

HDR
10-bits PROCESSING



Top of the range 9", 18" and 24" monitors with FULL-HD resolution for test and measurement of signals in video and television production centers.

Takes advantage of a **new processor** able to output a video signal with the number of bits required by any FULL HD screen available in the market without bit truncation of the SDI input video signal.

Improved Color-depth of the displayed images, significantly improving the uniformity and linearity of the monitor as well as the quantity of colors that can be reproduced grows from 16.777.216 to 1.073.741.824.

Better scaling of the input images when their resolution is not Full HD. The increase in number of processing bits means that the displayed images will have better definition and clarity.

Better de-interlacing of the video signal, as there are more bits per pixel and memory available to store and process the images. Conversion from interlaced to progressive, required to show this kind of images on available displays also translate into a better definition and sharpness.

Dual Input, Dual Output: Double video processor embedded into a single chip, able to show two identical images in parallel on the display (PbP) with the same type of de-interlacing, motion adaption, and scaling.

HDR Emulation: HDR display (HLG, PQ) for Rec709, DCI and Rec2020 color spaces, thanks to 3DLUT storing the tetrahedral interpolation of the images.

With all the features required to control the image

- Remote control of the monitors via Ethernet using the new, second generation, remote control software for PC.
- Color configuration by password-protected menu, with several user memories and color spaces.
- Color temperature selection: 3200K, 5500K, 6500K and 9300K.
- Audio de-embedding from SDI (16 channels) and digital component input (stereo).
- Vu-meter display for up to 16 channels with several different scales (dBFS, BBC, DIN, Nordic, STD, NA, FRA, EBU).
- Phase-meter showing the phase relation between each stereo audio pair.
- PIP, PBP, PBP A and PBP H functions.
- Waveform (Y Cb Cr) and vectorscope display.
- Luma check, false color and focus-assist.
- Preview according to BT2100 standard for ST2084 (PQ) and HLG.



Other features



- Menu and TSL-protocol configurable IMD.
- TimeCode.
- Several aspect ratios: 4:3,16:9, Auto, Native, 1:1.
- Various formats of markers with several levels of transparency and colors: 4:3, 21:9, 16:9, 15:9, 14:9, 13:9, 2.39:1, 2.35:1, 1.896:1, 1.85:1 and 1.66:1.
- Safe Area: 80%, 85%, 88%, 90%, 93%, Graphic, Action.
- Center Marker with three selectable sizes.
- Sharpness, delay, scan, inverted image.
- Freeze mode.
- Layout mode that allows the user to analyze, clearly and within a single window, the different parameters of the video signal as well as the possible auxiliary data.
- Close Caption CC608(VBI), CC608(ANC) and CC708.
- DualSplit mode.
- Auto-calibration of the monitor colors by connecting a color probe and Lightillusion Kroma-specific control software. This calibration generates 3D LUT (look up tables) exclusive for each monitor in order to correct all non-linearity inherent to the display manufacturing process.
- Possibility to select different Gamut for SDR (Rec709, SMPTE-C, EBU, NTSC, DCI and Rec2020) and HDR (Rec709, DCI and Rec2020).
- Internal power supply.

Inputs and outputs

Video inputs

- SFP module for IP SMPTE 2022 video, Fibre, DCI and BNC for SDI.
- 2xSDI (BNC) 3G/HD/SD.
- DCI. Any resolution between 640x480 and 1920x1080 and between 24Hz – 60Hz.
- DVI input. Any resolution between 640x480 and 1920x1080 and between 24Hz – 60Hz.
- 2xCCVS (BNC) PAL/NTSC/SECAM.
- YPbPr input (DVI) 625i, 525i, 576p, 480p, 720 50p, 720 60p, 1080 50i and 1080 60i.
- RGB input (DVI) 640x480, 800x600, 1024x768 and 1280x1024.

Video outputs

- 2x SDI (BNC) 3G/HD/SD.
- 1x CCVS (BNC) PAL/NTSC/SECAM selectable.

Other inputs / outputs

- Ethernet with IP protocol for firmware upgrades and remote control.
- Tri-color front Tally with optional tally-on-screen. TSL or RJ45 controlled.
- RJ-45 TSL for IMD and Tally control.
- RJ-45 with 3xGPI for generic functions.
- 1x USB for debugging.

Audio inputs

- Embedded audio into SDI.
- Embedded audio into DCI.
- Mini Jack (3.5mm) Two analog, unbalanced audio channels.

Audio outputs

- Mini jack (3.5 mm) at front panel for stereo headphones.
- Two 2-watt speakers with L and R output.
- Mini jack (3.5 mm), analog stereo output.
- BNC, AES 3 stereo output.

Front controls and elements



- Power switch.
- 12 control keys and quick access keys.
- Tri-color front Tally.
- Headphone connector.

Screen specifications

Monitors	LM 8009	LM8018	LM8024
Size/AR	9" (15:9)	18.5" (16:9)	24" (16:10)
Resolution	Full HD 1920 x 1080	Full HD 1920 x 1080	Full HD 1920 x 1200
Active Area	198.7 x 111.8 mm	409 x 230 mm	518.4 x 324.0 mm
Viewing angle	Horiz. 88°/88° Vert 88°/88°	Horiz. 89°/89° Vert 89°/89°	Horiz. 89°/89° Vert 89°/89°
White luminance	350 cd/m2.	350 cd/m2.	400 cd/m2.
Contrast ratio	1000:1	1000:1	1000:1
Pixel size	0.103 x 0.103 mm	0.199 x 0.199 mm	0.270 x 0.270 mm
Backlight type	LED	LED	LED
Response time (Rising + Falling time)	22 ms	5 ms	6 ms

General specifications

Monitors	LM 8009	LM8018	LM8024
Dimensions	222 x 177.5 x 80 mm	446 x 265 x 80 mm	552 x 379 x 95 mm
Approx. Weight	2 Kg	5.5 Kg.	7.5 Kg
Power supply	External P.S.U 100-240 VAC	Internal P.S.U 100-240 VAC	Internal P.S.U 100-240 VAC
Power consumption	36 W	44 W	65 W

Optional accessories

LM 8009

LM8009X80: rack mount kit

LM8009X03: solid panel

LM8017

LM8017X80: rack mount kit

MS2300X50: articulated desktop stand

MS2304X50: fixed desktop stand

LM8024

LM8024X80: rack mount kit

MS2300X50: articulated desktop stand

MS2304X50: fixed desktop stand

SFP (MODULES)

732.015.163: HDMI extra input

732.015.164: Fiber optics connection

732.015.165: SMPTE 2022 IP Video input

732.015.159: LM8000 series SFP adapter

Specifications subject to change without previous notice.