

EXHIBIT A

[FCC Ref. 2.1033(b)(6)]

"Report of Measurements"

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TEST REPORT CONTAINING:

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PRODUCT DESCRIPTION

The Model 27420XXX-A is a 900 MHz single-line analog cordless telephone with caller ID and AM/FM radio, that operates from 902.80 MHz to 927.25 MHz. The antenna used for the base and handset is permanently attached to the EUT.

Refer to Exhibit A(5) for complete frequency list.

15.107 (a) POWER LINE CONDUCTED INTERFERENCE

Requirements:

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

Test Procedure:

ANSI STANDARD C63.4-2003. using a 50uH LISN. Both lines were observed with the EUT transmitting. The bandwidth of the spectrum analyzer was 9KHz QP with an appropriate sweep speed. The ambient temperature of the EUT was 24°C with a humidity of 60%.

The spectrum was scanned from 0.15 to 30MHz.

Test Data:

Base Unit

The highest emission read for PHASE was 24.82 dB μ V/M @ 7.95 MHz.

The highest emission read for NEUTRAL was 23.72 dB μ V/M@ 0.15 MHz.

Charge/Clock Radio Unit

The highest emission read for PHASE was 21.06 dB μ V/M @ 0.15 MHz.

The highest emission read for NEUTRAL was 24.46 dB μ V/M@ 0.21 MHz.

Refer to graphs on Appendix 1 to 4.

Test Results:

Both lines were observed. The measurements indicate that the unit DOES appear to meet the FCC requirements for this class of equipment.

15.249 (a), (b) and (c) FIELD STRENGTH OF EMISSIONS**Requirements:**

Fundamental Frequency	Field Strength of Harmonics	15.209	
94dB μ V	54 dB μ V/m@ 3m	30-88 MHz	40 dB μ V/m@ 3m
		88-216 MHz	43.5
		216-960 MHz	46
		Above 960 MHz	54

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in 15.209, whichever is the lesser attenuation.

Emissions that fall in the restricted bands (15.205) must be less than 54dB μ V/m

Procedure

The test procedure used was ANSI STANDARD C63.4-2003 and DA-00-705 using an appropriate spectrum analyzer, as listed in the Test Equipment List. The bandwidth (RBW) of the spectrum analyzer was 100KHz/120KHz up to 1GHz with an appropriate sweep speed. The RBW above 1.0GHz was = 1.0MHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The ambient temperature of the EUT was 24°C with a humidity of 60%.

Test Data:

Refer to Exhibit A(3)-3 and -4

FIELD STRENGTH OF EMISSIONS

**Model 27420XXX-A
Base Unit**

Emission Frequency MHz	Meter Reading @3m dBμV	Antenna	Cable and ACF dB	Field Strength dBμV/M	FCC Limit dBμV/M	Margin dB	Detector & BW KHz
<u>Channel 1</u>							
902.800	59.60	RT4 V	33.30	92.90	94	-1.10	PK 100
1805.600	11.00	Horn V	33.18	44.18	54	-9.82	PK 1000
2257.000	13.00	Horn V	33.22	46.22	54	-7.78	PK 1000
2708.400	8.00	Horn V	33.92	41.92	54	-12.08	PK 1000
<u>Channel 40</u>							
904.750	59.50	RT4 V	33.30	92.80	94	-1.20	PK 100
1809.500	11.00	Horn V	33.18	44.18	54	-9.82	PK 1000
2261.850	13.00	Horn V	33.22	46.22	54	-7.78	PK 1000
2714.250	8.00	Horn V	33.92	41.92	54	-12.08	PK 1000

FIELD STRENGTH OF EMISSIONS**Model 27420XXX-A
Handset Unit**

Emission Frequency MHz	Meter Reading @3m dBμV	Antenna	Cable and ACF dB	Field Strength dBμV/M	FCC Limit dBμV/M	Margin dB	Detector & BW KHz
<u>Channel 1</u>							
925.308	55.5	RT4 V	33.40	88.90	94	-5.10	PK 100
1850.616	10.00	Horn V	33.06	43.06	54	-10.94	PK 1000
2775.924	10.00	Horn V	34.08	44.08	54	-9.92	PK 1000
<u>Channel 40</u>							
927.258	55.00	RT4 V	33.40	88.40	94	-5.60	PK 100
1854.516	10.00	Horn V	33.06	43.06	54	-10.94	PK 1000
2781.774	10.00	Horn V	34.08	44.08	54	-9.92	PK 1000
Handset Unit (30MHz - 1GHz)							
<u>TX</u>							
462.62	10.00	LP V	22.80	32.80	46	-13.20	QP 120

15.249 (d) BAND EDGES

Requirements:

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Measurement:

The base and handset were attenuated by 50 dB.

Test Data:

The Bandedge was measured at the Low end of the band for the base and High end of the band for the handset. See Plots [Appendix 5 and 6].

2.202 BANDWIDTH

Measurement:

The measurements were made with the spectrum analyzer's resolution bandwidth (RBW) = 30 KHz (Base and Handset) and the video bandwidth (VBW) = NONE and the span set as shown on plot.

Test Data:

Base:

Channel 1: **0.139 MHz** [Refer to Appendix 7]
Channel 40: **0.141 MHz** [Refer to Appendix 8]

Handset:

Channel 1: **0.144 MHz** [Refer to Appendix 9]
Channel 40: **0.147 MHz** [Refer to Appendix 10]

BANDWIDTH = Base: **0.141 MHz**
 Handset: **0.147 MHz**

TEST FACILITY AND EQUIPMENT LIST

FACILITIES:

Radiated ANSI C63.4-2003 (FCC OET/55) open field 3 metre test range. This test range is protected from the cold and moisture by a non-conductive enclosure.

Conducted 2.5m Anechoic Chamber

EQUIPMENT

Anritsu 2601A Spectrum Analyzer
Advantest R3261A Spectrum Analyzer
Hewlett-Packard RF generator # 8640 B with an 002 doubler
A.H. Systems biconical antenna; 20 MHz to 330 MHz
A.H. Systems log periodic antenna; 300 MHz to 1.8 GHz
Compliance Design P950 Preamp (16 dB) ... 25 MHz to 1.0 GHz

NOTE:

The Anritsu 2601A Spectrum Analyzer and the Advantest R3261A Spectrum Analyzer are calibrated annually, and that calibration is directly traceable to the National Research Council of Canada. (NRC)
This equipment is only used by qualified technicians and only for the purpose of EMI measurements. The three metre test range has been carefully evaluated to the ANSI document C63.4-2003 and will be remeasured for reflections and losses every three years.

ADDITIONAL TEST EQUIPMENT LIST

1. Spectrum Analyzer: HP 8591EM, S/N 3639A00995, (9KHz - 1.8GHz), Calibration Due June 2006
2. Spectrum Analyzer: ANRITSU 2601A, S/N MT64544, (10KHz - 2.2GHz), Calibration Due June 2006
3. Spectrum Analyzer: IFR AN940, S/N 635001039, (9KHz - 26.5GHz), Calibration Due April 2006
4. Preamp: HP 8449B, S/N 3008A00378, (1 - 26.5GHz), Calibration Due August 2005
5. Horn Antenna: Q-PAR 6878/24, S/N 1721, (1.5-18GHz)
6. Horn Antenna: A. H. Systems SAS 572, S/N 164 (18 - 26.5GHz)
7. Line Impedance Stabilization Network.: Marstech, Calibration Due July 2006
8. Horn Antenna: Radar System (Flange 3/4" Square) MIL F 3922/68 (26.5 - 40GHz)
9. OML Mixer: M28HWD, S/N Ka31114-1 (26.5 - 40GHz), Calibration Due Nov. 2005
10. OML Diplexer: DPL.313A (Unit plugs into M28HWD)
11. Semflex Cable: Used with M28HWD and DPL.313A

FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046

August 22, 2003

Registration Number: 90578

Electrohome Electronics Ltd.
809 Wellington St. N.
Kitchener, Ontario, N2G 4J6
Canada

Attention: Tuat Huynh

Re: Measurement facility located at Roseville
3 meter site
Date of Renewal: August 22, 2003

Dear Sir or Madam:

Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,



Ms. Phyllis Parrish
Information Technician

FCC ID: G9H2-7420A
Marstech Report No. 25147D
EXHIBIT A(4)-3

900 MHz RF Module Frequency Table for AT7420 (27420)

The product shall operate in the 900MHz frequency band, and its frequency table is as follows:

Channel	B/U Tx (MHz)	B/U Rx (MHz)	H/S Tx (MHz)	H/S Rx (MHz)	Channel	B/U Tx (MHz)	B/U Rx (MHz)	H/S Tx (MHz)	H/S Rx (MHz)
1	902.80	936.00	925.30	892.10	21	903.80	937.00	926.30	893.10
2	902.85	936.05	925.35	892.15	22	903.85	937.05	926.35	893.15
3	902.90	936.10	925.40	892.20	23	903.90	937.10	926.40	893.20
4	902.95	936.15	925.45	892.25	24	903.95	937.15	926.45	893.25
5	903.00	936.20	925.50	892.30	25	904.00	937.20	926.50	893.30
6	903.05	936.25	925.55	892.35	26	904.05	937.25	926.55	893.35
7	903.10	936.30	925.60	892.40	27	904.10	937.30	926.60	893.40
8	903.15	936.35	925.65	892.45	28	904.15	937.35	926.65	893.45
9	903.20	936.40	925.70	892.50	29	904.20	937.40	926.70	893.50
10	903.25	936.45	925.75	892.55	30	904.25	937.45	926.75	893.55
11	903.30	936.50	925.80	892.60	31	904.30	937.50	926.80	893.60
12	903.35	936.55	925.85	892.65	32	904.35	937.55	926.85	893.65
13	903.40	936.60	925.90	892.70	33	904.40	937.60	926.90	893.70
14	903.45	936.65	925.95	892.75	34	904.45	937.65	926.95	893.75
15	903.50	936.70	926.00	892.80	35	904.50	937.70	927.00	893.80
16	903.55	936.75	926.05	892.85	36	904.55	937.75	927.05	893.85
17	903.60	936.80	926.10	892.90	37	904.60	937.80	927.10	893.90
18	903.65	936.85	926.15	892.95	38	904.65	937.85	927.15	893.95
19	903.70	936.90	926.20	893.00	39	904.70	937.90	927.20	894.00
20	903.75	936.95	926.25	893.05	40	904.75	937.95	927.25	894.05