

**eCinema**

Show your true colors



**PRO-2310**

10-bit Grade 1 LCD Monitor

# PRO-2310

## True 10-bit 4:4:4 Grade 1 LCD

eCinema introduces the PRO-2310, the most color-accurate monitor in it's class. Engineered specifically for versatile color-critical desktop, production and broadcast applications, the 23" full HD PRO-2310 outperforms similar monitors at twice the price! The PRO-2310 shares many of the technological innovations of the DPX class without the high cost.

Delivering the most advanced LCD technology in its class, the PRO-2310 is designed to provide a high-performance, precision video monitoring solution with true 10-bit color.

Features include:

- 22.5" 120Hz Full 10-bit precision LCD panel.
- Available in Standard 4:2:2 (PRO-2310) and Advanced 4:4:4/3D LUT (PRO-2310-ADV) versions.
- Still-store, graticule generator and focus enhancement modes.
- Expansion capabilities including 4:4:4, 3G, 3D LUTs, Waveform monitoring and more.
- Future enhancements include 2K monitoring modes and full 3D support for real-time 3D active viewing.





## The Real 10-bit Advantage

Utilizing a native 10-bit LCD panel, the eCinema PRO 2310 can simultaneously display any one of 1073 million (1.07 billion) colors per pixel for the most accurate color image display possible from an LCD.

10-bit video streams can carry 4 times as much data and reproduce 64 times more color shades than 8-bit streams. The result is 1024 color steps for each red, green and blue channel that combine to produce over 1 billion individual color shades. This produces more precise color detail with noticeably smoother transitions between colors, eliminating color banding and other artifacts.

Latest generation digital cinema cameras sample images at a minimum of 10-bit color depth. Cineon and DPX file formats used in digital intermediate and visual effects processes also sample color depth at a minimum of 10-bits. And popular video editing applications like Adobe Premier, Avid Media Composer/Symphony and Apple Final Cut Studio, all support 10-bit color depth.

## PureStream™ Processing: No Bits Left Behind

Full resolution 10-bit color at the pixel is only possible if the video signal remains undiminished during processing. This is true because the image that is displayed on the LCD panel is converted from digital to analog at the final step of image processing.

To ensure image integrity throughout the signal path, the PRO-2310 utilizes eCinema's exclusive PureStream™ Image Processor to maintain a truly lossless internal signal processing architecture from input to screen.

Most monitor manufacturers limit bit depth during internal video processing between 10 – 24 bits. To squeeze all the data within the allocated range, downsampling of the original signal can occur in processing.

PureStream™ processing eliminates image degradation and data loss thus ensuring that the input 10-bit signal is uncompromised throughout the entire data processing path, resulting in pristine, accurate detail and color reproduction.



## One Touch Calibration

At the heart of the PRO-2310 system is our exclusive Monitor Fingerprinting Technology (MFT). The days of going from room to room trying to match monitors with expensive calibration hardware and software are over. With MFT, monitor calibration is as simple as pushing a button.

This greatly reduces the time and complexity required to match all your video reference monitors. It also lays to rest any uncertainty or confusion that may arise about which monitors are calibrated in a facility. Our eCinema Probe stores the master monitor's "fingerprint" so that every PRO class monitor anywhere in the world can be quickly and easily matched.




## iSIM Mode: A Bright IDEA

While CRTs are no longer the standard for color viewing, many are still in use throughout the world. As such, reference LCD monitors need to be able to reproduce the characteristics of a CRT when mastering video that may be viewed on older televisions.

eCinema's iSIM Mode uses high-rate 120hz scanning in combination with our proprietary Interlaced Display Emulation Algorithm (IDEA). Unlike black-frame insertion methods, eCinema's iSIM Mode produces an accurate reproduction of the on-screen physical characteristics of interlaced video with a minimal loss of luminance. The feature is standard on the PRO-2310.



## PRO-2310 Specifications\*



Display:	22.5" 10-bit 120Hz LCD
Backlight:	Wide-gamut cold cathode fluorescent
Contrast:	800:1 (typical)
Response:	12ms
Viewing Angle:	176 degrees
Inputs:	Standard: 4 HDSDI - 4:2:2, DVI PRO-2310-ADV: adds 4:4:4 and 3G
Output:	2 HDSDI relocked
Standards:	1920 x 1080 @ 23.976PsF, 24.000PsF, 25.000PsF, 29.970PsF, 30.000PsF 1920 x 1080 @ 50.000i, 59.940i, 60.000i 1920 x 1080 @ 23.976P, 24.000P, 25.000P, 29.970P, 30.000P  1280 x 720 @ 23.976P, 24.000P, 25.000P, 29.970P, 30.000P, 50.000P, 59.940P, 60.000P  SD 525 (NTSC) SD 625 (PAL)
Power:	Monitor, 110/220 @ 60HZ
Compliance:	FCC, CE, CB

Designed and Manufactured in the USA

\*subject to change without notice

## Accessories

SLS-01:	CCFL-based monitor surround light system
PROBE-1:	eCinema custom calibration probe
SP-50:	Spectrally accurate neutral gray surround paint (one gallon)
EECP-PRO:	eCinema Extended Care Plan for PRO-2310

