

## HX-4096

### 4K Ultra-HD LCD controller for harsher environments

The HX-4096 is the harsher environment version of the SVX-4096 for commercial monitors & displays supporting LCD panels up to 4096 x 2160 resolution. Ideal for digital signage and corporate video displays.

#### Key Features:

- » Up to 4096 x 2160 input / Up to 4096 x 2160 LCD panels
  - » HDMI 2.0, HDMI 1.4, DisplayPort 1.2, DVI-I Dual Link
  - » V-by-One, eDP, LVDS panel connection @60Hz/120Hz\*
  - » Conformal coating & extended temperature range
  - » Ethernet, RS-232, I2C for commands & control
- » Part number: 4175501XX-3

#### Panel Connectivity

<b>V-by-One (8 channel):</b>	up to 4096 x 2160 @60Hz *for 16 channel, 120Hz panels add IE-2000
<b>eDP (HBR/HBR2):</b>	up to 4096 x 2160 @60Hz
<b>LVDS (8 channel):</b>	up to 4096 x 2160 @60Hz
<b>Panel resolutions:</b>	4096 x 2160, 3840 x 2160, 2560 x 1440/1600 1920 x 1200, 1920 x 1080

#### Input

<b>HDMI 2.0:</b>	60Hz up to 4096 x 2160 75Hz up to 1600 x 1200
<b>HDMI 1.4:</b>	30Hz up to 4096 x 2160 60Hz up to 2560 x 1600 75Hz up to 1600 x 1200
<b>DisplayPort 1.2:</b>	60Hz up to 4096 x 2160 75Hz up to 1600 x 1200
<b>DVI-I Dual Link:</b>	30Hz up to 4096 x 2160 60Hz up to 2560 x 1600 75Hz up to 1600 x 1200

#### Reliability

<b>Calculated MTBF:</b>	In excess of 100,000 hours
<b>Warranty:</b>	3 years

#### Features

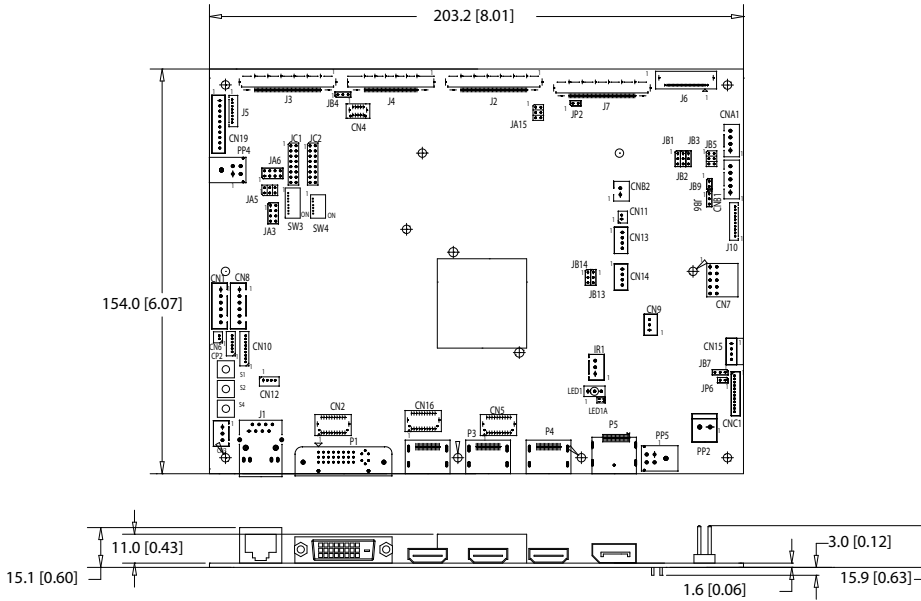
<b>Colors:</b>	Up to 10 bit per color, ie 1.06 billion colors
<b>Function Display:</b>	On Screen Display (OSD) menu
<b>Function Controls:</b>	External buttons, Infra-Red controls, Serial Port control, Ethernet Control
<b>Image Scaling:</b>	Up / Down scaling to fit input to panel resolution
<b>Image Control:</b>	Brightness, Contrast, Color Temperature, Image position, Saturation, Hue, Sharpness
<b>Other Features:</b>	System information, Scaling to fill screen and fill to aspect ratio, Programmable hotkeys, Factory reset, Picture in Picture (PiP), Picture by Picture (PbP), Ambient light sensor support, Enable frame buffer for FRC image enhancement, OSD menu transparency, DDC-CI support
<b>Communication:</b>	Ethernet, RS-232, I2C
<b>Conformal Coating:</b>	HumiSeal IB73, acrylic, spray application
<b>Power:</b>	+12VDC / +24VDC ±5%, 10W (controller only)
<b>Panel Power:</b>	Supports 3.3V, 5V, 10V, 12V & 18V panels
<b>Panel Signal:</b>	V-by-One, eDP, LVDS
<b>Inverter Support:</b>	DPMS Enable pin (3.3V or 5V), PWM
<b>Plug &amp; Play:</b>	DDC 1,2/b compatible
<b>Status Indicator:</b>	Dual color LED support
<b>Audio:</b>	Digital Audio SPDIF & stereo line-out
<b>Coating:</b>	Conformal coating: DCA-SCC3

**Custom Splash-screen:** The SVX-4096 supports custom splash- screen when powering on. This requires custom firmware.

**Firmware upgrade:** The SVX-4096 firmware version can be upgraded directly from a PC running Windows 7~10 directly via the Displayport. Contact Digital View or distribution partner for details.

# HX-4096 4K, Ultra-HD LCD Controller

## Mechanical Drawing



## Connector Definitions

<b>CN1</b>	Reserved for second RS-232 serial control
<b>CN2</b>	On board internal connector for DVI
<b>CN3</b>	Reserved for external temperature sensor
<b>CN4</b>	Panel control signal connector
<b>CN5</b>	On board internal connector for HDMI
<b>CN6</b>	Reserved for light sensor
<b>CN7</b>	Reserved for Audio line out
<b>CN8</b>	RS-232 serial control
<b>CN9</b>	Ambient light sensor connector
<b>CN10</b>	Reserved for fan & backlight power monitoring
<b>CN11</b>	SPDIF Audio output
<b>CN12</b>	Reserved
<b>CN13</b>	Reserved for Line in
<b>CN14</b>	Reserved for Speaker out
<b>CN15</b>	Power connector for IE-2000
<b>CN16</b>	On board internal connector for HDMI
<b>CN19</b>	Additional panel power output
<b>CNA1</b>	Auxiliary power output
<b>CNB1</b>	Backlight inverter
<b>CNB2</b>	Backlight status input connector
<b>CNC1</b>	OSD control
<b>CP2</b>	Reserved
<b>IR1</b>	Infra-red sensor connector
<b>J1</b>	Ethernet
<b>J2</b>	LVDS 3
<b>J3</b>	LVDS 1
<b>J4</b>	LVDS 2
<b>J5</b>	Panel power output
<b>J6</b>	eDP (1.2) connector
<b>J7</b>	V-by-One panel signal output
<b>J10</b>	On Board LED backlight driver connector
<b>LED1</b>	Power LED connector
<b>P1</b>	DVI-I
<b>P2</b>	HDMI (1.4)
<b>P3</b>	HDMI (1.4)
<b>P4</b>	HDMI (2.0)
<b>P5</b>	Display Port (1.2)
<b>PP2</b>	Power input (alternative)
<b>PP4</b>	External panel power input
<b>PP5</b>	12V/24VDC input power
<b>S1</b>	Reset button (for Ethernet function)

## Ordering Options

<b>HX-4096</b>	<b>P/N: 4175501XX-3</b>
<b>IE-2000, for 120Hz panels</b>	<b>P/N: 4175600XX-3</b>
Inverter interface board	[subject to panel model]
IR remote control	P/N: 559000106-3
OSD digital button board	Kit 67110-3
OSD membrane kit - Vertical	Kit 67134-3
OSD membrane kit - Horizontal	Kit 67135-3
AVD-1000, composite add-on	Kit 71300-3
HD-3000, 3G-SDI adaptor	P/N: 4160160XX-3
Audio Add-on board	P/N: 4169400XX-3

## Drawings

- » 2D (jpg)
- » 3D (SLDPRT)

### Download at:

<http://www.digitalview.com/products/hx-4096-lcd-controller>

## Available Resources

- » Instruction manual
  - » Revision control documentation
  - » Firmware upgrade manual\*\*
  - » Mechanical drawing
  - » Custom engineering: Splash screen, OSD menu, coatings, & more...
- \*\* Available on request

### Controller Solution Generator

<http://www.digitalview.com/csg>

### USA

18440 Technology Drive, Morgan Hill, CA 95037, USA  
t: +1 (408) 782-7773

### EUROPE

The Lake House, Knebworth Park, Herts, SG3 6PY, UK  
t: +44 (0) 20-7631-2150

### ASIA

705-708 Texwood Plaza, 6 How Ming St, Kwun Tong, Hong Kong  
t: (852) 2861-3615



The QR code above links to the product page on the website