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Pixelworks Enables High Frame Rate Gaming Experience on OnePlus Ace 2 Pro Smartphone

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Delivered Ultra-smooth Picture Quality with Low Power Consumption and Reduced Device Temperature for Exceptional Mobile Gaming

SHANGHAI, Aug. 16, 2023 /PRNewswire/ -- Pixelworks, Inc. (NASDAQ: PXLW), a leading provider of visual processing solutions, today announced the newly launched OnePlus Ace 2 Pro smartphone incorporates the Pixelworks X7 visual processor to deliver excellent display quality for consumers. The newly launched phone was preceded earlier this year by the OnePlus Ace 2 smartphone, which scored significant success with its precise market positioning, flagship-level performance and competitive price. Following this predecessor's breaking of all prior first-day sales records for Android smartphones by selling out within 37 minutes of its launch on JD.com and Tmall, the upgraded OnePlus Ace 2 Pro is now poised to take the spotlight. OnePlus' newest smartphone aims to bring users even more chilling gameplay at high frame rate and with well-balanced power consumption. Additionally, as the first IRX certified smartphone with OnePlus, the OnePlus Ace 2 Pro provides multiple popular games with in-depth visual quality improvements by integrating the characteristics of game content and device rendering capabilities into overall consideration, thus delivering a more immersive and vivid gaming experience to consumers.

The OnePlus Ace 2 Pro smartphone is powered by the Snapdragon® 8 Gen 2 mobile platform from Qualcomm Technologies, Inc. and further bolstered by up to 24GB of LPDDR5X RAM and up to 1GB of UFS 4.0 storage, as well as features the phone's ultra-fast 150W SUPERVOOC S charging technology. The smartphone is also equipped with a 6.74-inch OLED display with 1.5K resolution, 120Hz refresh rate and 2160Hz high-frequency PWM dimming. In terms of display, the smartphone continues OnePlus' adoption of Pixelworks X7 visual processing chipset as part of its Super Frame Rate and Picture Quality Engine solution to boost frame rate and visual quality for exceptional mobile gaming.

"We are pleased to continue our cooperation with Pixelworks on the OnePlus Ace 2 Pro smartphone," said Louis Li, President of OnePlus China. "As the performance benchmark of OnePlus, the OnePlus Ace series is committed to the perfect integration of speed, performance and aesthetic appearance. In the pursuit of bringing comprehensive 120fps gaming experiences to consumers, we also attach great importance to the control of power consumption and realism of viewing experiences. Such adherence on performance and picture quality is in line with the concept of Pixelworks' newly announced IRX gaming experience brand. We hope that our persistence for excellence in all dimensions can better the user experience all around, making mobile games not only pleasant to watch but also exciting to play."

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

Ultra-Low Latency MotionEngine® – Innovative technology (MEMC) uses advanced algorithms to offload rendering pressure from the GPU when running mobile games, boosting the frame rate of original content to as high as 120fps while maintaining comparable smoothness of picture quality. In adherence with bringing comprehensive 120fps smooth gaming experience to more consumers, this function has been optimized for over 100 popular mobile games, including *Glory of the King, Game for Peace, Genshin Impact* and *League of Legends*. To date, several games have also uniquely integrated Pixelworks' Rendering Accelerator SDK such as *One Piece Fighting Path and Crystal of Atlan*. The coupling of this rendering accelerator and the Pixelworks X7 visual processor further optimizes the visual performance of mobile games through the whole lifecycle, from production to display, resulting in the most authentic high frame rate gaming experience for consumers.

Low Power Super-Resolution – This function allows users to view all games with boosted resolution throughout gameplay. Leveraging newly advanced algorithms to improve the picture quality of game graphics with clearer texture and richer details, the resulting high-resolution content enables games to take full advantage of the 1.5K resolution screen. Additionally, this Super-Resolution function can run concurrently with the MEMC technology above to simultaneously enhance both the resolution and frame rate of game content, allowing gamers to enjoy richer and more true-to-life details, as well as smoother motion quality.

Extended Dynamic Range – This function provides full utilization of the screen's dynamic range capabilities, allowing native content with varying brightness to be properly displayed on the same screen. Leveraging integrated LUT (Look Up Table) support, the function applies tone mapping adjustments to content of varying brightness to ensure that displayed images always have optimal contrast – and retaining more shadow details even in overly bright ambient light. This function has been adapted to several games, such as *Glory of the King, Game for Peace, Genshin Impact, League of Legends, Cross Fire, QQ Speed, Sky: Children of Light* and *Honkai: Star Rail.*

Absolute Color Accuracy – Each OnePlus Ace 2 Pro 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% of 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 life-like, on-screen viewing experience for the human eyes. Pixelworks technology dynamically adapts the gamma curve in real-time according to changes in ambient light to compensate for brightness as well as color saturation to guarantee the most comfortable and true-to-life visual experience. 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.'

"Congratulations on the release of the OnePlus Ace 2 Pro!" said Ting Xiong, President of Pixelworks China. "The notable commercial success of the OnePlus Ace 2 smartphone earlier this year is a testament to OnePlus' dedication to its products and sincerity to customers. As its successor, the newly launched OnePlus Ace 2 Pro smartphone continues to support comprehensive 120fps mobile gaming on over 100 gaming titles. In addition, it offers optimized features and settings, such as the concurrent running of super-resolution and MEMC functions, as well as the upgraded feature of extended dynamic range. The deeper technology integration between Pixelworks and OnePlus on the Super Frame Rate and Picture Quality Engine solution witnessed a new collision between Pixelworks' IRX gaming experience brand and OnePlus' "Never Settle" mantra. In the future, we will work

with OnePlus to continue meeting the viewing demands of users, as we strive to continuously improve visual quality and the gaming experience on mobile devices."

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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Investor, Brett L Perry, Shelton Group, 214-272-0070, bperry@sheltongroup.com; Media, Emily Yu, Pixelworks, Inc., comms@pixelworks.com