

# Aptina Imaging Boosts Technology Portfolio with New CMOS Enhancements

September 22, 2008

San Jose, CA, Monday, September 22, 2008 – Aptina Imaging announced today that recent advancements in its CMOS image sensor technology portfolio will be integrated into an array of new products for the mobile phone, high performance, surveillance and automotive markets. Aptina was created as a separate division of Micron Technology in March of this year, providing the newly branded division with increased flexibility and a pure play imaging pursuit in the CMOS image sensor market. This separation has also provided Aptina with the opportunity to take on new technology challenges such as those recently added to the company's technology portfolio.

#### **Key Milestones in CMOS Imaging**

Before becoming Aptina, Micron Imaging achieved key milestones in CMOS image sensors include developing the world's first 2.2-micron pixel architecture, pioneering 1.75-micron pixel architecture and 1.4-micron pixel architecture. As a leader in the mobile market, Micron secured designs in one of every three camera phones on the market. Similarly, the company's high performance technology made them an early industry leader in high-speed image capture, bringing high-definition capabilities to digital still cameras and video cameras like those demonstrated in the super high definition projects for NHK (Japan Broadcasting Corporation).

#### **Market Focus**

Aptina's focus on imaging expertise provides a valuable backdrop to the technology the company is working on to meet the demands of the market, now and for the future. "As technologists, we inherently look for new ways to advance imaging technology. One example is the work we've done in directing light within pixels. This work allows us to make higher resolution image sensors in smaller form factors which enable the user to capture high quality images from any device anywhere. Working closely with our customers assists us in understanding existing markets and finding the right technologies for new markets requiring new solutions," says Bob Gove, President and Chief Technology Officer of Aptina. The company provides its customers with a broad range of solutions within mobile, digital still and video cameras, and industry solutions in automotive and security/surveillance. These solutions leverage the technology that Aptina has become known for, including shrinking pixels, improved pixel performance, and innovative technology.

#### **Shrinking Pixels**

Shrinking pixels is one of the key components in the technology integral to meeting the demand for higher resolution in consumer devices ranging from high-end mobile phones to point-and-shoot cameras and personal media video recorders. Small devices demand a small form factor which is enabled by the 1.4-micron pixel technology that Aptina announced in March of this year. Aptina's 1.4-micron pixel technology uses a proprietary process that optimizes the amount of light being funneled into the pixel's most sensitive area by focusing on the color filter array, the light guide and the photodiode. Using this technology, Aptina is able to produce 1.4-micron pixel high resolution image quality that outperforms today's leading-edge 1.75-micron pixels. The pixel is based on Aptina's new 90-nanometer copper process, which not only improves pixel performance but also reduces the physical size of the sensor, meeting the small form factor requirements of consumer devices.

## **Measurably Improved Pixel Performance**

Aptina's 1.4-micron pixel technology lends itself to other imaging solutions and contains elements that enhance or improve the results of larger pixels, including Aptina's 1.75-micron pixel. By applying the 1.4-micron pixel's optimized technology to its 1.75-micron pixel, Aptina has significantly enhanced the 1.75-micron pixel performance. Optical 3-D simulations reveal an increase in light collection and reduced optical crosstalk resulting in an overall increased level of sensitivity of 2X. The technology's optimized light collection capabilities result in higher quality images for the consumer.

"The results we have seen with our new 1.4-micron pixel technology have inspired us to integrate these innovations into our 1.75-micron pixel products going forward," says Terry Gilton, Vice President of Technology at Aptina. "This decision says a great deal about the advancements we have made in optimizing the pixel optical path." Gilton adds "Innovation is the key to the future of imaging. We are exploring Backside Illumination in at least three forms and several variations on Frontside Illumination to create products that meet our customer's needs today and moving forward."

# **Looking Forward**

"Aptina is continually striving for best-in-class image quality and continued leadership in core markets and manufacturing excellence," says Sandor Barna, Vice President of Marketing at Aptina. "As Aptina leverages its new business autonomy in the market, the company looks to generate market disruption via growth and exploration with its technology portfolio containing the improved 1.4-micron pixel and enhanced 1.75-micron pixel products which will be in production the second half of Q4," he adds.

## **About Aptina Imaging**

Aptina, a division of Micron Technology is a leading provider of 2, 3 and 5 mega-pixel CMOS image sensors to the industry's most popular, mainstream and high-end mobile phone manufacturers. Aptina's CMOS sensors bring high-quality picture and video capabilities to mobile phones, digital still cameras, personal media video recorders, security and surveillance cameras, PC cameras, automotive applications, and more. Aptina continues to drive innovation in the market with its growing portfolio of CMOS technologies and image sensor solutions. For additional information on Aptina Imaging, visit <a href="https://www.aptina.com">www.aptina.com</a>.

### **About Micron**

Micron Technology, Inc., is one of the world's leading providers of advanced semiconductor solutions. Through its worldwide operations, Micron manufactures and markets DRAMs, NAND flash memory, CMOS image sensors, other semiconductor components, and memory modules for use in leading-edge computing, consumer, networking, and mobile products. Micron's common stock is traded on the New York Stock Exchange (NYSE) under the MU symbol. To learn more about Micron Technology, Inc., visit <a href="https://www.micron.com">www.micron.com</a>.

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# **Related Links**

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