Date: 1999-06-17 **Page 1 of 7**
No.: WM100169

TEST REPORT

APPLICANT: (Code:SUE001)
SUPERSONICS ELECTRIC COMPANY
BLK. D, 6TH FLOOR, GEE CHANG IND. BLDG., 108 LOK SHAN ROAD,
KOWLOON, HONG KONG.

DATE OF SAMPLES RECEIVED: 1999.06.09

DATE OF TESTING: 1999.06.15

DESCRIPTION OF SAMPLE(S):
A sample of product said to be:

Product:	CONTROLLER BOX
Manufacturer:	Guan Lan Teemable Electronics Fty.`
Model Number:	77253
Brand Name:	N/A
Rating:	9Vd.c. ("6F22" size battery × 1)
Origin:	China

INVESTIGATIONS REQUESTED:
Measurement to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart C - Intentional Radiator.

RESULT/ REMARK: Please see attached sheet(s).

CONCLUSION:
From the measurement data obtained, the tested sample was considered to have COMPLIED with the clause 15.227 of Federal Communications Commission Rules and Regulations Part 15.

TEST EQUIPMENT AUDIT: Please see Appendix A

Law Man Kit	Kitty Choy	Patrick Wong
Testing Engineer	Verify by	Patrick Wong for Managing Director

T E S T S U M M A R Y

*** INTENTIONAL RADIATOR ***

(1) Measurement of Emission of RF energy on the carrier frequency.....Satisfactory

Measurement of the out-of band emissions including harmonics.....Satisfactory

(2) Measurement of Emission Within Band Edges..... Satisfactory

(3) Measurement of Line-Conducted Voltage onto AC Power Line..... Not applicable

T E S T D A T A

Please refer to the attached result sheets.

*** INTENTIONAL RADIATOR ***

(1) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart Section 15.227(26.96-27.28MHz)
TEST CONDITION : Normal
TEST DATE : 1999.06.15.

Emission of RF energy on the carrier frequency -- 27.145 MHz
(PEAK VALUE)

Emission Frequency	Meter Reading	Polarization		Antenna Factor	Field Strength (at 3m)		FCC Limit
MHz	dB(μV)	H-V		dB	dB(μV/m)	μV/m	μV/m
27.1	54.3	V	+	48.5	72.8	4365.16	100000

Emission of RF energy on the carrier frequency -- 27.145 MHz
(AVERAGE VALUE)

Emission Frequency	Meter Reading	Polarization		Antenna Factor	Field Strength (at 3m)		FCC Limit
MHz	dB(μV)	H-V		dB	dB(μV/m)	μV/m	μV/m
27.1	49.2	V	+	18.5	67.7	2426.6	10000

... to be continued

*** INTENTIONAL RADIATOR ***

(1) Measurement of Radiated Interference . . Continued ..

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TEST REFERENCE: FCC Rules Part 15 Section 15.227 (26.96-27.28 MHz)
TEST CONDITION : Normal
TEST DATE : 1999.06.15

The out-of-band emissions, including harmonics (25-1000 MHz)
(CISPR VALUE)

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Emission Frequency		Meter Reading	Polarization		Antenna Factor	Field Strength (at 3m)			FCC Limit
MHz		dB(µV)	H-V		dB	dB(µV/m)		µV/m	µV/m
54.3		23.1	V	+	12.9	36.0		63.1	100
81.4		20.3	V	+	8.9	29.2		28.8	100
108.6		18.4	V	+	12.2	27.3		23.2	150
135.7		15.1	V	+	10.8	25.9		19.7	150
162.9		19.3	V	+	9.5	28.8		27.5	150
190.0		21.1	V	+	11.1	32.2		40.7	150
217.2		26.9	V	+	12.2	39.1		90.2	200
244.3		20.2	V	+	13.5	33.7		48.4	200
271.5		15.4	V	+	16.0	31.4		37.2	200
298.6	<	1.0		+	16.5	< 17.5	<	7.5	200
325.7	<	1.0		+	16.6	< 17.6	<	7.6	200
352.9	<	1.0		+	16.7	< 17.7	<	7.7	200
380.0	<	1.0		+	17.4	< 18.4	<	8.3	200
407.2	<	1.0		+	18.2	< 19.2	<	9.1	200
434.3	<	1.0		+	19.5	< 20.5	<	10.6	200
461.5	<	1.0		+	20.1	< 21.1	<	11.4	200
488.6	<	1.0		+	20.3	< 21.3	<	11.6	200
515.8	<	1.0		+	20.9	< 21.9	<	12.4	200
542.9	<	1.0		+	22.1	< 23.1	<	14.3	200
570.0	<	1.0		+	22.8	< 23.8	<	15.5	200
597.2	<	1.0		+	23.3	< 24.3	<	16.4	200
624.3	<	1.0		+	23.4	< 24.4	<	16.6	200
651.5	<	1.0		+	23.6	< 24.6	<	17.0	200
678.6	<	1.0		+	24.9	< 25.9	<	19.7	200
705.8	<	1.0		+	25.1	< 26.1	<	20.2	200
732.9	<	1.0		+	25.4	< 26.4	<	20.9	200
760.1	<	1.0		+	26.4	< 27.4	<	23.4	200
787.2	<	1.0		+	26.8	< 27.8	<	24.5	200
814.4	<	1.0		+	26.7	< 27.7	<	24.3	200

... to be continued

*** INTENTIONAL RADIATOR ***

(1) Measurement of Radiated Interference . . Continued ..

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TEST REFERENCE: FCC Rules Part 15 Section 15.227 (26.96-27.28 MHz)
TEST CONDITION : Normal
TEST DATE : 1999.06.15

The out-of-band emissions, including harmonics (25-1000 MHz)
(CISPR VALUE)

Emission Frequency	Meter Reading	Polarization	Antenna Factor	Field Strength (at 3m)		FCC Limit
MHz	dB(μV)	H-V	dB	dB(μV/m)	μV/m	μV/m
841.5	<1.0	+	26.1	<27.1	<22.6	200
868.6	<1.0	+	26.8	<27.8	<24.5	200
895.8	<1.0	+	27.1	<28.1	<25.4	200
922.9	<1.0	+	27.5	<28.5	<26.6	200
950.1	<1.0	+	28.1	<29.1	<28.5	200
977.2	<1.0	+	28.2	<29.2	<28.8	500
999.5	<1.0	+	28.5	<29.5	<29.9	500

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==========SUMMARY==========

All data is within limits

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Broad-band Antennas were used both polarizations of emissions were measured.
polarizations at highest reading indicated as:
H -- Horizontal V -- Vertical

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*** INTENTIONAL RADIATOR ***

(2) Measurement of Emissions Within Band Edges.

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TEST REFERENCE: FCC Rules Part 15 section 15.227(26.96-27.28MHz)
TEST CONDITION: Normal
TEST DATE : 1999.06.15

RESULTS AND NOTES

L: FCC Lower Band Edge.....-> 26.960MHz
H: FCC Higher Band Edge.....-> 27.280MHz
C: Unmodulated carrier at frequency.....-> 27.145MHz
D: No. of dB from unmodulated carrier.....-> 54.34dB

SPECTRUM ANALYZER SETTINGS

Resolution bandwidth : 1.0KHz
Frequency span : 10.0KHz/div
No. of dB/div : 10.0dB/div

FCC Limit

Minimum No. of dB from unmodulated carrier required : 26.0dB

==========SUMMARY==========
All data is within limits
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NOTES FOR THE RADIATION MEASUREMENT

(1) Test site facility:
Open field test site located at Taipo (Hong Kong) with a metal ground plane on filed with the FCC pursuant to section 2.948 of the FCC Rules.

(2) Distance between the EUT and measuring antenna:
3 meters.

(3) Measuring instrumentations:
CISPR Quasi-peak type field strength meter (25 MHz - 1000 MHz). 6 dB bandwidth set at 120KHz. Also, peak level of the fundamental emissions was measured in order to determine compliance with the 20dB peak to average limit specified in Section 15.35(b) of the FCC new Rules.

(4) Measuring antenna:
Broad band antenna for the frequency range 25-1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable. included in the Antenna Factor for measurement data. The antenna are capable of measuring both horizontal and vertical polarizations.

(5) Frequency range scanned:
The frequency range from 25 MHz to 1000 MHz had been searched. Readings of the highest emissions relating to the limit were reported as above.

(6) Arrangement of EUT:
During the test, the sample was operated at rated supply voltage and arranged for maximum emissions.

(7) Measuring Procedure:
In accordance with the relevant clauses of the FCC Rules Part 15 section 15.227.

(8) Measuring Uncertainty:
The calculated uncertainty for measurement performed at 3M test distance are:-
30MHz to 300MHz = ± 3.7dB, 300MHz to 1000MHz = + 3.0dB/-2.7dB.

Remark: Purpose of this test is to provide the Applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under FCC's Equipment Authorization Program. This test itself is not an Approval Test.

**********End of Document**********-