

**ELECTRO MAGNETIC TEST, INC.**1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

**FCC PART 15, SUBPART B
CLASS B TEST REPORT***for**the***IN-HOME GATEWAY****MODEL: BDG-A100**

Prepared for

**BIDGELY, INC.
298 S SUNNYVALE AVE, STE 205
SUNNYVALE, CA 94086**Prepared by: George Hsu
GEORGE HSUApproved by: Kevin Bothmann
KEVIN BOTHMANN**ELECTRO MAGNETIC TEST, INC.
1547 PLYMOUTH STREET
MOUNTAIN VIEW, CALIFORNIA 94043
(650) 965-4000****DATE: JULY 15, 2014**

	REPORT BODY	APPENDICES				TOTAL
		A	B	C	D	
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Electro Magnetic Test, Inc., which is an independent testing and consulting firm. The test report is based on testing performed Electro Magnetic Test, Inc. personnel according to the measurement procedure described in the test specification given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form unless done so in full.

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Federal Government.

The measurement data and conclusions contained in this test report are deemed satisfactory evidence of compliance with Industry Canada Interference-Causing Equipment Standard ICES-003, Issue 5, August 2012.

Electro Magnetic Test, Inc. is recognized by the following agencies for performing EMI/EMC testing:

COUNTRY	AGENCY	IDENTIFYING #
USA	Federal Communications Commission (FCC) (EMT's test site is recognized by the FCC)	Registration Number: 90576
USA, Canada, Taiwan, Australia/New Zealand, European Community	National Voluntary Lab Accreditation Program (NVLAP) (EMT is accredited by NVLAP. A copy of the NVLAP Scope Of Accreditation is available upon request.)	Lab Code: 200147-0
Canada	Industry Canada	File No.: IC 2804
Japan	Voluntary Control Council For Interference (VCCI)	A-0118
	Open Field Test Site "A"	-
	Mains Conducted Emissions Test Site "A"	-
	Telecom Conducted Emissions Test Site "A"	-
	3 Meter Semi-Anechoic Chamber Site "E"	-
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	-
	Mains Conducted Emissions Test Site "E"	-
	Telecom Conducted Emissions Test Site "E"	-
Korea	Ministry of Information and Communication's Radio Research Laboratory (RRL) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (A copy of the Scope Of Accreditation is available upon request)	US0036
Taiwan	Bureau Of Standards, Metrology and Inspection (BSMI)	Reference Number: SL2-IN-E-1024
Australia / New Zealand	Australian Communications Authority (AUSTEL)	*

*These agencies do not issue an identifying number to test labs.

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GENERAL REPORT SUMMARY (CONTINUED)

Device Tested: In-Home Gateway
Model: BDG-A100
S/N: N/A

Product Description: The In-home Gateway is part of an energy management system for residential consumers. The product connects to a Zigbee enabled Smart Energy Meter and Bidgely's cloud using a wired Ethernet connection. The product collects data from the Smart Energy Meter and sends it to the cloud.

Modifications: The EUT was not modified during the testing.

Manufacturer: Bidgely, Inc.
298 S. Sunnyvale Ave, Ste 205
Sunnyvale, CA 94086

Test Date(s): June 18, 19, 30, July, 7, and 8, 2014

Test Specifications: EMI requirements
Limits: CISPR 22: 1997 plus A1:2000 & A2:2002 Class B
FCC Title 47, Part 15 Subpart B, Class B
Test Procedure: ANSI C63.4: 2009

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz.	Complies with the Class B limits of FCC Title 47, Part 15 Subpart B
2	Radiated RF Emissions, 30 MHz - 1000 MHz.	Complies with the Class B limits of FCC Title 47, Part 15 Subpart B
3	Radiated RF Emissions, 1 GHz - 18 GHz.	Not applicable, EUT does not have clocks over 108 MHz

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1. **PURPOSE**

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the In-Home Gateway, Model: BDG-A100. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2009. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by C.I.S.P.R. Publication 22 for Information Technology Equipment from 150 kHz to 1 GHz. Under paragraph G of section 15.109 of the Code of Federal Regulations Title 47, Part 15 of the FCC rules, FCC accepts the international standards set forth in C.I.S.P.R. Publication 22 and if the EUT meets the **Class B** specification limits defined in FCC Title 47, Part 15, Subpart B from 1 GHz to 18 GHz.

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2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Electro Magnetic Test, Inc., 1547 Plymouth Street, Mountain View, California, 94043.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The measurement results in this report and the calibration of the test equipment are traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Bidgley, Inc.

Daidipya Patwa Product Manager

Electro Magnetic Test, Inc.

David Vivanco Test Technician

George Hsu Test Technician

Kevin Bothmann Lab Manager

2.4 Date Test Sample was Received

The test sample was received on June 18, 2014.

2.5 Disposition of the Test Sample

The test sample has not yet been returned to Bidgely.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
CISPR	International Special Committee On Radio Interference
FCC	Federal Communications Commission

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3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15, Subpart B	FCC Rules - Radio frequency devices (including digital devices).
ICES-003, Issue 5, August 2012	Information Technology Equipment (ITE) — Limits and methods of measurement.
ANSI C63.4 2009	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.
CISPR 22: 1997 plus A1:2000 & A2:2002	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement

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4. **DESCRIPTION OF TEST CONFIGURATION**

4.1 **Description of Test Configuration - EMI**

The In Home Gateway was connected to a remote network switch via its Ethernet port. The network switch was connected to a remote pc via its Ethernet port. During testing the Zigbee radio was continuously transmitting and the remote PC was pinging to the EUT.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The cables were moved to maximize the emissions. The final conducted as well as radiated data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix A.

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4.1.1 **Cable Construction and Termination**

Cables #1

This is a 50 foot unshielded Ethernet cable connecting the EUT to a Ethernet Switch. It has plastic RJ45 connectors on both ends of the cable

Cable #2

This is a 5 ft. unshielded power cable connecting the EUT to its AC power supply. It has a 1/4 inch round power connector on the EUT end and is hardwired into the AC power supply.


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5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
IN-HOME GATEWAY (EUT)	BIDGELY, INC.	BDG-A100	N/A	N/A
AC ADAPTER	DVE	DSA-6PFE-05FUS	N/A	DoC
THE FOLLOWING WERE LOCATED OUTSIDE THE TEST SITE:				
REMOTE ETHERNET SWITCH	NETGEAR	GS108Tv2	29SA375E0105A	DoC
REMOTE ETHERNET SWITCH POWER SUPPLY	NETGEAR	MT12-Y120100-A1	N/A	DoC
REMOTE LAPTOP COMPUTER	MARASST TECHNOLOGY	ATM2810	N/A	DoC
REMOTE LAPTOP POWER SUPPLY	ASIAN POWER DEVICES	NB-90B19	N/A	DoC


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5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer	Hewlett Packard	8566B	3013A07296	July 30, 2013	1 Year
RF Preselector	Hewlett Packard	85685A	3010A01157	July 29, 2013	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00451	July 29, 2013	1 Year
Radiated EMI Software	Sector Design	N/A	Ver.1.4.6	N/A	N/A
Conducted EMI Software	Hewlett Packard	85869PC	Ver. A.02.03	N/A	N/A
Preamplifier	Com Power	PA-102	1482	March 4, 2014	1 Year
RF Attenuator	Mini-Circuits	CAT-10	Asset #1000	December 19, 2013	1 Year
LISN	Com Power	LI-200	12012	October 1, 2013	1 Year
LISN	Com Power	LI-200	12214	October 1, 2013	1 Year
LISN	Com Power	LI-200	01767	October 1, 2013	1 Year
LISN	Com Power	LI-200	01768	October 1, 2013	1 Year
Biconical Antenna	Com Power	AB-100	01557	July 8, 2014	1 Year
Log Periodic Antenna	Com Power	AL-100	16001	June 27, 2014	1 Year
Horn Antenna	Com Power	AHA-118	711054	N/A	N/A
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Dell, Inc.	DHS	DNSV641	N/A	N/A
Printer	Hewlett Packard	C8124A	CN39A220ZD	N/A	N/A


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5.2 EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100127	January 3, 2014	1 Year
EMI Test Software	Rohde & Schwarz	EMC32	V8.40.0	N/A	N/A
BiConiLog Antenna	ETS-Lindgren	3142D	00102183	July 1, 2014	1 Year
Horn Antenna	ETS-Lindgren	3117	00109294	July 24, 2013	1 Year
Preamplifier	Rohde & Schwarz	TS-PR18	100056	December 20, 2013	1 Year
Antenna Mast	ETS-Lindgren	2175	00095727	N/A	N/A
Turntable	ETS-Lindgren	2187-3.0	00118231	N/A	N/A
Computer	Dell, Inc.	OPTIPLEX 745	4T50WC1	N/A	N/A
Multi-Function Controller	ETS-Lindgren	2090	00102270	N/A	N/A

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6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to the table below and section 7.1 of this report for the details of which sites were used for testing. All sites are located at 1547 Plymouth Street, Mountain View, California 94043.

Site Used For Test	Site Description
	Open Field Test Site "A"
X	Mains Conducted Emissions Test Site "A"
	Telecom Conducted Emissions Test Site "A"
X	3 Meter Semi-Anechoic Chamber Site "E"
	Mains Conducted Emissions Test Site "E"
	Telecom Conducted Emissions Test Site "E"

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

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7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests.

7.1 RF Emissions

7.1.1 Conducted Emissions Test – Mains Ports

The HP 8566B spectrum analyzer was used as a measuring meter along with the HP 85650A quasi-peak adapter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak detector was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage, and the spectrum analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the HP 8566B spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 2009. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 0.15 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable and peripheral placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the HP 85869PC software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.

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7.1.2 Radiated Emissions Test – OATS Site

The HP 8566B spectrum analyzer was used as a measuring meter along with the HP 85650A quasi-peak adapter. The Com Power Preamplifier PA-102 was used to increase the sensitivity of the instrument. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. The HP 85650A quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was 120 kHz from 30 MHz to 1 GHz.

Broadband biconical and log periodic antennas were used as transducers during the measurement. The biconical antenna was used from 30 MHz to 300 MHz and the log periodic antenna was used from 300 MHz to 1 GHz. The frequency spans were wide (30 MHz to 88 MHz, 88 MHz to 216 MHz, 216 to 300 MHz, and 300 MHz to 1 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The open field test site of Electro Magnetic Test, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2009. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 10 meter test distance from 30 MHz to 1 GHz to obtain final test data.

Calculation Of Radiated Emission Test Data:

Amplitude - Gain + Antenna Factor + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

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7.1.3

Radiated Emissions Test – Semi-Anechoic Chamber

The Rohde & Schwarz ESU40 EMI receiver was used as a measuring meter while under software control by the Rohde & Schwarz EMC32 software. The built in preamplifier was used to increase the sensitivity of the instrument. The EMI receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI receiver records the highest measured reading over all the sweeps. The built in quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was 120 kHz from 30 MHz to 1 GHz.

A broadband BiConiLog antenna was used as a transducer during the measurement. The BiConiLog antenna was used from 30 MHz to 1000 MHz. The frequency spans were wide (30 MHz to 88 MHz, 88 MHz to 216 MHz, 216 to 300 MHz, and 300 MHz to 1 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The 5 meter semi-anechoic chamber of Electro Magnetic Test, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2009. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of non EUT signals was verified by turning the EUT off. In case a non EUT signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the other signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 30 MHz to 1 GHz. to obtain final test data.

Calculation Of Radiated Emission Test Data:

Amplitude - Gain + Antenna Factor + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

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7.1.4

Radiated Emissions Test - >1GHz - Semi-Anechoic Chamber

The Rohde & Schwarz ESU40 EMI receiver was used as a measuring meter while under software control by the Rohde & Schwarz EMC32 software. An external preamplifier was used to increase the sensitivity of the instrument. The EMI receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI receiver records the highest measured reading over all the sweeps. The built in average detector was used only for those readings which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was 1 MHz from 1 GHz to 18 GHz.

A broadband horn antenna was used as a transducer during the measurement. The horn antenna was used from 1 GHz to 18 GHz. The frequency spans were wide (1 GHz to 18 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The 5 meter semi-anechoic chamber of Electro Magnetic Test, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2009. The site is set up for a "free space" environment which includes absorber placed on the ground plane between the EUT and the antenna. Please see section 5.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of non EUT signals was verified by turning the EUT off. In case a non EUT signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the other signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 1 GHz to 18 GHz. to obtain final test data.

Calculation Of Radiated Emission Test Data:

Amplitude - Gain + Antenna Factor + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

Associated with the radiated emission test data in this report is a ± 4.5 dB measurement uncertainty.

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8. **CONCLUSIONS / COMPLIANCE STATEMENT**

Based upon the results contained in this report, Electro Magnetic Test, Inc. has determined that the In-Home Gateway, Model: BDG-A100 meets all of the Class B specification limits defined by C.I.S.P.R. Publication 22 for Information Technology Equipment from 150 kHz to 1 GHz. Under paragraph G of section 15.109 of the Code of Federal Regulations Title 47, Part 15 of the FCC rules, FCC accepts the international standards set forth in C.I.S.P.R. Publication 22. The EUT also meets the **Class B** specification limits defined in FCC Title 47, Part 15, Subpart B from 1 GHz to 18 GHz.



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APPENDIX A

RADIATED AND CONDUCTED EMISSIONS DATA SHEETS

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

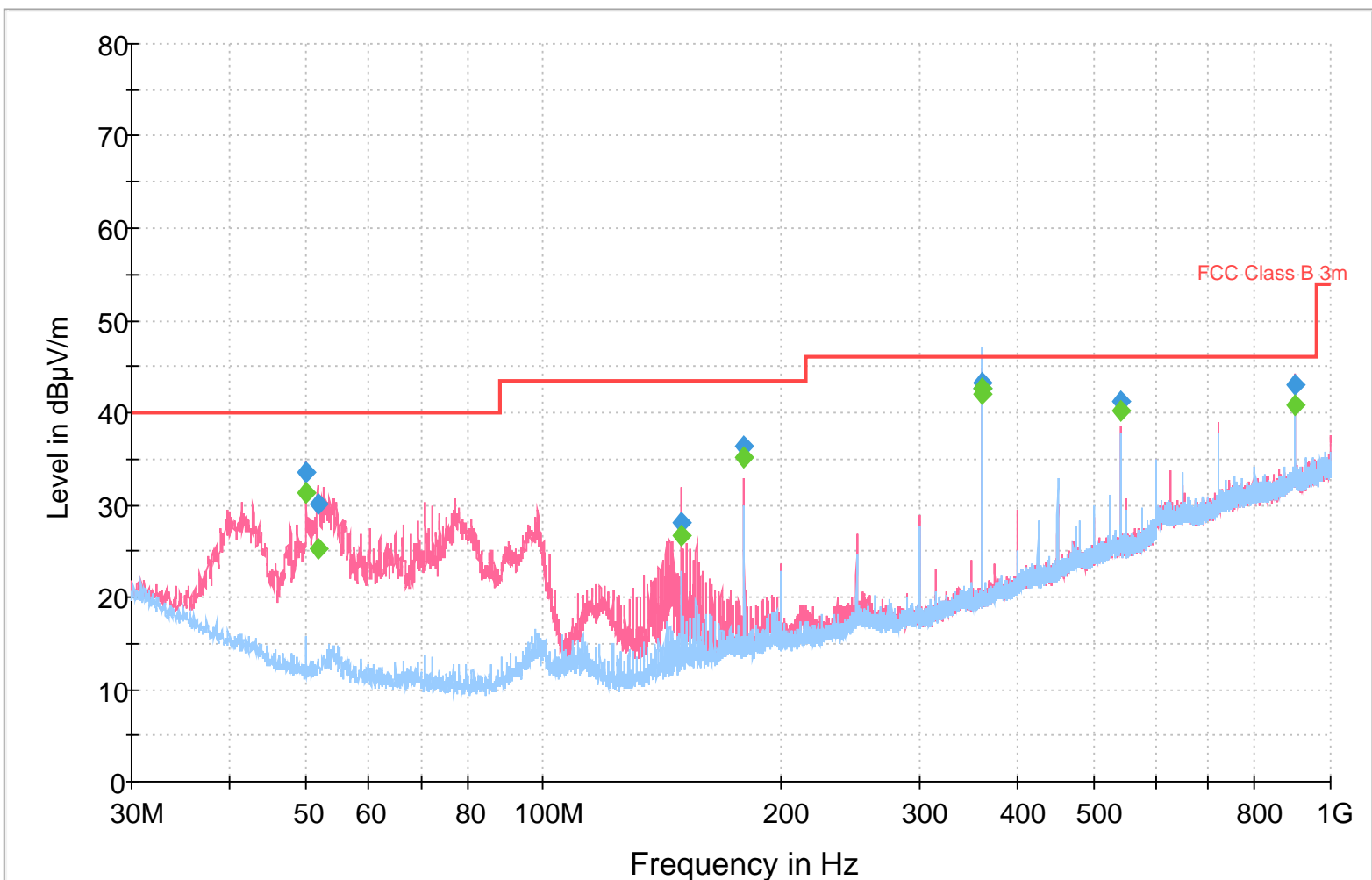
Common Information

Test Description:	FCC Class B Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	George Hsu

EUT Information

Company Name:	Bidgely, Inc.
EUT Name	In-Home Gateway
Model Number:	BDG-A100
Serial Number:	N/A
Comment:	None

Class B Radiated Scan 3m PK QP



Preview Result 1V-PK+ Preview Result 1H-PK+ Final Result 1-PK+
Final Result 2-QPK FCC Class B 3m

Final Result 1 FCC

Frequency (MHz)	MaxPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
50.010000	33.4	100.0	V	0.0	9.0	6.60	40.00	
51.690000	30.1	100.0	V	9.0	8.6	9.90	40.00	
150.000000	28.2	100.0	V	37.0	9.5	15.30	43.50	
180.000000	36.3	100.0	V	347.0	11.4	7.20	43.50	
360.030000	43.2	100.0	H	270.0	16.8	2.80	46.00	
360.030000	42.6	168.0	V	327.0	16.8	3.40	46.00	
540.030000	41.3	100.0	V	206.0	21.9	4.70	46.00	
900.060000	43.0	190.0	V	203.0	28.5	3.00	46.00	

Final Result 2 FCC

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
50.010000	31.2	100.0	V	0.0	9.0	8.80	40.00	
51.690000	25.2	100.0	V	9.0	8.6	14.80	40.00	
150.000000	26.6	100.0	V	37.0	9.5	16.90	43.50	
180.000000	35.2	100.0	V	347.0	11.4	8.30	43.50	
360.030000	42.7	100.0	H	270.0	16.8	3.30	46.00	
360.030000	42.0	168.0	V	327.0	16.8	4.00	46.00	
540.030000	40.2	100.0	V	206.0	21.9	5.80	46.00	
900.060000	40.8	190.0	V	203.0	28.5	5.20	46.00	



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FRONT VIEW

BIDGELY, INC.
IN-HOME GATEWAY
MODEL: BDG-A100

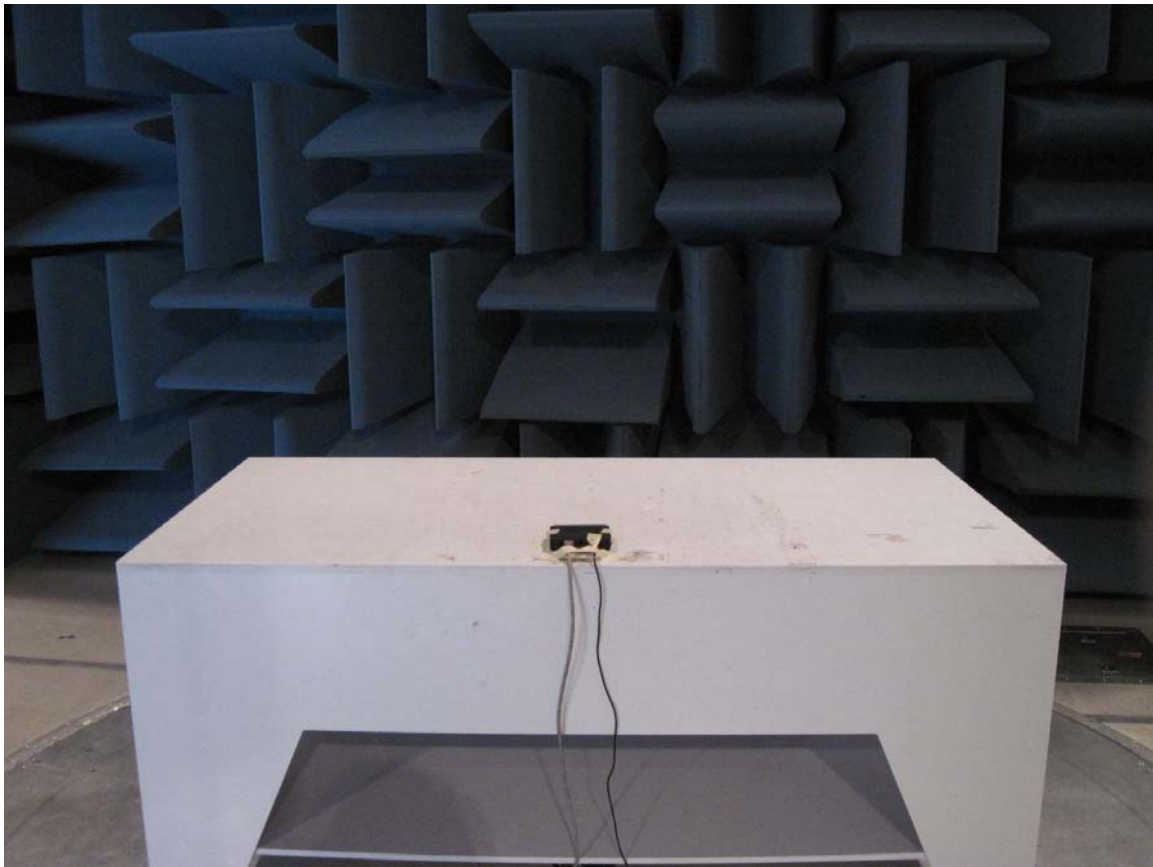
CISPR 22/FCC CLASS B - RADIATED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



REAR VIEW

BIDGELY, INC.
IN-HOME GATEWAY
MODEL: BDG-A100

CISPR 22/FCC CLASS B - RADIATED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

hp

ELECTRO MAGNETIC TEST, INC.

30 Jun 2014 13:26:49

EMISSION LEVEL

dBuV

PEAK

AVERAGE

100

80

60

40

20

CISPR 22 CLASS B CONDUCTED
BIDGELY, INC.
IN-HOME GATEWAY
M/N: BDG-A100
BLACK LEAD 120V

CLASS B QP

CLASS B AVG

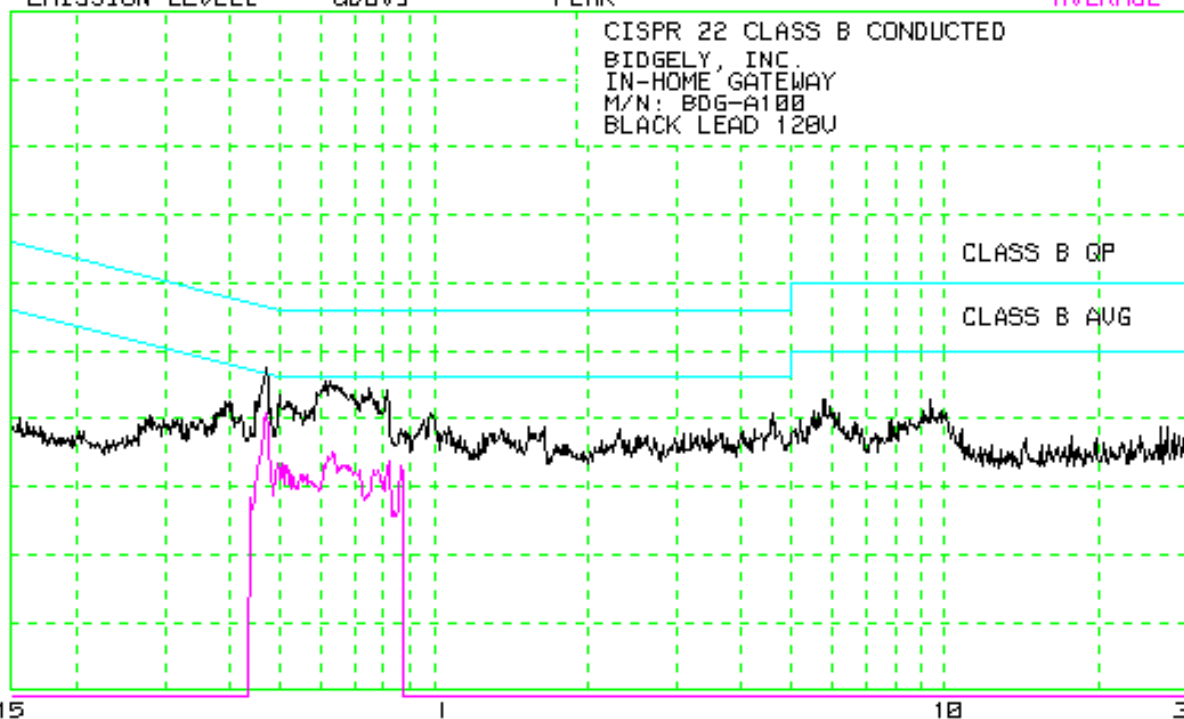
.15

1

10

30

FREQUENCY [MHz]



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ELECTRO MAGNETIC TEST, INC. 30 Jun 2014 13:26:49

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1. CONDUCTED WITH PRESELECTOR
1.3 CISPR 22 CLASS B CONDUCTED

=====

58 highest Peaks above -50 dB of Limit Line #2
peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.4731	47.4	1.0
2	.6131	45.4	-.6
3	.6263	45.4	-.6
4	.6363	44.9	-1.1
5	.6465	44.9	-1.1
6	.6197	44.8	-1.2
7	.7497	44.5	-1.5
8	.6638	44.4	-1.6
9	.8117	44	-2.0
10	.6709	43.9	-2.1
11	.7577	43.9	-2.1
12	.5877	43.7	-2.3
13	.4988	43.6	-2.4
14	.7225	43.5	-2.5
15	.6889	43.4	-2.6
16	.7418	43.2	-2.8
17	.7301	43	-3.0
18	.7658	42.9	-3.1
19	.5203	42.6	-3.4
20	.7111	42.6	-3.4
21	.7739	42.5	-3.5
22	.5287	42	-4.0
23	.4487	42.6	-4.2
24	.5371	41.8	-4.2
25	.4806	41.6	-4.7
26	.5785	41.3	-4.7
27	.5633	41.2	-4.8
28	.5724	41.2	-4.8
29	.7905	41.2	-4.8
30	.9873	40.7	-5.3
31	4.606	40.7	-5.3
32	.3994	42.3	-5.5
33	.4036	42.2	-5.5
34	.3931	42.3	-5.6
35	4.558	39.8	-6.2
36	.9564	39.7	-6.3
37	.3889	41.3	-6.7
38	.4188	40.6	-6.8
39	.3828	41.4	-6.8
40	5.784	42.9	-7.1
41	9.363	42.7	-7.3
42	.4101	40.2	-7.4
43	1.075	38.6	-7.4
44	1.54	38.6	-7.4
45	1.641	38.6	-7.4
46	.3768	40.8	-7.5
47	.4883	38.6	-7.5
48	.9364	38.5	-7.5
49	1.356	38.4	-7.6
50	3.461	38.4	-7.6
51	.8603	38.3	-7.7
52	2.315	38.3	-7.7
53	4.232	38.3	-7.7
54	.8788	38.2	-7.8
55	1.052	38.1	-7.9
56	4.755	38.1	-7.9
57	4.014	38	-8.0
58	.3708	40.3	-8.1

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ELECTRO MAGNETIC TEST, INC. 30 Jun 2014 13:26:49

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1. CONDUCTED WITH PRESELECTOR

1.3 CISPR 22 CLASS B CONDUCTED

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Avg Peaks above -50 dB of Limit Line #2
peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.4706	40.7	-5.8
2	.6363	35	-11.0
3	.6197	34.3	-11.7
4	.816	33.6	-12.4
5	.5068	33.4	-12.6
6	.4961	33.3	-12.7
7	.6099	33.2	-12.8
8	.6638	33.2	-12.8
9	.6744	33.2	-12.8
10	.8649	33.2	-12.8
11	.5149	33	-13.0
12	.6852	32.9	-13.1
13	.6533	32.7	-13.3
14	.7186	32.4	-13.6
15	.7658	32.3	-13.7
16	.7822	32.3	-13.7
17	.7036	32	-14.0
18	.5287	31.7	-14.3
19	.5515	31.7	-14.3
20	.5663	31.6	-14.4
21	.5724	30.7	-15.3
22	.54	30.1	-15.9
23	.7379	28.6	-17.4
24	.437	28.2	-18.9
25	.8379	26.3	-19.7

hp

ELECTRO MAGNETIC TEST, INC.

30 Jun 2014 13:38:44

EMISSION LEVEL

dBuV

PEAK

AVERAGE

100

CISPR 22 CLASS B CONDUCTED
BIDGELY, INC.
IN-HOME GATEWAY
BDG-A100
WHITE LEAD 120V

80

60

CLASS B QP

CLASS B AVG

40

20

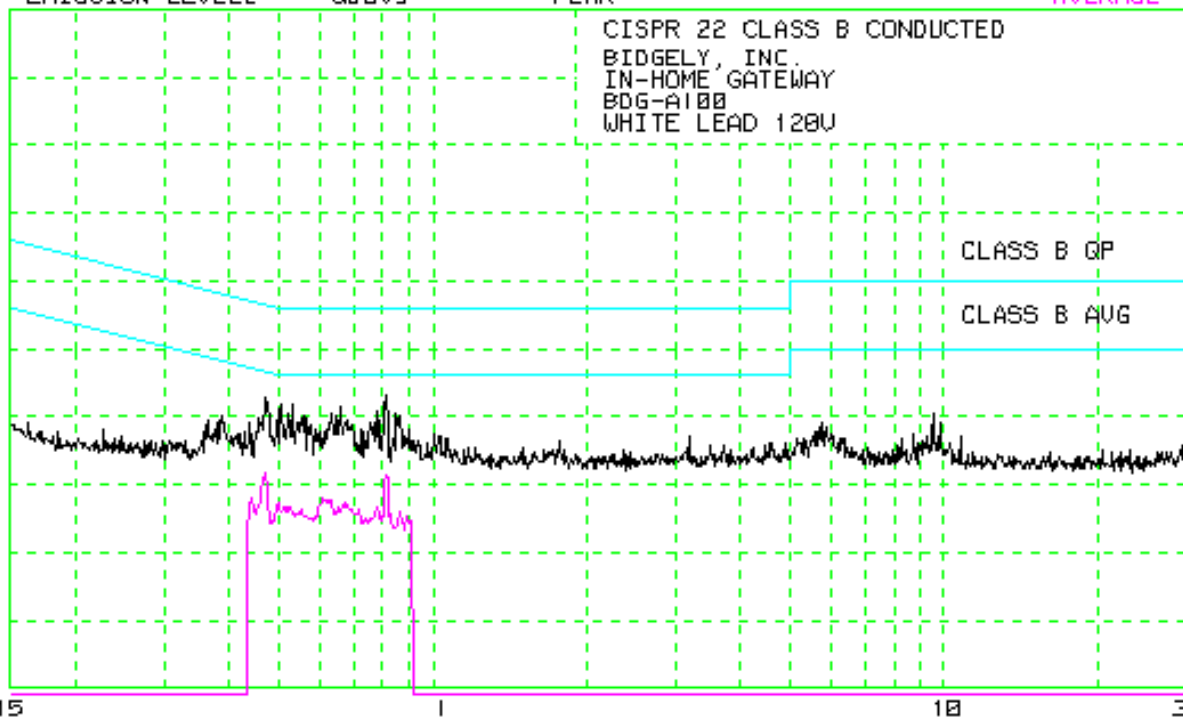
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1

10

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FREQUENCY [MHz]



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ELECTRO MAGNETIC TEST, INC. 30 Jun 2014 13:30:44

=====

1. CONDUCTED WITH PRESELECTOR
1.3 CISPR 22 CLASS B CONDUCTED

=====

58 highest Peaks above -50 dB of Limit Line #2
peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.8117	43.1	-2.9
2	.4731	42.9	-3.5
3	.5041	41.9	-4.1
4	.4781	42	-4.3
5	.5315	41.7	-4.3
6	.6603	41.3	-4.7
7	.7822	40.8	-5.2
8	.5231	40.6	-5.4
9	.8468	40.4	-5.6
10	.6363	40.3	-5.7
11	.6465	40.2	-5.8
12	.8649	40.2	-5.8
13	.5633	40	-6.0
14	.5574	39.9	-6.1
15	.5693	39.6	-6.4
16	.4961	39.3	-6.7
17	.6852	39.3	-6.7
18	.5457	39.2	-6.8
19	.678	39.2	-6.8
20	.7577	39.2	-6.8
21	.7739	39.2	-6.8
22	.4583	39.9	-6.8
23	.5785	38.9	-7.1
24	.6962	38.8	-7.2
25	.6263	38.7	-7.3
26	.7658	38.5	-7.5
27	.6533	38.3	-7.7
28	.4393	39.2	-7.8
29	.5877	38.2	-7.8
30	.6197	38.2	-7.8
31	.9023	38.1	-7.9
32	.3889	40	-8.0
33	.7263	38	-8.0
34	.6003	37.6	-8.4
35	.6131	37.6	-8.4
36	.734	37.6	-8.4
37	.5149	37.5	-8.5
38	.3848	39.4	-8.7
39	1.003	37.3	-8.7
40	1.03	37.1	-8.9
41	.8834	37	-9.0
42	3.163	37	-9.0
43	.4883	37	-9.1
44	.3788	39	-9.3
45	1.075	36.7	-9.3
46	.3631	39.3	-9.3
47	.8379	36.6	-9.4
48	1.063	36.6	-9.4
49	.9216	36.5	-9.5
50	.9364	36.5	-9.5
51	.4278	37.6	-9.6
52	1.767	36.4	-9.6
53	9.513	40.4	-9.6
54	4.558	36.1	-9.9
55	.3592	38.8	-9.9
56	.7111	36	-10.0
57	.4166	37.4	-10.1
58	.7418	35.9	-10.1

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ELECTRO MAGNETIC TEST, INC. 30 Jun 2014 13:30:44

=====

1. CONDUCTED WITH PRESELECTOR

1.3 CISPR 22 CLASS B CONDUCTED

=====

Avg Peaks above -50 dB of Limit Line #2

peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.4706	31.7	-14.8
2	.8117	31.2	-14.8
3	.6099	27.9	-18.1
4	.6296	27.6	-18.4
5	.4988	27.3	-18.7
6	.678	27.2	-18.8
7	.4416	28	-19.0
8	.6673	27	-19.0
9	.5231	26.7	-19.3
10	.5149	26.6	-19.4
11	.6533	26.5	-19.5
12	.778	26.5	-19.5
13	.5545	26.4	-19.6
14	.7186	26.4	-19.6
15	.8649	26.1	-19.9
16	.8247	25.5	-20.5
17	.8881	25.3	-20.7
18	.7418	25	-21.0
19	.9119	24.6	-21.4
20	.4832	24.8	-21.4



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



FRONT VIEW

BIDGELY, INC.
IN-HOME GATEWAY
MODEL: BDG-A100

CISPR 22 CLASS B - CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



ELECTRO MAGNETIC TEST, INC.

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REAR VIEW

BIDGELY, INC.
IN-HOME GATEWAY
MODEL: BDG-A100

CISPR 22 CLASS B - CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

APPENDIX B

TEST SETUP DIAGRAMS





ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

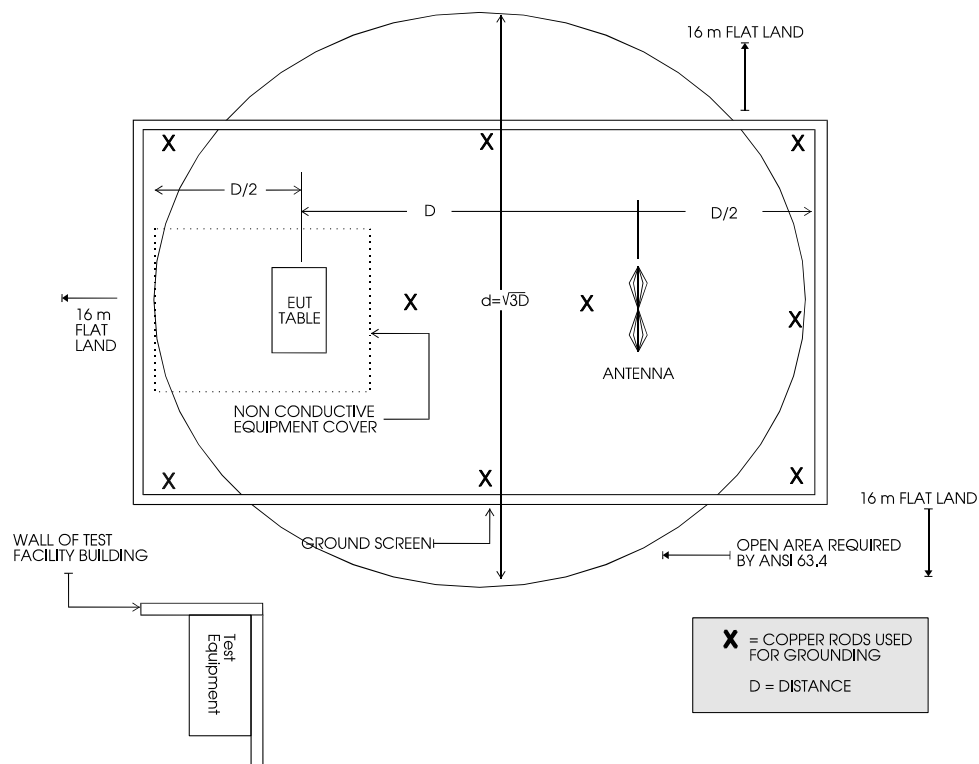


FIGURE 2 - PLOT MAP AND LAYOUT OF TEST SITE "A"

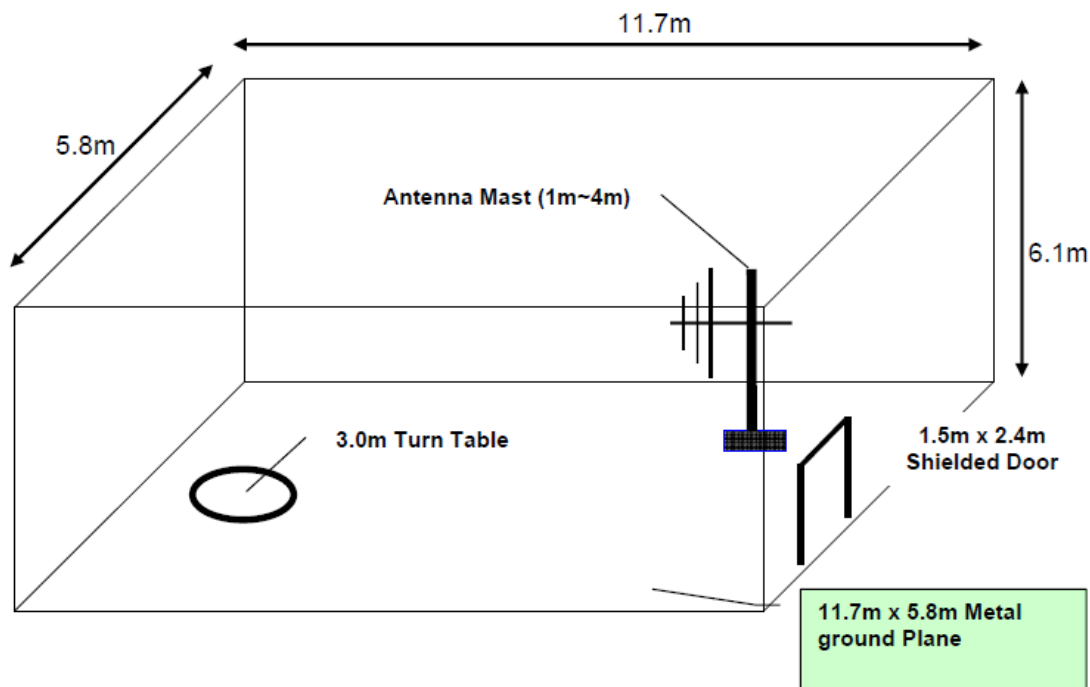


FIGURE 3 - LAYOUT OF 5 METER SEMI-ANECHOIC CHAMBER



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

APPENDIX C

MODIFICATIONS TO THE EUT



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

MODIFICATIONS TO THE EUT

No modifications were made to the EUT by Electro Magnetic Test, Inc. personnel during the testing.



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

APPENDIX D

ADDITIONAL MODELS COVERED UNDER THIS REPORT



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

ADDITIONAL MODELS COVERED UNDER THIS REPORT

There are no additional models to be covered under this report.