

# QDP 490-B



The HDQLINE **H** series HD monitors and **Q** series 4K/UHD monitors represent our latest generation of multi-standard Broadcast Monitors using the most precise LCD panel technology available today.

Heart of the HDQLINE platform is an advanced high-precision video processing engine supporting resolutions up to 4096x2160 pixels, controlled by a fast embedded processor and cleverly designed software.



In designing these monitors, priority was to satisfy the full performance and capabilities required by broadcast and film professionals. These include:

**No compromises** in core features like accurate color reproduction and picture quality

**Exceptional 4K** capabilities to easily manage complex HDR workflows

**Future proof** platform design which allows adaptation to emerging technologies

**Fast and easy** setup and operation, even in challenging live TV applications

The HDQLINE series of multi-standard monitors are ideally suited for challenging high-end applications – wherever the brilliance and sharpness of ultra-high resolution images together with state of the art usability and future proof-ness are required.

## QDP 490-B - Product Highlights at a Glance

- Perfect picture quality (high performance LCD panel)
- Outstanding grey scale and color depth
- Wide viewing angle
- Perfect and repeatable color matching between monitors
- Multiple color spaces (BT.709, DCI-P3, BT.2020)
- Excellent picture uniformity and stability
- Multi-format signal support (up to 4096x2160)
- SDR and HDR EOTF tables (SDR, Bt.1886, HLG, PQ, Slog-3), up to 8 ultra fast loadable container, Split EOTF function
- 1:1 pixel mapping
- 3D LUT
- High quality motion adaptive deinterlacer
- Highly configurable quad view mode built-in (4 independent signals)
- Black lift, chroma x2, gain x2, custom white balance functions
- DCS + remote control & management software
- Centralized monitor wall control via Ethernet
- DCS+ automatic color calibration software, supports professional probes (Konica Minolta CS 200/2000, JETI specbos 2111-2 / spectraval 1501/1511, Klein K-10)
- Firmware update over Ethernet or USB
- Waveform Monitor, Vectorscope, CIE Chart, False Color, Clock and Timecode overlays
- Advanced Signal Information VPID, SDI ANC monitor, Event Log
- Audio level meters (8 stereo channels), custom configuration possible
- Built-in diagnostic and test pattern generator
- Dynamic and static IMD/UMD support
- Tally support via GPI and VGPI (network)
- Programmable GPI function control
- Remote control protocol: ember+, VTS-LSB, TSL, RCP-1806, VSM
- Safe area and safe title, markers
- Built-in screensaver to minimize image sticking
- Color component display modes: all, red-, green-, blue-only, monochrome
- Real Time Clock (RTC), NTP client
- Rugged, durable aluminium housing, designed for 24/7 operation
- Up to 10 User Presets
- Keyboard Lock
- User Lock (several monitor functions can be locked for Default users, locked functions are available for Admin user only)
- Designed and assembled in Germany

# Technical Specifications



## General

|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
| Model                        | QDP 490-B                                                                              |
| Panel Type                   | IPS LCD panel, LED backlight                                                           |
| Screen Size                  | 49" wide format                                                                        |
| Aspect Ratio                 | 16:9                                                                                   |
| Native Resolution            | 3840x2160 Pixels                                                                       |
| Effective Screen Size        | 1073.80 mm (H) x 604.00 mm (V)                                                         |
| Display Colors               | 1.06 B                                                                                 |
| Brightness / max. Brightness | 100 cd/m <sup>2</sup> (conform to EBU) or user selectable / max. 500 cd/m <sup>2</sup> |
| Contrast Ratio               | 1100:1 max.                                                                            |
| Response Time                | 8 ms (grey to grey)                                                                    |
| Viewing Angle                | H-178°/V-178°                                                                          |

## Color Space / Gamma / Motion Adapt.

|                   |                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------|
| Color Space       | BT.709, BT.601, BT.2020*, DCI-P3*                                                           |
| Color Temperature | D65, user selectable by DCS+ software                                                       |
| EOTF              | SDR Gamma (1.8-2.6 in 0.05 steps), SDR Bt.1886, HLG, PQ, Slog-3                             |
| Deinterlacer      | High performance motion adaptive deinterlacer                                               |
| Scaling           | Native / 4:3 / 16:9 / full screen / UMD / Quad / Side By Side / Split View / Measure View** |

## Input / Output Terminals

|                                 |                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------|
| 2x SFP+ Cage for SDI RX modules | Up to 4x 3G/HD/SD-SDI for 4K/UHD Input (SQD/2SI), Copper/Fiber modules***       |
| 2x SDI Input                    | 2x BNC (3G/HD/SD-SDI), Input impedance: 75 Ω unbalanced                         |
| 2x HDMI                         | 1x HDMI 2.0b up to 4096x2160                                                    |
| 1x DP                           | 1x HDMI 1.4 (HDCP 1.4) up to 1920x1200                                          |
| 1x SDI Output                   | DP 1.1 (HDCP 1.4) up to 1920x1200                                               |
| Headphone Output                | Loop Out (3G/HD/SD-SDI), Output impedance: 75 Ω unbalanced                      |
| 1x Option Slot****              | Stereo 3.5mm mini jack                                                          |
|                                 | Supports one optional I/O module (e.g. QIO 12G SDI or QIO Video over IP ST2110) |

## External Control

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| Ethernet Network | Remote control, calibration, dynamic IMD and Tally / RJ-45 8pin, 10/100/1000 Base-T |
| AUX              | External keyboard, Q-Light Control / RJ-10 4pin                                     |
| GPI              | Static IMD and Tally, function key / RJ-45 8pin                                     |
| USB              | USB 2.0 Connector, Preset load/save, Firmware update                                |

## Electrical / Mechanical

|                                            |                                                                       |
|--------------------------------------------|-----------------------------------------------------------------------|
| Operating Temperature                      | 5 °C - 35 °C                                                          |
| Power Requirement                          | AC 100 - 230V, 50/60 Hz                                               |
| Power consumption min (± 5% tolerance)     | 45 W                                                                  |
| Power consumption typ (± 5% tolerance)     | 73 W                                                                  |
| Power consumption max (± 5% tolerance)     | 96 W                                                                  |
| Dimensions (Width x Height x Depth)        | 1101 mm x 634 mm x 90 mm                                              |
| Weight excluding Mounting (± 3% tolerance) | 20.4kg                                                                |
| Mounting                                   | VESA MIS-F, 400 x 400, M6 x 20mm, C (200 x 200 with optional adapter) |
| Housing Color                              | RAL 9005 Black                                                        |

\* The monitor may not support the colorspace in full.

\*\* Measure View is only supported by H(R)DP/H(R)DL series.

\*\*\* Not included, SFP modules can be ordered optionally

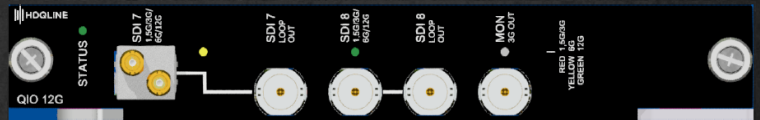
\*\*\*\* No option slot is available for low profile H(R)D./Q(R)DL series.

## Accessories



## QIO Dual 12G Input Module

The **QIO-12G** module adds 2x 12G SDI UHD/4K inputs (1.5G—12G) to the HDQLINE monitor platform.



## External Keyboards

**Q-AUX-KBD** Rack mount 19" AUX keyboard



**Q-UM-KBD** Under monitor AUX keyboard



## Other accessories

- Reference Light for calibrated ambient/wall lighting behind monitors (on request)
- Dual coax 3G SDI RX SFP+ module, HD-BNC (SFP-3G-SDI-HDR)
- Dual fiber 3G SDI RX SFP+ module, LC (SFP-3G-SDI-DR-OPT)
- Dual coax 12G SDI RX SFP+ module, HD-BNC (SFP-12G-SDI-HDR)
- Dual fiber 12G SDI RX SFP+ module, LC (SFP-12G-SDI-DR-OPT)
- HDR Preview license (included in reference monitors HRDP/ORDP series)
- 19" rack mount kit for 17" monitors
- 19" rack mount kit for 18.5" monitors
- VESA 400/200 adaptor