

Camera Phones Nip at Standalone Digital Camera Market

By Jessica Davis -- 5/20/2005

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While it may have been a novelty a few years ago, these days camera cell phones are everywhere. And not only are they pervasive, they are also getting better with higher megapixel performance and plans for more sophisticated camera features such as auto focus and optical zoom.

With all these improvements, and a huge market for cell phone subscribers, it's no wonder that handset OEMs are looking to include more features and functions in their cell phones, including improving the quality of cell phone cameras by raising the number of megapixels offered as well as offering other enhancements.

The evolution has caused some industry observers to speculate that it may only be a matter of time before camera phones start eating into the market for digital still cameras and perhaps eventually devouring most of it.

"Camera phones only started a few years ago and took off like rockets," said Mel Conway, a product marketing manager at Analog Devices. The company introduced an integrated driver for auto focus in March. "A postage stamp-sized image isn't good for anyone, but if you've got a proper camera in there now you are talking really adding value."

But the market for camera phones is huge.

"There are 1.6 billion cellular subscribers in world," said Tony Henning, managing editor of the Mobile Imaging Report. "Within 2 or 3 years at least a billion of them will have camera phones. That has to impact the market for digital still cameras because people who would have otherwise bought their first digital camera won't have to.

"It's already impacting the market, but we're just at the beginning. The impact will grow over time."

But most observers argue that we aren't there yet. Even as camera phone makers offer more megapixel capability in their devices, most of the handsets still can't provide high enough quality to replace stand-alone cameras for pictures the user wants to keep. Not yet at least.

"The challenge is to get a really good picture out of something you use to make phone calls," said Steve Nelson, VP of marketing connectivity solutions at SMSC, a company which is offering a chip that uses infrared technology to move camera phone pictures onto other storage media. "I think camera phones will stay at the low end."

Most camera phones are still at 1 megapixel, and to be worthwhile, said Conway, they need to get to 2 megapixel and add features such as auto focus. But many handset makers are planning to introduce just those features in the near future, if they haven't already. And that's something that will leave the low end of the stand-alone digital camera market vulnerable.

"It will take some of the market away," said Henning. "It will start at the low end first and impact the single use camera market. Certainly by the end of the year more than half of camera phones will be able to produce acceptable 4x6 prints."

Henning points out that the film camera business is all but disappearing and its last stronghold is the single use camera, one that is getting devoured by camera phones.

"It's going down like a stone," he said. "Kodak expects sales of film to go down 30 percent this year in the United States."

More Features

Another essential ingredient to make camera phones competitive with stand alone digital cameras is zoom, and Conway said semiconductor companies including ADI are currently working on this as well.

"Proper cameras with 2 megapixels, auto focus and zoom are coming online this year and will be mainstream next year," he said. "This is already starting in Japan and Korea led by Samsung."

Another new feature that will make camera phones more sophisticated, according to Conway, is the Piezo motor. Invented by the Curies, these motors are extremely small and are starting to be used in camera phones, Conway said.

"They will revolutionize the business by allowing extremely small auto focus and extremely small optical zoom," he said.

In spite of all the emerging technology available to go into camera phones, making it all work together won't be easy, said Henning.

"It's very difficult to put things like that into a camera phone," he said. "Most manufacturers subject their phones to drop tests. That makes putting sophisticated lenses, zooms and auto focus more harder to get into the phone."

Another factor, especially in North America, is that carriers have trained consumers to be extremely price sensitive," Henning said.

"These devices when they are done right are not inexpensive so carriers are less anxious to carry higher quality units because they are more expensive and they have to subsidize them more heavily," he cautioned. "It's possible that the technology will exist but it won't be cost effective for carriers to deploy."

Everyone seems to agree that camera phones will never take over the high end of the stand-alone digital camera market.

"Quality cameras are too big to fit onto a phone," said Jim Handy, an analyst at Semico Research. "If you have a bigger lens, that's automatically going to make the thing huge." Handy considers camera phones versus digital still cameras two entirely different markets, and he's not alone in that assessment.

"There are things about a stand alone camera that cannot be duplicated at the camera form factor, such as powerful flashes, big lenses, auto focus," said Henning. These things you cannot put into a phone and still call it a phone."

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