

# Marstech Limited

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Authorized by:  
 Professional Engineers  
 Ontario

Engineering &  
 Administrative

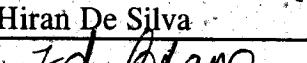
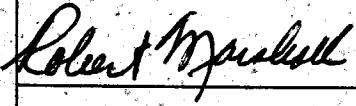
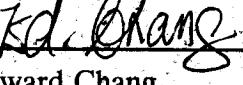
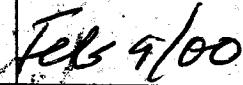
UL  
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Testing For FCC  
 Submissions/Reifications

Approved Test Facility

Qualified  
 Facility

## TEST REPORT

REPORT DATE:	January 31, 2000	REPORT NO:	20015D
CONTENTS:	See Table of Contents		
SUBMITTOR:	THOMSON CONSUMER ELECTRONICS, INC. Audio & Communications Product Dev. 101 West 103 <sup>rd</sup> Street Indianapolis, IN 46290-1102 USA		
SUBJECT:	Model No:	26700XXX-C	
	FCC ID:	G9H2-6700C	
TEST SPECIFICATION	FCC CFR 47 15.233 AND 2.989 Sections: 15.35, 15.107, 15.109, 15.207 and 15.209 NOTE: Tests Conducted Are "Type" Tests.		
DATE SAMPLE RECEIVED:	January 11, 2000	DATE TESTED:	January 21 to 25, 2000
RESULTS:	Equipment tested complies with referenced specification.		
ALTERATIONS	The following alterations required for compliance with referenced specification: Base Unit: C48, 68 pF capacitor, was changed to 150 pF.		
Tested by:	Original signed by: Jim Sims  Hiran De Silva 	Approved and Certified by:  Robert G. Marshall, P. Eng.	
Reviewed by:	Edward Chang 	R. G. MARSH Date: 	

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**TECHNICAL REPORT - FCC 2.1033(b)**

**Applicant**

Thomson Consumer Electronics, Inc.  
Audio & Communications Product Dev.  
101 West 103<sup>rd</sup> Street  
Indianapolis, IN  
46290-1102 USA

**FCC Identifier**

G9H2-6700C

**Manufacturer**

Huiyang CCT Telecommunications Products Co.  
San He Economic Experimental Zone  
Huiyang, Guangdong Province, The PRC

**TABLE OF CONTENTS**

<b><u>Exhibit Description</u></b>	<b><u>FCC Ref.</u></b>	<b><u>Page</u></b>
A Installation and Operating Instructions Furnished to the User.	2.1033(b)(3)	Exhibit A Exhibit A(1)
B Description of Circuit Functions	2.1033(b)(4)	Exhibit B Exhibit B(1)-1 to -3
C Block Diagram	2.1033(b)(5)	Exhibit C Exhibit C(1)-1 to -2
		Exhibit C(2)-1 to -2
D Report of Measurements	2.1033(b)(6)	Exhibit D
		Exhibit D(1)-1
		Exhibit D(2)-1 to -3
		Exhibit D(3)-1 to -31
E Photographs	2.1033(b)(7)	Exhibit E
		Exhibit E(1)-1
		Exhibit E(2)-1 to -7

**EXHIBIT D**

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

"Report of Measurements"

EXHIBIT D(1)

DEVICE MEASURED

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

APPLICANT: Thomson Consumer Electronics, Inc.  
Audio & Communications Product Dev.  
101 West 103<sup>rd</sup> Street  
Indianapolis, IN  
46290-1102 USA

MANUFACTURER: Huiyang CCT Telecommunications Products Co.  
San He Economic Experimental Zone  
Huiyang, Guangdong Province, The PRC

FCC IDENTIFIER: G9H2-6700C

MODEL NUMBER: 26700XXX-C

SERIAL NO.: 90000013

Marstech Limited  
11 Kelfield Street  
Etobicoke, Ontario  
M9W 5A1 CANADA

TECHNICIANS:  
Jim Sims - Com-Serve Corp.  
Edward Chang - Marstech Limited

Robert G. Marshall  
Robert G. Marshall, P. Eng.

Date: Feb 9/00

**EXHIBIT D(2)**

**TEST FACILITY AND EQUIPMENT LIST**

**FACILITIES**

Radiated	ANSI C63.4 (FCC OET/55) open field 3 meter test range. This test range is protected from the cold and moisture by a non-conductive enclosure.
Conducted	2.5m Anechoic Chamber

**EQUIPMENT**

Hewlett-Packard spectrum analyzer # 8554 RF & 141T video.  
Anritsu 2601 A spectrum analyzer.  
Advantest R3261A Spectrum Analyzer  
Hewlett-Packard RF generator # 8640 B with an 002 doubler  
Hewlett-Packard attenuator 30 dB # 11708A.  
Narda 20 watt (20 dB) attenuator  
Compliance Design P950 Preamp 16dB 25 MHz - 1.0 GHz  
A.H. Systems biconical antenna; ..... 20 MHz - 330 MHz  
A.H. Systems log periodic antenna; ..... 300 MHz - 1.8 GHz  
Eaton dipole antennas; T1, T2, T3 ..... 25 MHz - 1.0 GHz  
CDI Roberts dipole antennas; T1, T2, T3 & T4 25 MHz - 1.0 GHz

**NOTE:**

The Anritsu 2601 A spectrum analyzer, the Hewlett-Packard 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 meter test range has been carefully evaluated to the ANSI document C63.4 and will be remeasured for reflections and losses every three years.

# FEDERAL COMMUNICATIONS COMMISSION

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
Facsimile: 301-344-2050

September 23, 1997

IN REPLY REFER TO  
31040/SIT  
1300F2

Electrohome Electronics Ltd  
809 Wellington Street, North  
Kitchener, Ontario N2G 4J6, Canada

Attention: **Gerry Gallagher**

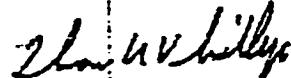
**Re: Measurement facility located at Roseville  
(3 meter site)**

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,



Thomas W. Phillips  
Electronics Engineer  
Customer Service Branch

EXHIBIT D(2)

SPECTRUM ANALYZER -

ANRITSU MS2601A S/N MT64544 - NEXT  
CALIBRATION APRIL 2000

**SUMMARY OF RESULTS**

COMPLIANCE  
(yes) (no)

**FIELD STRENGTH OF THE CARRIER FREQUENCIES**

Handset: 48 MHz and 49 MHz bands (x) ( )  
Base Station: 43/44 MHz and 46 MHz bands (x) ( )

**OCCUPIED BANDWIDTH**

Handset: 48 MHz and 49 MHz bands (x) ( )  
Base Station: 43/44 MHz and 46 MHz bands (x) ( )

**SPURIOUS RADIATED EMISSIONS**

Handset: 48 MHz and 49 MHz bands (x) ( )  
Base Station: 43/44 MHz and 46 MHz bands (x) ( )

**LINE CONDUCTED SPURIOUS EMISSIONS**

Base Station: Telephone & Intercom mode(s): (x) ( )  
43/44 MHz and 46 MHz bands

**TRANSMITTER ENVIRONMENTAL TESTS**

Handset: (x) ( )  
Base Station: (x) ( )

**EQUIPMENT REQUIREMENTS AND IDENTIFICATION**

- a) Manufacturers or applicants name: (x) ( )
- b) FCC ID: (x) ( )
- c) Serial number: (x) ( )
- d) Antenna: (x) ( )
- e) Operator controls: (x) ( )
- f) Security Coding (x) ( )
- g) Equipment/Packaging Marking (x) ( )

**CARRIER FREQUENCY FIELD STRENGTH**

**RESULTS**

Handset:      **Maximum field strength of 2,045  $\mu$ V/M: Channel # 01**  
Handset:      **Maximum field strength of 5,204  $\mu$ V/M: Channel # 25**

Base Station:

Modes:

Telephone:      **Maximum field strength of 9,230  $\mu$ V/M: Channel # 01**

Telephone:      **Maximum field strength of 8,677  $\mu$ V/M: Channel # 25**

**TEST CONDITIONS**

Equipment Positioning:

Handset:              vertical or upright  
Base Station:              standing on its back with the antenna extended in the vertical plane

Antenna Polarization:

Handset:              vertical  
Base Station:              vertical

Antenna Type:      T.1; tuned half wave dipole

Measurement Bandwidth:      100 KHz (IF)

Supply Voltages:

Handset:              3.6 VDC from an internal battery.  
Base Station:              120 VAC/60 Hz to 09 VDC (adapter)

**METHODS OF MEASUREMENT**

The cordless phone components were placed in turn on a one metre high, non-metallic turntable. Measurements were made in a minimum of 3 positions for the handset and 2 for the base station. If adjustable, the whip antennas were fully extended.

For each of the above conditions the turntable was rotated through 360 degrees while the receiving antenna, at three (3) metres from the EUT, was varied in height from 1 to 4 metres and set in both planes of polarization to find the maximum signal strength. The unmodulated carrier level was measured using a spectrum analyzer. The measured level was converted to a field strength using the antenna correction factors and cable losses.

All base station measurements were made with the equipment under test connected to an artificial telephone line network, with 48 VDC applied.