

### Ultra-Low Power PIR Controller Integrated Circuit

E931.96

Preliminary Information - Mar 2, 2016



#### **Features**

- Supply voltage range 2.5V to 3.6V
- Programmable detection criteria and operating modes
- Digital signal processing
- On chip supply regulator for conventional PIR detectors
- Ultra Low power consumption
- Differential PIR sensor input
- Supply voltage measurement
- Temperature measurement
- Instantaneous settling after power up

#### **Applications**

- Wireless intruder detectors
- Battery powered door chimes
- Emergency lighting
- Motion and presence detection

#### General Description

The E931.96 is an ultra-low power motion detector controller integrated circuit. The device is ideally suited for battery operated wireless motion sensors that make use of an MCU for handling communication.

The MCU does not need to be active while the E931.96 does continuous motion sensing. It only activates the external controller, when motion is detected. Motion is signaled through the push-pull output (INT). The criteria for motion detection are programmable and can be changed by the external controller.

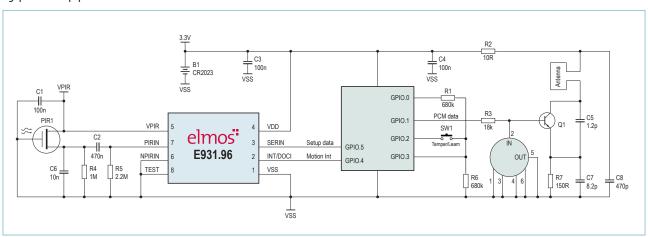
The E931.96 interfaces directly with up to two conventional PIR sensors via a high impedance differential input. The PIR signal is converted to a 14 bit digital value on chip.

All signal processing is performed digitally.

#### Ordering Information

Ordering-No.:	Temp Range	Package
E93196A53D	-40°C to +85°C	SOIC8

### Typical Application Circuit



 $This \ document \ contains \ information \ on \ a \ pre-production \ product. \ Elmos \ Semiconductor \ AG \ reserves \ the \ right \ to \ change \ specifications \ and \ information \ herein \ without \ notice.$ 

# Elmos Support

Headquarters

Elmos Semiconductor AG

Heinrich-Hertz-Str. 1

44227 Dortmund (Germany)

Phone: +49 (0) 231 / 75 49-100 Fax: +49 (0) 231 / 75 49-149

sales-germany@elmos.com

www.elmos.com

#### Sales and Application Support Office North America

Elmos NA. Inc.

32255 Northwestern Highway, Suite 220 Farmington Hills, MI 48334 (United States)

Phone: +1 (0) 248 / 8 65 32 00 sales-usa@elmosna.com

#### Sales and Application Support Office China

Elmos Semiconductor Technology (Shanghai) Co., Ltd. Unit 16B, 16F Zhao Feng World Trade Building,

No. 369 Jiang Su Road, Chang Ning District,

Shanghai, PR China, 200050

Phone: +86 (0) 21 / 6210 0908 +86 (0) 21 / 6219 7502 sales-china@elmos.com

#### 中国地区销售与应用支持

艾尔默斯半导体技术(上海)有限公司 中国 上海市 长宁区 江苏路369号 兆丰世贸大厦16楼 16B单元, 200050

电话: +86 (0) 21 / 6210 0908 传真: +86 (0) 21 / 6219 7502 sales-china@elmos.com

### Sales and Application Support Office

Korea

Elmos Korea

B-1007, U-Space 2, #670 Daewangpangyo-ro, Sampyoung-dong, Bunddang-gu, Sungnam-si

Kyounggi-do 463-400 Korea Phone: +82 (0)31 / 7 14 11 31 sales-korea@elmos.com

## Sales and Application Support Office

Japan

Elmos Japan K.K. BR Shibaura N Bldg. 7F

3-20-9 Shibaura, Minato-ku,

Tokyo 108-0023 Japan

Phone: +81 3 / 3451-7101

Fax: +81 3 / 3451-7104 sales-japan@elmos.com

#### Sales and Application Support Office Singapore

Elmos Semiconductor Singapore Pte Ltd.

3A International Business Park

#09-13 ICON@IBP

609935 Singapore

Phone: +65 (0) 6908 1261 Fax: +65 (0) 6570 5906

sales-singapore@elmos.com