

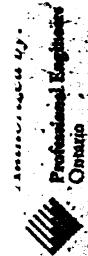
Marstech Limited

11 Kelfield Street, Etobicoke, Ontario, Canada, M9W 5A1
Telephone (416) 246-1116, Fax (416) 246-1020

TEST REPORT

REPORT DATE:	16 August 2002		REPORT NO: 22263D
CONTENTS:	See Table of Contents		
SUBMITTOR:	Smarthome Products Limited Rm B-812, 8/F, Sea View Estate, 2-8 Watson Road North Point, Hong Kong		
SUBJECT:	Model No:	WB007-16	
	FCC ID:	LQP-WB007-16	
TEST SPECIFICATION:	FCC 47 CFR Part 15 Subpart "B" for and Unintentional Radiator NOTE: Tests Conducted Are "Type" Tests.		
DATE SAMPLE RECEIVED:	6 August 2002	DATE TESTED:	14 August 2002
RESULTS:	Equipment tested complies with referenced specification.		
ALTERATIONS:	None		
Tested By:	Ed. Chang	Approved by:	Robert G. Marshall
	Edward Chang	Date:	Aug. 27/02

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Engineering &
Administrative



Testing For FCCA
Submissions/Verifications

Approved Test Facility



TECHNICAL REPORT - FCC 2.1033(b)

Applicant

Smarthome Products Ltd.
Rm B-812, 8/F, Sea View Estate, 2-8 Watson Road
North Point, Hong Kong

FCC Identifier

LQP-WB007-16

Manufacturer

Smarthome Products (Shenzhen) Co. Ltd.
6 Shi Long Da Dao, Shui Tian Chuen
Shiyan, Baoan, Shenzhen, PRC

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B	Description of Circuit Functions	2.1033(b)(4)	Exhibit B Exhibit B(1)
C	Block Diagram Schematic Diagram	2.1033(b)(5)	Exhibit C Exhibit C(1) Exhibit C(2)
D	Report of Measurements	2.1033(b)(6)	Exhibit D
E	Photographs Label Equipment	2.1033(b)(7)	Exhibit E Exhibit E(1)-1 to -2 Exhibit E(2)-1 to -4

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TEST REPORT CONTAINING:

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Exhibit D(1)-6 to -8	Field Strength of Emissions
Exhibit D(2)	Test Set-Up Photo

PRODUCT DESCRIPTION

The Smarthome Products Ltd. Model WB007-16 is a wireless battery operated door chime transmiiter operating at 315.42MHz.

TEST FACILITY AND EQUIPMENT LIST

FACILITIES:

Radiated: ANSI C63.4 (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
Eaton dipole antennas; T1, T2, T3 25 MHz to 1.0 GHz
Roberts dipole antennas; T1, T2, T3 & T4 25 MHz to 1.0 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 and will be remeasured for reflections and losses every three years.

ADDITIONAL TEST EQUIPMENT LIST

1. Spectrum Analyzer: HP 8591EM, S/N 3639A00995, Calibrated April 2002
2. Spectrum Analyzer: ANRITSU 2601A, S/N MT64544, Calibrated May 2002
3. Spectrum Analyzer: IFR AN940, S/N 635001039, Calibrated March 2002
4. Preamp: HP 8449B, S/N 3008A00378, Calibrated August 2002
5. Horn Antenna: Q-PAR 6878/24, S/N 1721, 1.5-18GHz
6. Line Impedance Stabilization Network.: Marstech, Cal. July 2002

4U, OCT-05-00 11:13AM

COM-SERVE

519 748 0155

P.01

FEDERAL COMMUNICATIONS COMMISSION
Laboratory Division
7435 Oakland Mills Road
Columbia, MD. 21046

September 20, 2000

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

Attention: Gerry Gallagher

Registration Number: 90578

Re: Measurement facility located at Roseville
3 meter-site
Date of Listing: September 20, 2000

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 under Parts 15 or 18 of the Commission's Rules. Please note that this filing must be updated for any changes made to the facility, and at least every three years from the date of listing the data on file must be certified as current.

If requested, the above mentioned facility has been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list of such public test facilities is available on the Internet on the FCC Website at WWW.FCC.GOV, E-Filing, OET Equipment Authorization Electronic Filing.

Sincerely,



Thomas W Phillips
Electronics Engineer

15.109 SPURIOUS RADIATED EMISSIONS

RESULTS

Model WC133:

Receiver: Maximum field strength: **63.82 dB μ V/M at 315.42 MHz**

TEST CONDITIONS

Equipment Positioning:

Receiver: Laying on its back and vertical
Transmitter: N/A

Antenna Polarization: Horizontal

Measurement Bandwidth: 120KHz

Supply Voltage:

Transmitter: 12V battery
Receiver: N/A

METHODS OF MEASUREMENT

Transmitter:

The portable RF transmitter portion of the device was placed on a one meter high, non-metallic turntable. A new twelve volt, alkaline battery was installed in the transmitter. The transmitter was activated by continuous pressure on the push button switch by a non-conductive actuator. Measurements were made in a minimum of 3 orthogonal equipment positions.

For each of the above conditions the turntable was rotated through 360 degrees while the receiving antenna was varied in height from 1 to 4 meters and set in both planes of polarization to find the maximum signal strength. The level was converted to a field strength using the antenna correction factors and cable losses.

FIELD STRENGTH OF EMISSIONS

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Test Data:

Pre-Amp: 16 dB

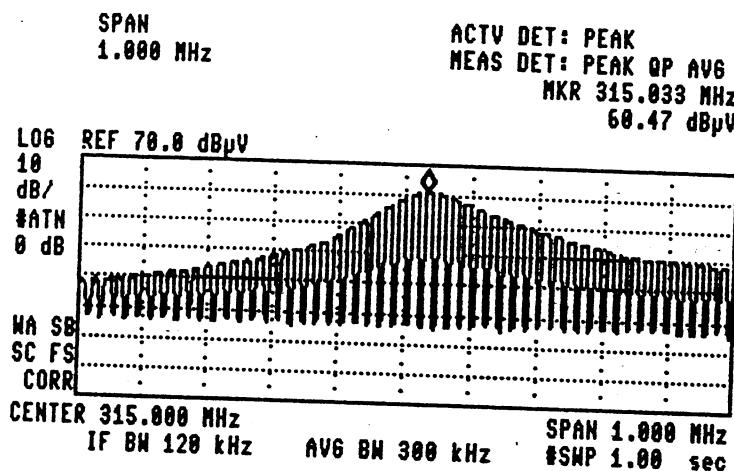
Emission Frequency MHZ	Meter Reading @3m dB μ V	Antenna	Cable and ACF dB	Field Strength dB μ V/M	Pk/Av Ratio (dB) DCCF	Corrected Field Strength dB μ V/M	FCC Limit dB μ V/M	Margin dB	Detector & BW KHz
315.42*	52.42	RT3 H	21.4	73.82	-10	63.82	75.6	-11.78	PK 100
630*	33	LP H	23.3	56.3	-10	46.3	55.6	-9.3	PK 100
945*	25.1	LP H	31.5	56.6	-10	46.6	55.6	-9	PK 100
1260*	27	LP H	35	62	-10	52	55.6	-3.6	PK 1000
1575*	25	LP H	39	64	-10	54	54	0	PK 1000
1890	59	HV	-3	56	-10	46	55.6	-9.6	PK 1000
2205	57	HV	-2.9	54.1	-10	44.1	54	-9.9	PK 1000
2520	51	HV	-2.25	48.75	-10	38.75	55.6	-16.85	PK 1000
2835	--								
3150	--								

*EUT on its back, other readings EUT vertical

**PEAK TO AVERAGE RATIO
MODEL WB007-16**

10:29:40 AUG 15, 2002

Signal Freq (MHz) PK Amp QP Amp AV Amp
315.033500 60.5 60.4 50.4



NOTE: The measurement was made with all three detectors used. The PK detector measurement was 60.5 dB μ V/M and the AV (average) detector measurement was 50.4 dB μ V/M resulting in a PK to AV ratio of $60.5 - 50.4 = 10.1 = -10$ dB.