166 South Carter, Genoa City, WI 53128

Company:	Leggett & Platt Canada Co.
Model Tested:	CB
Report Number:	18862
Project Number:	5823

Code of Federal Regulations 47 Part 1 - Practice and Procedure

KDB Tracking Number 576763

Subpart I - Procedures Implementing the National Environmental Policy Act of 1969

Section 1.1310
Radiofrequency radiation exposure limits

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name:	Helios wireless transmitter per WPC specification
Kind of Equipment:	Wireless Charging Device
Frequency Range:	111 kHz
Test Configuration:	Table-top
Model Number(s):	CB
Model(s) Tested:	CB
Serial Number(s):	5408200
Date of Tests:	March 15, 2013
Test Conducted For:	Leggett & Platt Canada Co. 3606 Silver Creek Industrial Drive Lakeshore, Ontario N8N 4Y3 Canada

NOTICE: "This test report relates only to the items tested and must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Description of Test Sample" page listed inside of this report.

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Company:	Leggett & Platt Canada Co.
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SIGNATURE PAGE

Tested By:

Craig Brandt
Test Engineer

Reviewed By:

William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager

166 South Carter, Genoa City, WI 53128

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United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 100276-0

D.L.S. Electronic Systems, Inc.
Wheeling, IL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2012-10-01 through 2013-09-30
Effective dates

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

1.0 Summary of Test Report

It was determined that the Leggett & Platt Canada Co. Helios, Model CB, complies with FCC RX Exposure regulations as applied to CFR 47 Part 1 Subpart I Section 1.1310.

2.0 Introduction

On March 27, 2013 the Helios, Model CB, as provided from Leggett & Platt Canada Co., was tested for electric and magnetic field strength emissions at a 10 centimeter distance per the FCC's request (reference FCC Inquiry tracking number 576763). The procedures contained within this report were performed by personnel of D.L.S Electronic Systems, Inc.

3.0 Test Facilities

D.L.S. Electronic Systems, Inc. is a full service EMC/Safety Testing Laboratory accredited to ISO 17025. NVLAP Certificate and Scope can be viewed at http://www.dlsemc.com/certificate. Our facilities are registered with the FCC, Industry Canada, and VCCI.

Wisconsin Test Facility:
D.L.S. Electronic Systems, Inc.
166 S. Carter Street
Genoa City, Wisconsin 53128

Wheeling Test Facility:
D.L.S. Electronic Systems, Inc.
1250 Peterson Drive
Wheeling, IL 60090

4.0 Description of Test Sample

Description:

Helios wireless charging device/transmitter per WPC specification. Device will be installed in a vehicle - as described in the supporting documentation of Inquiry 576763.

For a detailed description of the charging system please see the submitted document titled "18835 L&P Model CB, fcc15.209 Description of Oper (2)". The description of the test modes is contained therein, as well, to answer the FCC's concerns outlined in KDB 576763.

Type of Equipment / Frequency Range:

Wireless Charging Device / 111 kHz (fixed)

4.0 Description of Test Sample - continued

Physical Dimensions of Equipment Under Test:

Length: 182 mm x Width: 82 mm x Height: 35 mm

Power Source: 13.5 V dc

Internal Frequencies:

20 MHz

Description of Circuit Board(s) / Part Number:

CB WPT	5405801PXD Rev 01

5.0 Test Equipment

A list of the equipment used can be found in the table below. All primary equipment was calibrated against known reference standards with a verified traceable path to NIST.

D.L.S. Wisconsin – OATS 2

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Dates	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 26	837491/010	20 Hz – 26 GHz	1-3-13	1-3-14
Loop Sensor	Solar Electronics	7334-1	992402	20 Hz – 500 kHz	2-21-13	2-21-15

6.0 Test Arrangements

All six sides of the EUT were measured with the loop sensor positioned at a distance of 10 cm. Unless otherwise noted, the bandwidth of the measuring receiver / analyzer used during testing is shown below.

Frequency Range	Bandwidth (-6 dB)
10 to 150 kHz	200 Hz
150 kHz to 30 MHz	9 kHz
30 MHz to 1 GHz	120 kHz
Above 1 GHz	1 MHz

7.0 Test Conditions

Temperature and Humidity:

68°F at 25% RH

8.0 Additional Descriptions

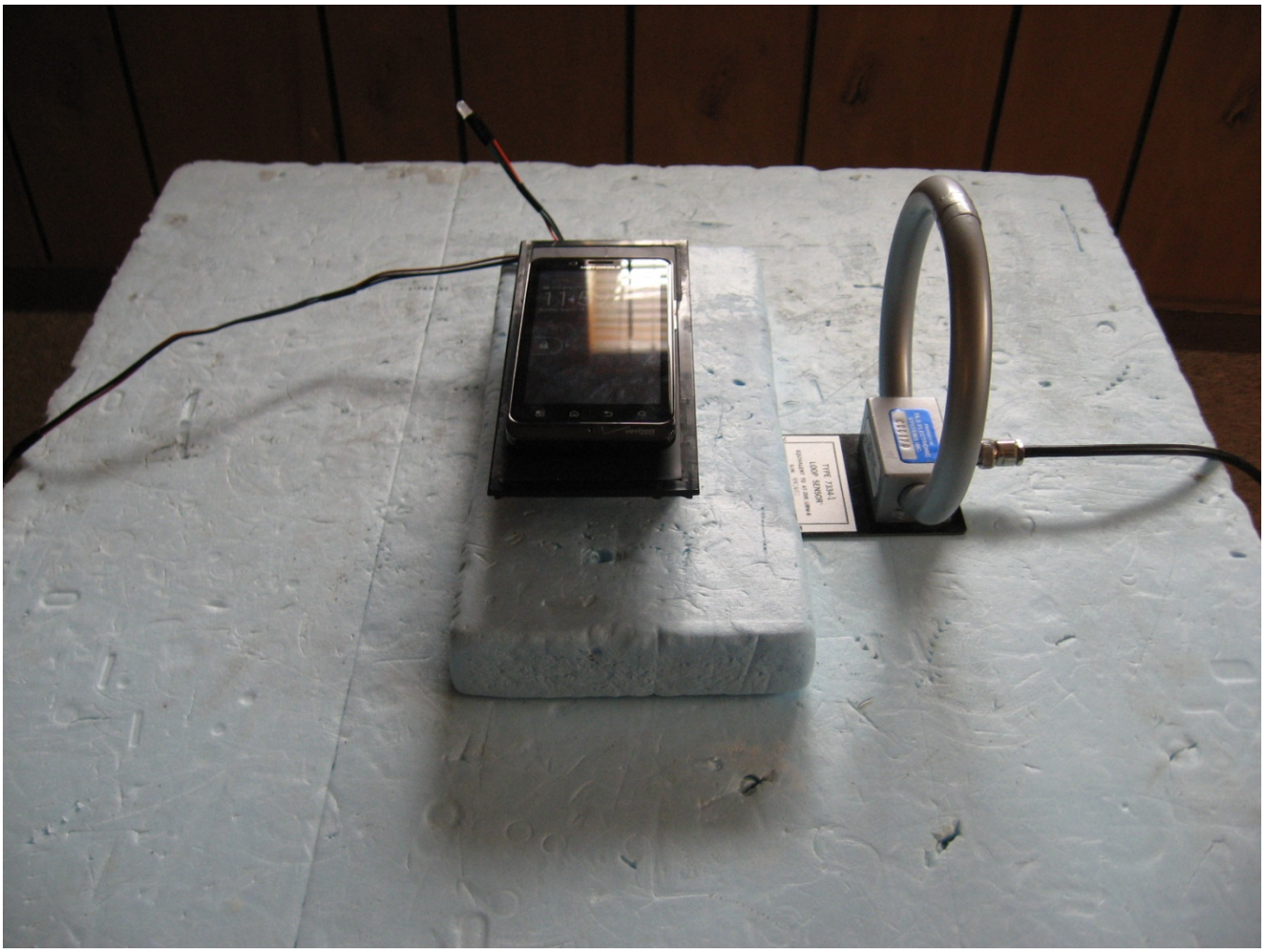
Tested while charging a Motorola model XT875 phone with Helios client adapter (client device). The client device was at full battery depletion.

9.0 Results

Tabular data can be found in Appendix B at the end of this report.

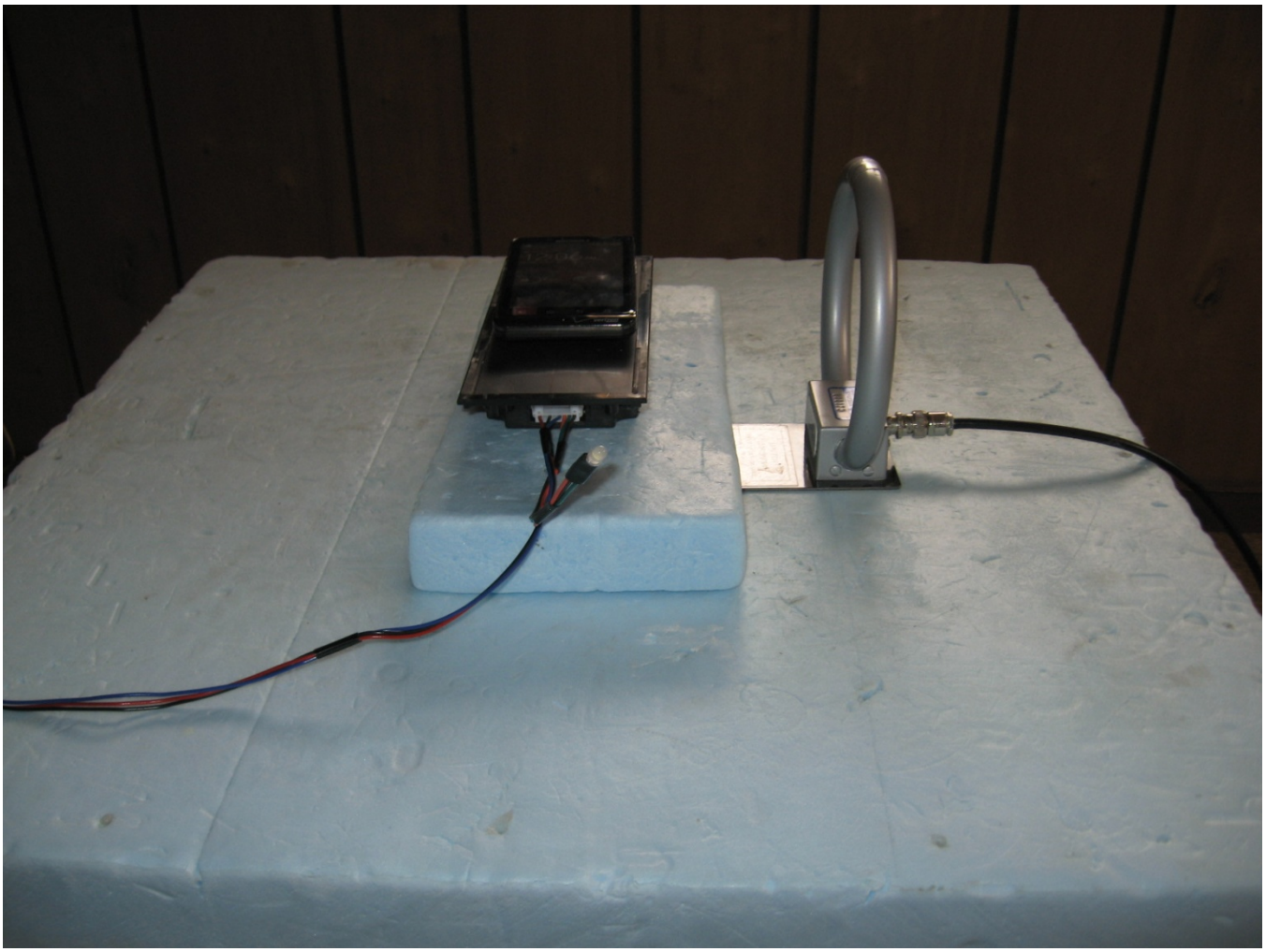
Appendix A – Test Photos

Side 1



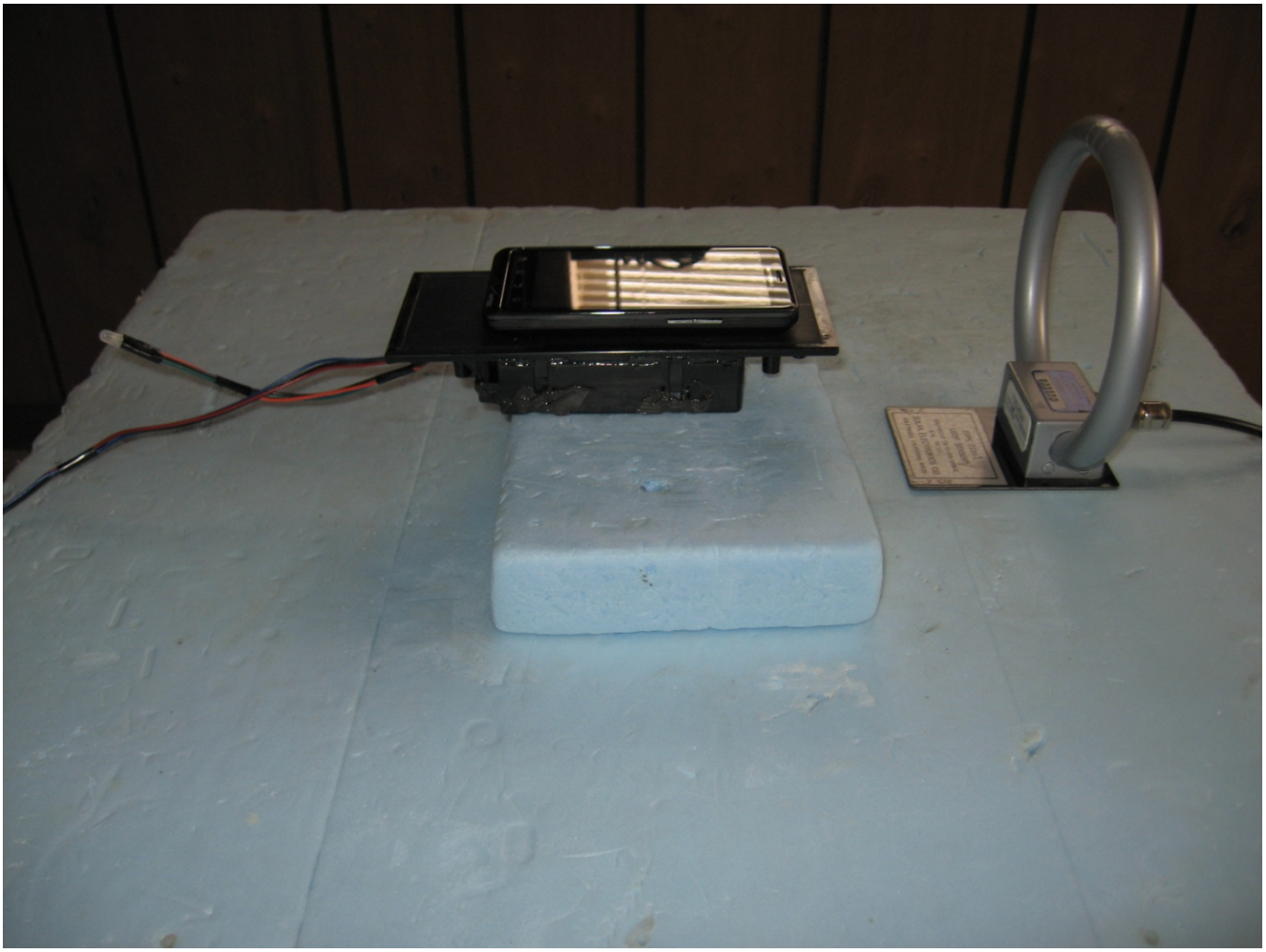
Appendix A – Test Photos - continued

Side 2



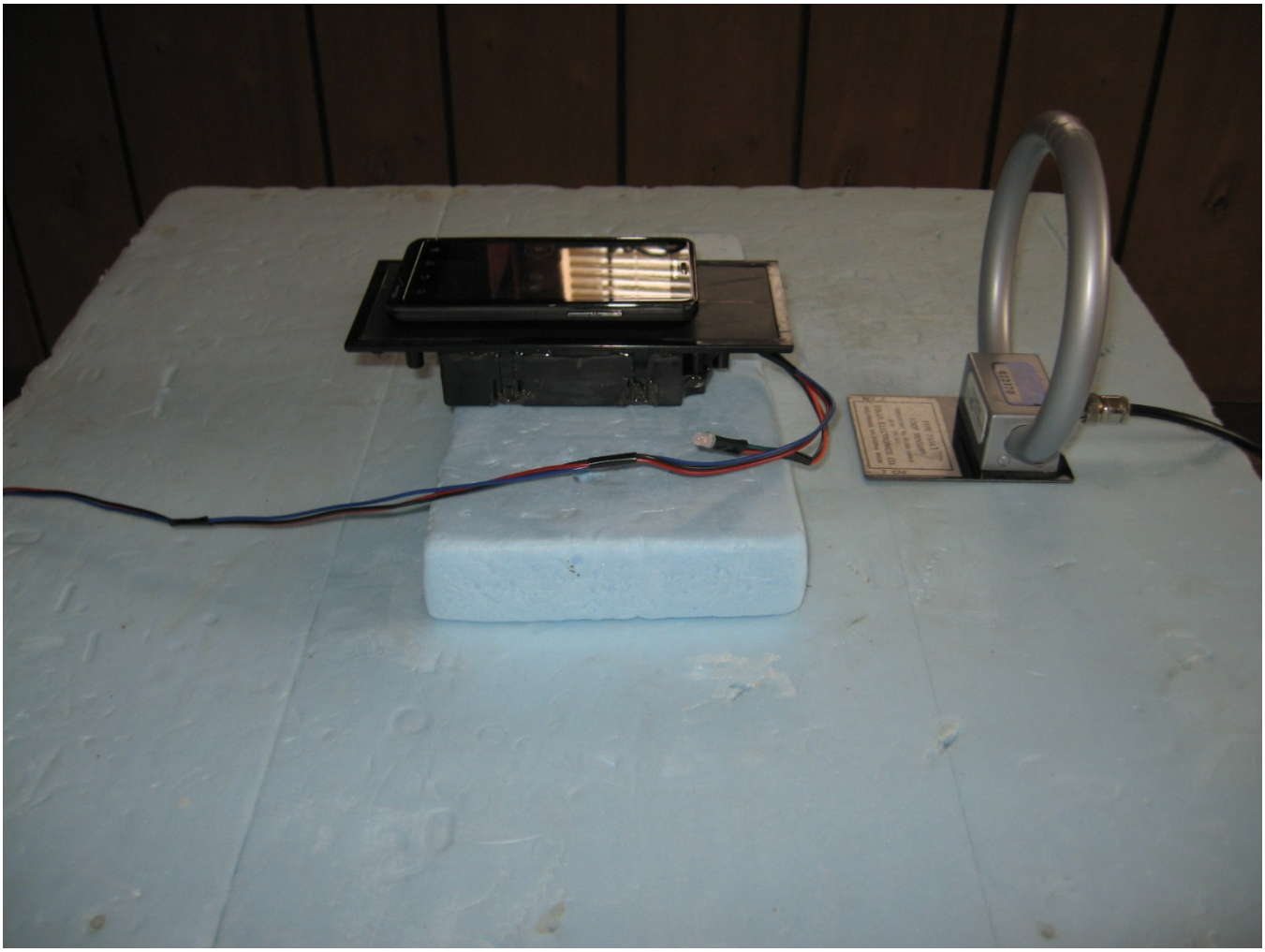
Appendix A – Test Photos - continued

Side 3



Appendix A – Test Photos - continued

Side 4



Appendix A – Test Photos - continued

Top

Appendix A – Test Photos - continued

Bottom

Appendix B – Test Data

D.L.S Electronic Systems, Inc.
Date: 03-27-2013
Location: Site 2
Temperature & Humidity: 68 deg. F; 25 % R.H.
All sides of EUT measured at 10 cm.
Tested with Motorola model XT875 phone with Helios client adapter.
Limit: 1.63 A/m = 124.24 dBµA/m

Model: CB - Magnetic Field Emissions

Test Position	Phone position	Frequency (kHz)	Uncorrected Level at 10 cm (dBµA/m)	Cable Loss (dB)	Antenna Factor (dBµA/m)	Magnetic Field Strength (dBµA/m)	Margin (dB)
Side 1	Centered	111.05	69.49	0.10	24.33	93.92	30.32
	Off-Center	111.04	76.90	0.10	24.33	101.33	22.91
Side 2	Centered	111.04	62.28	0.10	24.33	86.71	37.53
	Off-Center	111.04	70.89	0.10	24.33	95.32	28.92
Side 3	Centered	111.04	69.48	0.10	24.33	93.91	30.33
	Off-Center	111.05	81.86	0.10	24.33	106.29	17.95
Side 4	Centered	111.04	54.19	0.10	24.33	78.62	45.62
	Off-Center	111.05	76.49	0.10	24.33	100.92	23.32
Top	Centered	111.04	80.34	0.10	24.33	104.77	19.47
	Off-Center	111.04	89.82	0.10	24.33	114.25	9.99
Bottom	Centered	111.04	78.25	0.10	24.33	102.68	21.56
	Off-Center	111.04	84.08	0.10	24.33	108.51	15.73

Appendix B – Test Data - continued

D.L.S Electronic Systems, Inc.
Date: 03-27-2013
Location: Site 2
Temperature & Humidity: 68 deg. F; 25 % R.H.
All sides of EUT measured at 10 cm.
Tested with Motorola model XT875 phone with Helios client adapter.
Limit: 614 V/m = 175.76 dBµV/m

Model: CB - Electric Field Emissions

Test Position	Phone position	Frequency (kHz)	Uncorrected Level at 10 cm (dBµV/m)	Cable Loss (dB)	Antenna Factor (dBµV)	Magnetic Field Strength (dBµV/m)	Margin (dB)
Side 1	Centered	111.05	69.49	0.10	75.83	145.42	30.34
	Off-Center	111.04	76.90	0.10	75.83	152.83	22.93
Side 2	Centered	111.04	62.28	0.10	75.83	138.21	37.55
	Off-Center	111.04	70.89	0.10	75.83	146.82	28.94
Side 3	Centered	111.04	69.48	0.10	75.83	145.41	30.35
	Off-Center	111.05	81.86	0.10	75.83	157.79	17.97
Side 4	Centered	111.04	54.19	0.10	75.83	130.12	45.64
	Off-Center	111.05	76.49	0.10	75.83	152.42	23.34
Top	Centered	111.04	80.34	0.10	75.83	156.27	19.49
	Off-Center	111.04	89.82	0.10	75.83	165.75	10.01
Bottom	Centered	111.04	78.25	0.10	75.83	154.18	21.58
	Off-Center	111.04	84.08	0.10	75.83	160.01	15.75

END OF REPORT

Revision #	Date	Comments	By
1.0	03-28-2013	Preliminary Release	CB
1.1	03-28-2013	Added FCC KDB inquiry tracking number	WS
1.2	03-29-2013	Added notes in Section 4, page 5	JS