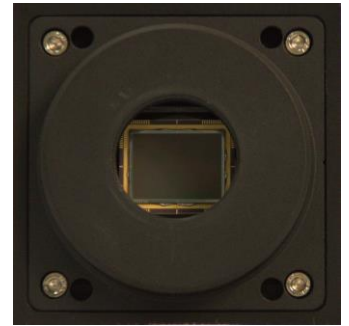


XR-80 TEM Camera Series

Large 8 Megapixel Scientific CCD Sensor
50 MHz High Speed, Low Noise Readout
GigE Interface
High Performance Lens



Standard XR80 Camera Configurations

XR-80S-B

Classic Wide Angle Side-Mount

- 1) >100% photographic or greater field-of-view imaging with up to a 26x36 mm phosphor (TEM dependent).
- 2) 11 μ m square pixels at phosphor.
- 3) Uses AMT's high performance B-lens.

XR-80M-B

Wide-Angle Multi-Discipline Mid-Mount

- 1) ~50% photographic field-of-view imaging with up to a 26x36 mm phosphor.
- 2) 11 μ m square pixels at phosphor.
- 3) Uses AMT's high performance B-lens.
- 4) Film compatible for many TEMs.

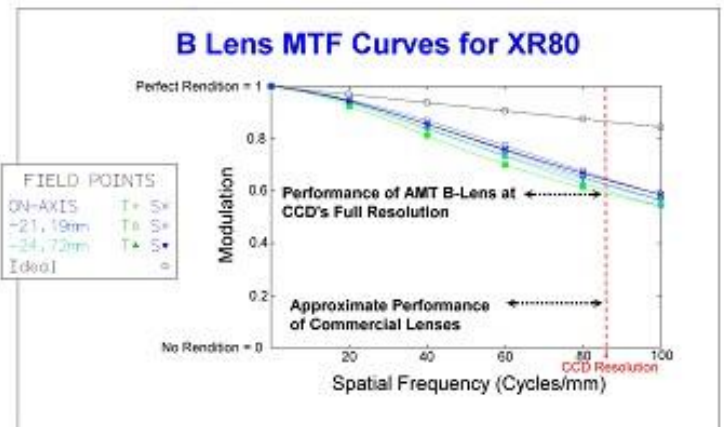
XR-80L-B

High Mag Low-Mount

- 1) <40% photographic field-of-view imaging with 26x36 mm phosphor
- 2) 11 μ m square pixels at phosphor
- 3) Uses AMT's high performance B-lens

XR-80 Camera Properties

AMT's B Lens: Combines extraordinary speed with high resolution. This lens maintains a >50% MTF @100 line-pairs/mm across the entire image to provide unmatched sharpness at its large aperture. With an NA of 0.23 @image B lens systems have extremely high sensitivity. The B lens has <1% distortion across the field.

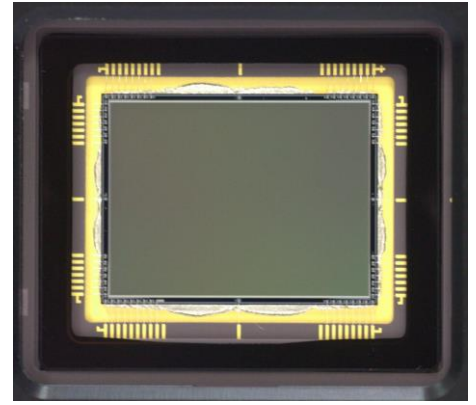
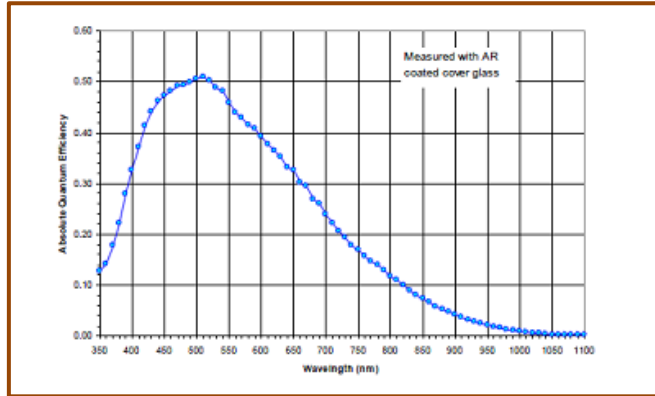


Advanced Microscopy Techniques 242 West Cummings Park, Woburn, MA 01801
Tel: (978) 774-5550 Fax: (978) 739-4313
Email: info@amtimaging.com URL: <http://www.amtimaging.com>



Selection/Satisfaction/Service = The AMT Advantage

Sensor: Truesense Imaging KAI 08050 scientific grade, CCD sensor with 3296 x 2472 x 5.5 mm pixels with 13x18 mm active area. The absolute quantum efficiency is approximately 45% at the output wavelength of the scintillator.



Shutter: Electronic shutter with no beam blanking or mechanical shutter required with exposures adjustable from 1 ms to 1 min.

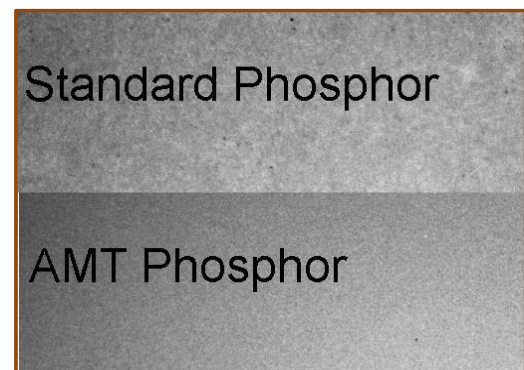
Digital Interface and Electronics: High speed GigE digital camera interface for both data transfer and control. All electrical components are outside the TEM vacuum for reliability and maintenance.

Readout Rate: 40/50 MHz dual speed/dual port readout. Raw data acquired at 12 bits resolution with recording to 16 bits with multi-frame summations of ADC output.

Maximum viewing speeds:

Full field/1x1 binning (i.e. full resolution): 5 fps
Full field/2x2 binning: 10 fps
Full field/4x4 binning: 20 fps

Scintillator: AMT's advanced phosphor and substrate technologies produce brighter images with less structured noise than competing phosphors, while resisting beam damage. Phosphors are matched to the beam energy range. Note that AMT phosphors have reduced structured noise, which improves both aesthetics and quantitative data quality.



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