RHDM-2301B

23 inch reference monitor for broadcast monitoring

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.

RHDM-2301B is a reliable reference for master control rooms, camera control, camera shading, signal quality checks, technical rooms etc, both in TV studios as well as OB vans.

Camera control/shading

At the time of shooting, Barco's RHDM-2301B is the reliable reference for program directors, colorists and camera and lighting staff. During real-time color judging, the RHDM-2301B provides continuous color stability, perfect representation of grayscales, deep darks and correct pastel tones. The split-screen functionality helps compare and adjust two cameras or other sources side by side on the same monitor with the highest picture quality. The monitor also supports In-Monitor Display functionality and two tally lights on the actual LCD, hereby saving valuable rack space.

Field productions

In OB vans and ingest & transmission monitoring environments, RHDM-2301B users

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In OB vans and ingest & transmission monitoring environments, RHDM-2301B users benefit from the display's robustness and system stability. The RHDM-2301B can easily withstand temperature cycling conditions, so that frequent calibration is not necessary. It also features various modes for video handling and motion blur reduction,which allows to correctly judge fast moving scenes.

Mixing and master control

In preview and master control environments, the RHDM-2301B is the most reliable and stable reference for source quality validation and for program and output monitoring. The monitor also supports In-Monitor Display functionality and two tally lights on the actual LCD, hereby saving valuable rack space.

Editing

Barco's RHDM-2301B provides the most reliable colors and CRT-like image speed. The monitor latency is always presented on the on-screen display, allowing sound editors to work more efficiently.

Technical room

For delivery and ingest monitoring, Barco's RHDM-2301B offers a stable reference for color grading and speed judgments across different workflows.

Transport formats

The RHDM-2301B is an ideal display solution for checking HD to SD conversions and decompression artifacts. The display offers a de-interlace and interframe handling option, which allows validating multiple application formats.

Product specifications	RHDM-2301B

General specifications

Display	■ Active area: 22.5" (57cm) diagonal ■ Resolution: 1920x1200 ■ Contrast: typical 800:1 (min 700:1) ■ Panel drive: 96-120Hz, 10 bit native, 12 bit dithered
Optical	■ Wide gamut LED backlight ■ Selectable white points: D55 – D65 – D93 [Factory: D65] ■ Selectable gamma 2-2.6 [Factory: 2.35 –EBU/SMPTE compliant]
Calibration and stability	■ Compliant with EBU, SMPTE and ITU BT.709 primaries ■ Deep level, 3D LUT factory calibration ■ Thermal sensor circuit for LED stabilization with temperature ■ Embedded spectrometer for overall color stabilization over time ■ Embedded special sensors for LED uniformity and color stability over time ■ Front sensor for real-time corrections
Processing	■ 48 bit color processing (16 bit per color) ■ 96-120 Hz native LCD driving (prevents motion judder, genlocks to all inputs) ■ Genlock and frame sync ■ Slow or fast sync selection ■ Color-stabilized scanning LED backlights for motion blur prevention ■ Motion adaptive de-interlacing ■ Interlaced driving (black-line insertion) for CRT-like motion quality ■ Quantified latency (depending on scanning mode)

Connectivity	■ Modular input configuration: 4 slots
	■ Standard delivered with 1 SDI module
	■ Space for additional:
	  • 1 x SDI module
	  • 2 x DVI input modules

SDI module specifications	■ Input/output card supporting 2x SDSDI or 2x HD-SDI ■ 3Gb/s and Dual Link inputs are optional
Supported signal standards	■ SD-SDI 576i/480i (ITU-R BT.601) ■ HD-SDI 1080p/pSf at 30, 29.97, 25, 24 and 23.98 frame rate (SMPTE 274M) ■ HD-SDI 1080i at 60, 59.94 and 50 Hz field rate (SMPTE 274M) ■ HD-SDI 720p at 60, 59.94, 50, 30, 29.97, 25, 24 and 23.98 frame rate (SMPTE 296M) ■ 3Gb/s and Dual Link HD-SDI (SMPTE 372M, 425M) are optional

Product specifications	RHDM-2301B
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			

Last updated: 08 Jul 2024

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