

# OptiML™ Low-Light



Users of camera-enabled mobile devices often take pictures in low-light conditions – yet they expect the same high-quality images they would get with a digital camera. As camera technologies get smaller, their ability to compensate for low light is reduced as smaller camera modules equate to smaller pixel sizes. This results in more image “noise”, fewer image details and more color errors, ultimately resulting in poor quality photos.

DigitalOptics Corporation™ OptiML Low-Light technology eliminates all the drawbacks associated with traditional low-light solutions. Through a combination of advanced lens design and embedded processing technology, an increased amount of light is available to the image sensor without degrading the depth of field or other performance factors. Unlike other low-light solutions which simply increase the sensor gain, the OptiML Low-Light solution results in image that are bright and crisp, without added noise or other artifacts.



## Features

- **Increases available light to the sensor**
- **Improves low-light performance**
- **Enables a low F-number (F/#) without compromising close-range capabilities**
- **Reduces image noise**
- **Shortens exposure times for reduced motion blur**

## Benefits

- **Superior low-light performance with unique OF lens (F/2.0)**
- **Wide field of view for improved video teleconferencing experience by one or two participants**

**OptiML Low-Light enables images to be crisp and bright in any lighting condition**

The OptiML Low-Light technology uses extended depth-of-field lens design and customized image processing algorithms that enable a low F-number lens with standard industry manufacturing yields. Edges, fine details and texture appear as realistic as the original subject, while keeping the lens cost to industry standards.

The fast shutter allows for shorter exposure to reduce motion blur. With OptiML Low-Light technology, users can also benefit from high performance video teleconferencing capabilities, in virtually any low-light settings.

### Sample OptiML Low-Light Specifications

Sensor Size	1.3Mp SoC
Focus Range	40cm to 300cm
Module Height	6.0 x 6.5 x 3.2mm
F#	2.0
Diagonal Field of View	70°
Pixel Size	1.75µm
Lens Composition	3P

### Target Applications

- **Notebook cameras**
- **Video teleconferencing**
- **Wide field of view (WFOV) cameras**
- **Low-light cameras**
- **Cell phone secondary camera**

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

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