





Enter keywords or part number

[What's New](#) | [Products](#) | [Solutions](#) | [Design](#) | [AppNotes](#) | [Support](#) | [Sales](#) | [About Us](#) | [Members](#)

Maxim &gt; Products &gt; [Power and Battery Management]

## MAX14515

### High-Voltage Liquid Lens Driver

#### The Smallest Liquid Lens Driver for Small Camera Modules

[QuickView](#) | [Technical Documents](#) | [Ordering Info](#) | [More Information](#) | [User Comments \(0\)](#) | [All](#)

#### Status

Active: In Production.

#### Description

The MAX14515 high-voltage liquid lens driver features a high-voltage differential output controlled through an I<sup>2</sup>C interface. The MAX14515 uses a charge-pump-based boost converter and integrated H-bridge to provide a compact lens driver solution with minimal external components to achieve a small overall footprint suitable for small space constraints inside camera modules.

[Request Full Data Sheet](#)

The MAX14515 features an 8-bit monotonic DAC with a single differential high-voltage output controlled by a 2-wire I<sup>2</sup>C interface to set the amplitude. The high-voltage outputs are capable of delivering up to 42V<sub>RMS</sub> (min) into a 220pF liquid lens load at 1.0kHz (min).

The MAX14515 also features two power-saving modes (shutdown mode and sleep mode) to minimize power consumption when the device is inactive. Shutdown mode places the device in a low-power state that resets all registers and disables the I<sup>2</sup>C interface to reduce current below 500nA (max). In sleep mode, the power-on reset circuit remains active. If no activity is detected on the I<sup>2</sup>C interface, current consumption is less than 3μA.

The MAX14515 operates over the +2.7V to +5.5V supply voltage range, ideal for portable applications using lithium ion battery sources. The MAX14515 is specified over the -40°C to +85°C extended temperature range and is available in a small (1mm x 2mm) 8-bump WLP package.

#### Key Features

- Small Footprint for Placement Inside Camera Modules
- 47V<sub>RMS</sub> Maximum Output (C<sub>LENS</sub> = 220pF)
- I<sup>2</sup>C-Compatible Interface for Setting Output Voltage
- 8-Bit Output Voltage Resolution
- Guaranteed Monotonic Output
- ±15kV Human Body Model ESD Protection on Outputs
- Low 500nA (max) Shutdown Current
- +2.7V to +5.5V Input Voltage Range
- Space-Saving, 8-Bump WLP (1mm x 2mm) Package

#### Didn't Find What You Need?

- [Next Day Product Selection Assistance from Applications Engineers](#)
- [Parametric Search](#)
- [Applications Help](#)

#### QuickView

Description  
Key Features  
Applications/Uses  
Key Specifications  
Diagram

#### Technical Documents

Data Sheet  
Application Notes  
Design Guides  
Engineering Journals  
Reliability Reports  
Software/Models  
Evaluation Kits

#### Ordering Info

Price and Availability  
Samples  
Buy Online  
Package Information  
Lead-Free Information

#### More Information

Related Products  
Notes and Comments  
Evaluation Kits

Document Ref.: 19-4240; Rev 0; 2008-08-20  
This page last modified: 2008-08-20

[Contact Us](#) • [Rate This Page](#) • [Mail This Page](#) • [Privacy Policy](#) • [Legal Notices](#)

Copyright © 2009 by Maxim Integrated Products