FCC PART 15, SUBPART C
TEST METHOD: ANSI C63.4-1992

for

FAN CONTROLLER

MODEL: SR330

Prepared for

EMERSON ELECTRIC COMPANY
8400 PERSHALL ROAD
HAZELWOOD, MISSOURI 63042

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

MICHAEL CHRISTENSEN

COMPATIBLE ELECTRONICS INC.
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DATE: JUNE 5, 2000

	REPORT	APPENDICES					TOTAL
	BODY	***A***	***B***	***C***	***D***	***E***	
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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: Fan Controller
Model: SR330
S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was not modified during the testing.

Customer: Emerson Electric Company
8400 Pershall Road
Hazlewood, Missouri 63042

Test Date: May 17, 2001

Test Specifications: EMI requirements
CFR Title 47, Part 15 Subpart C, Sections 15.205, 15.209, and 15.231

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 runs off one 12 V battery only and cannot be powered by any device that runs off of the AC public mains.
2	Radiated RF Emissions, 10 kHz - 4500 MHz	Complies with the of CFR Title 47, Part 15 Subpart C, sections 15.205, 15.209, and 15.231

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Fan Controller Model: SR330. 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 specification limits defined by CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

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

Emerson Electric Company

Craig Johnson Engineer

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer
Michael Christensen Test Engineer

2.4 Date Test Sample was Received

The test sample was received on May 17, 2001.

2.5 Disposition of the Test Sample

The test sample was returned to Emerson Electric Company on May 17, 2001.

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
CFR	Code of Federal Regulations

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
CFR Title 47, Subpart C	FCC Rules – Radio frequency devices (including digital devices) – Intentional Radiators
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.

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 Fan Controller Model: SR330 (EUT) was tested as a stand alone unit and tested in three different orthogonal axis. The EUT was continuously transmitting during the test. The antenna is a PCB trace. The EUT turns immediately off after the button is released.

Final radiated data was taken in the mode above.

4.1.1 Cable Construction and Termination

There were no cables attached 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
FAN CONTROLLER (EUT)	EMERSON ELECTRIC COMPANY	SR330	N/A	**F92SR330**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	3701A22262	June 24, 2000	June 24, 2001
Preamplifier	Com Power	PA-102	1017	Jan. 5, 2001	Jan. 5, 2002
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	June 24, 2000	June 24, 2001
Biconical Antenna	Com Power	AB-100	1548	Oct. 16, 2000	Oct. 16, 2001
Log Periodic Antenna	Com Power	AL-100	16101	Oct. 16, 2000	Oct. 16, 2001
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	HP98561A	2522A05178	N/A	N/A
Printer	Hewlett Packard	2225A	2925S33268	N/A	N/A
Plotter	Hewlett Packard	7440A	8726K38417	N/A	N/A
Microwave Preamplifier	Com-Power	PA-122	25195	Jan. 9, 2001	Jan. 9, 2002
Horn Antenna	Antenna Research	DRG-118/A	1053	Jan. 15, 2001	Jan. 15, 2002
Loop Antenna	Com-Power	AL-130	25309	May 25, 2000	May 25, 2001

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 PA-122 Microwave Preamplifier 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 quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 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 4.5 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 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.

7.2 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the Fan Controller. A plot of the -20 dB bandwidth is in Appendix D.

8. CONCLUSIONS

The Fan Controller Model: SR330 meets all of the specification limits defined in CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

APPENDIX A

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.231 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.

Modifications:

No modifications were made to the EUT.

APPENDIX B

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

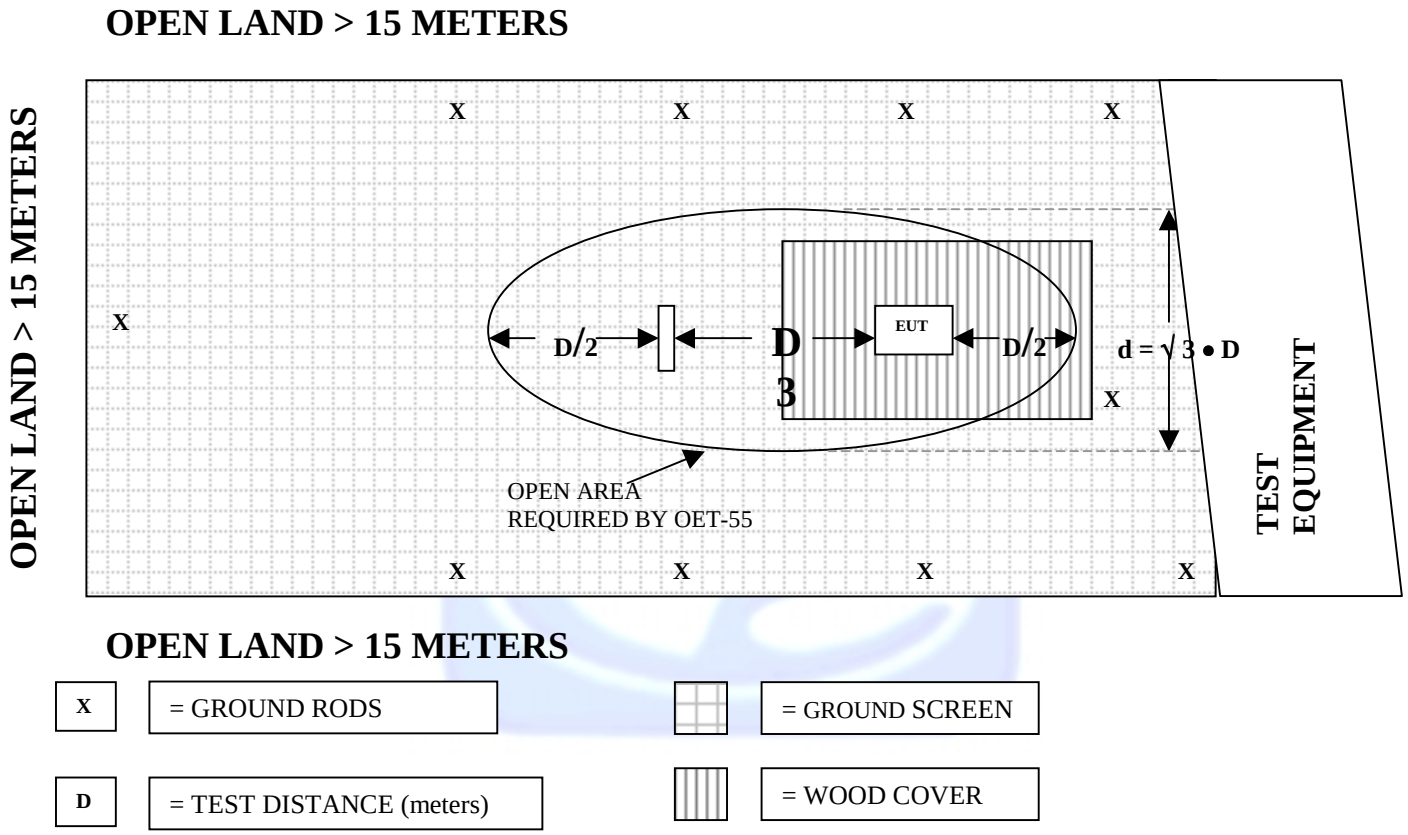
USED FOR THE PRIMARY TEST	Fan Controller Model: SR330 S/N: N/A

There were no additional models covered under this report.

APPENDIX C

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE



FRONT VIEW

EMERSON ELECTRIC COMPANY
FAN CONTROLLER
Model: SR330
FCC SUBPART C - RADIATED EMISSIONS – 5-17-01

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

EMERSON ELECTRIC COMPANY
FAN CONTROLLER
Model: SR330
FCC SUBPART C - RADIATED EMISSIONS – 5-17-01

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

COM-POWER AB-100

BICONICAL ANTENNA

S/N: 01548

CALIBRATION DATE: OCTOBER 16, 2000

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	14.01	120	10.33
35	13.63	125	11.61
40	13.26	140	12.70
45	11.62	150	12.95
50	11.03	160	13.58
60	8.52	175	14.82
70	8.94	180	14.84
80	8.17	200	14.80
90	8.08	250	16.42
100	8.64	300	20.26

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16101

CALIBRATION DATE: OCTOBER 16, 2000

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.96	700	19.24
400	16.92	800	21.37
500	16.73	900	22.13
600	16.32	1000	22.19

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 11, 2000

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.3	300	38.6
40	38.6	350	38.6
50	38.7	400	38.6
60	38.8	450	38.1
70	38.9	500	37.9
80	38.8	550	39.2
90	38.6	600	38.3
100	38.6	650	38.4
125	38.8	700	38.3
150	38.8	750	38.2
175	38.7	800	37.7
200	38.8	850	37.5
225	38.6	900	37.5
250	38.6	950	37.7
275	38.5	1000	37.3

COM-POWER PA-122

MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: JANUARY 9, 2001

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	33.1	9.5	30.7
1.1	33.0	10.0	31.6
1.2	33.2	11.0	30.6
1.3	33.0	12.0	28.5
1.4	32.4	13.0	31.5
1.5	32.3	14.0	33.2
1.6	32.1	15.0	31.5
1.7	32.0	16.0	30.2
1.8	31.8	17.0	31.6
1.9	32.2	18.0	31.7
2.0	32.6		
2.5	31.9		
3.0	31.7		
3.5	31.7		
4.0	32.3		
4.5	31.5		
5.0	32.3		
5.5	34.2		
6.0	30.9		
6.5	32.0		
7.0	32.1		
7.5	33.0		
8.0	31.9		
8.5	31.9		
9.0	31.3		

ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: JANUARY 15, 2001

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.4	9.5	39.6
1.5	26.7	10.0	39.7
2.0	29.6	10.5	40.8
2.5	30.7	11.0	40.4
3.0	31.2	11.5	42.2
3.5	32.3	12.0	43.0
4.0	33.2	12.5	42.6
4.5	33.2	13.0	41.3
5.0	34.8	13.5	40.3
5.5	35.4	14.0	40.9
6.0	36.6	14.5	44.0
6.5	36.6	15.0	43.3
7.0	38.7	15.5	42.7
7.5	38.6	16.0	42.6
8.0	37.9	16.5	42.8
8.5	37.9	17.0	43.5
9.0	39.9	17.5	44.6
		18.0	42.2

Com-Power Corporation

(949) 587-9800

Antenna Calibration

Antenna Type:	Loop Antenna
Model:	AL-130
Serial Number:	25309
Calibration Date:	05/25/00

Frequency MHz	Magnetic (dB/m)	Electric dB/m
0.009	-41.0	10.5
0.01	-41.0	10.5
0.02	-41.9	9.6
0.05	-41.9	9.6
0.075	-41.8	9.7
0.1	-42.2	9.3
0.15	-42.2	9.3
0.25	-40.7	10.8
0.5	-42.1	9.4
0.75	-40.9	10.6
1	-41.3	10.2
2	-40.8	10.7
3	-41.1	10.4
4	-41.2	10.3
5	-40.7	10.8
10	-40.6	10.9
15	-42.0	9.5
20	-42.0	9.5
25	-42.9	8.6
30	-42.3	9.2

Trans. Antenna Height	2 meter
Receiving Antenna Height	2 meter

APPENDIX D

DATA SHEETS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
417.5600	72.7	55.0 A	H	1.0	270	X	LOW	16.9	3.3	0.0	**75.1**	**-5.1**	**80.3**	
417.5600	62.9	45.2 A	H	1.0	90	Y	LOW	16.9	3.3	0.0	**65.3**	**-14.9**	**80.3**	
417.5600	66.0	48.3 A	H	3.0	90	Z	LOW	16.9	3.3	0.0	**68.4**	**-11.8**	**80.3**	
417.5600	55.6	37.9 A	V	1.5	90	X	LOW	16.9	3.3	0.0	**58.0**	**-22.2**	**80.3**	
417.5600	70.9	53.2 A	V	1.5	90	Y	LOW	16.9	3.3	0.0	**73.3**	**-6.9**	**80.3**	
417.5600	66.6	48.9 A	V	1.5	90	Z	LOW	16.9	3.3	0.0	**69.0**	**-11.2**	**80.3**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
835.1200	87.8	69.8 A	H	1.0	270	X	LOW	21.6	4.8	38.0	**58.2**	**-2.1**	**60.3**	
835.1200	76.9	58.9 A	H	1.0	90	Y	LOW	21.6	4.8	38.0	**47.3**	**-13.0**	**60.3**	
835.1200	84.8	66.8 A	H	1.0	0	Z	LOW	21.6	4.8	38.0	**55.2**	**-5.1**	**60.3**	
835.1200	76.0	58.0 A	V	1.5	90	X	LOW	21.6	4.8	38.0	**46.4**	**-13.9**	**60.3**	
835.1200	86.0	68.0 A	V	1.0	0	Y	LOW	21.6	4.8	38.0	**56.4**	**-3.9**	**60.3**	
835.1200	80.4	62.4 A	V	1.5	90	Z	LOW	21.6	4.8	38.0	**50.8**	**-9.5**	**60.3**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
1252.6800	64.8	46.8 A	H	1.0	90	X	LOW	26.1	2.6	33.1	**42.3**	**-18.0**	**60.3**	
1252.6800	59.8	41.8 A	H	1.5	0	Y	LOW	26.1	2.6	33.1	**37.3**	**-23.0**	**60.3**	
1252.6800	60.2	42.2 A	H	2.5	90	Z	LOW	26.1	2.6	33.1	**37.7**	**-22.6**	**60.3**	
1252.6800	63.6	45.6 A	V	2.0	90	X	LOW	26.1	2.6	33.1	**41.1**	**-19.2**	**60.3**	
1252.6800	64.0	46.0 A	V	2.0	90	Y	LOW	26.1	2.6	33.1	**41.5**	**-18.8**	**60.3**	
1252.6800	62.6	44.6 A	V	2.0	90	Z	LOW	26.1	2.6	33.1	**40.1**	**-20.2**	**60.3**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
1670.2400	53.2	35.2 A	H	2.0	90	X	LOW	27.7	3.3	32.0	**34.1**	**-19.9**	**54.0**	
1670.2400	52.1	34.1 A	H	1.5	90	Y	LOW	27.7	3.3	32.0	**33.0**	**-21.0**	**54.0**	
1670.2400	52.8	34.8 A	H	3.0	90	Z	LOW	27.7	3.3	32.0	**33.7**	**-20.3**	**54.0**	
1670.2400	57.0	39.0 A	V	1.5	90	X	LOW	27.7	3.3	32.0	**37.9**	**-16.1**	**54.0**	
1670.2400	58.0	40.0 A	V	1.5	90	Y	LOW	27.7	3.3	32.0	**38.9**	**-15.1**	**54.0**	
1670.2400	53.0	35.0 A	V	1.5	90	Z	LOW	27.7	3.3	32.0	**33.9**	**-20.1**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2087.8000	47.2	29.2 A	H	1.5	0	X	LOW	29.8	3.6	32.5	**30.1**	**-30.2**	**60.3**	
2087.8000	48.1	30.1 A	H	1.5	0	Y	LOW	29.8	3.6	32.5	**31.0**	**-29.3**	**60.3**	
2087.8000	43.7	25.7 A	H	1.5	90	Z	LOW	29.8	3.6	32.5	**26.6**	**-33.7**	**60.3**	
2087.8000	46.9	28.9 A	V	1.5	0	X	LOW	29.8	3.6	32.5	**29.8**	**-30.5**	**60.3**	
2087.8000	48.0	30.0 A	V	1.0	90	Y	LOW	29.8	3.6	32.5	**30.9**	**-29.4**	**60.3**	
2087.8000	47.5	29.5 A	V	1.5	90	Z	LOW	29.8	3.6	32.5	**30.4**	**-29.9**	**60.3**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2505.3600	46.7	28.7 A	H	3.0	90	X	LOW	30.7	3.5	31.9	**31.0**	**-29.3**	**60.3**	
2505.3600	47.2	29.2 A	H	1.5	0	Y	LOW	30.7	3.5	31.9	**31.5**	**-28.8**	**60.3**	
2505.3600	47.2	29.2 A	H	1.5	0	Z	LOW	30.7	3.5	31.9	**31.5**	**-28.8**	**60.3**	
2505.3600	49.8	31.8 A	V	3.0	0	X	LOW	30.7	3.5	31.9	**34.1**	**-26.2**	**60.3**	
2505.3600	50.3	32.3 A	V	1.5	90	Y	LOW	30.7	3.5	31.9	**34.6**	**-25.7**	**60.3**	
2505.3600	49.0	31.0 A	V	3.0	90	Z	LOW	30.7	3.5	31.9	**33.3**	**-27.0**	**60.3**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	**EMERSON ELECTRIC**	**DATE**	**5/17/01**
EUT	**FAN CONTROLLER**	**DUTY CYCLE**	**12.50 %**
MODEL	**SR330**	**PEAK TO AVG**	**-18.06 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2922.9200	51.5	33.5 A	H	1.0	0	X	LOW	31.1	4.9	31.7	**37.8**	**-22.5**	**60.3**	
2922.9200	56.9	38.9 A	H	1.0	90	Y	LOW	31.1	4.9	31.7	**43.2**	**-17.1**	**60.3**	
2922.9200	50.2	32.2 A	H	1.0	0	Z	LOW	31.1	4.9	31.7	**36.5**	**-23.8**	**60.3**	
2922.9200	54.2	36.2 A	V	1.5	90	X	LOW	31.1	4.9	31.7	**40.5**	**-19.8**	**60.3**	
2922.9200	50.8	32.8 A	V	1.5	90	Y	LOW	31.1	4.9	31.7	**37.1**	**-23.2**	**60.3**	
2922.9200	53.9	35.9 A	V	1.0	0	Z	LOW	31.1	4.9	31.7	**40.2**	**-20.1**	**60.3**	

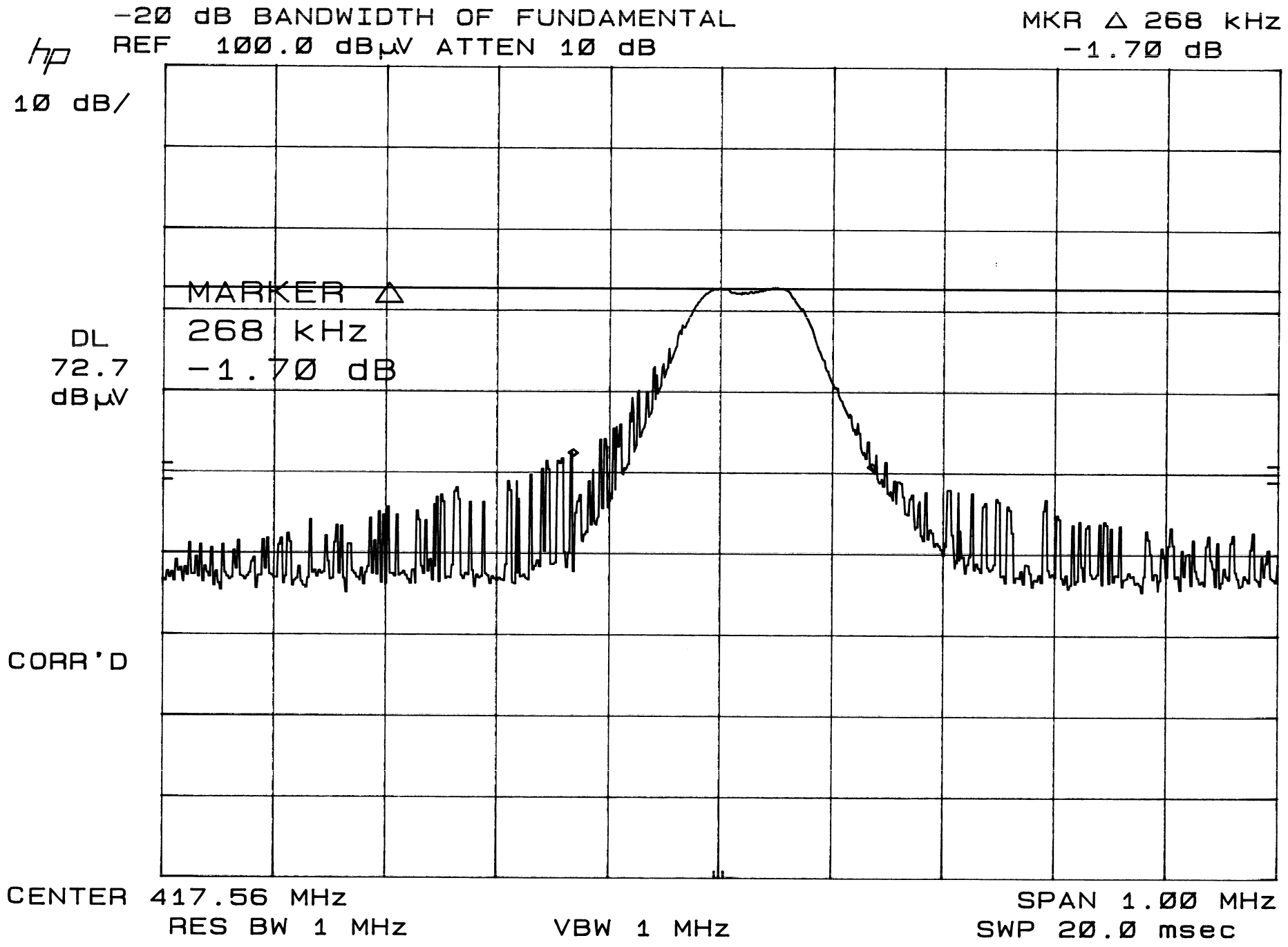
* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

No Harmoincs nor Emissions found beyond the 7th harmonic for the EUT

Test location: Compatible Electronics
Customer : EMERSON ELECTRIC Date : 5/17/2001
Manufacturer : EMERSON ELECTRIC Time : 17.08
EUT name : FAN CONTROLLER Model: SR330
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : Spurious Emissions of the EUT
Vertical and Horizontal Polarization 10 kHz to 1000 MHz
Temperature 68 Degrees F., Relative Humidity 42%
Tested By: Kyle Fujimoto

No Spurious Emissions found from the EUT
in Either Polarization from 10 kHz to 1000 MHz


-20 dB BANDWIDTH OF FUNDAMENTAL
REF 100.0 dBµV ATTEN 10 dB
MKR Δ 268 kHz
-1.70 dB
10 dB/
MARKER Δ
268 kHz
-1.70 dB
DL
72.7
dBµV
CORR'D
CENTER 417.56 MHz
RES BW 1 MHz
VBW 1 MHz
SPAN 1.00 MHz
SWP 20.0 msec

APPENDIX E

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200063-0

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

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

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

Technology International (Europe) Ltd.