

Scientific CMOS Camera



The ORCA-Flash4.0 scientific CMOS camera now includes Hamamatsu's new ImageConductor Connectivity, a built-in camera function that automatically senses which of the camera's two output connections, USB 3.0 or Camera Link, is being used. The default USB 3.0 configuration provides 30 frames per second imaging at the full 2K x 2K resolution. If a faster frame rate is needed now or later, the camera can be easily upgraded by purchasing a high-speed PCI x8 Camera Link board and cable. The addition of the Camera Link board to a user's computer makes 100 frames per second of full-resolution data possible.

Featuring exceptional quantum efficiency and low noise, the ORCA-Flash4.0's high sensitivity means extreme versatility. This generation 2 sCMOS camera has quantum efficiency values of over 70% at 600 nm and 50% at 750 nm. In every configuration and at every speed, the ORCA-Flash4.0 has only 1.3 electrons median (1.9 electrons rms) read noise. It also features a 6.5 $\mu\text{m} \times 6.5 \mu\text{m}$ pixel size, which is ideal for microscopic applications. The combination of these features makes the ORCA-Flash4.0 camera ideal for demanding microscopy applications such as super-resolution microscopy, TIRF microscopy, ratio imaging, high-speed calcium ion imaging, FRET, real-time confocal microscopy, and many more.

Hamamatsu

www.hamamatsucameras.com [1]

Source URL (retrieved on 01/31/2015 - 7:45am):

<http://www.mdtmag.com/product-releases/2012/10/scientific-cmos-camera>

Scientific CMOS Camera

Published on Medical Design Technology (<http://www.mdtmag.com>)

Links:

[1] <http://www.hamamatsucameras.com>