## **MARSTECH LIMITED**

EXHIBIT A

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

"Report of Measurements"

Thomson/27851XX1-B (Base) [Also covers Model 27851XX2-B (Base)] FCC ID: G9H2-7923A
Marstech Report No. 26074D

## **LIST OF EXHIBITS**

#### TEST REPORT CONTAINING:

Exhibit A(1) List of Exhibits
Exhibit A(2) Product Description

Exhibit A(3)-1 to -2 15.249(a), (b) and (c) Field Strength of Emissions

Exhibit A(4)-1 to -3 Test Equipment List and Facility

Exhibit A(5) Frequency List Table Exhibit A(6) Test Set Up Photo

## **PRODUCT DESCRIPTION**

The Model 27851XX1-B (Base) is a 900MHz single-line cordless telephone base with answering machine that operates from 924.045145 MHz to 926.218582 MHz. This model is identical to previously registered Model 27851XX1-A (Base) except for model designation and changes in the base RF module.

This also covers Model 27851XX2-B (Base) which is identical to Model 27851XX1-B (Base) except for model designation and it comes with a remote handset/charger unit.

The antenna used for the base is permanently attached to the EUT.

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

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### 15.249 (a), (b) and (c) FIELD STRENGTH OF EMISSIONS

#### **Requirements:**

Fundamental Frequency	Field Strength of Harmonics	15.209		
94dBμV	54 dBμV/m@ 3m	30-88 MHz	40 dBμV/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  $54dB\mu V/m$ 

### **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)-2

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## **FIELD STRENGTH OF EMISSIONS**

## MODEL 27851XX1-B BASE UNIT

Emission Frequency MHz	Meter Reading @3m dBµV/M	Antenna	Cable and ACF dB	Field Strength dBµV/M	FCC Limit dBµV/M	Margin dB	Detector & BW KHz
Channel 1							
924.045	56.00	RT4 V	33.40	89.40	94	-4.60	PK 100
1594.510	11.00	Horn V	33.62	44.62	54	-9.38	PK 1000
1848.090	9.00	Horn V	33.11	42.11	54	-11.89	PK 1000
Channel 40							
926.218	55.00	RT4 V	33.40	88.40	94	-5.60	PK 100
1598.840	11.00	Horn V	33.62	44.62	54	-9.38	PK 1000
1852.436	9.00	Horn V	33.11	42.11	54	-11.89	PK 1000
TX							
462.070	16.50	LP V	22.80	39.30	46	-6.70	QP 120
463.16	16.00	LP V	22.90	38.90	46	-7.10	QP 120

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## 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 m Anechoic Chamber

#### **EQUIPMENT:**

Anritsu 2601A Spectrum Analyzer Advantest R3261A Spectrum Analyzer

A.H. Systems biconical antenna; ......... 20 MHz to 330 MHz A.H. Systems log periodic antenna; ..... 300 MHz to 1.8 GHz Hewlett Packard HP8447E Preamp....... 100 KHz to 1300 MHz

#### 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.

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#### MARSTECH LIMITED

## **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 2007
- 4. Preamp: HP 8449B, S/N 3008A00378, (1 26.5GHz), Calibration Due August 2006
- 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. Horn Antenna: Q-PAR WBH218HN, S/N 4171 (2 to 18 GHz Freq.)
- 8. Horn Antenna: Radar System (Flange 3/4" Square) MIL F 3922/68 (26.5 40GHz)
- 9. Line Impedance Stabilization Network.: Marstech, Calibration Due July 2006
- 10. OML Mixer: M28HWD, S/N Ka31114-1 (26.5 40GHz), Calibration Due November 2006
- 11. OML Diplexer: DPL.313A (Unit plugs into M28HWD)
- 12. Semflex Cable: Used with M28HWD and DPL.313A

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# 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

Rc:

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 <a href="www.fcc.gov">www.fcc.gov</a> under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely

Ms. Phyllis Farrish

Information Technician