



FOUNTAIN TECHNOLOGIES, INC.

COMPLIANCE LABORATORY

50 Randolph Rd.
Somerset, NJ 08873

Tel: (732) 560-9010
Fax: (732) 560-9173

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT

of

AC WIRELESS DOOR CHIME RECEIVER

MODEL: RC3120R

FCC ID: DE4RC3120R

JUNE 18, 1998

This report concerns (check one): Original grant ☒ Class II change ☐
Equipment type: Superregenerative Receiver

Deferred grant requested per 47 CF 0.457(d)(1)(ii)? yes ☐ no ☒

If yes, defer until: _____ (date)

Company agrees to notify the Commission by _____ (date)
of the intended date of announcement of the product so that the grant can be
issued on that date.

Transition Rules Request per 15.37? yes ☐ no ☒

If no, assumed Part 15, Subpart B for unintentional radiators - the new 47 CFR
[10-1-90 Edition] provision.

Report prepared for:

Dimango Products Corporation

Report prepared by:

Fountain Compliance Lab

Report number:

0048-980604-01



The test result in this report IS supported and covered by the NVLAP accreditation



FOUNTAIN TECHNOLOGIES, INC.

*Important
CALL
LanSON + Sessions
IN Damage
on 731.*

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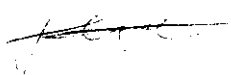
TO: Ms. Jaunice Green	DATE: Aug. 5, 1998
ORGANIZATION: FCC	
REFERENCE NUMBER: 2077 / FCC ID: DE4RC3120R	
TOTAL # PAGES INCLUDING COVER SHEET: 7	

Dear Ms. Green,

Thank you very much for your attention on our applications. Enclosed please find the correct information for Form 731 and test report. I appreciate that you could replace the Form 731, Authorization Letter and Page. 1 & Page 4 of the test report with corrected materials.

Should you need more information, please contact me at 732-560-9010.

Regards,


Wei Li
Manager of FCL

Wei Li
FCC LABORATORY



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[10-1-90 Edition] provision.

Report prepared for:	LMS ASIA LIMITED
Report prepared by:	Fountain Compliance Lab
Report number:	0048-980604-01



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1. GENERAL INFORMATION


1.1 Verification of Compliance

EUT: AC WIRELESS DOOR CHIME RECEIVER
 Model: RC3120R
 Applicant: LMS ASIA LIMITED
 Test Type: CERTIFICATION
 Result: PASS
 Tested by: FOUNTAIN COMPLIANCE LABORATORY
 Test Date: 06/11/98
 Report Number: 0048-980604-01

The above equipment was tested by Fountain Technologies, Inc. Compliance Laboratory for compliance with the requirement set forth in the FCC rules and regulations Part 15, subpart C. This said equipment in the configuration described in the report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

The estimated uncertainty of the test result is given as following. The method of uncertainty calculation is provided in Fountain Compliance Lab. Doc. No. 0048-01-01.

	Prob. Dist.	Uncertainty(dB)	Uncertainty(dB)	Uncertainty(dB)
		30-1000MHz	1-6.5GHz	Conducted
Combined Std. Uncertainty u_c	norm.	± 2.36	± 2.99	± 1.83


 Wei Li
 Lab Manager
 Fountain Compliance Lab
 Fountain Technologies, Inc.

2-1-98
 Date

1.2 Equipment Modifications

N/A

1.3 Product Information

System Configuration

ITEM	DESCRIPTION	FCC ID	CABLE
Product	AC WIRELESS DOOR CHIME RECEIVER ⁽¹⁾	DE4RC3120R	
Housing	PLASTICS		
Power Supply	BATTERY		
Clock/OSC Freq.	314.8MHz		
Device Type	SUPERREGENERATIVE RECEIVER		

(1) EUT submitted for grant.

1.4 Test Methodology

Both conducted and radiated tests were performed according to the procedures in ANSI C63.4-1992. Radiated test was performed at an antenna to EUT distance of 3 meters.

1.5 Test Facility

The open area test site and conducted measurement facility used to collect the radiated and conducted data are located at 50 Randolph Road, Somerset, New Jersey. This site has been accepted by FCC to perform measurements under Part 15 or 18 in a letter dated May 19, 1997 (Refer to: 31040/PRV 1300F2). The NVLAP Lab code for accreditation of FCC EMC Test Method is: 200101-0.

1.6 Test Equipment

Manufacture	Model	Serial No.	Description	Last Cal dd/mm/yy	Cal Due dd/mm/yy
Hewlett-Packard	HP8546A	3625A00341	EMI Receiver	12/11/97	12/11/98
Fischer Custom	LISN-2	900-4-008	Line Impedance Stabilization Networks	05/05/98	05/05/99
Fischer Custom	LISN-2	900-4-009	Line Impedance Stabilization Networks	01/04/98	01/04/99
EMCO	3115	4945	Double Ridge Guide Horn Antenna	03/10/97	03/10/98
EMCO	3104C	4396	30-200MHz Biconical Antenna	16/06/97	16/06/98
EMCO	3146	3350	200-1000MHz Log-Periodic Antenna	16/06/97	16/06/98

All Test Equipment Used are Calibrated Traceable to NIST Standards.

1.7 Statement for the Document Use

This report shall not be reproduced except in full, without the written approval of the laboratory. And this report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

3. SYSTEM TEST CONFIGURATION

3.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it). And its antenna was permanently attached to the EUT.

A ROHDE&SCHWARZ SMH signal generator was used during the test to radiate an unmodulated CW signal to cohered the receiver at 314.8 MHz. The level was adjusted to let this occur.

3.2 Special Accessories

N/A

3.3 Configuration of Tested System

Figure 3.1 through Figure 3.5 illustrate this system, which is tested standing along.

5. CONDUCTED EMISSION DATA

5.1 Test Methods and Conditions

EMI Receiver was scanned from 450KHz to 30MHz with maximum hold mode for maximum emission. The IF Bandwidth is 9KHz. Recorded data was sent to the plotter to generate output in linear format. At the input of the EMI Receiver, a HP transient limiter is inserted for protective purpose. This limiter has a 10 dB attenuation in the range of 450KHz to 30MHz. That factor was automatically compensated by the receiver, so the readings are the corrected readings. The reference of the plot is the FCC Class B limit 250 μ V in Figure 5.1 through Figure 5.2.

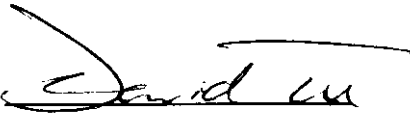
Emissions that have peak values close to the specification limit (if any) are also measured in the quasi-peak mode to determine compliance.

5.2 Test Data

Figure 5.1 through Figure 5.2 show the neutral and line conducted emissions.

Test Personnel:

Tester Signature



Date

6-11-98

Typed/Printed Name: David Tu

Figure 5.1 Natural Conducted
Emission
page 15



L1

MARKER

15.82 MHz

32.960 μ V

ACTV DET: PEAK

MEAS DET: PEAK QP

MKR 15.82 MHz

32.960 μ V

LIN REF 250.0 μ V

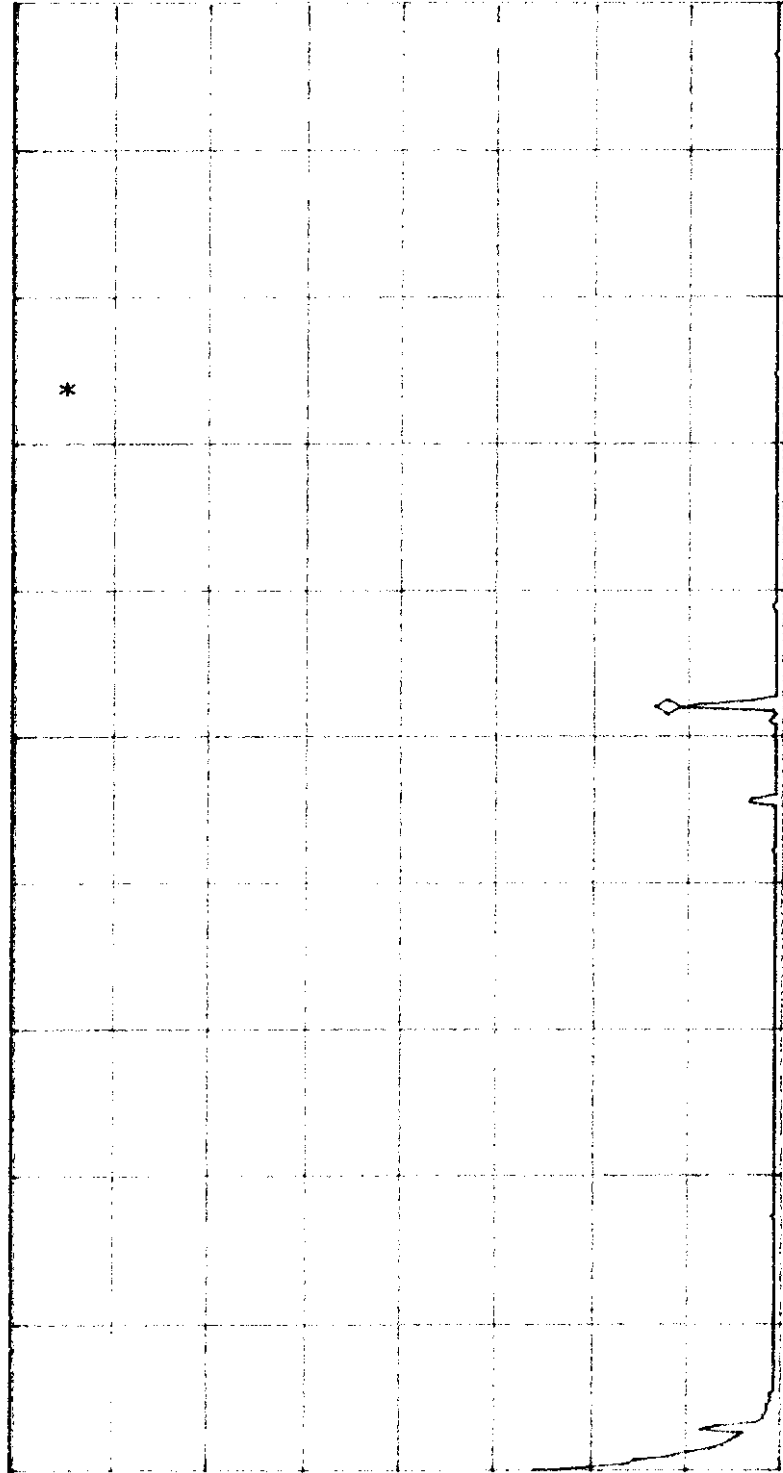
ATN

10 dB

VA SB

SC FC

ACORR



START 450 kHz

IF BW 9.0 kHz

AVG BW 30 kHz

STOP 30.00 MHz

SWP 2.46 sec

Figure 5.1 Line Conducted
Emission
page 16



L2

MARKER

15.82 MHz

19.906 μ V

ACTV DET: PEAK

MEAS DET: PEAK QP

MKR 15.82 MHz

19.906 μ V

LIN REF 250.0 μ V

ATN

10 dB

VA SB

SC FC

ACORR

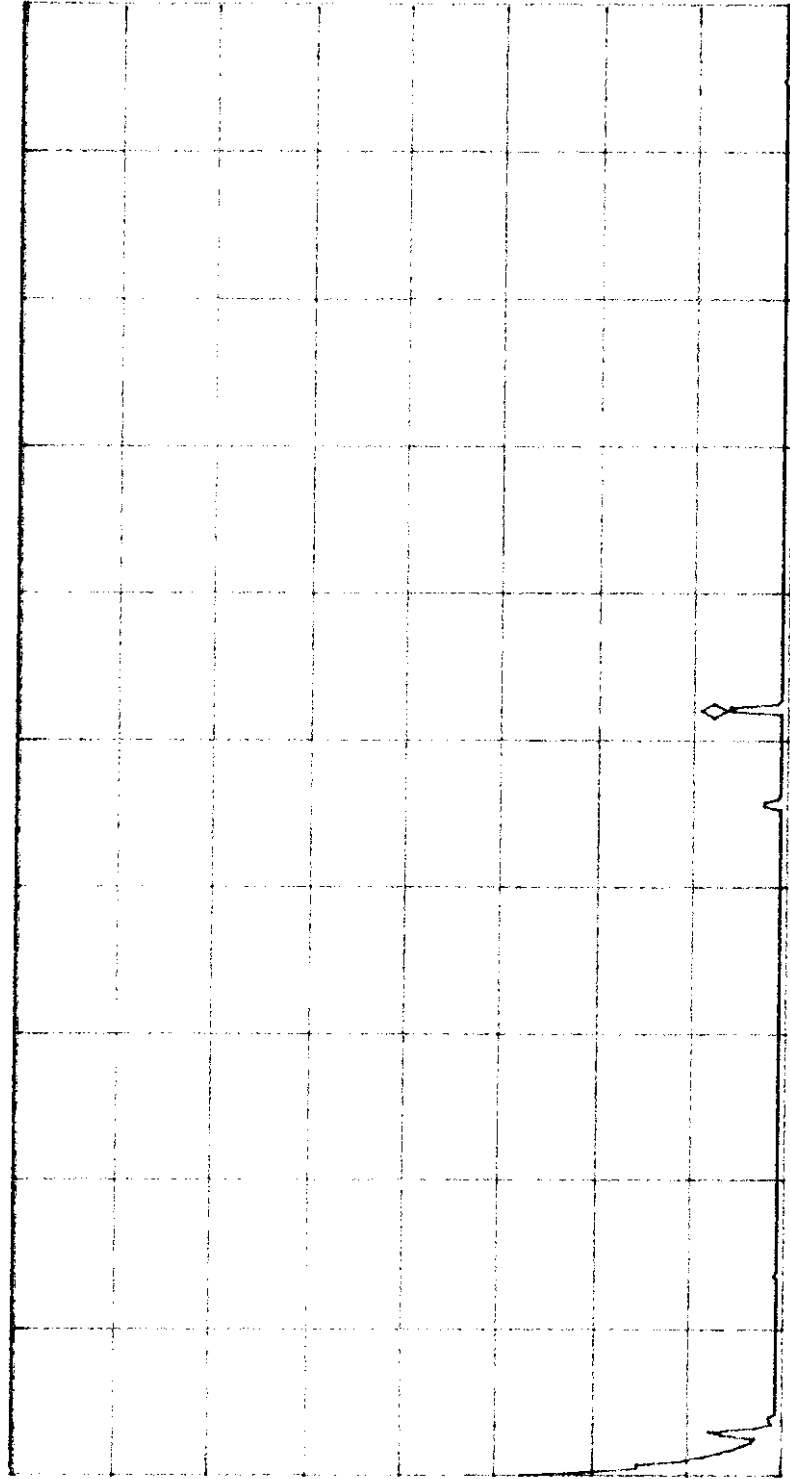
START 450 kHz

IF BW 9.0 kHz

AVG BW 30 kHz

STOP 30.00 MHz

SWP 2.46 sec



Radiated Emission Data

Frequency (MHz)	Polarity [H or V] Position	Height (m)	Azimuth (Degree)	Amplitude Reading (dB μ V/m)	Class B 3m Limit (dB μ V/m)	Difference from limit (dB)
313.8	H1	1	000	35.8	46.0	-10.2
313.8	H2	1	353	33.2	46.0	-12.8
314.3	H1	1	000	36.5	46.0	-9.5
314.3	H2	1	000	34.8	46.0	-11.2
314.8	H1	1	353	41.3	46.0	-4.7
314.8	V1	1	330	38.9	46.0	-2.1
314.8	H2	1	168	43.9	46.0	-2.1
314.8	V2	1	000	41.9	46.0	-4.1
314.8	H3	1	000	41.8	46.0	-4.9
315.4	H1	1	353	36.7	46.0	-9.3
315.4	H2	1	353	34.8	46.0	-11.2
315.9	H1	1	353	36.9	46.0	-9.1
315.9	H2	1	000	34.9	46.0	-11.1

7. PHOTOS OF TESTED EUT

The following photos show the inside details of the EUT.