

# OptiML™ Red Eye



The powerful flash mechanisms on today's digital cameras make red- and golden-eye correction crucial for all photography. Though a standard feature on many devices, not all red-eye correction technologies are created equal.

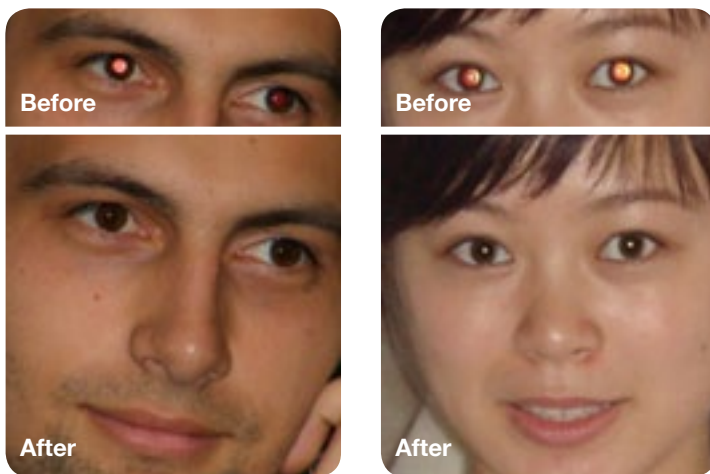
OptiML Red-Eye correction technology provides the industry's leading accuracy, robustness and ease of implementation. The technology addresses red- and golden-eye imperfections by automatically detecting and correcting the defects without the need for a PC or editing software.

## High Detection Rates

OptiML Red-Eye technology is based on real-life samples to achieve the industry's highest detection rates. By using regression tests performed on a red- and golden-eye image database with tens of thousands of images that encompass a wide range of eyes, the OptiML solution is able to accurately detect and correct red- and golden-eye under various illumination conditions, including incandescent, fluorescent, shade and mixed lighting. Test images have been captured with more than 30 camera models, at different resolutions, varying distances between subject and camera, and with subjects of all ages, iris colors and skin types.

## Features

- **High detection rate up to 90% with a low visible false positive rate below 2%**
- **Small 130 KB code size for efficient implementation**
- **Red-eye detection and correction as quickly as 0.4 seconds**
- **Correction for an unlimited number of red and golden eyes in an image**
- **Red- and golden-eye correction in images as small as 8 pixels**
- **Support for a wide range of input image formats, including RGB and YUV**



Accurately detect and correct red eye

### Flexible implementation for easy product development

OptiML Red-Eye technology supports a broad range of devices, including digital cameras, cell phones, printers and photo kiosks. And with a uniquely small embedded code size of 100KB, you can incorporate the technology very efficiently—requiring less memory and causing fewer system constraints. It is designed for use in small devices, enabling you to provide advanced red- and golden-eye capability in a wider spectrum of products.

The solution offers a fully-documented, flexible Application Programming Interface (API), and contains its own memory management for high performance and easy integration with many image devices. The software also provides fail-safe tools for undoing the corrections if necessary.

OptiML Red-Eye technology is available on several platforms, running various operating systems:

- Platforms: x86, ARM, MIPS
- Operating Systems: Windows, WinCE, Linux, MacOS X, iPhoneOS, Android, Symbian, MonteVista, µltron, ThreadX, Nucleus, and other custom operating systems

### Technical Specifications

Max Number of Red Eyes Detected/Corrected	No Limit
Minimum Eye Size	8 pixels
Maximum Eye Size	1032 pixels
Code Size	130 kB (Red only) 370 kB (Red + Golden)
Detection and Correction Time	0.4 seconds (Red only) 1.3 seconds (Red + Golden)

### Contact a DigitalOptics sales representative for more information.

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