

FCC PART 15, SUBPART B and C TEST REPORT

for

LOAD CELL AMPLIFIER

MODEL: LS001

Prepared for

LOAD SYSTEMS INTERNATIONAL, INC. 4495 BOUL. WILFRID-HAMEL, BUREAU 110 QUEBEC, QUEBEC G1P 2J7

Prepared by:

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COMPATIBLE ELECTRONICS INC. 114 OLINDA DRIVE BREA, CALIFORNIA 92823 (714) 579-0500

DATE: FEBRUARY 19, 2003

	REPORT		APPENDICES			TOTAL	
	BODY	A	В	С	D	Ε	
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications 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 without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Device Tested:	Load Cell Amplifier Model: LS001 S/N: N/A
Product Description:	See Expository Statement.
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Load Systems International, Inc. 4495 Boul. Wilfrid-Hamel, Bureau 110 Quebec, Quebec G1P 2J7
Test Date:	February 19, 2003
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209, and 15.249
Test Procedure:	ANSI C63.4: 1992
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 450 kHz - 30 MHz	This test was not performed because the EUT operates on DC power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz - 9300 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.



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1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Load Cell Amplifier Model: LS001. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 1992. 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 CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.







2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

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 calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Load Systems International, Inc.

Marc Boivin Head Of Electrical Engineering

Compatible Electronics, Inc.

Kyle Fujimoto	Test Engineer
Kirit Ramani	Test Engineer
Michael Christensen	Test Engineer

2.4 Date Test Sample was Received

The test sample was received on February 17, 2003.

2.5 Disposition of the Test Sample

The sample has not been returned to Load Systems International, Inc. as of February 19, 2003.

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





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

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 1992	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.





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4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Load Cell Amplifier Model: LS001 (EUT) was tested as a stand alone unit in three orthogonal axis and was continuously transmitting. The antenna is hard wired onto the PCB of the EUT.

The final radiated data was taken in the mode above. Please see Appendix E for the data sheets.







4.1.1 Cable Construction and Termination

There are no external cables connected to the EUT.







5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
LOAD CELL AMPLIFIER	LOAD SYSTEMS	LS001	N/A	QVBLS001
(EUT)	INTERNATIONAL,			
	INC.			







5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Radiated Emissions Manual Test – Radiated	Compatible Electronics	N/A	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 14, 2002	June 14, 2003
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 14, 2002	June 14, 2003
Spectrum Analyzer – Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 14, 2002	June 14, 2003
Preamplifier	Com Power	PA-102	1017	Jan. 2, 2003	Jan. 2, 2004
Biconical Antenna	Com Power	AB-100	1548	Sept. 19, 2002	Sept. 19, 2003
Log Periodic Antenna	Com Power	AL-100	16089	Oct. 4, 2002	Oct. 4, 2003
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Printer	Hewlett Packard	C5886A	SG7CM1P090	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A
Loop Antenna	Com-Power	AL-130	17070	June 19, 2002	June 19, 2003
Horn Antenna	Antenna Research	DRG-118/A	1053	Jan. 13, 2002	Jan. 13, 2004
Microwave Preamplifier	Com-Power	PA-122	25195	Jan. 2, 2003	Jan. 2, 2004





6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

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.





7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies above 1 GHz. 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 measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 9.3 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 1992. 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 gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.





Radiated Emissions (Spurious and Harmonics) Test (con't)

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 3 meter test distance to obtain final test data. The final qualification data sheets are located in Appendix E.







8. CONCLUSIONS

The Load Cell Amplifier Model: LS001 meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.







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APPENDIX A

LABORATORY RECOGNITIONS





LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission Industry Canada Radio-Frequency Technologies (Competent Body)





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APPENDIX B

MODIFICATIONS TO THE EUT





MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.





APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT





ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Load Cell Amplifier Model: LS001 S/N: N/A

Additional models approved under this report:

- 1. LC004 4k load cell
- 2. LC012 12k load cell
- 3. LC018 18k load cell
- 4. LC030 30k load cell
- 5. LC050 50k load cell
- 6. LC100 100k load cell

The LC models are identical except for the metal plate that is connected to the load cell amplifier itself. The 4K is the smallest plate for a 4000 lbs max capacity. The 12K is a bigger with a max capacity of 12000 lbs. The models go up to 100K, which has a maximum capacity of 100,000 lbs.

Please see the photographs on the following pages. Note that the load cell amplifier is identical and that the wire attached to the load cell amplifier is always internal to the unit and never exposed.

The models that are not photographed have the same type of design also.







PHOTOGRAPH SHOWING THE 4K LOAD CELL MODEL: LC004







PHOTOGRAPH SHOWING THE 18K LOAD CELL MODEL: LC018







PHOTOGRAPH SHOWING THE 50K LOAD CELL MODEL: LC050







PHOTOGRAPH SHOWING THE 100K LOAD CELL MODEL: LC100





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APPENDIX D

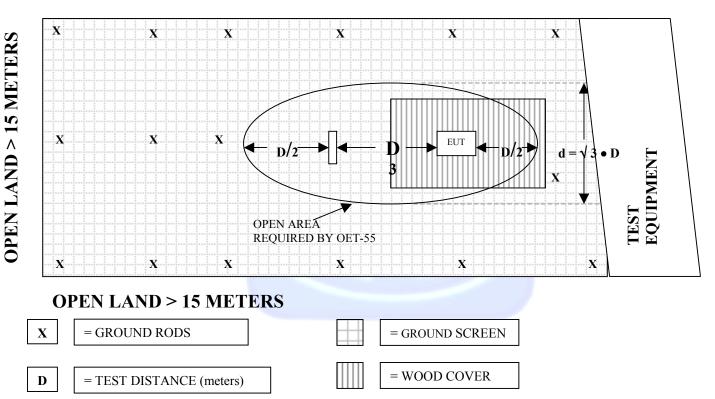
DIAGRAMS, CHARTS, AND PHOTOS





FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE

OPEN LAND > 15 METERS







COM-POWER AB-100

BICONICAL ANTENNA

S/N: 01548

CALIBRATION DATE: SEPTEMBER 19, 2002

FREQUENCY	FACTOR	FREQUENCY	FACTOR
(MHz)	(dB)	(MHz)	(dB)
30	14.30	120	10.70
35	14.00	125	11.40
40	13.70	140	12.70
45	12.00	150	12.50
50	11.40	160	12.90
60	9.70	175	14.10
70	8.30	180	14.70
80	7.60	200	15.10
90	7.80	250	16.90
100	8.60	300	19.10





COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16089

CALIBRATION DATE: OCTOBER 4, 2002

FREQUENCY	FACTOR	FREQUENCY	FACTOR
(MHz)	(dB)	(MHz)	(dB)
300	13.10	700	17.70
350	14.40	750	19.60
400	14.30	800	20.50
450	15.70	850	21.20
500	16.60	900	21.20
550	16.60	950	22.50
600	17.30	1000	24.60
650	18.80		





COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 2, 2003

FREQUENCY	FACTOR	FREQUENCY	FACTOR
(MHz)	(dB)	(MHz)	(dB)
30	38.4	300	38.3
40	38.4	350	38.3
50	38.3	400	38.3
60	38.4	450	37.9
70	38.4	500	38.1
80	38.4	550	38.2
90	38.4	600	38.1
100	38.3	650	37.9
125	38.4	700	37.9
150	38.4	750	37.7
175	38.2	800	37.4
200	38.4	850	37.6
225	38.2	900	37.4
250	38.3	950	36.7
275	38.5	1000	37.0





MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: JANUARY 2, 2003

FREQUENCY	FACTOR	FREQUENCY	FACTOR
(GHz)	(dB)	(GHz)	(dB)
1.0	33.3	6.0	32.2
1.1	33.2	6.5	32.2
1.2	33.4	7.0	31.8
1.3	32.8	7.5	32.1
1.4	32.4	8.0	32.7
1.5	32.7	8.5	31.5
1.6	32.1	9.0	30.3
1.7	32.4	9.5	30.0
1.8	32.3	10.0	31.9
1.9	32.6	11.0	29.9
2.0	33.4	12.0	24.7
2.5	31.2	13.0	32.0
3.0	31.2	14.0	30.7
3.5	32.0	15.0	30.1
4.0	31.3	16.0	29.2
4.5	31.2	17.0	28.9
5.0	33.3	18.0	28.7
5.5	34.0		





ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: JANUARY 13, 2002

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.5	10.0	39.7
1.5	26.6	10.5	40.9
2.0	29.4	11.0	40.7
2.5	30.4	11.5	42.4
3.0	31.2	12.0	42.6
3.5	32.3	12.5	42.4
4.0	32.9	13.0	41.5
4.5	33.0	13.5	41.0
5.0	34.8	14.0	40.5
5.5	35.2	14.5	43.6
6.0	36.4	15.0	43.7
6.5	36.6	15.5	43.3
7.0	38.8	16.0	42.8
7.5	38.8	16.5	43.0
8.0	38.0	17.0	42.7
8.5	38.1	17.5	44.0
9.0	39.9	18.0	41.8
9.5	39.1		





COM-POWER AL-130

LOOP ANTENNA

S/N: 17070

CALIBRATION DATE: JUNE 19, 2002

FREQUENCY	MAGNETIC	ELECTRIC
(MHz)	(dB/m)	(dB/m)
0.009	-40.4	11.1
0.01	-40.3	11.2
0.02	-41.2	10.3
0.05	-41.6	9.9
0.07	-41.4	10.1
0.1	-41.7	9.8
0.2	-44.0	7.5
0.3	-41.6	9.9
0.5	-41.3	10.2
0.7	-41.4	10.1
1	-40.9	10.6
2	-40.6	10.9
3	-40.5	11.0
4	-40.8	10.7
5	-40.2	11.3
10	-40.7	10.8
15	-41.4	10.1
20	-41.6	9.9
25	-41.7	9.8
30	-42.9	8.6







FRONT VIEW

LOAD SYSTEMS INTERNATIONAL, INC. LOAD CELL AMPLIFIER MODEL: LS001 FCC SUBPART B AND C - RADIATED EMISSIONS – 02-19-03

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



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REAR VIEW

LOAD SYSTEMS INTERNATIONAL, INC. LOAD CELL AMPLIFIER MODEL: LS001 FCC SUBPART B AND C - RADIATED EMISSIONS – 02-19-03

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



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APPENDIX E

DATA SHEETS





RADIATED EMISSIONS

DATA SHEETS



COMPANY LOAD SYSTEMS, INC. DATE EUT LOAD CELL AMPLIFIER DUTY CYCLE MODEL LS001 PEAK TO AVG S/N N/A TEST DIST. TEST ENGINEER Kyle Fujimoto LAB Frequency Peak Reading or Quasi- or Quasi- or Quasi- or Quasi- Peak (QP) MHz (dBuV) Peak (QP) (V or H) (meters) (degrees) (X,Y,Z) Channel (dB)	N/A N/A 3 D	% dB Meters
S/N N/A TEST DIST. TEST ENGINEER Kyle Fujimoto LAB Frequency Peak Reading (dBuV) Average (A) or Quasi- Peak (QP) Antenna Polar. EUT Height Azimuth (degrees) EUT (X,Y,Z) EUT Factor Antenna Loss Cable Gain (dB) Distance Factor Mixer Factor *Corrected Reading (dB) Delta ** Spec Limit (dBUV/m) 921.3000 56.2 A H 1.0 0 X LOW 21.8 5.7 0.0 0.0 0.0 83.7 -10.3 94.0	3	
TEST ENGINEER Kyle Fujimoto LAB Frequency Peak Reading (dBuV) Average (A) or Quasi- Peak (QP) Antenna Polar. EUT Height EUT Azimuth EUT Axis EUT Tx Factor Factor Distance Gain (dB) Mixer (dB) *Corrected Reading (dB) Delta ** Spec Limit (dBuV/m) 921.3000 56.2 A H 1.0 0 X LOW 21.8 5.7 0.0 0.0 0.0 83.7 -10.3 94.0		Meters
Frequency Peak Reading (dBuV) Average (A) Polar. Antenna Height (V or H) EUT Height (degrees) EUT (X,Y,Z) EUT Factor Antenna Loss Cable Gain (dB) Amplifier (Gain (dB) Distance (Gain (dB) Mixer (dB) *Corrected Reading (dB) Delta ** Spec Limit (dBUV/m) 921.3000 56.2 A H 1.0 0 X LOW 21.8 5.7 0.0 0.0 0.0 83.7 -10.3 94.0	D	
Average (A) or Quasi- MHz Average (A) or Quasi- (dBuV) Polar. Height (meters) Azimuth (degrees) Axis Tx Factor (dB) Loss Gain (dB) Factor (dB) Reading (dB) ** Limit (dBuV/m) 921.3000 56.2 A H 1.0 0 X LOW 21.8 5.7 0.0 0.0 0.0 83.7 -10.3 94.0		
MHz Reading (dBuV) Average (A) or Quasi- (dBuV) Polar. Height (meters) Azimuth (degrees) Axis Tx Factor (dB) Loss Gain (dB) Factor (dB) Factor (dB) Factor (dB) Factor (dB) Factor (dB) Factor (dB) Factor (dB) Factor (dB) Reading (dB) ** Limit (dBuV/m) 921.3000 56.2 A H 1.0 0 X LOW 21.8 5.7 0.0 0.0 0.0 83.7 -10.3 94.0		
MHz (dBuV) Peak (QP) (V or H) (meters) (degrees) (X,Y,Z) Channel (dB) (dB)		
	Comments	
921.3000 55.6 A H 1.0 O Y LOW 21.8 5.7 0.0 0.0 0.0 83.1 -10.9 94.0		
921.3000 56.0 A H 1.0 0 Z LOW 21.8 5.7 0.0 0.0 83.5 -10.5 94.0		
921.3000 56.1 A V 1.0 90 X LOW 21.8 5.7 0.0 0.0 0.0 83.6 -10.4 94.0		
921.3000 60.6 A V 1.0 0 Y LOW 21.8 5.7 0.0 0.0 0.0 88.1 -5.9 94.0		
921.3000 51.6 A V 1.0 0 Z LOW 21.8 5.7 0.0 0.0 0.0 79.1 -14.9 94.0		

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN ** DELTA = SPEC LIMIT - CORRECTED READING

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COMPANY		LOAD SYS	STEMS,	INC.											DATE		2/19/03	
EUT		LOAD CE													DUTY C	YCLE	N/A	%
MODEL		LS001													PEAK TO AVG		N/A	dB
S/N		N/A													TEST DI	IST.	3	Meters
TEST ENGINE	ER	Kyle Fujim	Lyle Fujimoto												LAB		D	
Frequency	Peak		Antenna	Antenna	EUT	EUT	EUT	Antenna	Cable	Amplifier	Distance	Mixer	*Corrected	Delta	Spec			
Trequency	Reading	Average (A) or Quasi-	Polar.		Azimuth	Axis	Тх	Factor	Loss	Gain	Factor	Factor	Reading	**	Limit			
MHz	(dBuV)		(V or H)	(meters)	(degrees)	(X,Y,Z)	Channel	(dB)	(dB)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dBuV/m)		Comments	
1842.6000	49.4	А	Н	2.0	0	Х	LOW	28.5	2.5	32.4	0.0	0.0	48.0	-6.0	54.0			
1842.6000	42.1	А	Н	1.0	0	Y	LOW	28.5	2.5	32.4	0.0	0.0	40.7	-13.3	54.0			
1842.6000	48.2	А	Н	1.5	180	Ζ	LOW	28.5	2.5	32.4	0.0	0.0	46.8	-7.2	54.0			
1842.6000	41.9	А	V	1.0	0	Х	LOW	28.5	2.5	32.4	0.0	0.0	40.5	-13.5	54.0			
1842.6000	48.0	А	V	1.0	0	Y	LOW	28.5	2.5	32.4	0.0	0.0	46.6	-7.4	54.0			
1842.6000	44.0	А	V	1.0	0	Z	LOW	28.5	2.5	32.4	0.0	0.0	42.6	-11.4	54.0			
															<u>├</u>			

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN ** DELTA = SPEC LIMIT - CORRECTED READING

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COMPANY		LOAD SYS	STEMS.	INC.											DATE		2/19/03	
EUT		LOAD CE													DUTY CY	CLE	N/A	%
MODEL		LS001													РЕАК ТС		N/A	dB
S/N		N/A													TEST DIS	ST.	3	Meters
TEST ENGINE	ER	Kyle Fujim	yle Fujimoto I												LAB		D	
Frequency	Peak		Antenna	Antenna	EUT	EUT	EUT	Antenna	Cable	Amplifier	Distance	Mixer	*Corrected	Delta	Spec			
Trequency	Reading	Average (A) or Quasi-	Polar.	Height	Azimuth	Axis	Тх	Factor	Loss	Gain	Factor	Factor	Reading	**	Limit			
MHz	(dBuV)		(V or H)	(meters)	(degrees)	(X,Y,Z)	Channel	(dB)	(dB)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dBuV/m)		Comments	
2763.9000	45.3	Α	Н	1.0	0	Х	LOW	30.8	4.0	31.2	0.0	0.0	48.9	-5.1	54.0			
2763.9000	41.2	А	Н	1.0	0	Y	LOW	30.8	4.0	31.2	0.0	0.0	44.8	-9.2	54.0			
2763.9000	48.5	45.7 A	Н	1.0	0	Ζ	LOW	30.8	4.0	31.2	0.0	0.0	49.3	-4.7	54.0			
2763.9000	44.5	39.0 A	V	1.0	0	Х	LOW	30.8	4.0	31.2	0.0	0.0	42.6	-11.4	54.0			
2763.9000	47.3	43.6 A	V	1.0	90	Y	LOW	30.8	4.0	31.2	0.0	0.0	47.2	-6.8	54.0			
2763.9000	45.6	40.8 A	V	1.0	0	Ζ	LOW	30.8	4.0	31.2	0.0	0.0	44.4	-9.6	54.0			
															+			

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN ** DELTA = SPEC LIMIT - CORRECTED READING

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COMPANY		LOAD SYS	STEMS,	INC.											DATE		2/19/03	
EUT		LOAD CE													DUTY C	YCLE	N/A	%
MODEL		LS001													PEAK T	O AVG	N/A	dB
S/N		N/A													TEST DI	IST.	3	Meters
TEST ENGINE	ER	Kyle Fujim	Kyle Fujimoto I												LAB		D	
Frequency	Peak		Antenna	Antenna	EUT	EUT	EUT	Antenna	Cable	Amplifier	Distance	Mixer	*Corrected	Delta	Spec			
requency	Reading	Average (A) or Quasi-	Polar.		Azimuth	Axis	Тх	Factor	Loss	Gain	Factor	Factor	Reading	**	Limit			
MHz	(dBuV)		(V or H)	(meters)	(degrees)	(X,Y,Z)	Channel	(dB)	(dB)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dBuV/m)		Comments	
3685.2000	37.9	Α	Н	1.0	0	Х	LOW	32.5	5.1	31.7	0.0	0.0	43.8	-10.2	54.0			
3685.2000	37.7	А	Н	1.0	180	Y	LOW	32.5	5.1	31.7	0.0	0.0	43.6	-10.4	54.0			
3685.2000	35.4	А	Н	1.0	180	Ζ	LOW	32.5	5.1	31.7	0.0	0.0	41.3	-12.7	54.0			
3685.2000	37.4	А	V	1.0	0	Х	LOW	32.5	5.1	31.7	0.0	0.0	43.3	-10.7	54.0			
3685.2000	38.3	А	V	1.0	0	Y	LOW	32.5	5.1	31.7	0.0	0.0	44.2	-9.8	54.0			
3685.2000	38.7	А	V	1.0	0	Ζ	LOW	32.5	5.1	31.7	0.0	0.0	44.6	-9.4	54.0			
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* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

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COMPANY		LOAD SYS	TEMS,	INC.											DATE		2/19/03	
EUT		LOAD CEI													DUTY CY	YCLE	N/A	%
MODEL		LS001													PEAK TO) AVG	N/A	dB
S/N		N/A													TEST DIS	ST.	3	Meters
TEST ENGINE	ER	Kyle Fujim	oto												LAB		D	
Frequency	Peak		Antenna	Antenna	EUT	EUT	EUT	Antenna	Cable	Amplifier	Distance	Mixer	*Corrected	Delta	Spec			
Trequency	Reading	Average (A) or Quasi-	Polar.	Height	Azimuth	Axis	Tx	Factor	Loss	Gain	Factor	Factor	Reading	**	Limit			
MHz	(dBuV)		(V or H)	(meters)	(degrees)	(X,Y,Z)	Channel	(dB)	(dB)	(dB)	(dB)	(dB)	(dBuV/m)	(dB)	(dBuV/m)		Comments	
4606.5000	38.6	А	Н	1.0	0	Х	LOW	34.4	5.2	31.6	0.0	0.0	46.5	-7.5	54.0			
4606.5000	37.3	А	Н	1.0	180	Y	LOW	34.4	5.2	31.6	0.0	0.0	45.2	-8.8	54.0			
4606.5000	37.7	А	Н	1.0	0	Ζ	LOW	34.4	5.2	31.6	0.0	0.0	45.6	-8.4	54.0			
4606.5000	38.3	А	V	1.0	0	Х	LOW	34.4	5.2	31.6	0.0	0.0	46.2	-7.8	54.0			
4606.5000	38.3	А	V	1.0	0	Y	LOW	34.4	5.2	31.6	0.0	0.0	46.2	-7.8	54.0			
4606.5000	38.7	А	V	1.0	0	Ζ	LOW	34.4	5.2	31.6	0.0	0.0	46.6	-7.4	54.0			
					-													

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN ** DELTA = SPEC LIMIT - CORRECTED READING No Emissions Nor Harmonics Found After the 5th Harmonic

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Test location:	Compatible Electronics
Customer :	LOAD SYSTEMS, INC. Date : 2/19/2003
Manufacturer :	LOAD SYSTEMS, INC. Time : 14.56
EUT name :	LOAD CELL AMPLIFIER Model: LS001
Specification:	Fcc B Test distance: 3.0 mtrs Lab: D
Distance correc	tion factor(20*log(test/spec)) : 0.00
Test Mode :	RADIATED SPURIOUS EMISSIONS 10 kHz TO 9300 MHz
	VERTICAL AND HORIZONTAL POLARIZATION
	TEMPERATURE 57 DEGREES F., RELATIVE HUMIDITY 75%
	TESTED BY: KYLE FUJIMOTO

NO SPURIOUS EMISSIONS FOUND BETWEEN 10 kHz AND 9300 MHz IN BOTH VERTICAL AND HORIZONTAL POLARIZATION FOR THE EUT

