

## Philips 2019 OLED TVs set a new reference standard for PQ thanks to 3<sup>rd</sup> Generation P5 Engine

**Berlin, September 5th, 2019** – Philips TV's will set a new outright reference standard for best picture quality in the premium TV sector with the introduction of the 3<sup>rd</sup> Generation P5 engine in the company's 2019 OLED TV range – including two new OLED+ models launched at IFA.

The  $3^{rd}$  generation of P5 is implemented in a special two-chip arrangement that maintains the optimised order of processing of the original P5 but adds additional computational power to key intensive parts of the processing chain – the overall result is a doubling of the processing power and a 30% PQ improvement over the already market leading  $2^{rd}$  generation P5 chip.

2<sup>nd</sup> Gen P5 equipped Philips OLED TVs were already widely acknowledged for reproducing the best picture quality in 2018, with the companies 803 & 903 models winning more than 47 awards and two independent 'blind' picture shoot-outs.

The 3<sup>rd</sup> generation of P5 extends PQ performance even further, bringing improved noise reduction, better sharpness, more accurate colours and skin tones and better contrast to all sources.

The new engine has the power to bring PQ improvements to Philips TV's unique Perfect Natural Reality feature, plus better overall HDR performance including for both HDR10 & HDR10+ sources and, for the first time, can enhance Dolby Vision® encoded dynamic HDR content.

Dolby Vision transforms the TV experience with ultravivid picture quality — incredible brightness, contrast, detail, and colour that bring entertainment to life before your eyes. When compared to a standard picture, Dolby Vision can deliver colours never before seen, highlights that are up to 40 times brighter, and blacks that are 10 times darker. The result is a refined, lifelike image that will make you forget you are looking at a screen.

Excellent noise reduction performance has always been a key element within the P5's processing suite, thanks to sophisticated motion flow analysis working in combination with spatial and temporal noise reduction to allow the maximum reduction of noise but without introducing annoying detail blurring or smearing.

The 3<sup>rd</sup> generation of Philips TV's P5 engine now adds de-contour enhancement, bit-depth calculation and sparse filtering to produce an even cleaner, sharper image.

For Perfect Sharpness performance, the original P5's Detail Enhancer feature has been further improved by adding a Detail Protection and Restoration function to the original Detail Meter, to ensure even better results when transforming the original pixels into better, sharper pixels. A new Dejaggy filter is also especially effective when applied to low and high angle diagonal lines.

The result is a visibly more refined image with finer more detailed lines and improved depth impression.

Philips' TV unique Perfect Natural Reality feature has also been improved via a new specular detection function plus better region classification in conjunction with inverse tone mapping. The result is improved contrast, more depth impression with more realistic reproduction of reflections, better sharpness and more natural and accurate skin tones, all helping to transform SDR content into an HDR-like picture.

The new and upgraded features can also combine to improve HDR10/HDR10+ performance.



For HDR content the 3<sup>rd</sup> Gen P5 uses higher bit resolution to remove the problem of loss of detail in very dark areas, ensure that there's no colour clipping in very bright and colourful scenes and removes any unwanted colour banding while protecting gradients within skin tones.

New for 2019 is the inclusion of Dolby Vision compatibility, with Philips now leading the market by uniquely offering support for all the major HDR formats - including Dolby Vision - across almost the company's entire range of sets – including every model from the 6000 series upwards.

The Philips TV PQ team has worked in close partnership with Dolby to enable the key benefits of P5 to deliver a spectacular viewing experience while retaining artistic intent.

The 3<sup>rd</sup> generation P5 can also improve SDR and HDR 10/HDR10+ images with less noise, artefacts with picture quality that is both sharper and smoother.

## **About TP Vision**

TP Vision is a consumer electronics key player in the world of audio-visual digital entertainment. TP Vision concentrates on developing, manufacturing and marketing Philips branded TV sets (Europe, Russia, Middle East, South America, India and selected countries in Asia-Pacific) and audio products (all around the Globe). We do this by combining the innovative Philips brand heritage with our design expertise, operational excellence, flexibility and speed of TPV Technology. With these combined strengths, we bring high-quality TV sets to the market: smart and easy to use with sophisticated styling. We believe in creating products that offer a superior audio and visual experience for consumers. With Philips TVs, TP Vision is a global leader in the hospitality market. TP Vision is the exclusive brand licensee of Philips TVs for the above listed countries and, on the global stage for the Philips audio products.TP Vision employs close to 2,000 people in several locations around the globe and is 100% owned by TPV, one of the world's leading monitor and LCD TV manufacturers, selling and marketing Philips branded TVs in China. TPV has been able to drive its growth over the years by leveraging its economies of scale and core competencies in R&D, manufacturing, logistic efficiency and quality.

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