

## Direct Electron

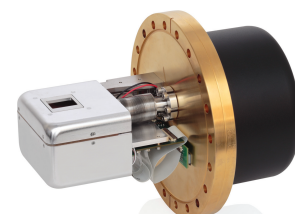
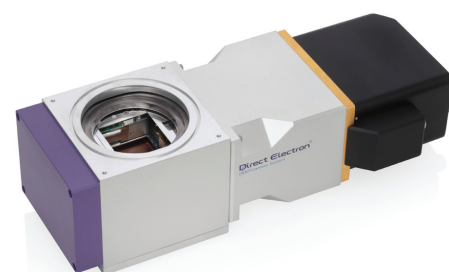
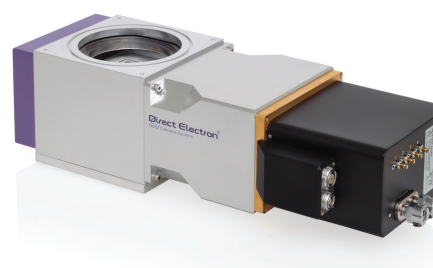
Direct Electron designs, manufactures, and delivers next-generation direct detection cameras for electron microscopy. Our vision-Innovation Propelling Discovery is focused on empowering our customers to efficiently and continually expand the frontiers of science. Our approach involves: (1) A strong commitment to research and development that enables us to continually offer new technological innovations, (2) Unique features to improve efficiency in data collection and processing, and (3) A collaborative culture with exceptional customer service and support.

Direct detection has revolutionized the field of electron microscopy, starting with Biological Cryo-EM and now moving into Materials Science TEM/STEM. But not all direct detectors are created equal. Our pioneering and award-winning Direct Detection Device (DDD<sup>®</sup>) sensor technology uses a more sophisticated pixel design than other direct detection cameras, delivering lower noise, better sensitivity, higher speed, and expanded versatility. Our cameras also deliver full-speed movies to users to enable motion correction, dose filtering, in situ imaging, 4D-STEM data collection, etc.

- **DE-16 Camera System**—Designed for a wide range of TEM applications from materials science to low-dose cryo-EM, the DE-16 delivers exceptional image quality with minimal noise, high dynamic range, and ultra-high speeds (subarray readout up to nearly 10,000 fps). Its unique design makes it the best available direct detection camera for in situ TEM, 4D-STEM (as an ultra-fast pixelated area detector), DTEM/UTEM, low-dose HREM, holography, and Lorentz microscopy.
- **DE-64 Camera System**—With more than 67 million pixels (8k×8k), the DE-64 is nearly 3× larger than any other direct detector on the market, yielding many times higher throughput for high-resolution single-particle cryo-EM and a huge field-of-view for cellular tomography. Additionally, our unique single-pixel electron counting technology delivers unprecedented DQE for the most challenging specimens.
- **DE-20 Camera System**—Designed specifically for low-dose cryo-EM applications, the DE-20 delivers high-throughput, high-resolution imaging for single particle, tomography, or microED. In head-to-head comparisons, the DE-20 delivers better resolution in less time than competing cameras.
- **DE-12 Camera System**—As the first direct detection TEM camera on the market, the DE-12 has a long record of high productivity for both cryo-EM and in situ TEM. Now in its third generation, it is well-positioned for constrained budgets or significantly upgrading 120 kV LaB6 cryo-TEMs.
- **LV-126 Camera System**—The LV-126 is a direct detection camera optimized for low-energy (<40 kV) electron imaging. Compared to conventional MCP+CCD detectors, the LV-126 delivers >6× more information per image with significantly higher resolution and a larger field-of-view.

Since our founding in 2007, Direct Electron has been driven by collaboration. Our leadership team consists entirely of Ph.D. scientists who love to work together with fellow scientists to address challenges and develop new technology and methods. Please contact us if you have any opportunities for collaboration related to any kind of electron microscopy.

**Direct Electron**  
INNOVATION PROPELLING DISCOVERY



### How to find us

Direct Electron  
13240 Evening Creek Dr., Ste. 311  
San Diego, CA, 92128  
Tel: +1 858-384-0291  
Email: [info@directelectron.com](mailto:info@directelectron.com)  
[www.directelectron.com/mt17](http://www.directelectron.com/mt17)

Please visit our Web site for contact information for our international distributors and agents.