



Aptina and DxO Labs team up to improve camera color image quality

*DxO DPP unique technology brings adaptive correction
to achieve perfect color uniformity under any lighting condition*

January 31, 2011 – DxO Labs today announces that it has entered into a licensing agreement with Aptina Imaging Corporation to integrate its DxO Digital Pixel Processing (DxO DPP) technology into high-end CMOS imaging products for Aptina.

“We are very excited to team up with CMOS image sensor leader Aptina,” said Jérôme Ménière, CEO of DxO Labs. “Our DxO DPP technology research scientists have developed a ground-breaking solution that can significantly improve the image quality of miniaturized cameras while reducing manufacturing costs.”

“We are very pleased to partner with DxO Labs, a very innovative and leading imaging company,” said Farshid Sabet, Vice President and General Manager of Aptina's Mobile, PC and Gaming Business Unit. “This technology will provide our customers two key benefits: first, DxO’s DPP technology clearly provides improved overall image quality, and secondly, the technology reduces system complexity, increases overall product quality, and enables rapid integration.”

About DxO DPP

Color shading and green imbalance are system-level issues that occur when the camera is miniaturized by using 1.75μ pixels and smaller. The color light rays are much more spread out as they pass through the lens and infrared filter and then onto to sensor. The problem is made more complex due to a high variability of conditions, including numerous different kinds and intensities of light sources, the colors in the scene, and the unit dependency.

All these root causes and variations make this a very complex problem to solve. Current correction methods are based on costly calibrations on the production line for a limited number of predetermined situations. They introduce failures in most indoor real-life situations, even with high-end smart phones using backside illumination (BSI) sensors.

DxO Labs engineers have succeeded in developing an advanced technology that provides the color uniformity that end-users expect, regardless of the sensor size, the light source, the scene, and the unit. DxO DPP estimates color lens shading and green imbalance maps on the fly from the stream of images before correcting RAW data for color non-uniformity and high-frequency structured noise.

Using DxO DPP technology, digital camera and camera phone OEMs can:

- Differentiate their image quality compared to current per-unit calibration-based methods;
- Market thinner devices by relaxing constraints on lenses;
- Reduce system costs thanks to easier camera manufacturing;
- Shorten time-to-market through simplified integration and tuning.

DxO DPP solution is available in two versions:

- A hardware version delivered as a soft RTL IP that can be integrated either in a CMOS sensor die or in a processor chip.
- A software version delivered as a library running on any ARM core or embedded processor.

About DxO Labs

DxO Labs offers products and solutions ensuring excellence in digital imaging. The company develops and licenses patented intellectual property serving the entire digital imaging chain:

- For consumer electronics OEM/ODM (such as digital camera and camera phone vendors): embedded software and silicon architectures for real time still and video image processing;
- For imaging component suppliers (camera module manufacturers, sensor vendors, and processor vendors) as well as photography journalists and imaging experts: image quality evaluation and measurement tools;
- For serious and demanding photographers, PC and Mac solutions to enhance cameras image quality.

For more information, visit DxO Labs website at www.dxo.com

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