



ASUS ROG Phone 5 Series Advances the State of Play with the Industry's First AI Powered Visual Processor from Pixelworks

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Pixelworks i6 processor elevates high frame rate smartphone gaming in ROG Phone 5 with AI-enhanced SDR to HDR conversion, color depth, contrast and adaptive display

SAN JOSE, Calif., March 10, 2021 /PRNewswire/ -- [Pixelworks, Inc.](#) (NASDAQ: PXLW), a leading provider of innovative visual processing solutions, today announced that the recently launched ASUS Republic of Gamers (ROG) ROG Phone 5 series is the first to incorporate the [Pixelworks i6 processor](#) with an Artificial Intelligence (AI) engine to enable stunning video and gaming experiences. More specifically, the AI engine in the sixth generation processor utilizes power-efficient inferencing that augments Pixelworks' extensive knowledge base and industry-leading display processing algorithms with numerous real-time inputs from the content, sensors, display, user preferences and environment to intelligently enhance on-screen visuals, including color depth, contrast and sharpness, while adaptively preserving viewing clarity in any lighting environment.

With Pixelworks' AI-driven SDR-to-HDR conversion, industry-leading HDR10/10+ tone mapping and HDR certification from top streaming sites, including Netflix, Amazon and YouTube, the ROG Phone 5 series brings the theater to users anywhere, with the ultimate cinematic video experience on a smartphone. In addition, the ROG Phone 5 series uses the Pixelworks patented, industry-leading color calibration and management with advanced flesh tone management to ensure perfect color reproduction for all displayed content.

The ROG Phone 5 series is the fourth successive generation of the gaming smartphone to be powered by Pixelworks technology and incorporates a number of new and upgraded features enabled by the Pixelworks i6 processor, including:

- **AI Visual Quality** – Adaptively optimizes overall picture quality – sharpness, contrast and clarity -- for gaming, videos and photos using lower-power inferencing, real-time inputs and an extensive Pixelworks display knowledge base that is updated through an ongoing deep learning process.
- **AI Scene Detection** – Enhances real-time SDR-to-HDR conversion for games, videos and photos, resulting in even better color depth and contrast than previous generations.
- **AI Adaptive Display** – Analyzes the display and other parameters to intelligently adjust display brightness, tone and contrast to preserve visual quality.
- **Dark Noise Suppression** – Intelligently and dynamically compensates for underexposed, grainy videos by reducing this visual background "noise" in low-light videos, gaming and photos for improved image clarity.
- **Color Calibration 3.0** – Every ROG Phone 5 is individually factory-tuned with patented display calibration technology by Pixelworks, resulting in an average Delta E—an indicator for measuring color accuracy—of less than 1 (lower is better) meaning no deviations from perfect color reproduction can be detected by the human eye.
- **Calibrated Skin Tone Management** – Pixelworks' new calibrated skin tone management dynamically detects and corrects/protects skin tones with greater precision than previous generations for the most natural, realistic look across different color gamuts and custom viewing modes.
- **Eye Comfort Modes** – Pixelworks processor provides Daylight and Night Viewing Modes that use adaptive brightness, tone and contrast for ease of viewing in bright sunlight or dark conditions. These modes, plus DC Dimming 2.0 and Smooth Brightness Control, which mitigate screen flashing in low-light transitions, Blue Light Reduction and Reading Mode provide superior clarity and eye comfort for sustained viewing in different mobile environments.

"The gaming community has been eagerly anticipating the new ROG Phone 5 series and the phenomenal visual experience that it will deliver for gaming and other entertainment," said Bryan Chang, General Manager, Smartphone Business Unit at ASUS. "By using Pixelworks visual processing in the ROG Phone 5 series, we will continue to meet and exceed our loyal customers' demand for a more riveting gaming experience with superior graphics."

"We are thrilled to continue our partnership with ASUS on their latest ROG Phone 5 series to help elevate the visual experience for mobile gamers," said Todd DeBonis, President and CEO, Pixelworks. "Gamers today have come to expect visuals that deliver a true-to-life experience on various gaming genres and our AI processing technology helps achieve this by intelligently upscaling dynamic range and optimizing a broad range of important visual quality attributes. The combination of Pixelworks AI display technology and ASUS gaming expertise will help bring visuals and graphics for mobile gaming and video to a whole new level."

Featuring a 6.78" AMOLED capacitive touchscreen display with up to a 144 Hz refresh rate, a resolution of 2448 x 1080 pixels and a 405 ppi pixel density, the ROG Phone 5 series, powered by Pixelworks AI display processing technology, takes gaming to the next level with sharp, crystal-clear video and images, as well as vibrant colors optimized for HDR content from leading streaming providers.

Availability

ASUS announced and officially launched the ROG Phone 5 series on March 10, 2021 to the global markets, and the gaming smartphone is expected to be commercially available afterwards in 2021. More information on the ROG Phone 5 is available at the [ASUS Republic of Gamers website](#).

About ROG

Republic of Gamers (ROG) is an ASUS sub-brand dedicated to creating the world's best gaming hardware and software. Formed in 2006, ROG offers a complete line of innovative products known for performance and quality, including motherboards, graphics cards, laptops, desktops, monitors, audio equipment, routers and peripherals. ROG participates in and sponsors major international gaming events. ROG gear has been used to set hundreds of overclocking records and it continues to be the preferred choice of gamers and enthusiasts around the world. Learn more about the choice of champions at <http://rog.asus.com>.

About Pixelworks

Pixelworks provides industry-leading content creation, video delivery and display processing solutions and technology that enable highly authentic viewing experiences with superior visual quality, across all screens – from cinema to smartphone and beyond. The Company has a 20-year history of delivering image processing innovation to leading providers of consumer electronics, professional displays and video streaming services. Pixelworks is headquartered in San Jose, CA. For more information, please visit the company's web site at www.pixelworks.com.

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Safe Harbor Statement

This release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements may be identified by use of terms such as "begin," "continue," "will," "expect", "believe," "anticipate" "projected" and similar terms or the negative of such terms, and include, without limitation, statements about the launch dates of smartphones containing Company's products. Such statements are based on management's current expectations, estimates and projections about the Company's business. These statements are not guarantees of future performance and involve numerous risks, uncertainties and assumptions that are difficult to predict. Actual results could vary materially from those contained in forward looking statements due to many factors, including, without limitation: our ability to execute on our strategy; competitive factors; the success of our products in expanded markets; current global health and economic challenges, including the impact of COVID-19; and changes in our target markets, including as to demand. More information regarding potential factors that could affect the Company's financial results and could cause actual results to differ materially from those discussed in the forward-looking statements is included from time to time in the Company's Securities and Exchange Commission filings, including its Annual Report on Form 10-K for the year ended December 31, 2019 as well as subsequent SEC filings.

The forward-looking statements contained in this release are as of the date of this release, and the Company does not undertake any obligation to update any such statements, whether as a result of new information, future events or otherwise.



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