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Test Report Number:	**ETRA80348**
Reference Standard:	**CFR Title 47, FCC Part 15, Class B; EN 55022: 2006, Class B; EN 55011: 2007, Class B Group 1; ICES-003, Class B**
Date of Test:	**28 March 2008**
Date of Report:	**10 April 2008**
Product Name:	**IonCleanse Solo**
Model Number:	**Solo**
Serial Number:	**S01001**
Manufacturer:	**Stargate International, Inc.**
Representative:	**Bob Walker**
Report Type:	**Radiated and Conducted Emissions**
Test Result:	**Compliant**
Approved By:	

NVLAP LAB CODE 200737-0

Nemko ELA No. 215

FCC	BSMI	VCCI	MIC
319793 & 610588	SL2-IN-E-1134R	C-2697 R-2462	US0168

Prepared for:

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Mary Burback
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Revision	Description of Revision	Date:
Rev. -	Initial Release	10 April 2008

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LIST OF APPENDICES

1.0 TEST SUMMARY

1.1 Product Description

The unit under test (UUT) was the IonCleanse Solo. The serial number tested was S01001. This product is manufactured by Stargate International, Inc located in Parker, Colorado. It is a detoxifying footbath used to maintain high energy levels, detoxify the body and ensure long-term wellness.. Additional product information may be found in the Product Data Sheet, located in Appendix E of this report.

1.2 Purpose

This report documents the test efforts performed on the IonCleanse Solo to verify compliance to the Class B limits of FCC Part 15, EN 55022: 2006, EN 55011 and ICES-003. This was a formal qualification test and was conducted on 28 March 2008.

1.3 Test Standards Used

The emission limits applied to the product tested are defined in EN 55022: 2006, which is the product family standard for Information Technology Equipment (ITE). The UUT was set up as specified in ANSI C63.4: 2003.

The normative references of this standard define the test methods used for the emissions testing. These standards are contained in Table 1-1.

Table 1-1

CISPR 11: 2004 + A2: 2006	EN 55011: 2007
CISPR 22: 2006	EN 55022: 2006
CFR 47, FCC Part 15	EN 61326: 2002
EN 60601-1-2: 2001	EN 55103-1: 1997
EN 61000-6-3: 2001	EN 61000-6-4: 2001
ANSI C63.4: 2003	CISPR 16-1: 2002
EN 61000-3-2: 2006	EN 61000-3-3: 1995 + A1 (2001) + A2 (2006)

1.4 Test Results

The UUT **complied** with the emission requirements defined by FCC Part 15, EN 55022: 2006, EN 55011: 2007 and ICES-003. The UUT also complied with the AC power line flicker requirements of EN 61000-3-3. Test data is contained in the appropriate appendices of this report.

1.5 Modifications Required for Compliance

None.

2.0 TEST ENVIRONMENT

2.1 Radiated Emissions Test Site

Radiated emissions testing was performed at a distance of 10-meters in a semi-anechoic 10-meter chamber. This chamber is calibrated annually and meets the volumetric site attenuation requirements of ANSI C63.4: 2003. For measurements from 30 MHz to 2 GHz, a biconilog antenna is used in conjunction with a high-gain, low-noise preamplifier. This is connected to an HP 8566B spectrum analyzer with an HP 85650A Quasi-Peak (QP) Adapter, via an HP 85685 RF Preselector.

Radiated emissions testing is broken into two parts: pre-scan and QP/maximization. Pre-scanning a product from 30 MHz to 2 GHz consists of measuring peak emissions from eight radials (every 45 degrees), at four antenna heights (1 m, 2 m, 3 m and 4 m) for both antenna polarities. Data is recorded in a graph showing amplitude vs. frequency of the emissions, and frequencies for QP/maximization are chosen based on this graph. The procedure for maximizing emissions is as follows:

1. The analyzer is tuned to the frequency associated with the emissions having the least margin.
2. The turntable and antenna mast are moved to the location where the maximum emission was measured during the pre-scan.
3. Both are then oriented such that the maximum emission is obtained.
4. Cables on the UUT are manually manipulated to achieve the maximum emission.
5. The turntable and antenna mast are then re-adjusted to ensure a maximum reading.
6. If the signal in question is less than 1 GHz, quasi-peak detection is performed on the signal for a minimum of 10 seconds. For signals greater than 1 GHz, video averaging is performed.
7. Turntable/antenna mast maximization and QP detection are performed on all other signals within 6 dB of the limit. In the event that there are not six signals within 6 dB of the limit, the highest six signals are maximized. This ensures that a minimum of six signals are maximized and appear in the final data table.

2.2 Conducted Emissions Test Site

Conducted emissions testing was performed on a 10’ by 10’ ground plane, which is bonded to the wall of the 10-meter chamber, using its wall as the vertical coupling plane. Line impedance stabilization networks (LISNs) was inserted in series with both the UUT and the support equipment. The LISNs used were standard 50 Ω/50 uH LISNs which complied with the requirements of ANSI C63.4. These LISNs are calibrated annually for both complex impedance and insertion loss. Measurement equipment used was an HP 8566B spectrum analyzer with an HP 85650A QP adapter. In addition, a transient limiter and a high-pass filter are used to protect the front-end of the receiver from transients and low-frequency noise, respectively.

2.3 Measurement Uncertainty

The measurement uncertainty for EMC Integrity's emissions test facility complies with the requirements defined in CISPR 16. The complete calculations of EMC Integrity's measurement uncertainty is contained in an EMCI memo, which is available upon request. However, a summary of EMCI's measurement uncertainty is given in Table 2-1.

Table 2-1

Test	Requirement	Actual
Conducted Emissions	3.60 dB	3.04 dB
Radiated Emissions – Horizontal Polarity	5.20 dB	4.67 dB
Radiated Emissions – Vertical Polarity	5.20 dB	5.01 dB

3.0 Radiated Emissions

3.1 Summary of Test Results

Radiated electric field emissions were measured on the UUT over the frequency range from 30 MHz to 1 GHz. A pre-scan was performed on the UUT at both 120 Vac/60 Hz and 230 Vac/50 Hz to determine worst-case. The formal radiated emissions test was performed using 120 Vac/60 Hz, as that was the worst-case mode. The UUT was configured in its normal operating mode, and exercised continually during testing. Cables were oriented such that the maximum emission was achieved and quasi-peak detection was performed all signals (minimum of six) used in the final data table.

Test result: Compliant
Margin: 1.82 dB @ 95.566 MHz

3.2 Test Setup

The UUT was set up in accordance with ANSI C63.4: 2003 and tested to the Class B limits specified by the applicable standards.

3.3 Special Configurations

Not applicable.

3.4 Deviations from Test Procedures

Not applicable.

3.5 Test Data

See APPENDIX A for all test data sheets, test setup pictures and test equipment used.

4.0 Conducted Emissions

4.1 Summary of Test Results

Conducted emissions were measured on the AC power input of the UUT over the frequency range from 150 kHz to 30 MHz. With the UUT configured in its normal operating mode, testing was performed with UUT powered from 120 Vac/60 Hz and 230 Vac/50 Hz. The input power to both the UUT and the support equipment was run through standard 50 Ω/50 uH line impedance stabilization networks (LISNs) which complied with the requirements of ANSI C63.4. Emissions were compared to both quasi-peak (QP) and average limits, with QP detection and averaging performed on the six highest signals.

120 Vac/60 Hz
Test result: Compliant
Margin: 11.51dB @ 13.158 MHz

230 Vac/50 Hz
Test result: Compliant
Margin: 14.15 dB @ 6.593 MHz

4.2 Test Setup

The UUT was set up in accordance with ANSI C63.4: 2003 and tested to the Class B limits specified by the applicable standards.

4.3 Special Configurations

Not applicable.

4.4 Deviations from Test Procedures

Not applicable.

4.5 Test Data

See APPENDICES B and C for all test data sheets, test setup pictures and test equipment used.

5.0 EN 61000-3-3: 1995 + A1 (2001) + A2 (2006), Power Line Flicker

5.1 Summary of Test Results

Power line flicker from the UUT was measured on the system's AC power input with the UUT in normal operating mode. The power source was a 230 Vac/50 Hz source. Integral to the power source was the measurement hardware/firmware and flicker was recorded to the computer. Results are then imported via soft copy to the test data sheet.

The UUT complied with the flicker requirements of EN 61000-3-3.

5.2 Test Setup

The UUT was set up per EN 61000-3-3.

5.3 Special Configurations

N/A

5.4 Performance Criteria

Defined in EN 61000-3-3.

5.5 Deviations from Test Procedures

N/A

5.6 Test Data

See APPENDIX D for data sheets and test setup pictures.

5.7 Temperature and Humidity

Temperature, relative humidity and barometric pressure are located in the header table for the EN 61000-3-3 test data sheet.

APPENDIX A

Radiated Emissions Test Data

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008
Temperature:	20˚C Humidity: 20%	Pressure:	838mb
Input Voltage:	120VAC@60Hz		
Configuration of Unit:	Normal use		
Test Engineer:	Donald Lighthart		

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Type	Frequency (MHz)	Level (dBuV)	Transducer (dB/m)	Gain / Loss (dB)	Final (dBuV/m)	Azm(deg)/Pol/Hgt(m)	Margin: EN55011 Class B Group 1 QP (dB)
QP	95.566	49.5	9.1	-30.4	28.2	119/V-Pole/4.00	1.82
QP	31.201	35.2	20.1	-30.5	24.9	330/V-Pole/1.00	5.13
QP	40.663	34.5	13.3	-30.4	17.4	210/V-Pole/1.00	12.58
QP	81.506	37.8	7.6	-30.7	14.8	144/V-Pole/3.43	15.25
QP	160.553	40.6	12.1	-30.3	22.4	277/V-Pole/2.00	7.58
QP	865.540	29.7	21.6	-28.4	22.8	244/V-Pole/3.96	14.19

The highest emission measured was at **95.566 MHz,** which was **1.82 dB** below the limit.

- "Type" refers to the type of measurement performed. The type of measurement made is based on the requirements of the particular standard:
  - PK = Peak Measurement
  - QP = Quasi-Peak Measurement
  - AV = Video Average Measurement
- The "Final" emissions level is attained by taking the "Level" and adding the "Transducer" factor and the "Gain/Loss" factor. Final measurements are made with the Azimuth, Polarity, Height, and EUT Cables positioned for maximum radiation. If applicable, cables positions are noted in the test log.
- The "Azm/Pol/Hgt" indicates the turn-table *azimuth*, the antenna *polarity*, and the antenna *height* where the maximum emissions level was measured.
- The "Margin" is with reference to the emissions limit. A positive number indicates that the emission measurement is below the limit. A negative number indicates that the emission measurement exceeds the limit.

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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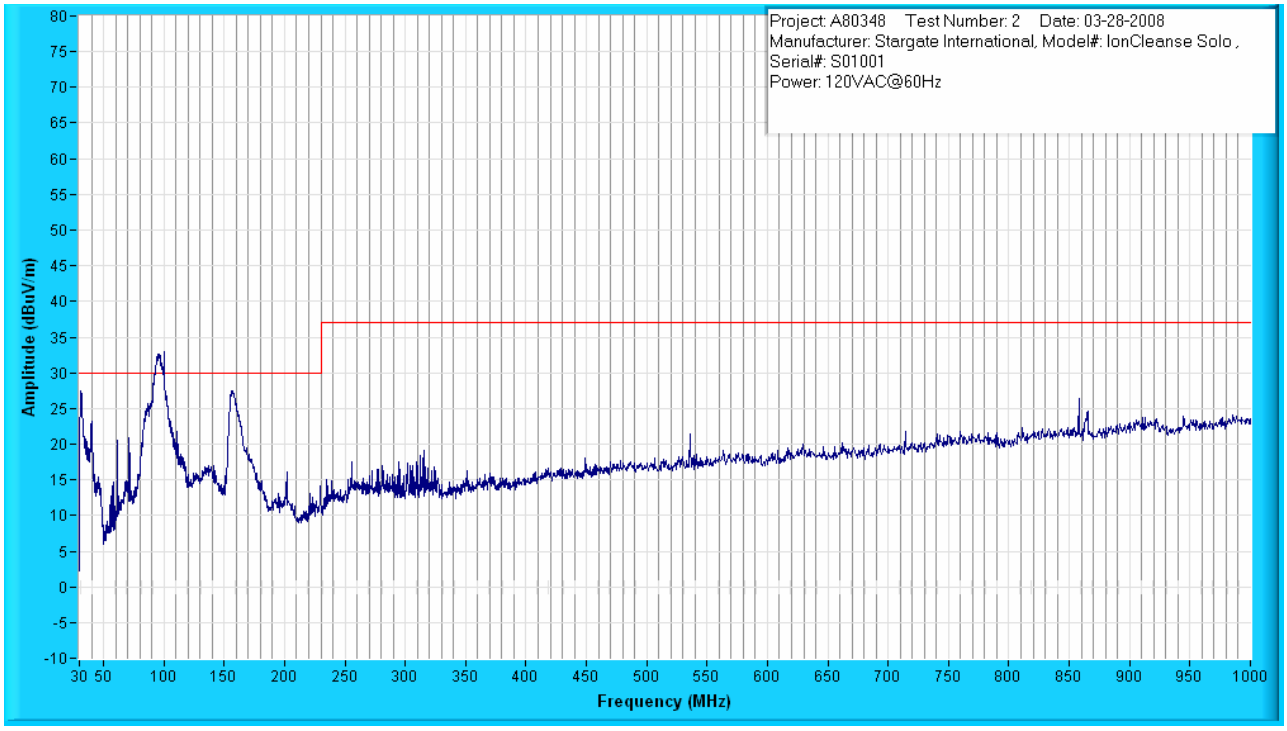

Figure A1: Radiated Emissions Prescan – 30MHz – 1GHz

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Figure A2: Radiated Emissions Test Setup - Front

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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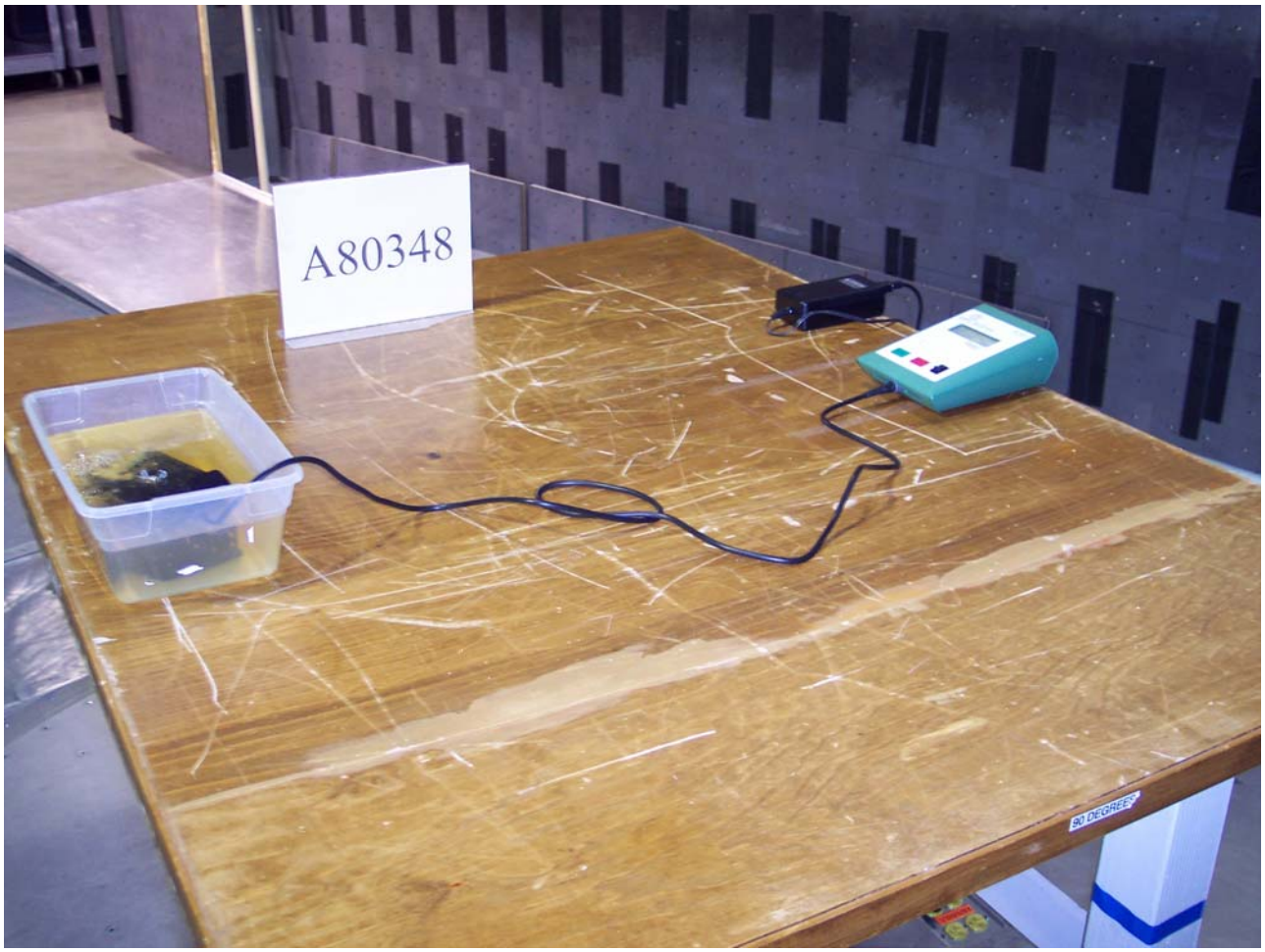

Figure A3: Radiated Emissions Test Setup - Right

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Figure A4: Radiated Emissions Test Setup - Back

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Figure A5: Radiated Emissions Test Setup - Left

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Radiated Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Test Equipment List

ID Number	Manufacturer	Model #	Serial #	Description	Cal Date	Cal Due
1092	Hewlett Packard	8495B	2522A10285	0 - 70 dB Step Attenuator	07/23/2007	07/23/2008
1220	Mini-Circuits	ZKL-2	062906	Preamp, 10 - 2000 MHz, 30 dB	02/02/2008	02/02/2009
1229	Hewlett Packard	85685A	3010A01077	RF Preselector	06/12/2007	06/12/2008
1232	Sunol Sciences	JB1	A071605-2	Bilog Antenna, 30 MHz to 2.0 GHz	07/23/2007	07/23/2008
1233	Sunol Sciences	SC104V	110305-1	Positioning Controller	NA	NA
1234	CIR Enterprises	10m Chamber	001	10m Radiated Emissions Semi-Anechoic Chamber	05/05/2007	05/05/2008
1238	Sunol Sciences	TWR95-4	110305-3	Antenna Mast	NA	NA
1239	Sunol Sciences	FM2522VS	110305-2	Turn Table, 2.5m Diameter	NA	NA
1263	Hewlett Packard	8566B	3014A06873	Spectrum Analyzer, 100 Hz to 22 GHz	08/21/2007	08/21/2008
1264	Hewlett Packard	85662A	2848A18247	Spectrum Analyzer Display	08/21/2007	08/21/2008
1265	Hewlett Packard	85650A	2521A00641	Quasi-Peak Adapter	08/21/2007	08/21/2008

APPENDIX B

Conducted Emissions Test Data
120 Vac/60 Hz

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008
Temperature:	20˚C Humidity: 19%	Pressure:	838mb
Input Voltage:	120VAC@60Hz		
Configuration of Unit:	Normal use		
Test Engineer:	Donald Lighthart		

A80348-11-CE.doc FR0100

Type	Frequency (MHz)	Level (dBuV)	Transducer (dB)	Gain / Loss (dB)	Final (dBuV)	Test Point	Margin: FCC Class B AV (dB)	Margin: FCC Class B QP (dB)
AV	0.208	13.7	3.2	10.1	26.9	Line 1	27.40	-
QP	0.207	17.5	3.2	10.1	30.8	Line 1	-	33.52
AV	1.060	16.5	1.3	10.2	28.0	Line 1	17.98	-
QP	1.060	20.2	1.3	10.2	31.8	Line 1	-	24.23
AV	4.705	18.2	1.5	10.2	29.9	Line 1	16.10	-
QP	4.705	22.1	1.5	10.2	33.8	Line 1	-	22.17
AV	6.715	22.7	1.6	10.2	34.5	Line 1	15.50	-
QP	6.715	27.2	1.6	10.2	39.0	Line 1	-	20.96
AV	9.482	24.2	1.5	10.0	35.8	Line 1	14.24	-
QP	9.482	27.5	1.5	10.0	39.0	Line 1	-	21.03
AV	13.158	27.4	1.2	9.8	38.5	Line 1	11.51	-
QP	13.158	29.7	1.2	9.8	40.8	Line 1	-	19.23
AV	0.950	11.9	1.3	10.2	23.4	Neutral	22.55	-
QP	0.950	17.2	1.3	10.2	28.7	Neutral	-	27.32
AV	1.060	16.6	1.3	10.2	28.1	Neutral	17.88	-
QP	1.060	20.6	1.3	10.2	32.1	Neutral	-	23.89
AV	6.445	23.8	1.6	10.2	35.5	Neutral	14.45	-
QP	6.445	26.9	1.6	10.2	38.8	Neutral	-	21.25
AV	9.567	23.3	1.5	10.0	34.8	Neutral	15.23	-
QP	9.567	27.3	1.5	10.0	38.8	Neutral	-	21.23
AV	14.488	25.3	1.2	9.8	36.3	Neutral	13.70	-
QP	14.488	27.7	1.2	9.8	38.7	Neutral	-	21.27
AV	19.275	20.6	1.3	9.9	31.8	Neutral	18.22	-
QP	19.275	23.9	1.3	9.9	35.1	Neutral	-	24.91

The highest emission measured was at **13.158 MHz,** which was **11.51 dB** below the limit.

- "Type" refers to the type of measurement performed. The type of measurement made is based on the requirements of the particular standard:
  - PK = Peak Measurement
  - QP = Quasi-Peak Measurement
  - AV = Video Average Measurement
- The "Final" emissions level is attained by taking the "Level" and adding the "Transducer" factor and the "Gain/Loss" factor.
- The "TestPoint" indicates which AC or DC input power line or which I/O cable the measurement was made on.
- The "Margin" is with reference to the emissions limit. A positive number indicates that the emission measurement is below the limit. A negative number indicates that the emission measurement exceeds the limit.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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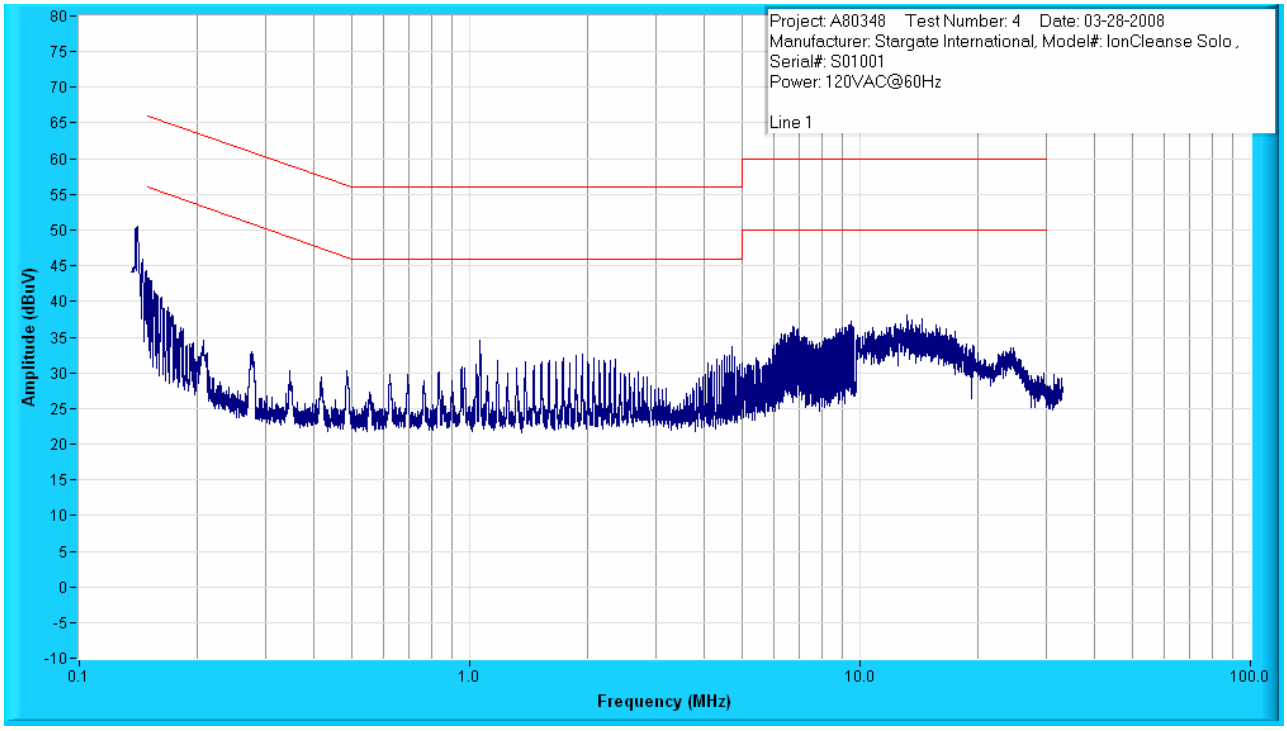

Figure B1: Conducted Emissions Prescan - Line 1.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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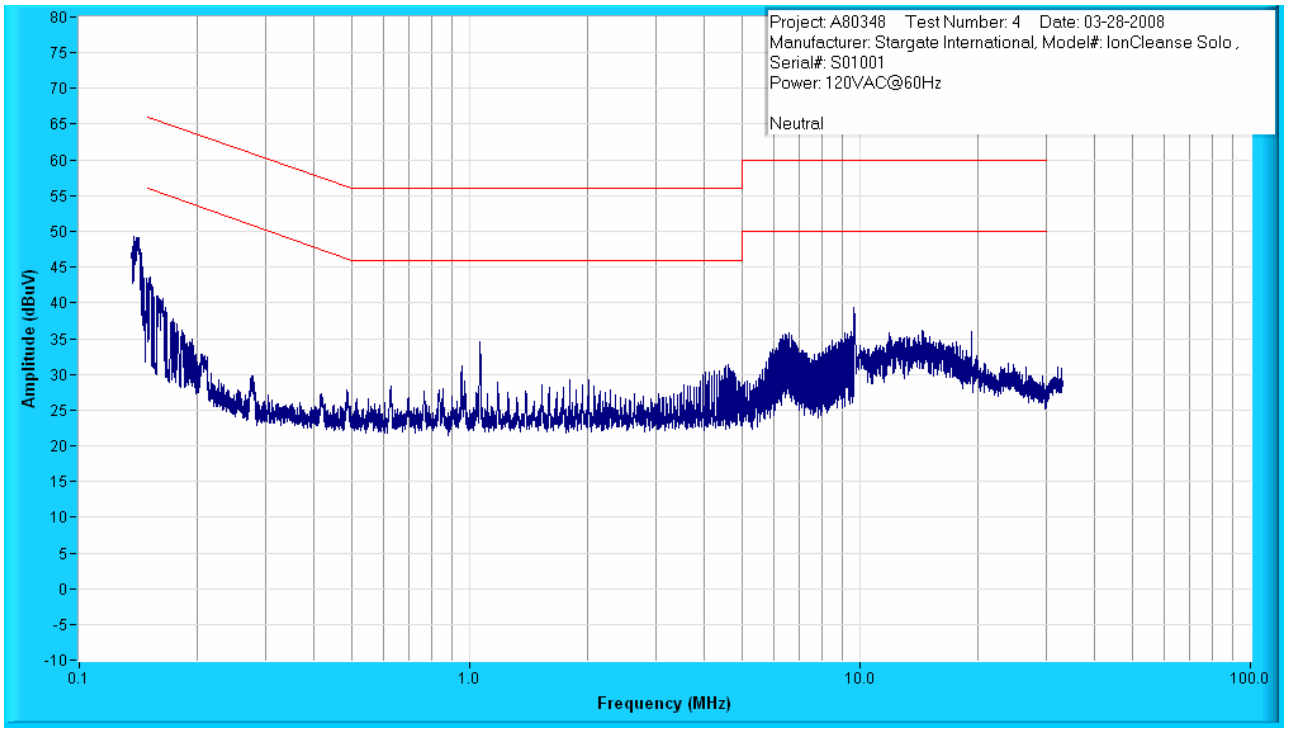

Figure B2: Conducted Emissions Prescan - Neutral.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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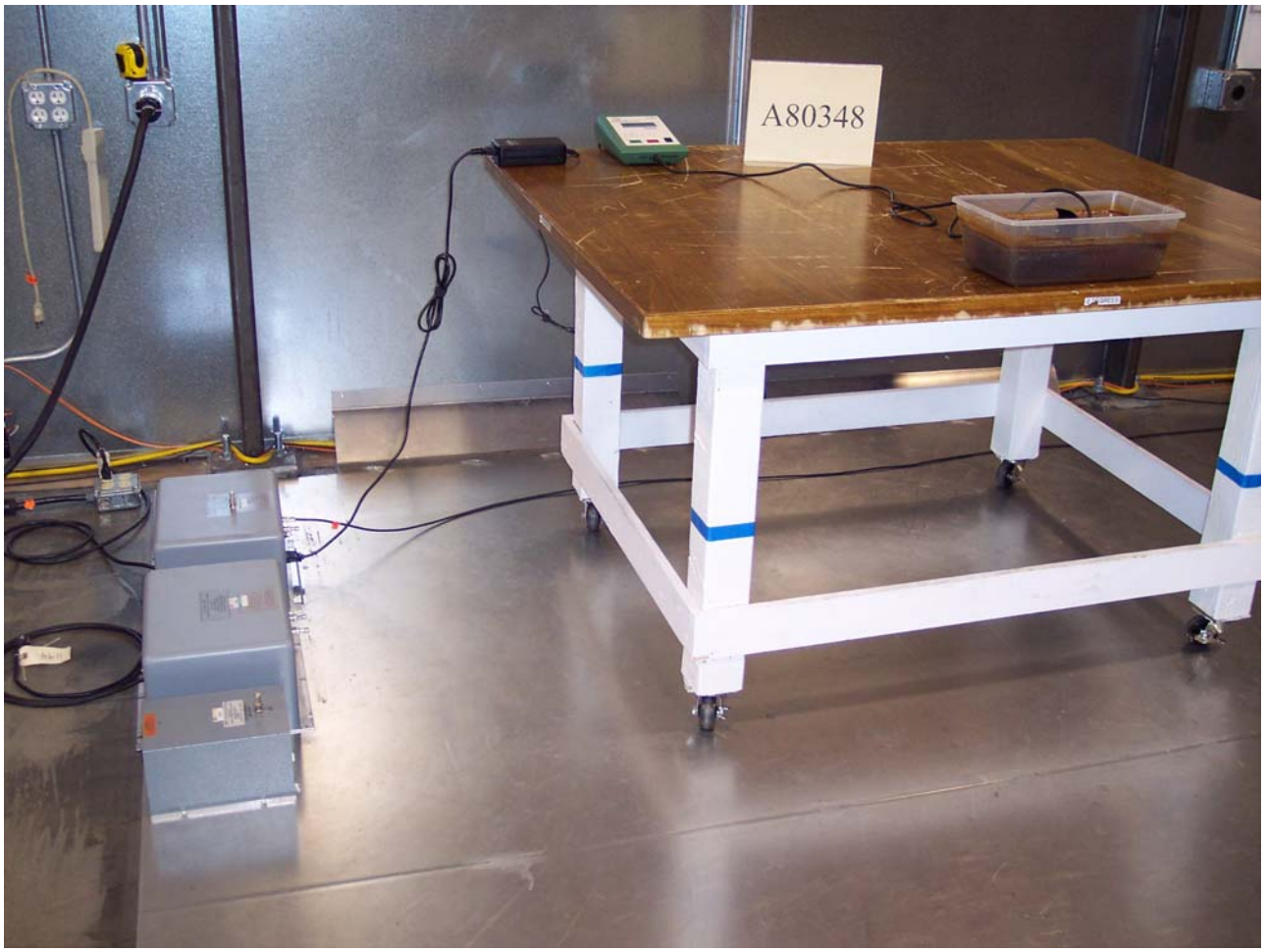

Figure B3: Conducted Emissions Test Setup - Front

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Figure B4: Conducted Emissions Test Setup - Left

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

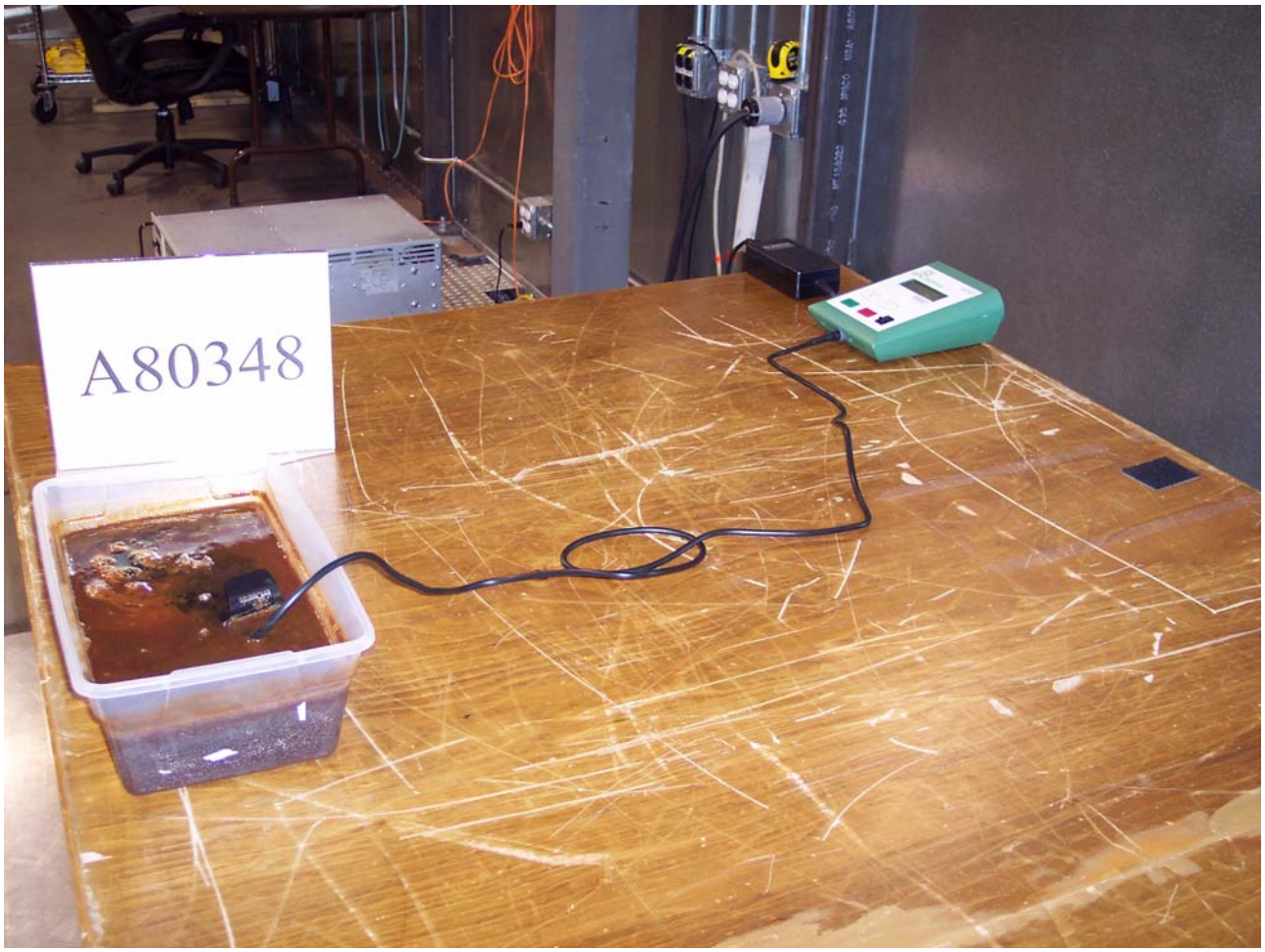

Figure B5: Conducted Emissions Test Setup - Right

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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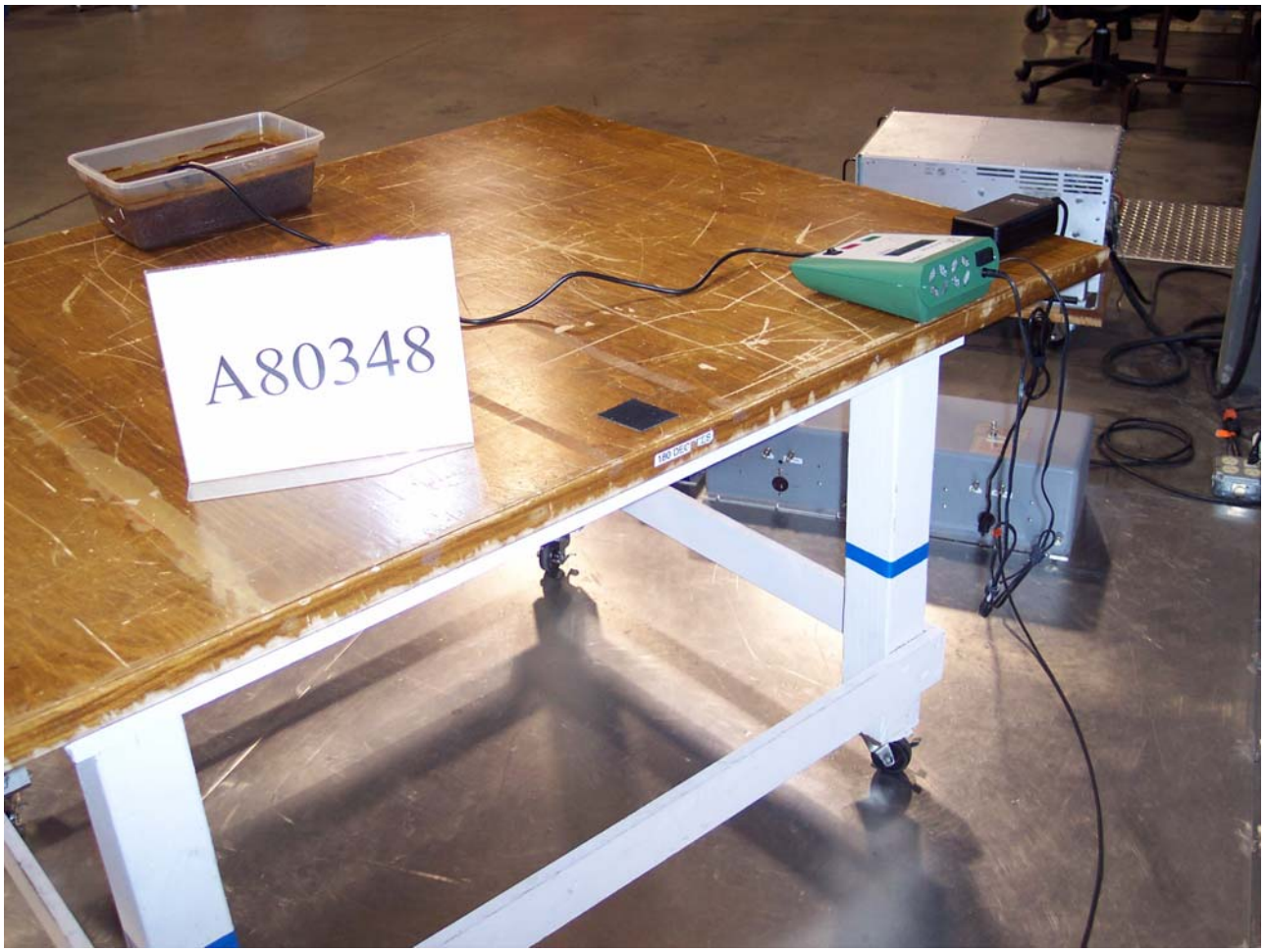

Figure B6: Conducted Emissions Test Setup - Back

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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Test Equipment List

ID Number	Manufacturer	Model #	Serial #	Description	Cal Date	Cal Due
1195	Solar	9252-50-R-24-BNC	042013	LISN	04/20/2007	04/20/2008
1201	Agilent Technology	11947A	3107A03807	Transient Limiter, 9 kHz to 200 MHz	01/03/2008	01/03/2009
1213	Solar	7930-100	885210	High Pass Filter, fc: 100kHz, -100dB @ 33kHz	04/20/2007	06/20/2008
1229	Hewlett Packard	85685A	3010A01077	RF Preselector	06/12/2007	06/12/2008
1263	Hewlett Packard	8566B	3014A06873	Spectrum Analyzer, 100 Hz to 22 GHz	08/21/2007	08/21/2008
1264	Hewlett Packard	85662A	2848A18247	Spectrum Analyzer Display	08/21/2007	08/21/2008
1265	Hewlett Packard	85650A	2521A00641	Quasi-Peak Adapter	08/21/2007	08/21/2008

APPENDIX C

Conducted Emissions Test Data
230 Vac/50 Hz

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008
Temperature:	20˚C Humidity: 19%	Pressure:	838mb
Input Voltage:	230VAC@50Hz		
Configuration of Unit:	Normal use		
Test Engineer:	Donald Lighthart		

A80348-11-CE.doc FR0100

Type	Frequency (MHz)	Level (dBuV)	Transducer (dB)	Gain / Loss (dB)	Final (dBuV)	Test Point	Margin: EN55011 Class B Group 1 & 2 AV (dB)	Margin: EN55011 Class B Group 1 & 2 QP (dB)
AV	0.206	23.0	3.2	10.1	36.3	Line 1	18.06	-
QP	0.206	24.3	3.2	10.1	37.6	Line 1	-	26.78
AV	0.756	16.8	1.5	10.2	28.5	Line 1	17.51	-
QP	0.756	18.9	1.5	10.2	30.5	Line 1	-	25.45
AV	1.060	18.9	1.3	10.2	30.4	Line 1	15.63	-
QP	1.060	23.1	1.3	10.2	34.6	Line 1	-	21.39
AV	6.695	23.9	1.6	10.2	35.7	Line 1	14.35	-
QP	6.695	25.0	1.6	10.2	36.8	Line 1	-	23.18
AV	8.913	23.1	1.6	10.1	34.9	Line 1	15.15	-
QP	8.913	25.8	1.6	10.1	37.5	Line 1	-	22.54
AV	12.518	24.6	1.3	9.8	35.7	Line 1	14.33	-
QP	12.518	27.5	1.3	9.8	38.6	Line 1	-	21.39
AV	0.208	17.9	3.2	10.1	31.2	Neutral	23.10	-
QP	0.208	20.4	3.2	10.1	33.7	Neutral	-	30.65
AV	1.060	18.4	1.3	10.2	30.0	Neutral	16.03	-
QP	1.060	21.9	1.3	10.2	33.4	Neutral	-	22.57
AV	4.512	13.9	1.5	10.2	25.6	Neutral	20.40	-
QP	4.512	18.4	1.5	10.2	30.1	Neutral	-	25.85
AV	6.593	24.1	1.6	10.2	35.9	Neutral	14.15	-
QP	6.593	26.9	1.6	10.2	38.7	Neutral	-	21.31
AV	9.652	22.7	1.5	10.0	34.1	Neutral	15.86	-
QP	9.652	26.1	1.5	10.0	37.5	Neutral	-	22.48
AV	19.318	17.3	1.3	9.9	28.5	Neutral	21.47	-
QP	19.318	19.6	1.3	9.9	30.8	Neutral	-	29.16

The highest emission measured was at **6.593 MHz,** which was **14.15 dB** below the limit.

- "Type" refers to the type of measurement performed. The type of measurement made is based on the requirements of the particular standard:
  - PK = Peak Measurement
  - QP = Quasi-Peak Measurement
  - AV = Video Average Measurement
- The "Final" emissions level is attained by taking the "Level" and adding the "Transducer" factor and the "Gain/Loss" factor.
- The "TestPoint" indicates which AC or DC input power line or which I/O cable the measurement was made on.
- The "Margin" is with reference to the emissions limit. A positive number indicates that the emission measurement is below the limit. A negative number indicates that the emission measurement exceeds the limit.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

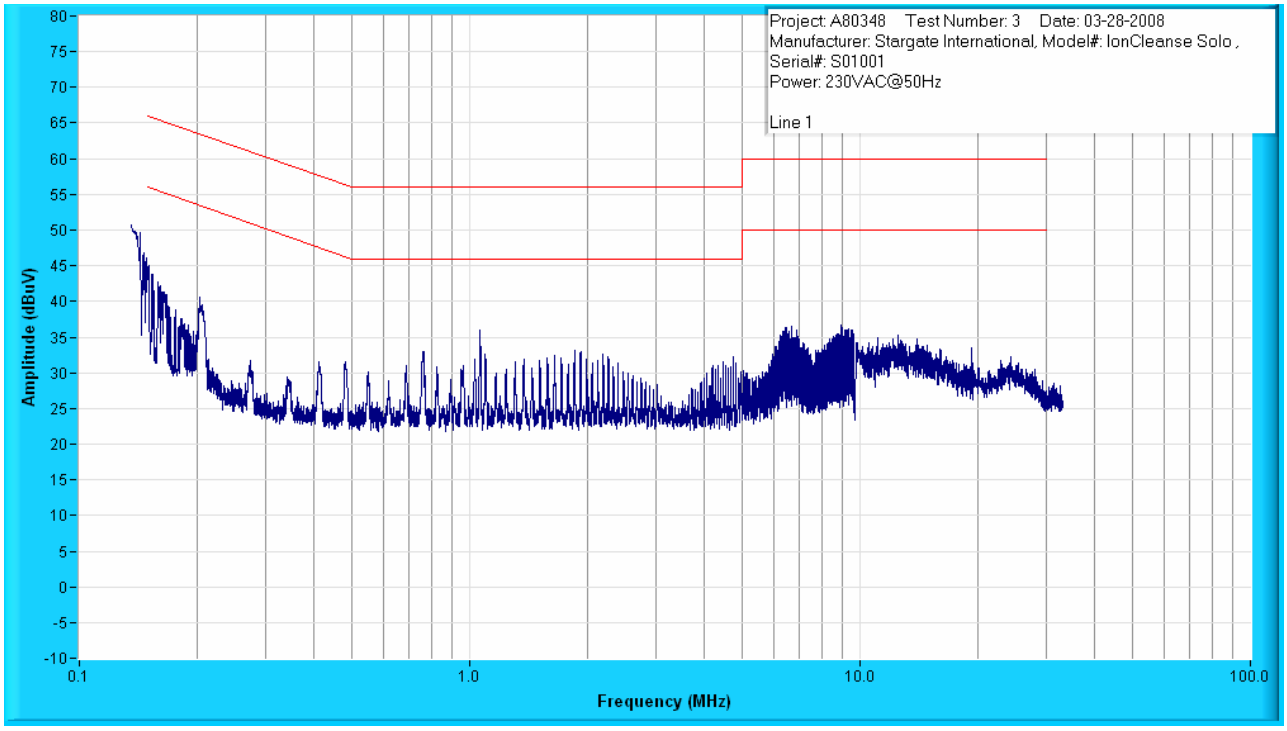

Figure C1: Conducted Emissions Prescan - Line 1.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

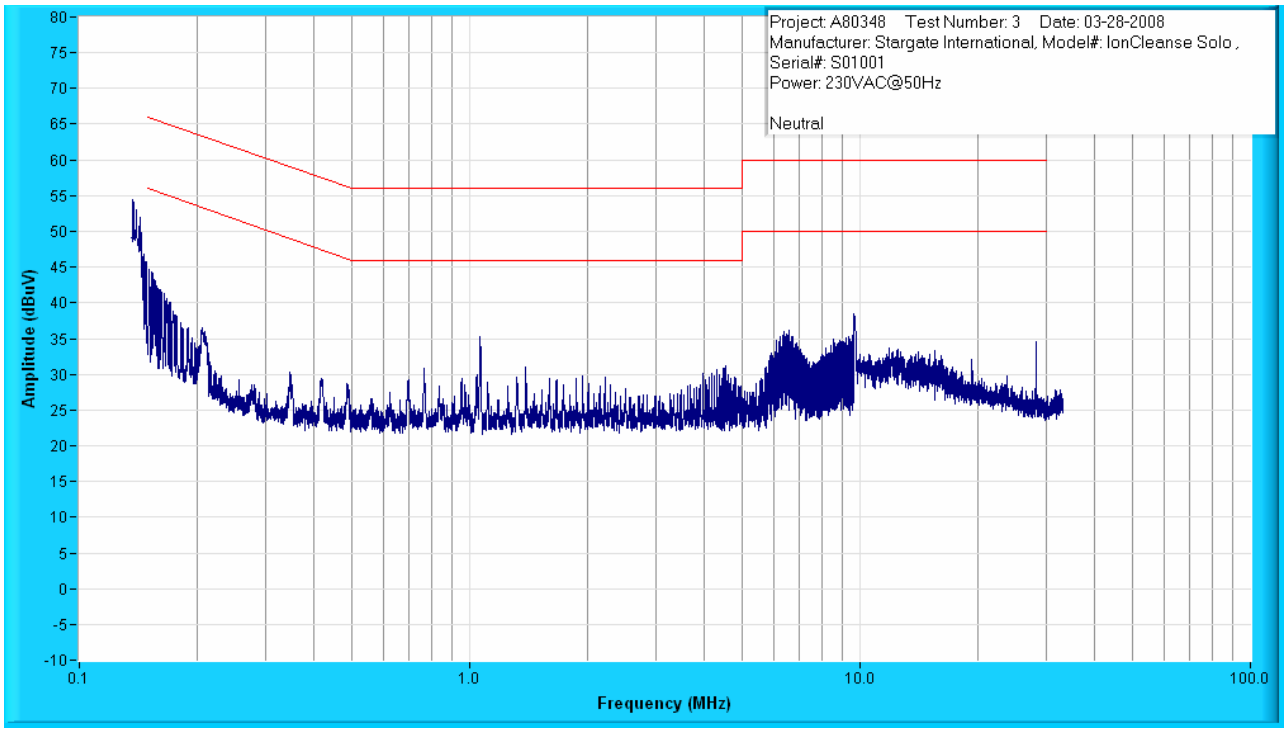

Figure C2: Conducted Emissions Prescan - Neutral.

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

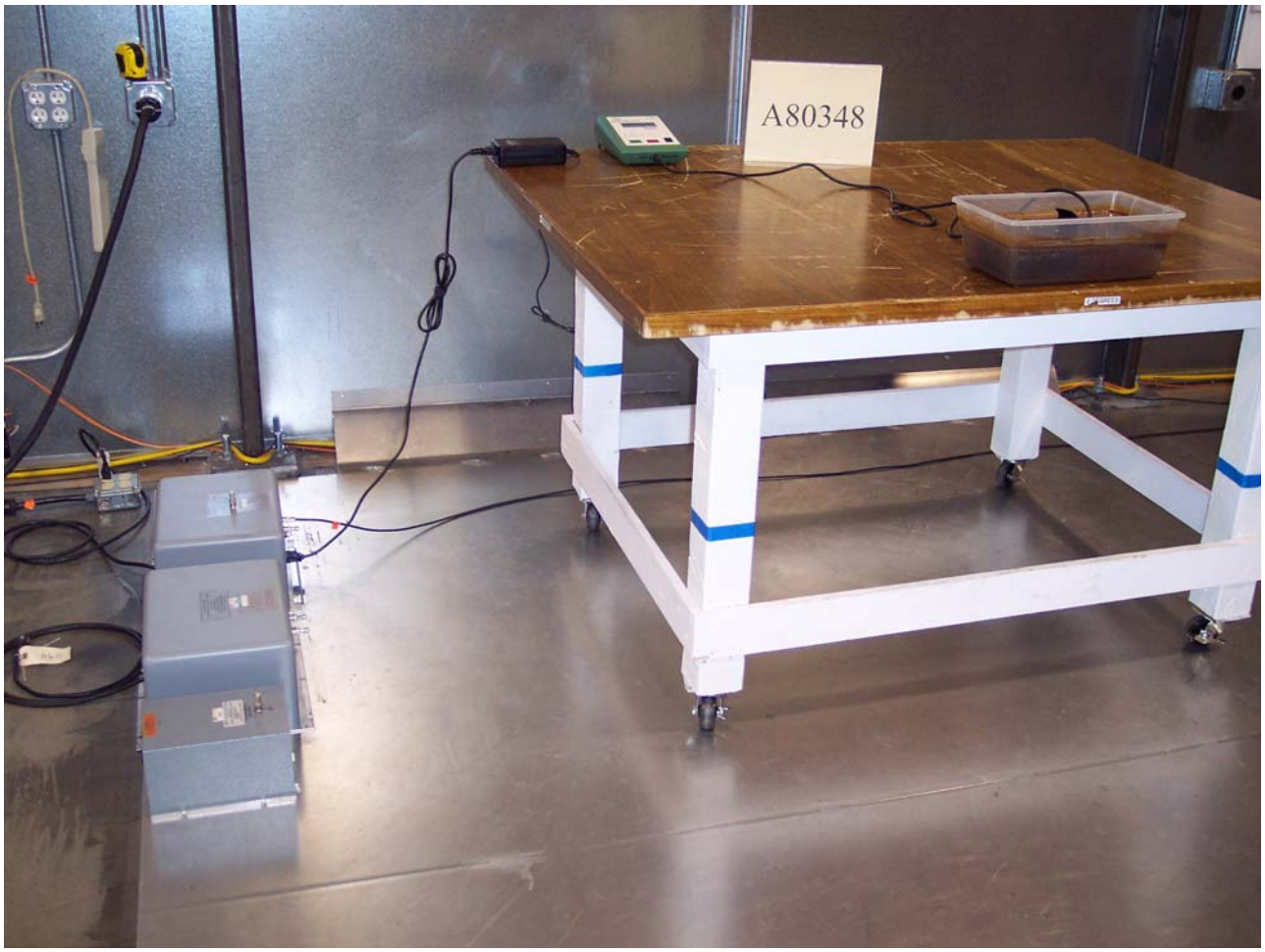

Figure C3: Conducted Emissions Test Setup - Front

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Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

Figure C4: Conducted Emissions Test Setup - Left

emc integrity incorporated

Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

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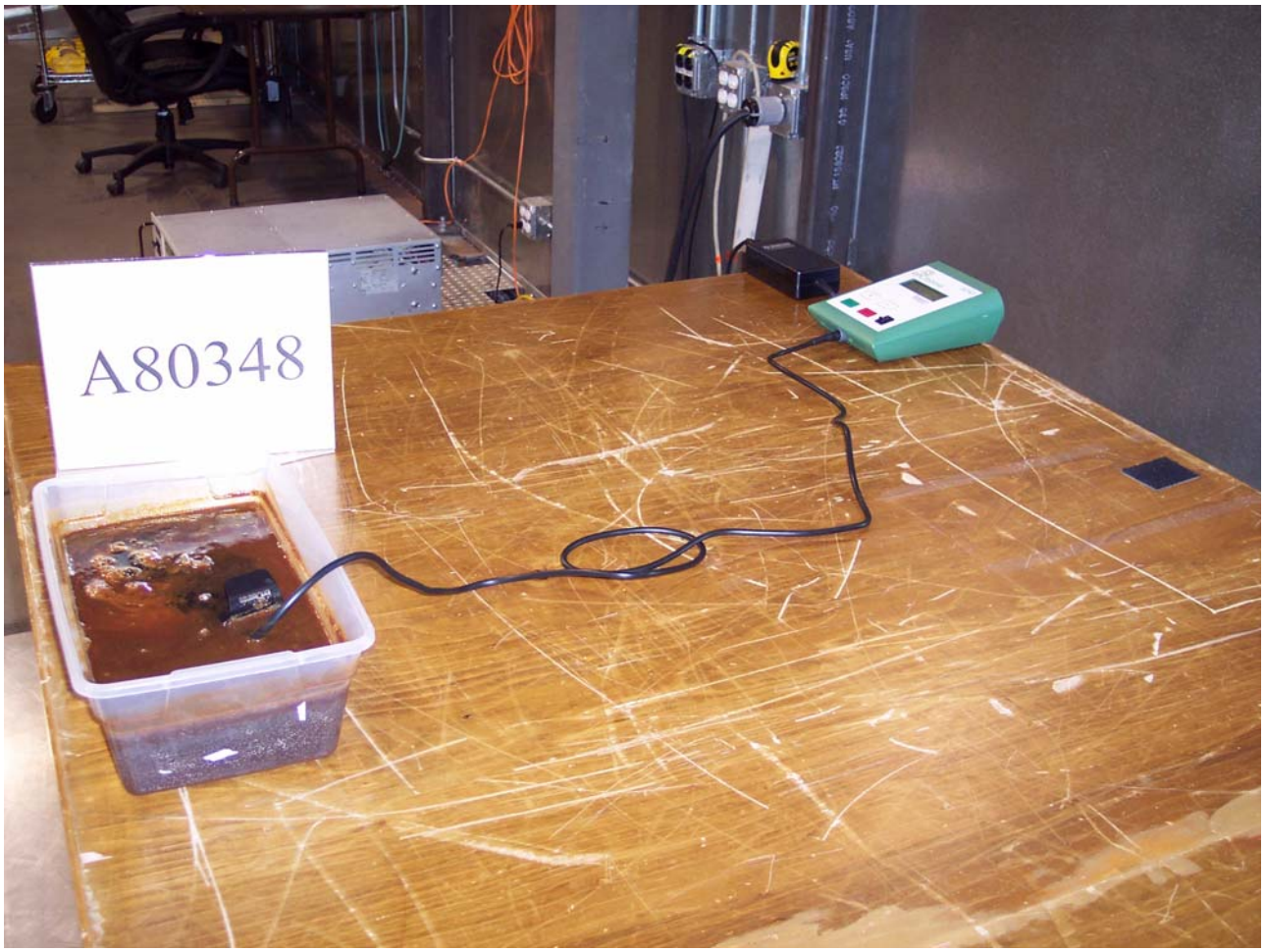

Figure C5: Conducted Emissions Test Setup - Right

emc integrity incorporated

Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

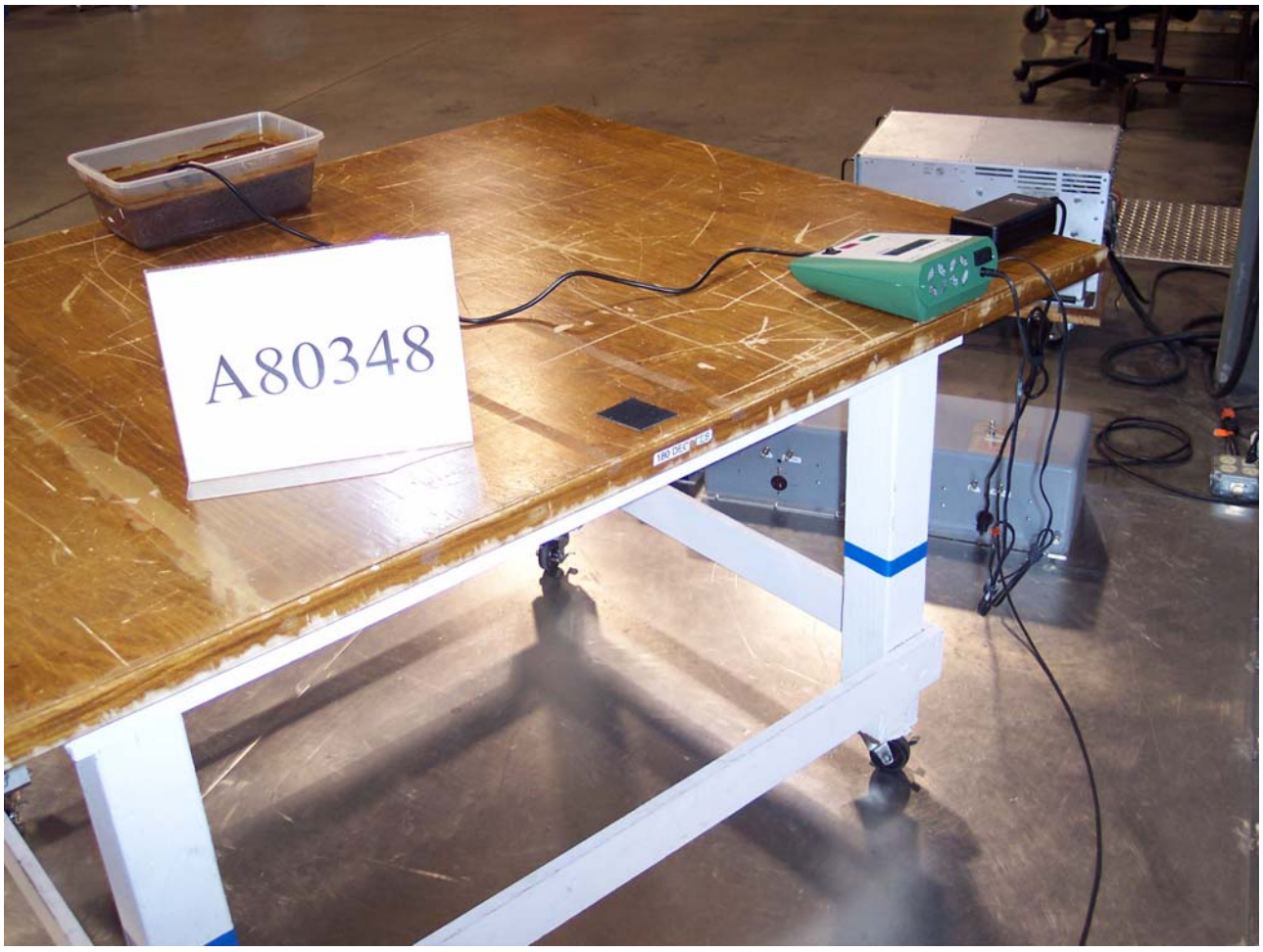

Figure C6: Conducted Emissions Test Setup - Back

emc integrity incorporated

Conducted Emissions, CISPR / EN 55011

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	10m
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / ICES-003	Date:	March 28, 2008

A80348-11-CE.doc FR0100

Test Equipment List

ID Number	Manufacturer	Model #	Serial #	Description	Cal Date	Cal Due
1195	Solar	9252-50-R-24-BNC	042013	LISN	04/20/2007	04/20/2008
1201	Agilent Technology	11947A	3107A03807	Transient Limiter, 9 kHz to 200 MHz	01/03/2008	01/03/2009
1213	Solar	7930-100	885210	High Pass Filter, fc: 100kHz, -100dB @ 33kHz	04/20/2007	06/20/2008
1229	Hewlett Packard	85685A	3010A01077	RF Preselector	06/12/2007	06/12/2008
1263	Hewlett Packard	8566B	3014A06873	Spectrum Analyzer, 100 Hz to 22 GHz	08/21/2007	08/21/2008
1264	Hewlett Packard	85662A	2848A18247	Spectrum Analyzer Display	08/21/2007	08/21/2008
1265	Hewlett Packard	85650A	2521A00641	Quasi-Peak Adapter	08/21/2007	08/21/2008

APPENDIX D

AC Power Line Flicker
Test Data

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AC Power-Line Flicker per IEC / EN 61000-3-3

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	GP #2
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN 61000-6-2	Date:	April 2, 2008
Temperature:	21˚C Humidity: 32%	Pressure:	836mb
Input Voltage:	230Vac/50Hz		
Configuration of Unit:	Running positive mode at 70% and Negative mode at 30%		
Test Engineer:	Tom Wittig		

A80348-3-3.doc FR0100

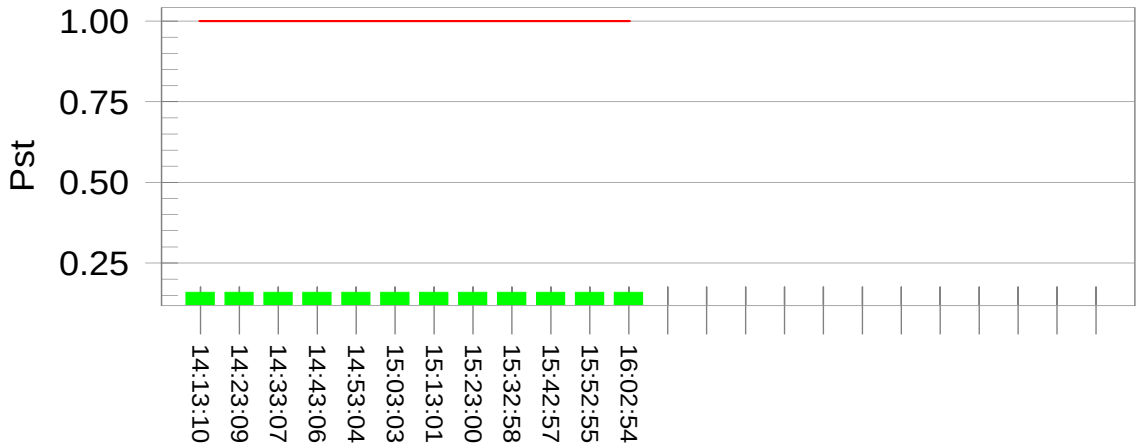
Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: IonCleanse Solo
Test category: All parameters (European limits)
Test date: 4/2/2008 **Start time: 2:02:52 PM**
Test duration (min): 120 **Data file name: F-000080.cts_data**
Comment: A80348
Customer: Stargate International

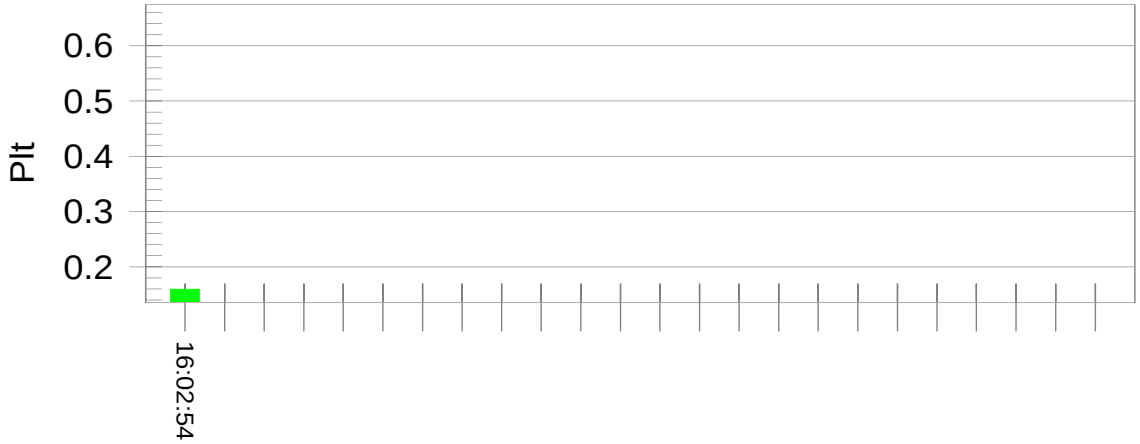
Tested by: Tom Wittig
Test Margin: 100
End time: 4:02:55 PM

Test Result: Pass **Status: Test Completed**

Pst_i and limit line **European Limits**



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.14**			
Highest dt (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Time(mS) > dt:	**0.0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.00**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.160**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.160**	**Test limit:**	**0.650**	**Pass**

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AC Power-Line Flicker per IEC / EN 61000-3-3

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	GP #2
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN 61000-6-2	Date:	April 2, 2008

A80348-3-3.doc FR0100

Figure D1. AC Power Line Flicker Test Setup.

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AC Power-Line Flicker per IEC / EN 61000-3-3

Manufacturer:	Stargate International	Project Number:	A80348
Customer Representative:	Bob Walker	Test Area:	GP #2
Model:	IonCleanse Solo	S/N:	S01001
Standard Referenced:	EN 61000-6-2	Date:	April 2, 2008

A80348-3-3.doc FR0100

Test Equipment List

ID Number	Manufacturer	Model #	Serial #	Description	Cal Date	Cal Due
1026	California Instruments	5001iX	55638	AC Power Source, 5kVA	NA	NA
1153	California Instruments	PACS-1	72229	Harmonics and Flicker Measuring Network	01/04/2008	01/04/2009
1185	California Instruments	CTS 3.0	NA	CTS V3.0.15, Application program for Harmonics and	NA	NA
1207	Extech	445715	252867	Hygro-Thermometer	03/24/2008	03/24/2009

APPENDIX E

Product Data Sheet

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www.emcintegrity.com
1736 Vista View Drive | Longmont, CO 80504 | tel: 303.776.7249 | fax: 303.776.7314 | info@emcintegrity.com

1.0 Client Information

Client Information	
Manufacturer Name	Stargate International, Inc.
Address	10235 S Progress Way, # 7
City	Parker
State	Colorado
Zip Code	80134
Client Representative	Bob Walker-Administration /Brian Bell-Engineering
Title	CEO/Engineer
Phone	303-840-8206
Fax	303-840-8320
Email	rwalker@stargateinternational.com Bbell@stargateinternational.com

2.0 Product Information - General

Product Information	
Product Name (as it should appear on test report)	**IonCleanse Solo**
Model Number	Solo
Functional description of product	The IonCleanse Solo is a detoxifying footbath used to maintain high energy levels, detoxify the body and ensure long-term wellness.
Product type (IT, Medical, Scientific, Industrial, etc.)	Household/Scientific
Is the product an intentional radiator	No
Product Dimensions	6”W x 2 7/8” H x 7 7/8” L
Product Weight	1.5 Lbs.
Will fork lift be required	No
Applicable Standards, if known	EN 55011 / EN 55022 / FCC Part 15 / ICES-003, EN 61000-6-1: 2007
Describe all environment(s) where product will be used	Office Environment (alternative medicine practitioners, practitioners, etc.), Household
Does product consist of multiple components? (If yes, please describe each system component)	Yes – 1. Power Supply, 2. Control box, 3. Array
Cycle time > 3 seconds? (If yes, How long?)	Product constantly updates. Max run time of 45 minutes
Highest internally generated frequency	4 MHz Xtal to 1 Microprocessor
Product Set-up Time	<5minutes
Boot up time in the event of an unintentional power down	<1 minute

Identify all I/O Connections as well as maximum associated cable lengths below

Model No.	Description	Shielded?	Length	Quantity
Array	Foot bath Array Assembly	NO	6ft	1
MPU50-107	Power supply Switching	NO	6ft	1

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3.0 Power

Power Requirements	
Input Voltage Rating as it appears on unit, power supply, or power brick	PS 100-240 VAC 47-63hz Output is 20 VDC @ 2.5 amps
Input Current (specify @ 230 Vac/50 Hz)	1.35 A
Single or Multi-Phase (If multi-phase, specify delta or wye)	Single phase
Is input power connector two-prong (Hot & Neutral) or 3-prong (H, N, Ground)	3 prong
Does UUT have more than 1 power cord? (If yes, explain.)	no

4.0 Unit Under Test (UUT) – Detailed Information

UUT Hardware	
Condition	Production
Configuration During Test	Normal Operation (70% pos / 30% neg)
Input Power	100 – 240 Vac

UUT Components

Name	Model No.	Serial No.	Description
P/S	MPU50-107	N/A	AC to DC external Power Supply Manufacturer: SinPro Input Rating: 100 – 240 Vac, 47-63 Hz, 1.35 A Output Rating: 16-21 Vdc, 50 W
Control Box	IonCleanse Solo	01001	Footbath controller Input ratings: 20 Vdc, 2.5 A
Array	N/A	N/A	Footbath array for insertion into footbath

I/O Cabling

See Section 2.0 for details

UUT Software/Firmware

Name	Version/Revision	Functionality
IonCleanse Solo	7A05	IonCleanse Solo firmware for normal operation. Maximum run time of 45 minutes 70% pos / 30% neg

UUT Operating Conditions

List all frequencies the product generates/uses	4 MHz
How will product be exercised during test?	Normal Use (70% pos / 30% neg)
How will product be monitored during test?	Visually
What are the product's critical parameters?	No unexpected change in display readings
Specify tolerance of all critical parameters.	No unexpected change in display readings

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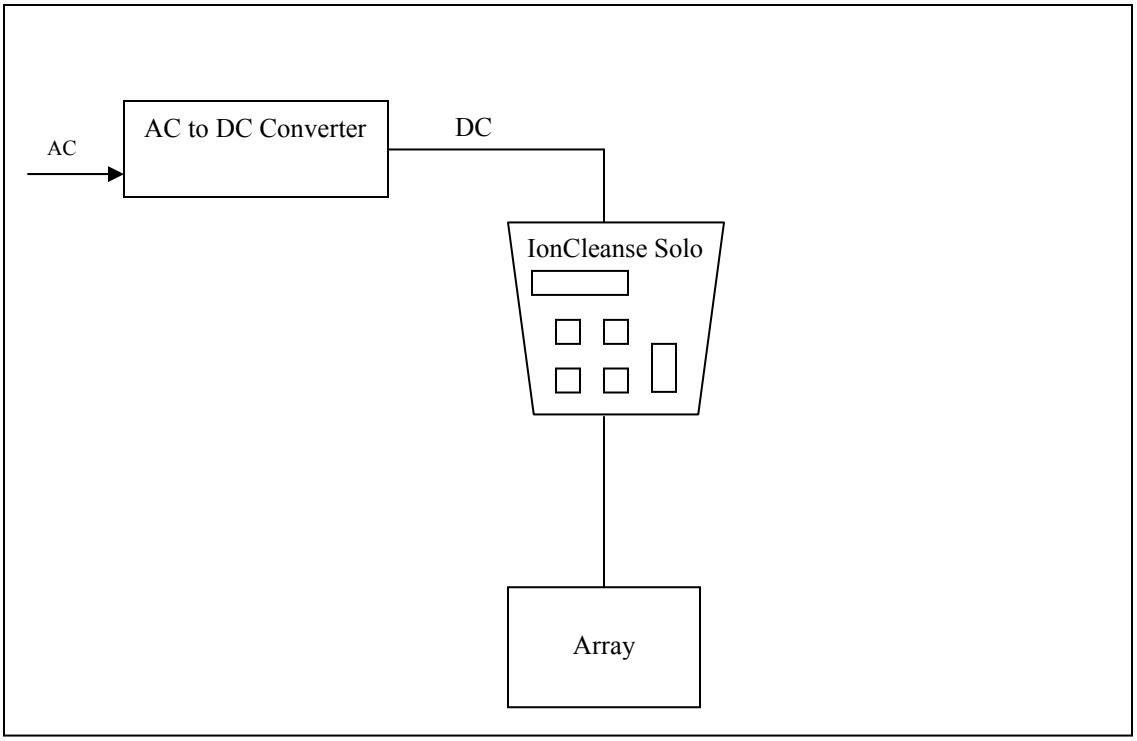
5.0 Support Equipment (SE) – Detailed Information

Support Equipment (SE)			
Name	**Model No.**	**Serial No.**	**Description**
N/A	N/A	N/A	N/A

SE I/O Cabling				
Model No.	**Description**	**Shielded?**	**Length**	**Quantity**
N/A	N/A	N/A	N/A	N/A

SE Software/Firmware		
Name	**Version/Revision**	**Functionality**
N/A	N/A	N/A

6.0 Block Diagram



(**Must be completed prior to testing**).

APPENDIX F

EMI Test Log

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EMI Test Log

Manufacturer:	Stargate International	Project Number:	A80348
Model:	IonCleanse Solo	S/N:	S01001
Customer Representative:	Bob Walker		
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / IECS-003		

FR0105

Test	Test Code	Date	Event	Time (hrs)	Result	Initials
RE	1151	March 28, 2008 1700	Test# 1, 30MHz – 1GHz, 8 radials, 4 heights, 3 sec. Dwell, 80dB Ref. Level 230VAC@50Hz	1.0	---	DL
	1151	1800	Test# 2, 30MHz – 1GHz, 8 radials, 4 heights, 3 sec. Dwell, 80dB Ref. Level 120VAC@60Hz – Determined to be worst case voltage	1.0	Pass	DL
CE	2151	1900	Test# 3, 150kHz – 30MHz, 3 sec. Dwell, 80dB Ref. Level 230VAC@50Hz	0.5	Pass	DL
CE	2341	1930	Test# 4, 150kHz – 30MHz, 3 sec. Dwell, 80dB Ref. Level 120VAC@60Hz	0.5	Pass	DL
4-3	4344	0800	Radiated RF Immunity 3V/m, 80 - 1000 MHz, 1% Step, 80% AM, 1kHz sine, 3s dwell 230 VAC / 50 Hz	3.5	Pass	TW
4-3	4390	1130	Radiated RF Immunity (Medical Requirement) Perform testing from 1.0 GHz - 2.0 GHz 3V/m. If product passes, it fulfills generic requirements 230 VAC / 50 Hz	1.0	Pass	TW
4-3	4391	1230	Radiated RF Immunity Radiated RF Immunity 1V/m, 2.0 - 2.7 GHz, 1% Step, 80% AM, 1kHz sine, 3s dwell 230 VAC / 50 Hz	1.0	Pass	TW
4-3	4391	---	Radiated RF Immunity Radiated RF Immunity 3V/m,1.4 - 2.0 GHz, 1% Step, 80% AM, 1kHz sine, 3s dwell 230 VAC / 50 Hz	0.0	Pass	TW
		1400	Completed RF Immunity	6.0	---	TW
4-4	4401	1400	Electrical Fast Transient / Burst Mains: +/- 1kV, I/O: +/- 500V 230 VAC / 50 Hz	1.0	Pass	TW
4-4	4410	1500	Electrical Fast Transient / Burst (medical requirement) Mains: +/- 2kV, I/O: +/- 500V 120 VAC / 60 Hz	1.0	Pass	TW
4-4	4411		Electrical Fast Transient / Burst (medical requirement) Mains: +/- 2kV, I/O: +/- 500V 230 VAC / 50 Hz	0.5	Pass	TW
4-5	4515	April 2, 2008	Surge Immunity Mains: +/- 2kV CM, +/- 1kV DM, (0, 90, 180, 270) 230 VAC / 50 Hz	5.0	Pass	TW
3-3	3302		AC Short and Long Term Flicker -- 230 VAC / 50 Hz	2.0	Pass	TW

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EMI Test Log

Manufacturer:	Stargate International	Project Number:	A80348
Model:	IonCleanse Solo	S/N:	S01001
Customer Representative:	Bob Walker		
Standard Referenced:	EN55011 / EN55022 / FCC Part 15 / IECS-003		

FR0105

Test	Test Code	Date	Event	Time (hrs)	Result	Initials
4-11	4141	April 3, 2008 0800	Voltage Dips and Interruptions (Medical Requirement) 0% nom, 0.5 cycles / 40% nom, 5 cycles / 70% nom, 25 cycles / 0% nom, 250 cycles 230 VAC / 50 Hz	1.0	Pass	TW
4-11	4140	0900	Voltage Dips and Interruptions (Medical Requirement) 0% nom, 0.5 cycles / 40% nom, 5 cycles / 70% nom, 25 cycles / 0% nom, 250 cycles 120 VAC / 60 Hz	0.5	Pass	TW
4-11	4191	0930	Voltage Dips and Interruptions Voltage Dips and Interrupts 0% nom,1.5 cycles/70% nom, 25 cycles @ 50 Hz/70% nom, 30 cycles @ 60 Hz 230 VAC / 50 Hz	1.0	Pass	TW
4-11	4190	1030	Voltage Dips and Interruptions Voltage Dips and Interruptions 0% nom, 250 cycles @ 50 Hz / 0% nom, 300 cycles @ 60 Hz 230 VAC / 50 Hz	0.5	Pass	TW
4-5	4535	1100	Setup and ran Surge Immunity (Medical Requirement) Mains: +/- 2kV CM, +/- 1kV DM, (0, 90, 270) 120 VAC / 60 Hz	4.0	Pass	TW
4-6	4612	1500	Setup and ran Conducted RF Immunity 3Vrms, 0.15 - 80 MHz, 1% Step, 80% AM, 1kHz sine, 3s dwell 230 VAC / 50 Hz AC Power tested	1.0	Pass	TW
4-6	4611	April 4, 2008 0800-0900	Conducted RF Immunity (Medical Requirement) 3Vrms, 0.15 - 80 MHz, 1% Step, 80% AM, 1kHz sine, 3s dwell (test array cable) 230 VAC / 50 Hz	1.0	Pass	TW
4-2	4223	0900-1100	Electrostatic Discharge +/- 2, 4kV Contact, +/-2, 4, 8kV Air 230 VAC / 50 Hz	2.0	Pass	TW
4-2	4290	1100-1130	Electrostatic Discharge (Medical Requirement) +/-6 kV Contact-This is the required level for Medical. Perform after official test and note results 230 VAC / 50 Hz At +6kV, contact discharge to the left side screen causes unit to reboot At -6kV, contact discharges causes the display to be scrambled Could not repeat consistently.	0.5	---	TW

APPENDIX G

Laboratory Accreditations

Nemko Laboratory Authorization

Authorization: ELA 215

EMC Laboratory: **EMC Integrity, Inc.**
1736 Vista View Drive
Longmont, Colorado 80504
USA

Scope of Authorization: **All CENELEC standards [ENs] for EMC that are listed on the accompanying page, and all of the corresponding CISPR, IEC and ISO EMC standards that are listed on the accompanying page.**

Nemko has assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA -10. During the visit by the Nemko representative it was found that the Laboratory is capable of performing tests within the Scope of the Authorisation.

Accordingly, Nemko will normally accept test results from the laboratory on a partial or complete basis for certification of the products.

In order to maintain the Authorisation, the information given in the pertinent NLA-10 must be carefully followed. Nemko is to be promptly notified about any changes in the situation at the Laboratory, which may affect the basis for this Authorisation. The Authorisation may be withdrawn at any time if the conditions are no longer considered to be fulfilled.

The Authorisation is valid through December 31, 2008.

Dallas, Texas, USA.

For and on behalf of Nemko AS:

T.B. Ketterling,

Nemko ELA Co-ordinator

Region: North America

Nemko

Nemko Laboratory Authorization

Authorization: ELA 215

SCOPE OF AUTHORIZATION

Capability to perform a basic test implies also that any product (family) standard calling up this basic test is also within the scope if mentioned below or not.

Generic & Product –Family Standards		
EN 55011 :1998+A1 :1999 +A2 :2002 CISPR 11:1997 (Modified) + A1:1999 + A2:2002 CISPR 11 Ed. 4.1	EN 55014-1:2000 + A1:2001 + A2:2002 CISPR 14-1:2000 + A1:2001 + A2:2002 CISPR 14-1 Ed. 5.0 EN 55014-2:1997 + A1:2001 CISPR 14-2:1997 + A1:2001 CISPR 14-2 Ed. 1.1	EN 55022: 1998+ A1:2000, +A2:2003 CISPR 22: 2003+ A1:2004 EN55022:2006 CISPR 22:2005 (Modified) CISPR 22 Ed. 5.2
EN 55024: 1998 +A1:2001, +A2:2003 CISPR 24: 1997 +A1:2001, +A2:2002 CISPR 24 Ed. 1.0	EN 61000-6-1 :2007 IEC 61000-6-1 Ed. 2.0 EN 61000-6-1: 2001	EN 61000-6-2:2005 IEC 61000-6-2 Ed. 2.0
EN 61000-6-3 :2007 IEC 61000-6-3 Ed. 2.0 EN 61000-6-3: 2001 + A1 :2004	IEC 61000-6-2 Ed. 2.0 EN 61000-6-2: 2005 IEC 61000-6-2: 2005 EN 61000-6-2: 2001	EN 61326:1997 +A1:1998 + A2:2001 +A3:2003 IEC 61326:1997 + A1:1998 + A2:2000 IEC 61326:2002-02
EN 60601-1-2:2001 IEC 60601-1-2:2001 EN 60601-1-2:2006 IEC 60601-1-2 Ed. 2.1	EN 55103-1:1996 EN 55103-2 :1996	EN 300 386 V.1.3.1 EN 300 386 V.1.3.3
EN 61000-3-3: 1995, +A1:2001 +A2:2005 IEC 61000-3-3: 1994, +A1:2001 +A2:2005	EN 61000-3-2: 2000 +A2 :2005 IEC 61000-3-2: 2000 (Modified) +A1:2001 +A2:2004	BLANK
Basic Standards		
EN 61000-4-2:1995, +A1:1998, +A2:2000 IEC 61000-4-2:1995, +A1:1998, +A2:2000 IEC 61000-4-2 Ed. 1.2	EN 61000-4-3:2002, +A1:2002 IEC 61000-4-3:2002, +A1:2002 EN 61000-4-3 :2006 +A1 :2006 +A2 :2006 IEC 61000-4-3 Ed. 3.0	EN 61000-4-4:1995, +A1:2002, +A2:2002 IEC 61000-4-4:1995, +A1:2000, +A2:2001 EN 61000-4-4:2004 IEC 61000-4-4 Ed. 2.0
EN 61000-4-5:1995, +A1:2001 IEC 61000-4-5:1995, +A1:2000 EN 61000-4-5 :2006 IEC 61000-4-5 Ed. 2.0	EN 61000-4-6:1996, +A1:2001 IEC 61000-4-6:1996, +A1:2000 EN 61000-4-6 : 2006 IEC 61000-4-6 Ed. 2.2	EN 61000-4-8:1994,+A1:2001 IEC 61000-4-8:1994, +A1:2001 IEC 61000-4-8 Ed. 1.1
EN 61000-4-11:2004 IEC 61000-4-11 Ed. 2.0 EN 61000-4-11:1994, +A1:2000 IEC 61000-4-11:1994, +A1:2000	BLANK	BLANK

Dallas, Texas December 7, 2006.

T.B. Ketterling, Nemko ELA Co-ordinator

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SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

EMC Integrity, Inc.
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ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS **NVLAP LAB CODE 200737-0**

NVLAP Code	*Designation / Description*
Emissions Test Methods:	
12/100063c	IEC 61000-6-3 (1996), EN 61000-6-3 (2001), A1 (2004): Electromagnetic Compatibility (EMC) - Part 6: Generic standards - Section 3: Emission standard for residential, commercial, and light-industrial environments.
12/CIS11f	AS/NZS CISPR 11 (2002): Industrial, scientific and medical (ISM) radio frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement
12/CIS11g	IEC/CISPR 11, Ed. 4.1 (2004-06): Industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurements
12/CIS11h	AS/NZS CISPR 11 (2004): Industrial, scientific and medical (ISM) radio frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement
12/CIS11i	IEC/CISPR 11, Ed. 4.1 (2004-06) + A1(2004): Industrial, scientific and medical (ISM) radio frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement

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NVLAP Code	*Designation / Description*
12/CIS11j	EN 55011 (1998) + A1(1999), A2(2002): Industrial, scientific and medical (ISM) radio frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement
12/CIS11k	IEC/CISPR 11 (2003), EN 55011 (1998), A2(2002): Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific, and Medical Radio-Frequency Equipment
12/CIS14b1	AS/NZS CISPR 14-1 (2003): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
12/CIS14x	IEC/CISPR 14-1, Ed. 4 (2003): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
12/CIS22	IEC/CISPR 22 (1997) & EN 55022 (1998) + A1(2000): Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22 (1993) and EN 55022 (1994): Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1 (1995) and Amendment 2 (1996)
12/CIS22a4	IEC/CISPR 22 (1993) & EN 55022 (1994)+A1(1995), A2(1997): Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22b	CNS 13438 (1997): Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
12/CIS22c	IEC/CISPR 22, Fourth Edition (2003-04) & EN 55022 (1998): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
12/CIS22c1	IEC/CISPR 22, Edition 5 (2005) and EN 55022 (1998): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement

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NVLAP Code	*Designation / Description*
12/CIS22c3	IEC/CISPR 22, Edition 5 (2005) + A1(2005): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
12/CIS22c4	EN 55022 (1998) + A1(2000) + A2(2003): Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
12/EM02d	IEC 61000-3-2, Edition 2.2 (2004-11): Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current <= 16 A per phase)
12/EM03b	IEC 61000-3-3, Edition 1.1(2002-03) & EN 61000-3-3, A1(2001): EMC - Part 3-3: Limits - Limitations of voltage changes, voltage flucuations and flicker, in public low-voltage supply-systems, for equipment with rated current <=16 A per phase and not subject to conditional connections
12/EM03g	IEC 61000-3-3, Edition 1.1 (2003) +A2 (2005): EMC Part 3-3: Limits - Limitations of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connections
12/F18	FCC OST/MP-5 (1986): FCC Methods of Measurement of Radio Noise Emissions for ISM Equipment (cited in FCC Method 47 CFR Part 18 - Industrial, Scientific, and Medical Equipment)
12/FCC15b	ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart B: Unintentional Radiators
12/KN22	KN22 with RRL Notice No. 2005-82 (Sept. 29, 2005): RRL Notice No. 2005-82: Technical Requirements for Electromagnetic Interference Annex 8 (KN-22), RRL Notice No. 2005-131: Conformity Assessment Procedures for Electromagnetic Interference
12/T51	AS/NZS CISPR 22 (2002) and AS/NZS 3548 (1997): Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment
12/VCCIa	VCCI: Agreement of Voluntary Control Council for Interference by Information Technology Equipment - Technical Requirements: V-3/2005.04

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NVLAP Code	*Designation / Description*
Immunity Test Methods:	
12/610006h	IEC 61000-6-1, 2nd edition (2005-03): Electromagnetic compatibility (EMC) - Part 6: Generic standards - Section 1: Immunity for residential, commercial and light-industrial environments
12/610006i	IEC 61000-6-2, Edition 2.0 (2005-01): Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
12/I01b	IEC 61000-4-2 (2001); EN 61000-4-2 (2001), A2 (2001): Electrostatic Discharge Immunity Test
12/I01c	EN 61000-4-2 +A1(1998) +A2(2001): Electrostatic Discharge Immunity Test
12/I02b	IEC/EN 61000-4-3, Ed. 2.1 (2002), A1 (2002); EN 61000-4-3: Radiated, radio-frequency, electromagnetic field immunity test
12/I02e	EN 61000-4-3 (2002) + A1(2002) + IS1(2004): Radiated, radio-frequency, electromagnetic field immunity test
12/I02f	EN 61000-4-3 (2002) + A1(2002): Radiated, radio-frequency, electromagnetic field immunity test
12/I03c	IEC 61000-4-4, Ed. 2.0 (2004-07): Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test
12/I04b	IEC 61000-4-5 (2001), A1(2000); EN 61000-4-5(2001), A1(2000): Surge Immunity Test
12/I05d	IEC 61000-4-6, Ed. 2.1 (2004); EN 61000-4-6: Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
12/I05e	EN 61000-4-6 (1996) + A1 (2001) + IS1(2004): Immunity to Conducted Disturbances, Induced by Radio Frequency Fields

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NVLAP Code	*Designation / Description*
12/I06b	IEC 61000-4-8 (2001), A1(2000); EN 61000-4-8 (2001),A1(2000): Power Frequency Magnetic Field Immunity Test
12/I06c	EN 61000-4-8 (1993) + A1 (2001): Power Frequency Magnetic Field Immunity Test
12/I07c	IEC 61000-4-11, Ed. 2 (2004-03) & EN 61000-4-11: Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
12/I07e	EN 61000-4-11 (1994), A1 (2001): Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests
12/I07f	EN 61000-4-11 (2004): Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests
12/KN11a	KN 61000-4-11 with RRL Notice No. 2005-130 (Dec 27, 2005): Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests
12/KN24	KN24 (December 2005) with RRL Notice No. 2005-83: Information Technology Equipment - immunity charateristics - limits and methods of measurements
12/KN2a	KN 61000-4-2 with RRL Notice No. 2005-130 (Dec. 27, 2005): Electrostatic Discharge Immunity Test
12/KN3a	KN 61000-4-3 with RRL Notice No. 2005-130 (Dec. 27, 2005): Radiated, radio-frequency, electromagnetic field immunity test
12/KN4a	KN 61000-4-4 with RRL Notice No. 2005-130 (Dec. 27, 2005): Electromagnetic compatibility (EMC): Testing and measurement techniques - Electrical Fast Transient/Burst Immun
12/KN5a	KN 61000-4-5 with RRL Notice No. 2005-130 (Dec. 27, 2005): Surge Immunity Test
12/KN6a	KN 61000-4-6 with RRL Notice No. 2005-130 (Dec. 27, 2005): Electromagnetic compatibility (EMC): Testing and measurement techniques - Immunity to conducted disturbances,

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NVLAP Code	*Designation / Description*
12/KN8a	KN 61000-4-8 with RRL Notice No. 2005-130 (Dec. 27, 2005): Power Frequency Magnetic Field Immunity Test

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United States Department of Commerce
National Institute of Standards and Technology

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Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200737-0

EMC Integrity, Inc.

Longmont, CO

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 18 June 2005).

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DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

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