# ePix10k Specifications

With autoranging, the ePix10k provides 5x lower noise and 4x higher maximum signal than the CSPADs it replaces. The ePix10k is capable of running at a 120 Hz frame rate. One large, 2Mpixel camera is available in air, and multiple small 135k detectors can be installed in air or and vacuum and read in-sync in order to cover a larger the cross section.

Types (pixels)	135k, 2M
# of Pixels/module	384 x 352
Pixel Size	100 um
Active Area Dimensions	38.4 x 35.2 mm^2
Operating Temperature Range	4C to 20C (constant: must be above dew point)
Operating Pressure Range	Air or Vacuum
Operating Humidity Range	Avoid condensation on sensor plane
Max signal (8 keV photons)	11000
Cooling	Water-cooled/Peltier (small cameras)
Frame Rate	120 Hz

Front-facing ePix
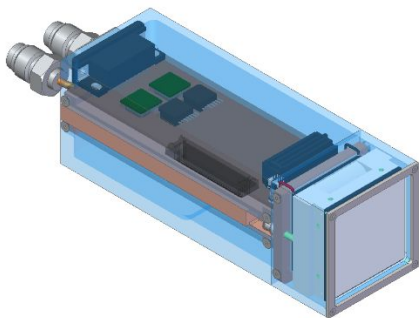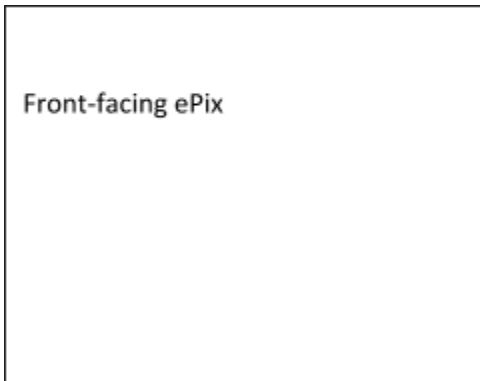
Other Specs:

- For in-air applications, dry nitrogen is used to lower humidity inside the detector.
- Typical combination of Temperature/Humidity for in-air applications is below 10C at less than 10% humidity.

Analysis Tools:

- Offline analysis software:
    - ssh to pslogin.slac.stanford.edu
    - ssh to psana.slac.stanford.edu
    - /reg/g/pcds/dist/pds/ami-current/build/ami/bin/x86_64-linux-opt/offline_ami

Contact:

- Email: LCLS-det-support@slac.stanford.edu