

LV-126 Camera System

Detection electron energy range	Optimized for 15 keV – 40 keV
Pixel pitch	6.0 μm
Pixel array dimensions	4096 × 3072 12.6 megapixels
Total active area	25 × 18 mm
Backthinned	Yes
Radiation hardened	Yes
Sensor protection	Integrated protection shutter to prevent unintended sensor exposure
Sensor replacement	Field-replaceable sensor module to maximize longevity and instrument up-time, while minimizing total cost of ownership
Continuous frame-rate	Up to 40 fps, unbinned full-frame Up to 75 fps, 2× binned full-frame Sub-arrays at 1000+ fps (depending on size)
Binning	Flexible software binning
Sensor readout	Any arbitrary area
Sensor cooling	Peltier cooling, programmable and regulated to ±0.1 °C
Retractable	<i>Optional</i> – Fully-retractable design, with no moving O-rings
Microscope compatibility	TEM & LEEM/PEEM compatible, including most custom instruments
Mounting position	On-axis TEM bottom port, or other positions
Exposure measurement	Integrated Faraday plate for beam current density (exposure) measurement
Computer system	<i>Optional</i> – Certified high-performance computer with SSD RAID array for data streaming
Included software	DEServer with unified TCP/IP interface for remote clients Software development kit (SDK) for integration with custom software Stand-alone GUI based on ImageJ / Micro-Manager (cross-platform) DE image processing software (open-source, Python-based)
Optional software	DE-IM (full-featured, user-friendly, data collection software) DE-StreamPix (acquisition of long movies for <i>in situ</i> TEM)
Automated data acquisition	SDK enables straight-forward integration with other automation software
Warranty	One year warranty from defects in non-consumable components Service contracts also available

Note: specifications are typical and are subject to change.