Ultra-Low Power PIR Controller Integrated Circuit

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

<table>
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<tr>
<th>Ordering-No.</th>
<th>Temp Range</th>
<th>Package</th>
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<tr>
<td>E93196A53D</td>
<td>-40°C to +85°C</td>
<td>SOIC8</td>
</tr>
</tbody>
</table>

Typical Application Circuit
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
Fax: +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, Bundang-gu, Sungnam-si
Kyonggi-do 469-400 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

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