

# INTERTEK TESTING SERVICES

## MEASUREMENT/TECHNICAL REPORT

**Lelux Electronics Ltd. - Model: Home Safety S600C**

**FCC ID: NS3600C**

**Date: April 18, 1998**

This report concerns (check one: )      Original Grant       Class II Change

Equipment Type: Superheterodyne Receiver (example: computer, printer, modem, etc)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)?      Yes       No

If yes, defer until: \_\_\_\_\_  
date

Company Name agrees to notify the Commission by: \_\_\_\_\_  
date

of the intended date of announcement of the product so that the grant can be issued on y  
that date.

Transition Rules Request per 15.37?      Yes       No

If no, assumed Part 15, Subpart B for unintentional radiator - the new 47 CFR [10-1-96  
Edition] provision.

Report prepared by:

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**EXHIBIT 1**  
**GENERAL DESCRIPTION**

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### 1.0 General Description

#### 1.1 Product Description

The equipment under test (EUT) is a superheterodyne receiver of the main unit of the Home Security system. It is operated at 303 MHz and powered by 9V AC/DC adaptor. When the signal is received from motion detection unit and magnetic window/door unit, corresponding action will be taken to alarm or clime. And it is also armed and disarmed by a remote control unit.

The brief technical description is attached in the following page.

#### 1.2 Related Submittal(s) Grants

This is a single application for Notification of a receiver.

#### 1.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (1992). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. For each scan, the procedure for maximizing emissions in Appendices D and E were followed. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

#### 1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been placed on file with the FCC.

#### 1.5 Attestation

Enclosed please find the Attestation which is filled by the applicant.

## **Technical Description of Model S600C**

### Introduction

Model S600C is the main unit of the security system S600WK. When signal is received from the detection unit, corresponding action will be taken to alarm or chime.

### Specification

Operation voltage : DC 9V adaptor operated and DC 9V battery for backup

Current consumption : 10mA

Operation frequency : 10 MHz

Receiver frequency : 303.825 MHz

### Circuit Description

The main operation of the unit is controlled by the IC3 microcontroller 8780, which is programmed to operate for the required functions.

IC4 78L05 regulates the voltage to 5V and give power to IC1, IC3 and IC5.

Q1 detects the voltage of the battery and give low battery signal to IC2.

IC1 UAA3201T is a superhet receiver, the local oscillator frequency is 303.825 Mhz. Demodulated signal output from pin 9 to IC3, the signal is then decoded by IC3 with corresponding action.

IC5, Q7 and Q8 are the alarm sound generator and driver, which drive the BUZ1 to sound through the transformer T1.

Q9 is the chime sound driver, chime signal output from IC3 through Q9 to drive BUZ1.

Q4 and Q5 are the out door siren driver, which connected with the SW1, once SW1 is opened the system will sound immediately.

N.C., N.O. and 24 HR I/P are the ports for hard wire connection. The system will alarm if any of the trigger signal is received from this port.

X2 provide clock signal to IC3.

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**EXHIBIT 2**  
**EMISSION RESULTS**

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### 2.0 Emission Results

The judgement on the radiated emission and conducted emission test together with the corresponding configuration photographs are included in the following pages.

#### ***TEST PERSONNEL:***

  
*Test Signature*

Wilson S. K. Loke, Electronics Engineer  
*Typed/Printed Name*

April 14, 1978  
*Date*

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### 2.1 Radiated Emission Results

Radiated Emissions from the EUT fulfilled the requirement in §15.109(a). The worst case radiated emission is 4.8 dB below the limit.

Configuration photographs are included in the following pages.

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### **2.3 Line Conducted Emission Data**

The Line Conducted Emission from the EUT fulfilled the requirement in §15.107. The worst case emission is 13.4 dB below the limit.

The configuration photographs are included in the following pages.

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**EXHIBIT 5**

**TECHNICAL SPECIFICATIONS**

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### 5.0 Technical Specifications

The block diagram and schematic of the superheterodyne receiver are attached.