

SI-2K Digital Cinema Camera

Technical Information



© 2008 Celador Films Ltd and Channel 4 Television Corporation

Key Features

- ➔ DCI compliant single CMOS sensor
- ➔ 2K resolution with 10 stops of dynamic range
- ➔ Interchangeable Mount System (IMS)
- ➔ Flexible configuration through lightweight & modularity
- ➔ Multi-camera setups for stereoscopy and special effect cinematography

The well known modular SI-2K Digital Camera System, used on famous productions such as Slumdog Millionaire, is perfectly designed for stereo 3D productions

Sensor and Sensitivity

The all-in-one portable design of the SI-2K combines a digital cinema class 2048 x 1152 resolution camera head with unprecedented image quality and shooting flexibility. It's low-noise, high dynamic range images, with over 10 T-stops of dynamic range via a one chip 12bit A/D converter are freely manipulatable.

"Our idea behind the SI-2K was to create a flexible, easy to use camera without compromising quality. By capitalizing on the skills of our partners, we were able to bring a camera to market that addresses the full spectrum of content creation."

Ari Presler, CEO Silicon Imaging



Anthony Dod Mantle, Director of Cinematography received the Oscars Academy Award for Best Cinematography 2009 for Slumdog Millionaire which was shot on the SI-2K in most parts.

Lenses and Mounts

The SI-2K uses a 16:9 format 2/3" CMOS sensor. Its single large sensor design enables the use of cost-effective 16mm film-style lenses, eliminating the optical aberrations caused by a 3-chip prism assembly. Shooting flexibility is enhanced with the P+S TECHNIK Interchangeable Mount System.



Configuration - Flexibility in 3D and 2D

- ➔ **2D** - for 2D recording the SI-2K Mini camera head can be connected to the SI-2K Recording Unit or directly to a laptop/PC via ethernet
- ➔ **3D** - for stereoscopic recording two SI-2K Mini camera heads can be controlled by one recorder; professional 3D Rig solutions available from P+S TECHNIK
- ➔ **Mult-camera** - for setups with more than two camera heads SI-2K heads can be synced in Master/Slave mode



SI-2K setup for stereo 3D

SI-2K Digital Cinema Camera

Technical Information



DCI compliant 2K sensor

- 2/3" 16:9 high-dynamic range CMOS sensor
- 12bit A/D conversion and 48bit digital signal processing
- 10+ T-stops of dynamic range
- 180° film shutter equivalent with variable speed control
- Sensitivity at 0 db: 250 ASA at 3200K and 160 ASA for 5600K

Multi-format capabilities

- Embedded SiliconDVR software interface with industry-leading feature-set, ease-of-use, and future upgradeable
- 2K Formats: 2K/23.976p, 2K/24p 2K/25p
- HD Formats: 1080/23.976p, 1080/24p, 1080/25p, 1080/29.97p, 1080/30p, 720p (variable)
- 720p / 85fps and 540p / 150fps for slow-motion special effects
- Overcranking and undercranking for special effects (12 ~ 72 fps)
- Time-lapse recording with programmable images per minute

Silicon DVR software

- Frame-store for image recall from image buffer or disk
- Per-channel live histogram display
- Edge-detection focus-aid mode
- Exposure meter with 6-level false-color zebra
- 2-4x Digital Zoom for fine focus adjustment
- 4x Loupe and integrated spot meter
- Safe-zone Markers for 16:9 / 4:3 / 1.85:1 / 2.35:1
- Instant playback and review via built-in virtual VTR interface
- Comprehensive file management and metadata capabilities

P+S TECHNIK® design

- Ultra-tough aluminum alloy chassis designed by P+S TECHNIK®
- Interchangeable mount system with PL-, B4-, C-mount and more options
- Removable camera head with ethernet
- DC power regulation 11.5 ~ 19 V



16Digital lenses

P+S TECHNIK offers a new set of high quality 16mm format lenses especially designed for digital cameras with a single 16mm size sensor. The small and lightweight lenses fit directly into the IMS camera mount. Each lens is equipped with standard 0.8 gear rings and has a front lens diameter of 60mm.

Specifications

Subject to technical change without prior notice

Lens Mount	P+S TECHNIK Interchangeable Mount System (IMS)
Data Transfer	Gigabit Ethernet
Power Input	12V, Lemo 8p connector
Dimensions (SI-2K Mini camera head only)	105 x 70 x 45 mm
Weight (SI-2K Mini camera head only)	600 grams / 1.32 lbs
Recommended Operating Temperature	0 - 50° C