

Extensive image processing software library

Pre-programmed machine vision functions make work easier for software developers and significantly shorten the time to market. Vision Components therefore now also offers its Linux-based VC Z series embedded vision systems with an extensive software library.

VC LibQ contains more than 300 functions developed by the manufacturer for all common image processing tasks. In addition, all capabilities of MVTec's Halcon software are also part of the package. The algorithms are specially tailored to embedded systems from Vision Components. All functions are thoroughly time-tested, as versions of these software products have been successfully used for more than 20 years. The full VC LibQ package covers a wide range of applications including optical character recognition and verification (OCR/OCV), 3-D image processing, measurement and inspection, blob analysis, color image processing, hyperspectral imaging, morphology, and motion analysis. OEMs can also purchase dedicated packages for their specific applications: code reading, OCR, pattern recognition, or the combined package code reading + OCR.



High Resolution, Low-noise

IMX252 Sony Pregius CMOS sensor for Z cameras

Vision Components now supplies its small VC Z series smart cameras with more powerful CMOS sensors: Sony's© IMX252 provides a 3.2 MP resolution (2048 x 1536 px) and captures 88 frames per second in this format. At lower resolutions, even higher speeds can be achieved. Like its predecessors in the same line, this new Pregius© series sensor employs global-shutter technology. Users of previous-generation VC Z series cameras are very familiar with it and have come to appreciate its hands-on benefits over rolling shutters or CCDs: there is no bloom, smear, distortion, or overexposure in images captured with global shutter CMOS sensors. Despite its high resolution, the new sensor features a compact 1/1.8" footprint. It is housed on a 23 x 35 mm board and can be used with a wide range of lenses.



Specifications

- 1/1.8" CMOS sensor, Sony© IMX252 Pregius©
- Resolution: 2048 x 1536 pixel
- Frame rate: 88 fps
- High-speed shutter: 15 μ s + steps of 15 μ s
- Low-speed shutter: up to 1 s adjustable integration time
- Dual-Core ARM with 2 x 866 MHz and integrated FPGA

The compact design entails a small pixel size of only 3.45 μm , which is significantly smaller than the pixel of lower-resolution CMOS sensors. The image quality, however, does not suffer from this. Sony has compensated for the lower saturation capacity per pixel due to the smaller surface by technical optimization of the products: thanks to extremely low temporal dark noise and a wide dynamic range, they ensure very crisp, virtually noise-free pictures even under difficult ambient conditions with low light levels. VC Z series embedded vision systems are available with a [STANDARD HOUSING](#) or an IP67 protective housing and as [PCB VERSIONS](#). The board cameras are highly suitable for integration in a wide range of industrial applications, with a line-up including cameras with an onboard sensor and others with one or two remote heads on separate PCBs. More sensors from Sony's Pregius series will be integrated into Vision Components products to give smart camera users superior image quality and fast video capturing at high resolutions.



www.vision-components.com

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