



## Pixelworks Unveils Third Generation Iris Display Processor for Smartphones and Tablets

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*Iris processor with auto-adaptive technology and wide-gamut HDR enables mobile device displays to create TV-like viewing experience*

SAN JOSE, Calif.--(BUSINESS WIRE)--May 11, 2017-- Pixelworks, Inc. (NASDAQ: PXLW), a leading provider of visual processing solutions, today announced the newest and most advanced features offered in its latest generation Iris mobile display processor. Based on the Company's patented DNX<sup>®</sup> technology originally used in high-end TVs, Pixelworks' third generation mobile chip, PX8468, combines the technology, called True View<sup>®</sup>, that enables displays to adapt automatically based on the ambient light and color temperature, as well as support for mobile HDR (High-Dynamic Range) to elevate smartphones and tablets to a whole new level of viewing experience.

### Advantages of Iris:

- 500 million pixel operations per second
- Optimal viewing under any ambient light condition
- 10-bit processing pipeline with auto-adaptive lighting, color and contrast
- Motion Estimation, Motion Compensation (MEMC) provides industry-leading blur reduction and judder-free video
- High-Dynamic Range (HDR) for superior color accuracy and sharper detail

"We are very excited to publicly launch our most advanced Iris display processor," said Richard Miller, Pixelworks' GM & Executive Vice President of Technology. "Our True View feature set leverages auto-adaptive technology to enable a highly optimized viewing experience indoors or outdoors, and offers mobile OEMs much-needed differentiation at the lowest power and smallest footprint available. Additionally, by using Iris, mobile OEMs can qualify their devices for the highest picture quality standards required by providers of HDR content."

"Our ZenPad and ZenFone product lines have benefited from Pixelworks' Iris family of display processors," said Rangoon Chang, ASUS General Manager, Mobile Computing Business Unit. "Being able to deliver a high-end TV experience for premium content on a mobile device is a key differentiator for ASUS, and we look forward to continuing this partnership with Pixelworks to further differentiate our future mobile devices."

Pixelworks' technology provides end users with benefits such as cinematic movie quality, life-like photos and a stunning gaming experience, all optimized for changes typically encountered in a mobile environment. Pixelworks' True View auto-adaptive technology optimizes the display in real-time, based on the ambient light, color temperature, content or application being viewed, as well as the user's preferences.

Dr. Raymond Soneira, President of DisplayMate Technologies Corporation, commented, "DisplayMate has been a pioneer in advocating better display performance in ambient light as a key requirement for the next-generation of displays. With their new Iris processor, Pixelworks is providing important new technology and tools that will allow device manufacturers to significantly improve their display's on-screen color and contrast image quality for consumers in real world ambient light viewing conditions."

Pixelworks' DNX technology has been a key feature in many high-end TVs and projectors for over a decade, and the Company is leveraging the numerous benefits of this technology in mobile devices, including:

**True Clarity<sup>®</sup>:** Pixelworks True Clarity motion processing recreates a cinematic experience, removing the artifacts that distract from the art of storytelling in movies and TV shows, while reducing blur during the streaming of live sports.

Motion Estimation, Motion Compensation (MEMC) is one of the key technologies of Pixelworks' DNX. By processing every video frame that is displayed, Iris adds in the missing frames to ensure smooth judder-free video. Eye fatigue is one of the side-effects of motion judder in video watched on mobile devices without MEMC.

**True View<sup>®</sup>:** With more than 500 million pixel operations per second, Iris display processors render accurate colors, sharp detail and high dynamic range, all while adapting for ambient light intensity and color. These adjustments are made automatically based on the application in use, whether watching movies, playing games or simply browsing the Internet and sending messages.

Ambient light is a key challenge due to significant changes in color and contrast, often causing washed out pictures, reduced contrast, and inaccurate colors. With Iris and True View, mobile devices have the world's most comprehensive set of picture quality tools, that provide automatic real-time processing to adapt to the display's color gamut, contrast, sharpness, and motion based on the ambient light, color temperature to best suit the user's visual perception and preferences. The user experiences all the benefits of the superior quality display, adaptive to the content, ambient light, geographical location, and the time-of-day. Iris can even record the user display preferences and adjust automatically as these preferences change over time.

**High-Dynamic Range (HDR):** With more than half the video streams being viewed on mobile devices, there is a growing demand for the same high-dynamic range (HDR) experience on a 5" smartphone, as on a 50" TV. The UHD Alliance announced its HDR specifications for portable devices at Mobile World Congress earlier this year. Pixelworks' Iris chip can enable HDR on qualified mobile devices, by leveraging not only the picture quality tools, but nearly 20 years of Pixelworks display expertise. Mobile displays are usually much brighter than TVs, and displaying accurate colors, while maintaining the black and the white levels of a given video requires years of display know-how and the right set of tools, which Pixelworks provides to the customers when they use the Iris devices.

Pixelworks' PX8468, the latest generation in the Company's Iris family of mobile chips, is 20% smaller and consumes 25% lower power than the

previous generation Iris device. It is sampling and available for mass production today in a small 4.25 x 4.80-mm WL-CSP package. For additional information please contact your local Pixelworks office, or visit [www.pixelworks.com](http://www.pixelworks.com).

#### **About Pixelworks, Inc.**

Pixelworks creates, develops and markets video display processing technology for digital video applications that demand the very highest quality images. At design centers around the world, Pixelworks engineers constantly push video performance to keep manufacturers of consumer electronics, mobile devices and professional displays worldwide on the leading edge. The company is headquartered in San Jose, CA.

For more information, please visit the company's Web site at [www.pixelworks.com](http://www.pixelworks.com).

#### **About ASUS**

ASUS is one of Fortune Magazine's World's Most Admired Companies, and is dedicated to creating products for today and tomorrow's smart life. Our comprehensive portfolio includes Zenbo, ZenFone, ZenBook and a range of IT devices and components, along with AR, VR and IoT. ASUS employs more than 17,000 people worldwide and over 5,500 world-class R&D talents. Driven by innovation and committed to quality, the company won 4,385 awards and earned approximately US\$13.3 billion of revenue in 2016.

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