

# RHDM-2301P

23 inch reference monitor for film and post-production



Barco's RHDM-2301 brings LCD technology of the highest professional standards, including:

- a true 10-bit, 120Hz flat panel
- scanning LED backlight technology
- embedded calibration and stabilization technology
- and unique 48-bit color processing.

All these features ensure a color performance and image quality level that is unseen in broadcast and post-production environments.

Barco's RHDM-2301P is an ideal reference for a wide range of film and post-production applications:

- on-set and dailies viewing
- film scanning and restoration
- various digital intermediate (DI) processes such as color grading, visual effects (VFX), computer generated images (CGI) and digital film mastering

post-production of trailers, commercials, music etc.

## Film acquisition

The RHDM-2301P is the perfect reference monitor for Directors of Photography

The RHDM-2301P is the perfect reference monitor for Directors of Photography (DoP) on set during film acquisition, as well as for dailies processing. The Grade-1 color accuracy and stability means that two RHDM-2301P monitors will show identical pictures even on two distant sets.

### **Film scanning and telecine**

Film scanners and telecine specialists will benefit from the RHDM-2301P's high contrast range, black detail and stabilized wide color gamut capabilities.

### **Color grading**

The RHDM-2301P offers color grading specialists a high contrast and excellent black detail, a smooth picture without banding artifacts and accurate, CRT-like colors. With the RHDM-2301P, the film grain and other dark details are shown just as they are -not hidden or extremely accentuated.

### **Visual effects**

Scanning LED backlight technology, a 120Hz LCD panel and native interlace mode make the RHDM-2301P an excellent reference for motion handling. The monitor also offers good de-interlace and inter-frame handling.

### **DVD and Blu-ray mastering**

The RHDM-2301P is a reliable reference to validate a digital intermediate and its derivatives (DVD, Blu-ray, digital cinema masters etc.)

**General specifications**

<p><b>Display</b></p>	<ul style="list-style-type: none"> <li>■ Active area: 22.5" (57cm) diagonal</li> <li>■ Resolution: 1920x1200</li> <li>■ Contrast: typical 800:1 (min 700:1)</li> <li>■ Panel drive: 96-120Hz, 10 bit native, 12 bit dithered</li> </ul>
<p><b>Optical</b></p>	<ul style="list-style-type: none"> <li>■ Wide gamut LED backlight</li> <li>■ Selectable white points: D55 – D65 – D93 [Factory: D65]</li> <li>■ Selectable gamma 2-2.6 [Factory: 2.35 –EBU/SMPTE compliant]</li> <li>■ Custom R, G and B primaries</li> </ul>
<p><b>Calibration and stability</b></p>	<ul style="list-style-type: none"> <li>■ Compliant with EBU, SMPTE and ITU BT.709 primaries</li> <li>■ Deep level, 3D LUT factory calibration</li> <li>■ Thermal sensor circuit for LED stabilization with temperature</li> <li>■ Embedded spectrometer for overall color stabilization over time</li> <li>■ Embedded special sensors for LED uniformity and color stability over time</li> <li>■ Front sensor for real-time corrections</li> </ul>
<p><b>Processing</b></p>	<ul style="list-style-type: none"> <li>■ 48 bit color processing (16 bit per color)</li> <li>■ 96-120 Hz native LCD driving (prevents motion judder, genlocks to all inputs)</li> <li>■ Genlock and frame sync</li> <li>■ Slow or fast sync selection</li> <li>■ Color-stabilized scanning LED backlights for motion blur prevention</li> <li>■ Motion adaptive de-interlacing</li> <li>■ Interlaced driving (black-line insertion) for CRT-like motion quality</li> <li>■ Quantified latency (depending on scanning mode)</li> </ul>
<p><b>Connectivity</b></p>	<ul style="list-style-type: none"> <li>■ Modular input configuration: 4 slots</li> <li>■ Standard delivered with 1 SDI module</li> <li>■ Space for additional:             <ul style="list-style-type: none"> <li>● 1 x SDI module</li> <li>● 2 x DVI input modules</li> </ul> </li> </ul>
<p><b>SDI module specifications</b></p>	<ul style="list-style-type: none"> <li>■ Input/output card supporting 2x SDDSI or 2x HD-SDI</li> <li>■ 3Gb/s and Dual Link inputs</li> </ul>
<p><b>Supported signal standards</b></p>	<ul style="list-style-type: none"> <li>■ SD-SDI 576i/480i (ITU-R BT.601)</li> <li>■ HD-SDI 1080p/pSf at 30, 29.97, 25, 24 and 23.98 frame rate (SMPTE 274M)</li> <li>■ HD-SDI 1080i at 60, 59.94 and 50 Hz field rate (SMPTE 274M)</li> <li>■ HD-SDI 720p at 60, 59.94, 50, 30, 29.97, 25, 24 and 23.98 frame rate (SMPTE 296M)</li> <li>■ 3Gb/s and Dual Link HD-SDI (SMPTE 372M, 425M)</li> </ul>

## Product specifications

## RHDM-2301P

### Functions

- Safe area and aspect ratio markers
- User selection of working color space (color temperature, gamma, gamut)
- R-G-B-monochrome channel selection
- Extended aspect ratio and scaling factor selection
- Split-screen mode with zooming and panning per displayed input (for multiple camera color correction)
- In-Monitor-Display (IMD) and 2 inmonitor tally lights controlled remotely (optional)

### Control

- Detachable front control panel with main functions
- Ethernet interface with web server and TCP/IP interface
- RS485 serial IMD control (optional)
- RS485 parallel GPIO for tally control (optional)
- USB: for firmware and license upload via mass-storage devices

### Power and environmental specifications

- Power consumption: nominal 150W
- Input voltage: 85-264 VAC, 47-63 Hz

### Dimensions

Dimensions	Front	Rear	Total
Width (W)	561mm   22.09in	441mm   17.36in	561mm   22.09in
Height (H)	381mm   15in	375mm   14.76in	381 + 44mm   15in + 1.73in
Depth (D)	84mm   3.3in	56mm   2.20in	140mm   5.51in
Weight	20,5kg   45.1lbs		
Rackmount kit available			

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