

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

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

Input

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

Reliability

Calculated MTBF:	In excess of 100,000 hours
Warranty:	3 years

Features

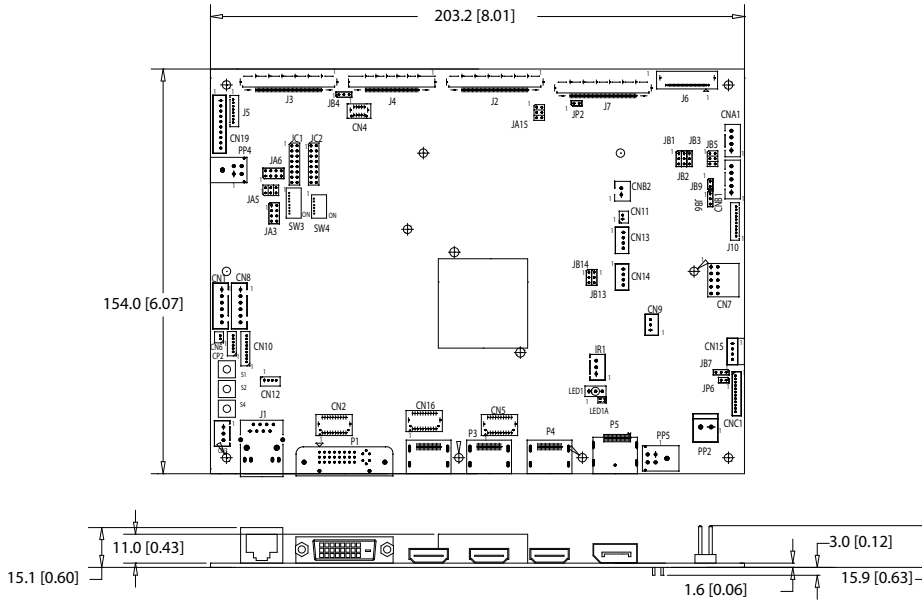
Colors:	Up to 10 bit per color, ie 1.06 billion colors
Function Display:	On Screen Display (OSD) menu
Function Controls:	External buttons, Infra-Red controls, Serial Port control, Ethernet Control
Image Scaling:	Up / Down scaling to fit input to panel resolution
Image Control:	Brightness, Contrast, Color Temperature, Image position, Saturation, Hue, Sharpness
Other Features:	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
Communication:	Ethernet, RS-232, I2C
Power:	+12VDC / +24VDC ±5%, 10W (controller only)
Panel Power:	Supports 3.3V, 5V, 10V, 12V & 18V panels
Panel Signal:	V-by-One, eDP, LVDS
Inverter Support:	DPMS Enable pin (3.3V or 5V), PWM
Plug & Play:	DDC 1,2/b compatible
Status Indicator:	Dual color LED support
Audio:	Digital Audio SPDIF & stereo line-out
Coating:	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

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

Ordering Options

HX-4096	P/N: 4175501XX-3
IE-2000, for 120Hz panels	P/N: 4175600XX-3
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>

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