



Description

Lumagen's new VisionHDQ establishes a benchmark for HD video processors. Its feature set provides the necessary video switching, calibration and scaling required for today's state of the art video systems. The four DVI-I inputs accept DVI-D with HDCP support (compatible with HDMI), or VGA analog video. These, together with five additional analog inputs, plus an SDI input, make the VisionHDQ an essential tool for home theater system integrators as well as the professional AV industry.

The VisionHDQ offers film mode detection for PAL, NTSC and HD signal and converts any world SD or HD video standard to a programmable output resolution and frame rate. Lumagen is also the first to introduce an 11 point parametric grayscale/gamma correction for each input signal.

SCALER

The VisionHDQ can be set to automatically sense whether it is receiving an NTSC or PAL source and switch to a configuration optimized for that input rate.

The scaling engine of the VisionHDQ is programmable and offers output resolutions of up to 1920 x 1080p at 60 Hertz and supports frame rates from 48 to 120 Hz. For sophisticated users, the programmable output timings are useful for optimizing non-standard displays.

The unit is operated via infrared remote or by RS-232 commands.

Inputs

The VisionHDQ offers one composite, two S-Video, two component (YP_BP_R) and four DVI/HDMI inputs (HDCP compatible). The two component inputs may also be configured for SCART RGBcV operation.

DVI-I and analog component inputs accept 480i, 576i, 480p, 576p, 720p and 1080i, in all world HDTV standards.

A single SDI input completes the impressive package of input choices.

Outputs

The VisionHDQ comes standard with one DVI-D (HDMI compatible), HDCP capable, output plus one analog BNC output that can be programmed as YP_BP_R, RGBHV, RGSB or RGSB, assuring compatibility with any HD display.

Up to eight different programmable output configurations may be assigned to individual inputs.

To support HDCP encrypted sources, a HDCP capable HDMI or DVI display is required.

General Description

In a home theater environment the unit typically is set up with the infrared remote control. After the initial configuration, input switching, and input aspect ratio selection, is all that is needed. Adjustments are visible via on-screen display and can be saved in a non-volatile memory.

If a single output resolution may be assigned for all input signals. This makes the VisionHDQ a powerful converter for any SD or HD video signal for home theater and industrial applications.

The VisionHDQ is one of the few, if not the only, video scaler on the market that allows powerful zooming, perfect overscan adjustment and aspect ratio conversions including the programmable non-linear scaling to fit a 4:3 image in 16:9 displays.

The DVI-I inputs can be scaled or passed through to the output, making it possible to convert PC signals or game console feeds to the native rate of the attached display.

Operation

The powerful Service Menu of the VisionHDQ has many advanced features such as test patterns with levels from 0 to 100 IRE in 10 IRE increments, contrast and brightness patterns, perfect pixel match plus other test patterns that help installers get the best picture out of the setup.

The most powerful feature however is the 11 point parametric grayscale/gamma correction feature that will allow the user to change the RGB levels and store them individually for each input to achieve an ideal color-temperature of D6500 (6500K), and gamma. Not only can this correct for errors in the grayscale and gamma reproduction of the display but can also compensate for individual problems of the attached sources.

In addition Color and Hue offset controls allow for the elimination of red-push and green-push, and essential step in the calibration process generally not available with TVs, projectors or other video processors.

Aspect Ratio and Zoom

The input configuration Menu of the VisionHDQ allows the installer to control the amount of overscan letting them precisely adjust the size of the active image.

Four predefined aspect ratios (4:3, 1.85:1, 16:9 and Letterbox zoom) are accessible via remote for fast change when viewing TV broadcasts.

The non-linear scaling of 4:3 formats to 16:9 is programmable, allowing the user to adjust the image to their own preference.

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VisionHDQ

Programmable DVI - HDTV Video Scaler



Technical Data

Type VisionHDQ
Description Programmable HDTV Video Scaler

VIDEO Inputs

Input 0 SDI, BNC SMPTE 259
Input 1-4 4 x DVI-I. DVI-D with HDCP (HDMI compatible), or analog VGA via DVI-A.
Input 5-6 2 x YP_BP_R. Can also be programmed as RGBcV_S (SCART)
Input 7 1 x Composite
Input 8-9 2 x SVideo (Y/C)
Signal Standard SDTV PAL, NTSC, NTSC 4.43, PAL 60, SECAM, auto-detect
Signal Standard HDTV Digital DVI-D (HDMI) up to 74,25 MHz or 480i, 576i, 480p, 576p, 720p, 1080i
Analog up to 1280 x 1024p analog, 1080@59,94 or 1080@50p
Connectors Mini-DIN for Y/C, BNC for Composite, BNC for YP_BP_R, DVI-I

VIDEO Outputs

Format DVI-I D with HDCP and 5 BNC configurable as YP_BP_R, RGB H/V, RGBS or RGsB
Resolution Programmable in pixel increments
Presets 480p, 540p, 600p, 720p, 768p, 840p, 1080p, 1080i
Frame rates Programmable 0,01 Hz steps from 48-120 Hz
Aspect Programmable from 1:1,33 to 1:2,35
Operation Infrared Remote or RS-232
On-Screen Display
Options 19 inch Rackmount 1 RU
Power AC 85 - 264 V, 40 - 440 Hz / 25 VA
Dimensions 432 mm x 250 mm x 51 mm (17 inch x 9.8 inch x 2 inch) with feet attached
Weight ca. 3 kg
Accessories Mains adaptor, Manual, Infrared Remote