Straubing, January 31, 2000

TEST-REPORT

No. 50530-00035

for

GDO Deluxe with RC40-02/05

Receiver for Garage Door Opener System

Applicant:	ELDAT GmbH
Purpose of testing:	To show compliance with FCC Code of Federal Regulations, Part 15 Subpart C, Sections §15.207 and §15.209 Industry Canada Radio Standards Specification RSS-210 Issue 2, Sections 7.3 and 7.4 (Category I Equipment)

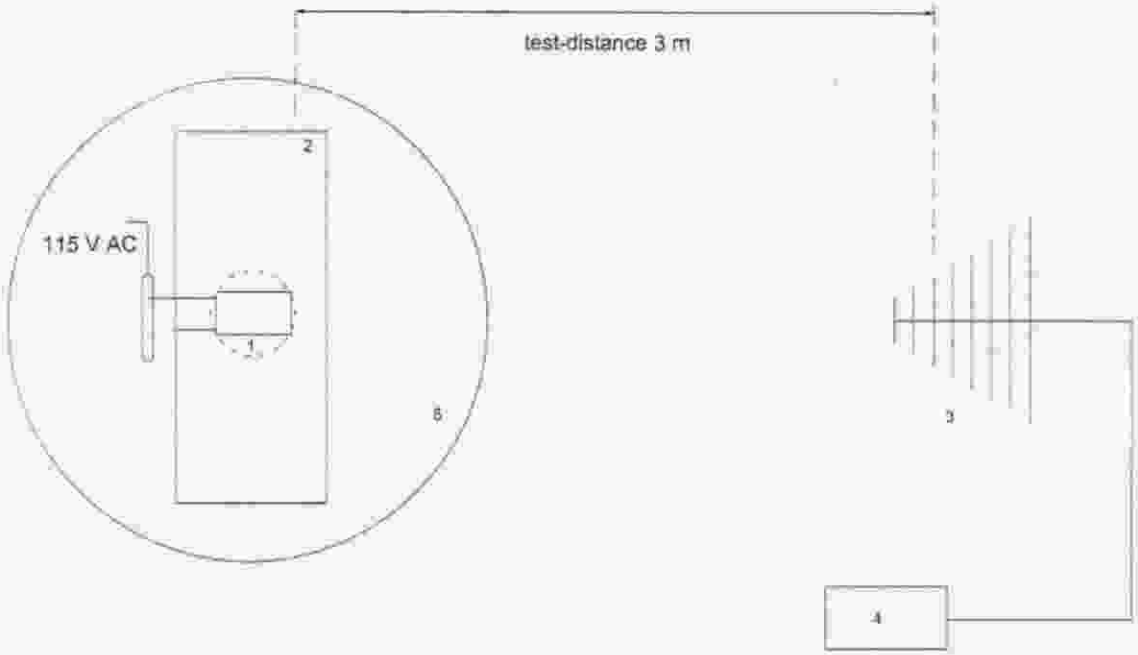

Figure 2: Measurement setup for radiated emission test below 1 GHz

1 Receiver (EUT)
2 Wooden table
3 Measurement antenna
4 Test receiver
5 Turn table

6. Equipment List

To facilitate reference to test equipment used for related tests, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory.

No.	Type	Model	Serial Number	Manufacturer
01	Spectrum Analyzer	R 3271	05050023	Advantest
02	EMI Test Receiver	ESMI	839379/013 839587/006	Rohde & Schwarz
03	Test Receiver	ESH 3	880112/032	Rohde & Schwarz
04	Test Receiver	ESHS 10	860043/016	Rohde & Schwarz
05	Test Receiver	ESV	881414/009	Rohde & Schwarz
06	Test Receiver	ESVP	881120/024	Rohde & Schwarz
07	Audio Analyzer	UPA	862954	Rohde & Schwarz
08	Power Meter	NRVS	836856/015	Rohde & Schwarz
09	Power Sensor	NRV-Z52	837901/030	Rohde & Schwarz
10	Power Sensor	NRV-Z4	863828/015	Rohde & Schwarz
11	Preamplifier	ESV-Z3	860907/004	Rohde & Schwarz
12	Preamplifier	R14601		Advantest
13	Preamplifier	ACX/080-3030	32640	CTT
14	Preamplifier	ACO/180-3530	32641	CTT
15	Signal Generator	SMS	872166/039	Rohde & Schwarz
16	Signal Generator	HP 8673 D	2930A00966	Hewlett Packard
17	Waveform Generator	HP 33120 A	US34005375	Hewlett Packard
18	Attenuator 20 dB	4776-20	9503	Narda
19	Attenuator 10 dB	4776-10	9412	Narda
20	Pulse Limiter	ESH 3-Z2	1144	Rohde & Schwarz
21	Pulse Limiter	11947 A	3107A00566	Hewlett Packard
22	V-Network	ESH 3-Z5	862770/018	Rohde & Schwarz
23	V-Network	ESH 3-Z5	894785/005	Rohde & Schwarz
24	V-Network	ESH 3-Z5	830952/025	Rohde & Schwarz
25	V-Network	ESH 3-Z6	830722/010	Rohde & Schwarz
26	V-Network	NSLK 8127	8127152	Schwarzbeck
27	V-Network	NNLA 8119	8119148	Schwarzbeck
28	V-Network	SE 01	01	Senton
29	T-Network	ESH 3-Z4	890602/011	Rohde & Schwarz
30	T-Network	ESH 3-Z4	890602/012	Rohde & Schwarz
31	High Impedance Probe	TK 9416	01	Schwarzbeck
32	High Impedance Probe	TK 9416	02	Schwarzbeck
33	Current Probe	ESH 2-Z1	863366/18	Rohde & Schwarz
34	Current Probe	ESV-Z1	862553/3	Rohde & Schwarz

No.	Type	Model	Serial Number	Manufacturer
35	Absorbing Clamp	MDS 21	80911	Lüthi
36	Absorbing Clamp	MDS 21	79690	Lüthi
37	Loop Antenna	HFH2-Z2	882964/1	Rohde & Schwarz
38	Biconical Antenna	HK 116	842204/001	Rohde & Schwarz
39	Biconical Antenna	HK 116	836239/02	Rohde & Schwarz
40	Log. Periodic Antenna	HL 223	841516/023	Rohde & Schwarz
41	Log. Periodic Antenna	HL 223	834408/12	Rohde & Schwarz
42	Horn Antenna	3115	9508-4553	Emco
43	Horn Antenna	3160-03	9112-1003	Emco
44	Horn Antenna	3160-04	9112-1001	Emco
45	Horn Antenna	3160-05	9112-1001	Emco
46	Horn Antenna	3160-06	9112-1001	Emco
47	Horn Antenna	3160-07	9112-1008	Emco
48	Horn Antenna	3160-08	9112-1002	Emco
49	Horn Antenna	3160-09	9403-1025	Emco
50	Digital multimeter	199	463386	Keithley
51	DC Power Supply	NGSM 32/10	203	Rohde & Schwarz
52	DC Power Supply	NGB	2455	Rohde & Schwarz
53	DC Power Supply	NGA	386	Rohde & Schwarz
54	Temperature Test Chamber	HT4010	07065550	Heraeus
55	Cable	RG214	1309	Senton
56	Cable	200CM_001	1357	Rosenberger
57	Cable	150CM_001	1479	Rosenberger
58	Cable Set EG1	RG214	1189 - 1191	Senton
59	Cable Set Cabine 1	RG214		Senton
60	Cable Set Cabine 2	RG214		Senton
61	Cable Set Cabine 3	RG214		Senton
62	Shielded Room	No. 1	1451	Senton
63	Shielded Room	No. 2	1452	Senton
64	Semi-anechoic Chamber	No. 3	1453	Siemens
65	Shielded Room	No. 4	1454	Euroshield
66	Open Area Test Site	EG 1		Senton
67	Test fixture			Senton

Table of Contents

1. Administrative Data

Equipment Under Test (EUT):	GDO Deluxe
Serial number:	---
Type of equipment:	Receiver for garage door opener system
Parts/accessories:	Receiver module RC40-02/05

Applicant: (full address)	ELDAT GmbH Elektronik und Datentechnik Im Gewerbepark 14 D-15711 Zeesen Germany
Contract identification:	---
Contact person:	Mr. Puppel
Manufacturer:	ELDAT GmbH

Receipt of EUT:	January 14, 2000
Date of test:	January 17 to 27, 2000
Note:	---

Test Laboratory: (full address):	Senton GmbH EMI/EMC Test Center Aeussere Fruehlingstrasse 45 D-94315 Straubing Germany
Contact person:	Mr. Johann Roidt
FCC file number:	31040/SIT 1300F2
Industry Canada file number:	IC 3050

Responsible for testing:	Karl Roidt
Responsible for test report:	Karl Roidt (cb)

2. Summary of Test Results

The tested sample complies with the requirements set forth in the

Code of Regulations Part 15 Subpart C, Sections §15.207 and §15.209 (intentional radiators) of the Federal Communication Commission (FCC)

and the

Radio Standards Specification RSS-210 Issue 2, Sections 7.3 and 7.4 for Low Power Licence-Exempt Radiocommuniction Devices of Industry Canada.

Johann Roidt
Technical Manager

Karl Roidt
Test Engineer

3. Operation Mode of EUT

- receiver operating continuously
- with supply voltage 115 V AC

4. Configuration of EUT and Peripheral Devices

Configuration of EUT

EUT is configured as stand-alone device in horizontal position

Configuration of cables of EUT

- non-shielded AC-supply line (fixed)
- non-shielded wires connected to powerhead

Configuration of peripheral devices connected to EUT

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5. Measuring Methods

5.1. AC Wireline Conducted Emissions 0.45 MHz - 30 MHz (FCC §15.207 / RSS-210 Section 7.4)

AC wireline conducted emissions are measured in the frequency range 0.45 MHz to 30 MHz. The bandwidth of the EMI-Receiver is set to 9 kHz with detector-function set to CISPR quasi-peak.
The test setup is made in accordance with ANSI C63.4-1992.
Measurements are performed on phase and neutral lines of the power-cords of the tested system. Preliminary scans are taken with the detector-function of the EMI-receiver set to peak to determine the conducted EMI-profile of the EUT. At the final test the cables and equipment are placed and moved within the range of positions likely to find their maximum emissions.
See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):
04, 22, 60, 63

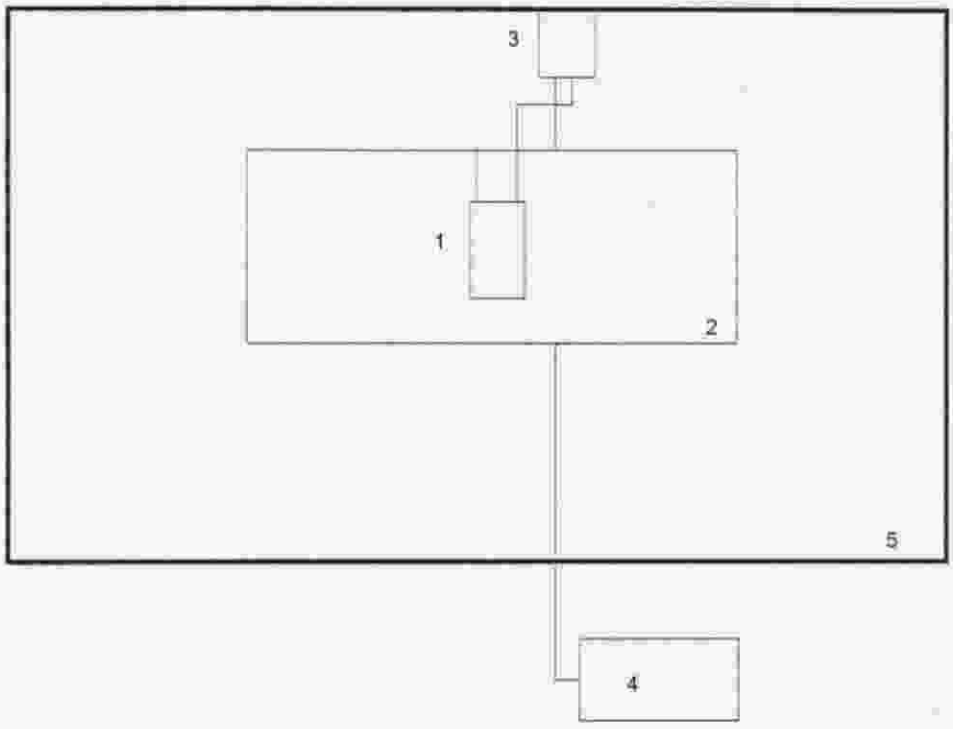

Figure 1: Measurement setup for conducted emission test

1 Receiver (EUT)
2 Wooden table
3 LISN for EUT
4 Test receiver
5 Shielded room

5.2. Radiated Emission 30 MHz - 1 GHz (FCC §15.209 / RSS-210 Section 7.3)

Radiated emissions are measured over the frequency range from 30 MHz to 1 GHz. The bandwidth of the EMI-receiver is set to 120 kHz and the detector-function is set to CISPR quasi-peak.
The test setup is made in accordance with ANSI C63.4-1992.
Measurements are made in both the horizontal and vertical planes of polarization.
Preliminary scans are taken in a semi-anechoic room using a spectrum analyzer with the detector function set to peak. Hand-held or body-worn devices are rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit and therefore shall be used for final testing.
All tests are performed at a test-distance of 3 meters.
For final testing an open-area test-site is used. During the tests the EUT is rotated all around and the receiving-antenna is raised and lowered from 1 meter to 4 meters to find the maximum levels of emissions. The cables and equipment is placed and moved within the range of position likely to find their maximum emissions.

See figure 2 for the measurement setup.

Test equipment used (see equipment list for details):
01, 02, 05, 12, 38, 39, 40, 41, 58, 61, 64, 66