Finally, true 4k resolution on film.

AatonK records 2k & 4k digital images on color intermediate, release print, b&w separation, and all reversal/negative camera stocks.

- the highest definition 35mm recorder
  45% MTF @83 lp/mm (4k),
  72% MTF @40lp/mm (2k) optical performance.
- at 2k resolution, two and a half time faster than the fastest laser digital recorder.
- at 4k resolution, 40% faster than the fastest laser for full aperture Scope.
- four times faster for sequential RGB separation recording on b&w archive film.
- total shooting consistency ensured through permanent self-calibration by a built-in ultra high resolution CCD-reflex.
- networkable for centralized control and 3D LUT sharing in a recorder farm.
**AatonK**

**highest 4k digital-film quality**

**resolution.** Outstanding 45% MTF @83 lp/mm telecentric lens designed for the AatonK. No moving parts during frame exposure, neither the film nor the 4096 sites of the ‘nano-step-LCD’ imager. This makes 4k detail separation superior to that of any other 35mm digital film recorder.

**pixel-over-pixel registration.** The half pixel frame-to-frame registration of Aaton’s famous in-the-film-plane pull-down enhances dynamic resolution perception. It also allows for successive recording of easier-to-rejoin RGB frames on b&w separation film.

**full dynamic range.** Color intermediate, b&w, or color print, the maximum density is not limited by the imager power source. The nominal 2,046 level ‘printing density’ over D_{min} on intermediate film is easily reached.

**efficiency-increasing workflow**

**speed.** Picture size and stock independent, AatonK is twice as fast as the (future) fastest laser recorder at 2k (2.8 fps), and 40% faster on full frame Scope at 4k. Four times faster at recording 4k RGB sep. archives on b&w film.

**built-in film LUT generator.** Using the 650nm wavelength of its twin red illumination source, AatonK performs as a high precision ‘printing-density’ meter generating film LUTs from processed grey charts. These LUTs are applicable through the network to all the facility’s recorders. No wasted time or operator errors: the built-in ‘printing-density’ meter is more accurate than a Status-M densitometer.

**absolute consistency.** At each new roll or new job, a 16k resolution ‘CCD-reflex’ analyser monitors the ‘nano-step-LCD’ image characteristics (uniformity, dynamic range, focus, etc.), ensuring consistency from one job to the next and perfect color matching from one machine.
establishing a new standard of performance and quality for digital film recorders

to another within a recorder farm. No heat-up film-chambers means density stability from start to end of a full 2000’ roll.

dependable. To avoid any stop in case of momentary data transmission slow-down or copy errors from the image server, AatonK **buffers up to 100 frames.** Automatic monitoring, payload distribution, and film LUT sharing over several recorders from any intranet browser is built-in.

**low ownership cost**

**proven technologies.** An easy to maintain exposure engine featuring a longlasting ‘nano-step-LCD’ imager and indestructible LEDs; a film transport borrowed from the ultra steady coplanar claw system used on thousands of Aaton film cameras.

two-in-one recorder. With its twin red wavelength source, AatonK exposes intermediates and prints @700nm and all camera reversal or negative stocks @650nm. No compromise, no additional option for this feature.
tech specs

Job lists and network monitoring

AatonK
without sharpening.

At both resolutions, the AatonK ‘nano-step-LCD’ imager outperforms the laser exposure engine.

Laser recorder
with sharpening.

■ Operational
  • Built-in PC with WinXP multi-core processors. • Gigabit Ethernet and IEEE 1394 connections. • Ramdisk for fast server-client frame transfer, and up to 100 (4k) / 400 (2k) frame buffer capacity with integrity check. • Secured local & remote (intranet or extranet using VPN) administration/monitoring from any MAC/PC based on full thin-clients / server web architecture. • Full CMS (3D LUT) for faithful image rendering on calibrated screens using color managed browsers (e.g. Safari, Firefox 3.0). • Scalable recorder management using SQL centralized job database (job editing, recorder assignment) for recorder farm load optimization. • API for advanced integration and heterogeneous recorder clusters.

■ Physical
  • frame size: 35mm full aperture.
  • pixel size: 6 microns (4096 x 3112).
  • dynamic: 2046 ‘printing density’ above D_{min}.
  • MTF*: 72%@40 lp/mm, 45%@83 lp/mm.
  *modulation transfer function.
  • dimensions: 70 x 117 x 112 cm.
  • weight: 150 kilos.
  • power: 800 W, host PC included.
  • temp. range: 15-30°C.

■ Recording speeds

<table>
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<th>AatonK (1)</th>
<th>Current laser</th>
<th>Upgraded laser</th>
</tr>
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<tbody>
<tr>
<td>2k @ 1:1.85</td>
<td>2.83 fps</td>
<td>0.35 sec/fr</td>
<td>1.7 sec/fr</td>
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<tr>
<td>2k @ fullap</td>
<td>2.83 fps</td>
<td>0.35 sec/fr</td>
<td>2.2 sec/fr</td>
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<tr>
<td>4k @ 1:1.85</td>
<td>0.71 fps</td>
<td>1.41 sec/fr</td>
<td>2.9 sec/fr</td>
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<tr>
<td>4k @ fullap</td>
<td>0.71 fps</td>
<td>1.41 sec/fr</td>
<td>3.8 sec/fr</td>
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<tr>
<th></th>
<th>AatonK / Current laser</th>
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<tbody>
<tr>
<td>2k @ 1:1.85</td>
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<td>2.55 x</td>
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<tr>
<td>4k @ fullap</td>
<td>3.14 x</td>
<td>1.40 x</td>
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<tr>
<td>4k @ fullap b&amp;w (2)</td>
<td>9.42 x</td>
<td>4.20 x</td>
</tr>
</tbody>
</table>

(1) All film stocks: camera negative/reversal; intermediate; b&w sep.; release print.
(2) RGB sequential separation.