-14.7
0.172	26.6	21.6	48.2	64.9	-16.7
0.607	15.7	20.7	36.4	56.0	-19.6
0.206	22.8	21.0	43.8	63.4	-19.6
0.249	19.9	21.0	40.9	61.8	-20.9
0.546	13.3	20.8	34.1	56.0	-21.9
0.264	18.2	21.0	39.2	61.3	-22.1
2.200	13.3	20.5	33.8	56.0	-22.2
0.419	14.1	20.9	35.0	57.5	-22.5
0.386	14.5	20.9	35.4	58.1	-22.8
0.923	12.6	20.5	33.1	56.0	-22.9
0.289	16.5	20.9	37.4	60.5	-23.1
0.658	12.1	20.7	32.8	56.0	-23.2
0.782	12.1	20.6	32.7	56.0	-23.3
0.519	11.9	20.8	32.7	56.0	-23.3
1.104	12.1	20.5	32.6	56.0	-23.4
0.719	11.8	20.7	32.5	56.0	-23.5
0.893	11.9	20.6	32.5	56.0	-23.5
2.032	11.8	20.5	32.3	56.0	-23.7
4.200	11.8	20.5	32.3	56.0	-23.7

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.153	29.2	21.9	51.1	55.8	-4.7
0.172	26.6	21.6	48.2	54.9	-6.7
0.607	15.7	20.7	36.4	46.0	-9.6
0.206	22.8	21.0	43.8	53.4	-9.6
0.249	19.9	21.0	40.9	51.8	-10.9
0.546	13.3	20.8	34.1	46.0	-11.9
0.264	18.2	21.0	39.2	51.3	-12.1
2.200	13.3	20.5	33.8	46.0	-12.2
0.419	14.1	20.9	35.0	47.5	-12.5
0.386	14.5	20.9	35.4	48.1	-12.8
0.923	12.6	20.5	33.1	46.0	-12.9
0.289	16.5	20.9	37.4	50.5	-13.1
0.658	12.1	20.7	32.8	46.0	-13.2
0.782	12.1	20.6	32.7	46.0	-13.3
0.519	11.9	20.8	32.7	46.0	-13.3
1.104	12.1	20.5	32.6	46.0	-13.4
0.719	11.8	20.7	32.5	46.0	-13.5
0.893	11.9	20.6	32.5	46.0	-13.5
2.032	11.8	20.5	32.3	46.0	-13.7
4.200	11.8	20.5	32.3	46.0	-13.7

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

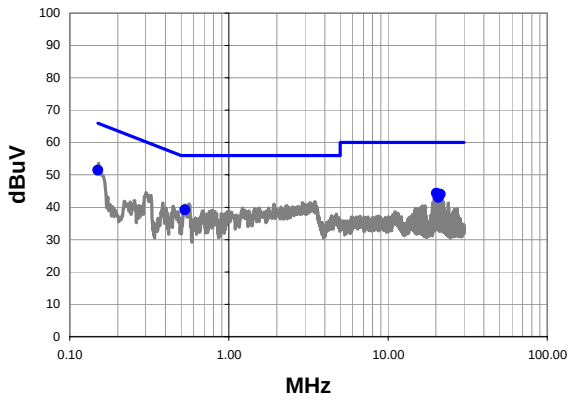
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	3 - AC Power line Conducted - PC Host				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting low channel				
Deviations:	No Deviations				
Comments:	Power via USB from PC host				

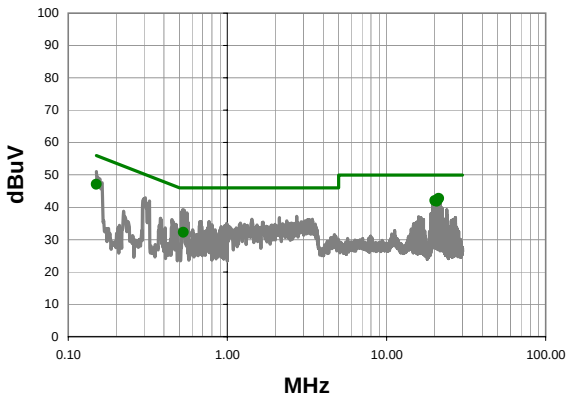
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	29.4	22.0	51.4	66.0	-14.6
20.114	23.8	20.5	44.3	60.0	-15.7
21.258	23.5	20.5	44.0	60.0	-16.0
21.144	23.3	20.5	43.8	60.0	-16.2
0.530	18.4	20.8	39.2	56.0	-16.8
20.688	22.6	20.5	43.1	60.0	-16.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
21.258	22.2	20.5	42.7	50.0	-7.3
21.144	22.0	20.5	42.5	50.0	-7.5
20.114	21.6	20.5	42.1	50.0	-7.9
20.688	21.4	20.5	41.9	50.0	-8.1
0.150	25.1	22.0	47.1	56.0	-8.9
0.530	11.5	20.8	32.3	46.0	-13.7

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

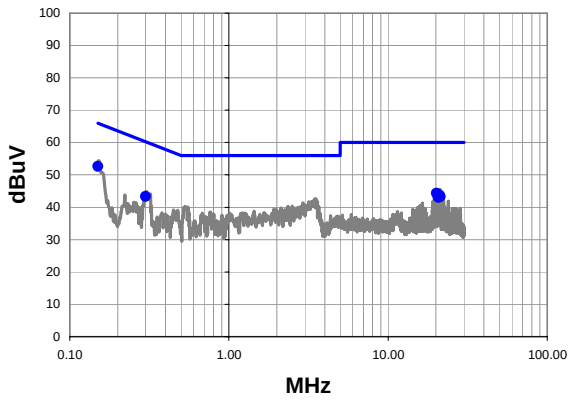
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/26/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	3 - AC Power line Conducted - PC Host				
Customer:	Controltek, Inc.				
Attendees:	Sean Scott				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting low channel				
Deviations:	No Deviations				
Comments:	Power via USB from PC host				

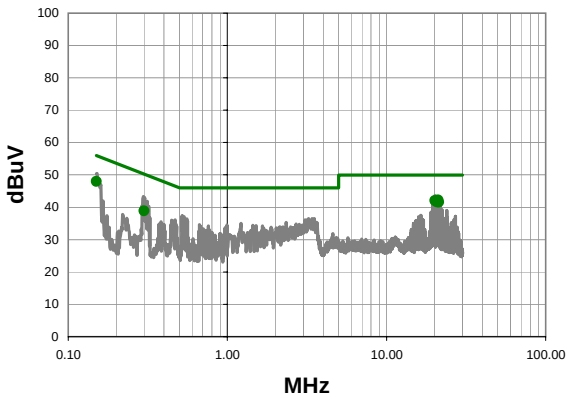
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	30.6	22.0	52.6	66.0	-13.4
20.114	23.8	20.5	44.3	60.0	-15.7
21.144	23.2	20.5	43.7	60.0	-16.3
21.260	22.7	20.5	43.2	60.0	-16.8
0.300	22.4	20.9	43.3	60.2	-16.9
20.688	22.6	20.5	43.1	60.0	-16.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
21.144	21.8	20.5	42.3	50.0	-7.7
20.114	21.6	20.5	42.1	50.0	-7.9
0.150	26.0	22.0	48.0	56.0	-8.0
20.688	21.2	20.5	41.7	50.0	-8.3
21.260	21.1	20.5	41.6	50.0	-8.4
0.300	17.9	20.9	38.8	50.2	-11.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

Version 2007.8.27
PSA-ESCI 2008.01.03

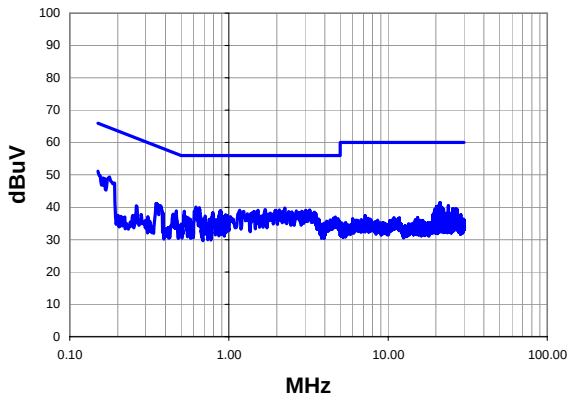
Work Order:	CNTR0018	**Date:**	03/27/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin

EUT:	Mega M.O.L.E.
Configuration:	3 - AC Power line Conducted - PC Host
Customer:	Controltek, Inc.
Attendees:	None
EUT Power:	120V/60Hz
Operating Mode:	Transmitting mid channel
Deviations:	No Deviations
Comments:	Power via USB from PC host

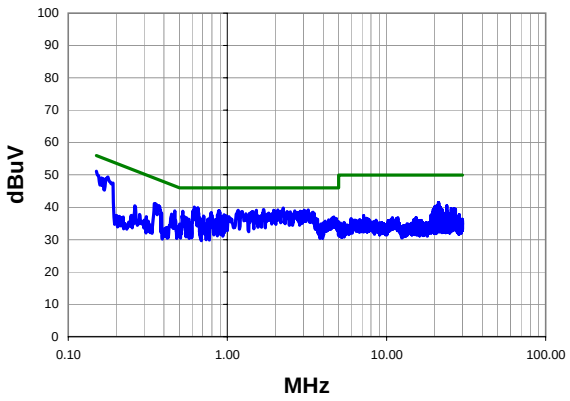
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	9	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	29.1	22.0	51.1	66.0	-14.9
0.177	27.9	21.5	49.4	64.6	-15.3
0.621	19.3	20.7	40.0	56.0	-16.0
0.652	19.1	20.7	39.8	56.0	-16.2
2.240	19.3	20.5	39.8	56.0	-16.2
1.688	18.8	20.5	39.3	56.0	-16.7
2.072	18.7	20.5	39.2	56.0	-16.8
3.224	18.7	20.5	39.2	56.0	-16.8
1.168	18.6	20.5	39.1	56.0	-16.9
1.520	18.6	20.5	39.1	56.0	-16.9
1.952	18.6	20.5	39.1	56.0	-16.9
3.048	18.6	20.5	39.1	56.0	-16.9
0.884	18.4	20.6	39.0	56.0	-17.0
2.648	18.4	20.5	38.9	56.0	-17.1
0.524	18.0	20.8	38.8	56.0	-17.2
2.872	18.3	20.5	38.8	56.0	-17.2
1.232	18.2	20.5	38.7	56.0	-17.3
1.448	18.2	20.5	38.7	56.0	-17.3
2.376	18.2	20.5	38.7	56.0	-17.3
2.480	18.1	20.5	38.6	56.0	-17.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	29.1	22.0	51.1	56.0	-4.9
0.177	27.9	21.5	49.4	54.6	-5.3
0.621	19.3	20.7	40.0	46.0	-6.0
0.652	19.1	20.7	39.8	46.0	-6.2
2.240	19.3	20.5	39.8	46.0	-6.2
1.688	18.8	20.5	39.3	46.0	-6.7
2.072	18.7	20.5	39.2	46.0	-6.8
3.224	18.7	20.5	39.2	46.0	-6.8
1.168	18.6	20.5	39.1	46.0	-6.9
1.520	18.6	20.5	39.1	46.0	-6.9
1.952	18.6	20.5	39.1	46.0	-6.9
3.048	18.6	20.5	39.1	46.0	-6.9
0.884	18.4	20.6	39.0	46.0	-7.0
2.648	18.4	20.5	38.9	46.0	-7.1
0.524	18.0	20.8	38.8	46.0	-7.2
2.872	18.3	20.5	38.8	46.0	-7.2
1.232	18.2	20.5	38.7	46.0	-7.3
1.448	18.2	20.5	38.7	46.0	-7.3
2.376	18.2	20.5	38.7	46.0	-7.3
2.480	18.1	20.5	38.6	46.0	-7.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

Version 2007.8.27
PSA-ESCI 2008.01.03

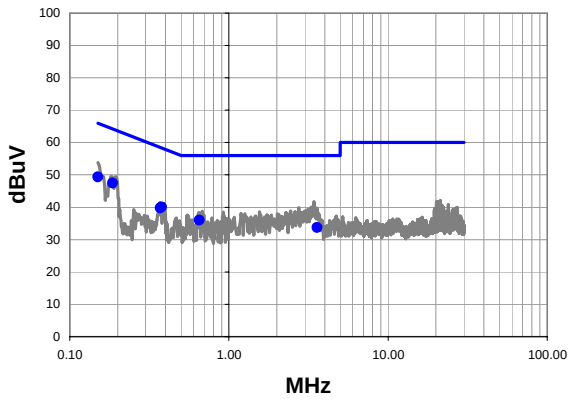
Work Order:	CNTR0018	**Date:**	03/27/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin

EUT:	Mega M.O.L.E.
Configuration:	3 - AC Power line Conducted - PC Host
Customer:	Controltek, Inc.
Attendees:	None
EUT Power:	120V/60Hz
Operating Mode:	Transmitting mid channel
Deviations:	No Deviations
Comments:	Power via USB from PC host

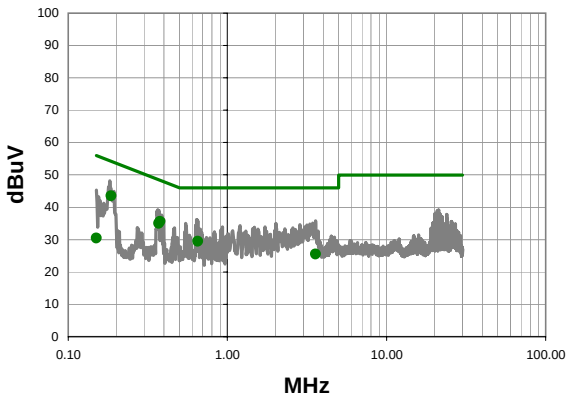
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	10	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	27.4	22.0	49.4	66.0	-16.6
0.186	26.2	21.3	47.5	64.2	-16.7
0.378	19.2	20.9	40.1	58.3	-18.2
0.370	18.9	20.9	39.8	58.5	-18.7
0.653	15.3	20.7	36.0	56.0	-20.0
3.580	13.2	20.5	33.7	56.0	-22.3

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.186	22.2	21.3	43.5	54.2	-10.7
0.378	14.7	20.9	35.6	48.3	-12.7
0.370	14.1	20.9	35.0	48.5	-13.5
0.653	8.8	20.7	29.5	46.0	-16.5
3.580	5.0	20.5	25.5	46.0	-20.5
0.150	8.5	22.0	30.5	56.0	-25.5

NORTHWEST

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AC POWERLINE CONDUCTED EMISSIONS

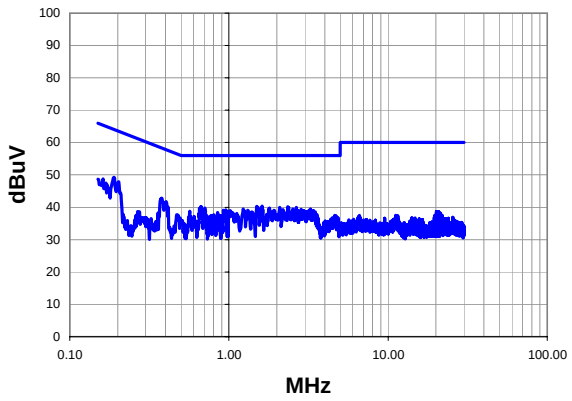
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/27/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	3 - AC Power line Conducted - PC Host				
Customer:	Controltek, Inc.				
Attendees:	None				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting high channel				
Deviations:	No Deviations				
Comments:	Power via USB from PC host				

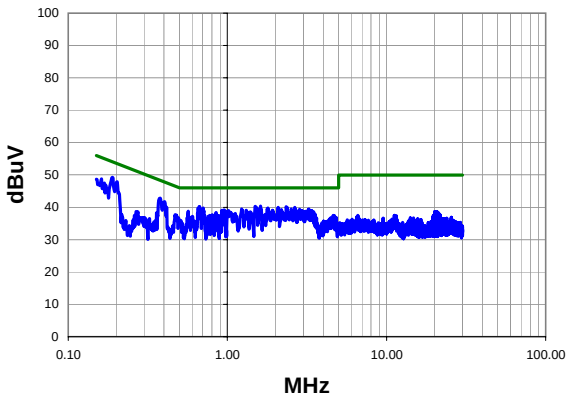
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	11	**Line:**	High	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.189	28.0	21.2	49.2	64.1	-14.9
0.378	21.9	20.9	42.8	58.3	-15.5
0.203	26.9	21.0	47.9	63.5	-15.6
1.616	19.9	20.5	40.4	56.0	-15.6
1.496	19.8	20.5	40.3	56.0	-15.7
0.670	19.5	20.7	40.2	56.0	-15.8
2.344	19.7	20.5	40.2	56.0	-15.8
2.080	19.5	20.5	40.0	56.0	-16.0
2.648	19.5	20.5	40.0	56.0	-16.0
1.800	19.3	20.5	39.8	56.0	-16.2
0.704	19.1	20.7	39.8	56.0	-16.2
1.232	19.0	20.5	39.5	56.0	-16.5
2.520	19.0	20.5	39.5	56.0	-16.5
3.248	19.0	20.5	39.5	56.0	-16.5
2.840	18.9	20.5	39.4	56.0	-16.6
0.162	27.0	21.8	48.8	65.4	-16.6
2.184	18.8	20.5	39.3	56.0	-16.7
0.957	18.6	20.5	39.1	56.0	-16.9
1.312	18.6	20.5	39.1	56.0	-16.9
1.920	18.6	20.5	39.1	56.0	-16.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.189	28.0	21.2	49.2	54.1	-4.9
0.378	21.9	20.9	42.8	48.3	-5.5
0.203	26.9	21.0	47.9	53.5	-5.6
1.616	19.9	20.5	40.4	46.0	-5.6
1.496	19.8	20.5	40.3	46.0	-5.7
0.670	19.5	20.7	40.2	46.0	-5.8
2.344	19.7	20.5	40.2	46.0	-5.8
2.080	19.5	20.5	40.0	46.0	-6.0
2.648	19.5	20.5	40.0	46.0	-6.0
1.800	19.3	20.5	39.8	46.0	-6.2
0.704	19.1	20.7	39.8	46.0	-6.2
1.232	19.0	20.5	39.5	46.0	-6.5
2.520	19.0	20.5	39.5	46.0	-6.5
3.248	19.0	20.5	39.5	46.0	-6.5
2.840	18.9	20.5	39.4	46.0	-6.6
0.162	27.0	21.8	48.8	55.4	-6.6
2.184	18.8	20.5	39.3	46.0	-6.7
0.957	18.6	20.5	39.1	46.0	-6.9
1.312	18.6	20.5	39.1	46.0	-6.9
1.920	18.6	20.5	39.1	46.0	-6.9

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

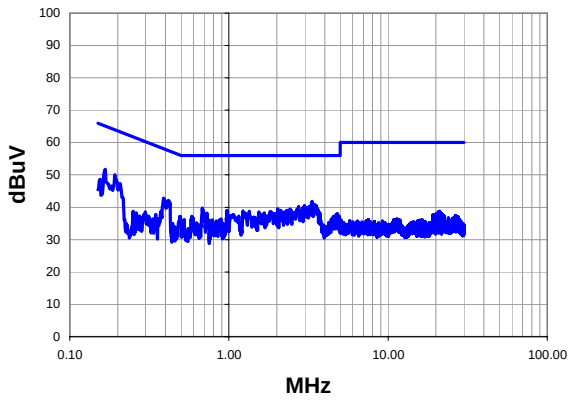
Version 2007.8.27
PSA-ESCI 2008.01.03

Work Order:	CNTR0018	**Date:**	03/27/08		
Project:	None	**Temperature:**	23°C		
Job Site:	EV07	**Humidity:**	25		
Serial Number:	Unit 1	**Barometric Pres.:**	29.95	**Tested by:**	Rod Peloquin
EUT:	Mega M.O.L.E.				
Configuration:	3 - AC Power line Conducted - PC Host				
Customer:	Controltek, Inc.				
Attendees:	None				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting high channel				
Deviations:	No Deviations				
Comments:	Power via USB from PC host				

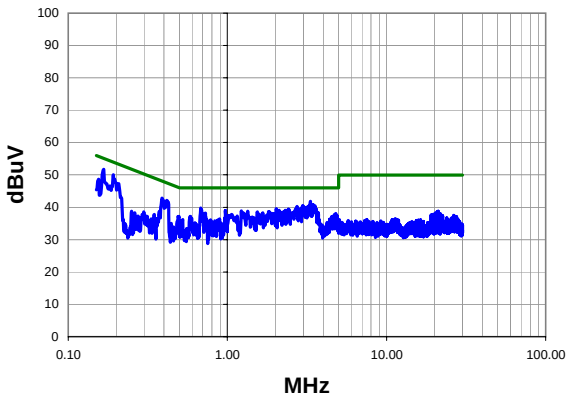
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2007		ANSI C63.4:2003

Run #	12	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.167	30.1	21.7	51.8	65.1	-13.3
0.193	28.9	21.2	50.1	63.9	-13.9
3.320	21.3	20.5	41.8	56.0	-14.2
3.456	20.4	20.5	40.9	56.0	-15.1
3.344	20.3	20.5	40.8	56.0	-15.2
0.388	21.9	20.9	42.8	58.1	-15.3
2.984	20.1	20.5	40.6	56.0	-15.4
2.736	19.8	20.5	40.3	56.0	-15.7
0.679	19.1	20.7	39.8	56.0	-16.2
2.896	19.3	20.5	39.8	56.0	-16.2
2.032	19.1	20.5	39.6	56.0	-16.4
2.416	19.0	20.5	39.5	56.0	-16.5
2.112	18.6	20.5	39.1	56.0	-16.9
2.304	18.6	20.5	39.1	56.0	-16.9
0.971	18.5	20.5	39.0	56.0	-17.0
0.155	26.8	21.9	48.7	65.7	-17.0
1.224	18.4	20.5	38.9	56.0	-17.1
2.344	18.4	20.5	38.9	56.0	-17.1
1.344	18.3	20.5	38.8	56.0	-17.2
1.816	18.2	20.5	38.7	56.0	-17.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.167	30.1	21.7	51.8	55.1	-3.3
0.193	28.9	21.2	50.1	53.9	-3.9
3.320	21.3	20.5	41.8	46.0	-4.2
3.456	20.4	20.5	40.9	46.0	-5.1
3.344	20.3	20.5	40.8	46.0	-5.2
0.388	21.9	20.9	42.8	48.1	-5.3
2.984	20.1	20.5	40.6	46.0	-5.4
2.736	19.8	20.5	40.3	46.0	-5.7
0.679	19.1	20.7	39.8	46.0	-6.2
2.896	19.3	20.5	39.8	46.0	-6.2
2.032	19.1	20.5	39.6	46.0	-6.4
2.416	19.0	20.5	39.5	46.0	-6.5
2.112	18.6	20.5	39.1	46.0	-6.9
2.304	18.6	20.5	39.1	46.0	-6.9
0.971	18.5	20.5	39.0	46.0	-7.0
0.155	26.8	21.9	48.7	55.7	-7.0
1.224	18.4	20.5	38.9	46.0	-7.1
2.344	18.4	20.5	38.9	46.0	-7.1
1.344	18.3	20.5	38.8	46.0	-7.2
1.816	18.2	20.5	38.7	46.0	-7.3