

## Introduction

This quick start guide describes how to set up and use Zilog's ZMOTION Detection Module Development Kit. The Kit can be used to demonstrate and evaluate the operation of the ZMOTION Detection Module in both Hardware and Serial modes.

This quick start guide also provides the steps required for using Hardware mode. For additional information please refer to the [ZMOTION Detection Module Development Kit User Manual \(UM0223\)](#).

## Kit Contents

All hardware (except an external adjustable power supply), software and documentation required to develop your motion detection application is included within the ZMOTION Detection Module Development Kit.

## Hardware

The ZMOTION Detection Module Development Kit includes the following hardware:

- ZMOTION Detection Module Base Board
- ZMOTION Detection Module
- RS-232 Serial Cable DB9-DB9
- 5V DC Universal Power Supply

## Documentation

The related technical documentation (on CD-ROM) includes:

- ZMOTION Detection Module Development Kit User Manual (UM0223)
- ZMOTION Detection Module Product Specification (PS0284)
- ZMOTION Detection Module Product Brief (PB0223)

Please refer to the Zilog website at [www.zilog.com](http://www.zilog.com) to obtain the most up-to-date documentation.



**Figure 1. ZMOTION Detection Module Evaluation Kit Components**

## Setting up for Initial Operation

The simplest mode in which to use the module is Hardware Mode. In this mode, the sensitivity, ambient light level and LED “On” time are all adjusted using the controls on the Base Board. There are a few simple steps in order to begin using the kit in Hardware Mode; each of the following steps links to their respective descriptions on the pages that follow.

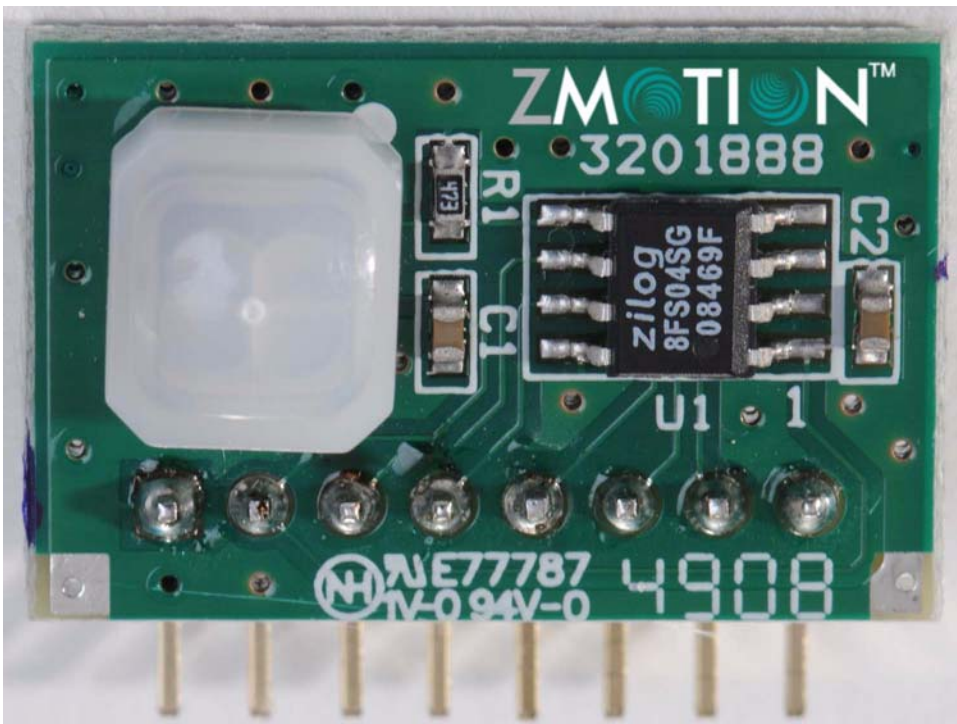
- [Step 1: Unpack the Hardware](#) on page 3
- [Step 2: Attach the ZMOTION Detection Module](#) on page 3
- [Step 3: Install the AC Plug Adapter](#) on page 4
- [Step 4: Configure Jumpers, Switches and Pots](#) on page 4
- [Step 5: Apply Power to the ZMOTION Detection Module](#) on page 4
- [Step 6: Demonstrate the ZMOTION Detection Module](#) on page 5

## Step 1: Unpack the Hardware

Remove the ZMOTION Base Board, ZMOTION Module and Power Supply from their protective bags. ESD precautions must be used when handling the ZMOTION Base Board and the ZMOTION Module.

## Step 2: Attach the ZMOTION Detection Module

Insert the ZMOTION Detection Module into J4 of the Base Board. Ensure that pin 1 is aligned correctly, as indicated by a square silkscreen on the J4 connector.



**Figure 2. ZMOTION Detection Module**

---

## Step 3: Install the AC Plug Adapter

The universal power supply kit features four different plug adapters in one box and the power supply by itself in another. The power supply ships with a slide-out plate that must be removed to insert the location-specific plug adapter.

Follow the steps below to install the location specific adapter.

1. Remove the slide-out plate.
2. Select the appropriate AC plug adapter and insert it into the slot that remains after removing the slide-out plate.
3. Slide the new plug adapter into the slot until it snaps into place.

You can also leave the adapter slot cover in place and plug in a standard computer equipment AC power cord (purchased separately) between the AC cord receptacle on the end of the power supply and an electrical outlet.

## Step 4: Configure Jumpers, Switches and Pots

Ensure that the base board is configured as indicated in Table 1.

**Table 1. H/W Mode Demonstration Settings**

<b>Component</b>	<b>Status</b>
SW1	Hardware
J7 – PA1/ANA3	AMBIENT (ON on shunted)
J11 – STATE	RUN (OFF or un-shunted)
R3 – SENS	Set mid-way
R4 – DELAY	Turned all the way to “-“
R6 – AMBIENT	Turned all the way to “-“ or “Light”

## Step 5: Apply Power to the ZMOTION Detection Module

Connect the power supply to the Base Board at P2, then to an electrical outlet. Ensure that the green LED (D2) illuminates.

---

## **Step 6: Demonstrate the ZMOTION Detection Module**

After no more than about 30 seconds, generate motion in front of the ZMOTION Detection Module and observe the blue LED D1, which should flash for about 2 seconds.

- Adjust R3 (Sense) to change motion sensitivity
- Adjust R4 (Delay) to change the duration in which the LED stays on
- Adjust R6 (Ambient) to change the amount of ambient light allowed to stop the LED from turning on

For additional information please refer to the [ZMOTION Detection Module Development Kit User Manual \(UM0223\)](#).



**Warning:** *DO NOT USE THIS PRODUCT IN LIFE SUPPORT SYSTEMS.*

## **LIFE SUPPORT POLICY**

ZILOG'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS PRIOR WRITTEN APPROVAL OF THE PRESIDENT AND GENERAL COUNSEL OF ZILOG CORPORATION.

## **As used herein**

Life support devices or systems are devices which (a) are intended for surgical implant into the body, or (b) support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in a significant injury to the user. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system or to affect its safety or effectiveness.

## **Document Disclaimer**

©2011 Zilog, Inc. All rights reserved. Information in this publication concerning the devices, applications, or technology described is intended to suggest possible uses and may be superseded. ZILOG, INC. DOES NOT ASSUME LIABILITY FOR OR PROVIDE A REPRESENTATION OF ACCURACY OF THE INFORMATION, DEVICES, OR TECHNOLOGY DESCRIBED IN THIS DOCUMENT. ZILOG ALSO DOES NOT ASSUME LIABILITY FOR INTELLECTUAL PROPERTY INFRINGEMENT RELATED IN ANY MANNER TO USE OF INFORMATION, DEVICES, OR TECHNOLOGY DESCRIBED HEREIN OR OTHERWISE. The information contained within this document has been verified according to the general principles of electrical and mechanical engineering.

ZMOTION is a trademark or registered trademark of Zilog, Inc. All other product or service names are the property of their respective owners.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.