

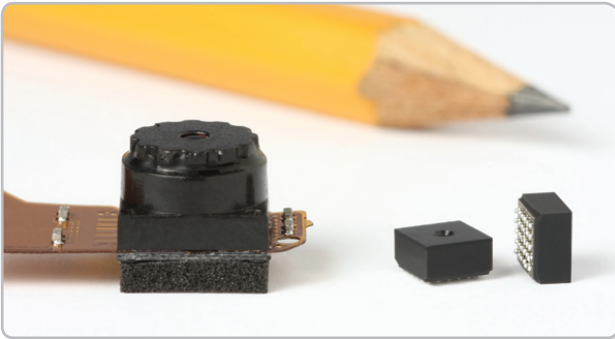
Aptina's Wafer-Level Camera Technology



Wafer-Level Camera Technology
Sampling 2Q08

Applications

- Emerging market camera phones
- Secondary handset cameras



Distinct Advantages for Sleek Handset Designs

1

Small Size

A Z-height of just 2.5mm enables ultra-slim handsets. No more sacrificing sleek design for a bulky camera module.

2

Simplicity and Efficiency

An integrated, reflowable design simplifies the handset manufacturing process, providing efficiencies and cost advantages.

3

Image Quality

The pixel and lens are designed to be integrated for uniquely optimized performance.

4

Improved Time-to-Market

The sensor and lens are calibrated during design, increasing output quality and reducing the burden on handset manufacturers.

What is a wafer-level camera (WLC)?

WLCs provide functionality similar to that of today's camera modules, but they're manufactured at the wafer level. The entire camera system—lens elements, filter, sensor, and sometimes even the processor—are included in a miniscule, integrated package.

Presently, the efficiencies and resolution of WLCs are best suited to capture and expand the market for lower-resolution camera phones. Aptina's demonstrated WLC uses a 1/11-inch VGA sensor. The finished product will be a popular choice as a secondary handset camera for video conferencing or as a primary camera on emerging market handsets, which couldn't otherwise support the cost of a camera.

How does Aptina add value?

WLCs represent a convergence of several of our key competencies and patented technology advantages. We have a legacy of expertise in building some of the best sensors and pixels in the world. We've also demonstrated leadership in our innovative through-wafer-interconnect technology, which enables smaller, sleeker packages. With WLCs, we make excellent use of these technologies to integrate the entire optical system and leverage our key competencies in lens integration and sensor tuning.

What's next for WLC technology?

WLC technology is universally understood to be the logical future for lower-resolution handset cameras. WLCs provide cost and handset manufacturing efficiencies that were previously unachievable. And because they significantly reduce the size of the finished camera, they're opening up new possibilities for phone design and camera placement.

Aptina's Wafer-Level Camera Technology



Aptina WLC module



Competitor's standard VGA module



How to Buy

Production and sample quantities of Aptina products may be ordered through qualified distributors. See our Web site for details. You may also request access to NDA data sheets and other technical documentation by visiting our Web site.

aptina.com

Products are warranted only to meet Aptina's production data sheet specifications. Products and specifications are subject to change without notice. Aptina, the Aptina logo, and DigitalClarity are the property of Micron Technology, Inc. All other trademarks are the property of their respective owners. © 2008 Micron Technology, Inc. All rights reserved. 02/08

