

ADSC

Quantum 315r



Technical Summary (typical):

Detector Type: 3 x 3 Array
Active Area: 315mm x 315mm
Number of Pixels: 6140 x 6140; 37.75 M
Pixel Size at Detector Surface: 51 x 51 microns
Phosphor: Optimized for 1 Angstrom X-rays
Spatial Resolution FWHM: 90 microns; 1.76 pixels
Taper Ratio: 3.7:1
Optical Coupling (CCD to Taper): Hard Epoxy Bond
CCD Type: Atmel THX 7899
CCD Pixel Size: 14 x 14 microns
Operating Temperature: -45 degrees Celsius
Cooling Type: Thermoelectric
Dark Current: 0.015 e/pixel/second
Controller Electronics: ADSC Custom
Dimensions: 880mm x 450mm x 460mm
Weight: 133 Kgs

Readout Times:

- **Full 6Kx6K Resolution:** 0.90 seconds
- **2x2 Hardware Binned:** 0.25 seconds
- **2x2 Software Binned:** 0.90 seconds

Readout Noise:

- **Full Resolution:** 11 electrons
- **2x2 Hardware Binned:** 11.5 electrons

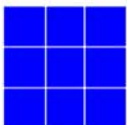
Dynamic Range:

- **Full 6Kx6K Resolution:** 18,100
- **2x2 Hardware Binned:** 22,600
- **2x2 Software Binned:** 36,300

Full Well Depth (low noise MPP mode):

- **Full Resolution:** 200,000 electrons
- **2x2 Hardware Binned:** 260,000 electrons
- **2x2 Software Binned:** 800,000 electrons

DQE: > 80%, 0.9 - 1.5 Angstroms



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