ORCA®-Halo: A New Benchmark for Back-illuminated sCMOS Imaging

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Hamamatsu Photonics Europe
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Hamamatsu Photonics proudly announces the addition of the ORCA-Halo, C17440-20U, to its renowned ORCA® family of scientific CMOS (sCMOS) cameras. Designed to meet the needs of academic researchers and Original Equipment Manufacturers (OEMs), the ORCA-Halo combines cutting-edge reliable technology with excellent image quality performance. It sets a new standard for back-illuminated sensor cameras.

Designed to excel in every lab, here are the ORCA-Halo's key features:

- **Back-Illuminated Sensor**: Achieving a peak quantum efficiency (QE) of 86%, it ensures low noise and improved signal-to-noise ratios, even for demanding fluorescence imaging applications.
- **High Resolution & Wide Field of View**: With 9 MP resolution (3000 × 3000 pixels) and a compact 3.76 µm pixel size, this high-resolution camera captures stunningly detailed images, ideal for advanced microscopy.
- **Low Readout Noise**: Flexible settings to optimize performance on specific samples, enhancing sensitivity for faint signals.
- **Enhanced Cooling Options**: Featuring both forced air and water cooling mechanisms, the ORCA-Halo minimizes dark current for long-exposure imaging, ensuring reliability under various experimental conditions.
- **Proprietary Light Sheet Readout Mode**: Patented technology synchronizes readout timing with excitation light, reducing scattered light and delivering superior results in light-sheet microscopy.

The ORCA-Halo represents Hamamatsu's commitment to making premium imaging accessible to a broader audience. Developed for routine inspections, this addition to our lineup reflects the same reliability and performance standards that define the ORCA camera series, maintaining the high expectations of academic researchers and OEMs worldwide.

For more information, please visit the product page or contact us: info@hamamatsu.eu

Hamamatsu has been designing low-noise scientific cameras since the 1980s. We currently supply scientific cameras and related products for applications that require cutting-edge imaging technology to capture extremely low-level fluorescence and luminescence, for example, in academic research fields, including life sciences and factory automation (FA). To meet market demands for even further noise reduction, we have been working to devise scientific cameras that exhibit incredibly low-noise performance capable of achieving 2D photon number resolving measurement. View our full range of cameras here: Scientific camera | Hamamatsu Photonics

About Us

Hamamatsu Photonics is a leading provider of cutting-edge photonics technology and products. With 70 years of experience, the company delivers innovative solutions to customers across a wide range of industries, including medical, scientific research, industrial, and telecommunications. Hamamatsu Photonics offers a comprehensive range of products, such as imaging sensors, light sources, and optical systems designed to meet customers' unique needs.

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Keywords: ORCA, research, entry-level, back-illuminated camera, high-resolution images, QE, low-readout noise
Market: Academic research, Life sciences, original equipment manufacturers

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