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Pixelworks Empowers OnePlus Ace 2 with Extraordinary Visual Display Quality

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Pixelworks' Low Latency MEMC, Low Power Super-Resolution and Always-HDR Bring Cutting-edge Visual Benefits for Mobile Gaming

SHANGHAI, Feb. 7, 2023 /PRNewswire/ -- Pixelworks, Inc. (NASDAQ: PXLW), a leading provider of innovative video and display processing solutions, today announced the newly launched OnePlus Ace 2 smartphone incorporates the Pixelworks X7 visual processing chipset to deliver a first of its kind solution jointly developed and tuned by the two brands. By leveraging Pixelworks' core technologies, including the first ultra-low latency MotionEngine®, low power super-resolution, always-on HDR and professional color calibration, the OnePlus Ace 2 smartphone is well-prepared to win broad consumer acceptance with its unparalleled visual excellence.

The OnePlus Ace 2 is built on the Snapdragon® 8+ Gen 1 mobile platform from Qualcomm Technologies, Inc., paring with Pixelworks' advanced X7 visual processor and up to 16GB of RAM and up to 512GB of storage, which ensures smooth system operation and high-quality visual display performance of the smartphone, as well as the utmost coverage to consumers of flagship user experience. In terms of display, OnePlus Ace 2 comes with a 6.74-inch 1.5K AMOLED screen with a resolution of 2772*1240 pixels and supports up to 120Hz refresh rate and PWM dimming. As for photography, the smartphone features a 16MP front camera and a 50MP primary camera (IMX890 sensor) at the back alongside an 8MP ultra-wide camera and a third 2MP shooter. In the field of battery, the smartphone sports a 5,000 mAh battery with 100W super flash charge.

Pixelworks' visual processor upgrades the gaming performance of the OnePlus Ace 2 with the following visual display advantages:

Ultra-Low Latency MotionEngine® Technology – The technology uses advanced algorithms and innovative architecture to boost the original frame rate of game content to as high as 120fps, which eliminates judder caused by the mismatch of frame rates while preserving original artistic intent as well as ensuring natural and smooth motion quality. Additionally, the advanced processing minimizes latency to as low as 10ms, which is well below the range of human perception. This function has been adapted for optimal performance on over 100 different popular mobile games, such as *Glory of the King, Genshin Impact, Game for Peace, Call of Duty, Minecraft* and *One Piece Fighting Path*.

Low Power Super-Resolution – The technology employs proprietary algorithms to achieve image super-resolution reconstruction, boosting content resolution from low to high resolution and generating game graphics with clearer texture and richer details. Taking full advantages of the 1.5K screen, users can enjoy the transcendent high resolution picture quality in games that include: *Genshin Impact, Glory of the King, League of Legends, Cross Fire, QQ Speed, Sky: Children of Light, Game for Peace* and *Moonlight Blade*.

Always-On HDR – Converts source SDR (Standard Dynamic Range) content to HDR (High Dynamic Range) content in real-time. This function improves the color saturation and contrast of images, producing a more immersive and authentic display to human eyes. Based on AI display functions, this technology utilizes scene detection to intelligently adjust display parameters according to the scenes of different games to ensure smooth, real-time transitions from SDR to HDR. The Always-On HDR capability is available on the same series of games as the Low Power Super-Resolution feature.

Absolute Color Accuracy – Each OnePlus Ace 2 smartphone is factory calibrated with Pixelworks' patented and high-efficiency calibration technology, producing an average Delta E value (an indicator of color accuracy) less than 1, which enables consumers to enjoy real-to-life color for content covering 100% P3 and sRGB color gamuts.

Multi-Brightness Color Calibration– The solution ensures the display's gamma value is always at 2.2 (best standard tested by image and video processing professionals) in different color modes to achieve the most lifelike on-screen viewing experience for the human eyes. Pixelworks technology adapts the gamma curve to compensate for brightness as well as color saturation in real time to guarantee the most comfortable and true-to-life visual experience according to changes in ambient light, whether dim or bright. In addition, Pixelworks' visual processing technology leverages the 3D LUT method to conduct advanced color calibration by comprehensively and precisely managing numerous display attributes, including hue, saturation and brightness, making the color displayed on the screen look as vivid as what human eyes detect in the '3D space'.

"OnePlus Ace 2 aims to deliver flagship gaming experience to the utmost of its user base. "said Louis Li, President of OnePlus China. "In order to achieve this goal, we brought the first globally released Super Frame Rate and Picture Quality Engine with the dedicated visual processing chipset of OnePlus 11 to the new OnePlus Ace 2, without calculating the cost. We hope that a broader number of consumers can enjoy the extraordinary picture quality and 120 fps ultra-smooth gaming experience presented by OnePlus smartphones!"

"As a smartphone targeted for the mid-range market, the OnePlus Ace 2 offers flagship-like visual display performance for mobile gaming." said Ting Xiong, President of Pixelworks China. "It is not easy to achieve the fully converged advantages of stable, high frame rate and high-definition visual quality on more than 100 different mobile games. To obtain the desired visual effect requires a longstanding commitment to tactical cooperation and repeated refinements from both of our teams. We are glad these collaborative efforts continue to uniquely empower both the OnePlus 11 and the newly released OnePlus Ace 2. With the continuous advance of our game ecosystem, we are poised to bring more innovative and fantastic visual experience to smartphone users."

About OnePlus

OnePlus is a pioneering and performance-oriented brand under OPPO. The company brings together a group of engineers who dare to challenge the limits of the industry, pursue cutting-edge technologies, and pay attention to quality details. OnePlus sticks to its "Never Settle" mantra and provides technology enthusiasts with exquisitely designed devices featuring ultimate performance, specially designed texture, and flagship user experience.

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 more than 20 years of history delivering image processing innovation to leading providers of consumer electronics, professional displays and video streaming services.

For more information, please visit the company's web site at www.pixelworks.com.

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