

## DT-4096

### 4K Ultra-HD LCD Controller

The DT-4096 is a compact, easy to use and cost effective LCD controller board for commercial monitors & displays supporting LCD panels up to 4096 x 2160 resolution. Ideal for digital signage and industrial video displays.

#### Key Features:

- » Up to 4096 x 2160 video input / Up to 4096 x 2160 LCD panels
  - » HDMI 2.0, Displayport 1.2
  - » V-by-One, eDP panel connection
  - » Full frame memory buffer for enhanced image control
  - » RS-232, I2C for commands & control
  - » Light sensor support, onboard temperature sensor
- » Part Number: 4178200xx-3  
4178200xx-5

#### Panel Connectivity

**V-by-One (8 channel):** up to 4096 x 2160 @60Hz  
**eDP (8 lane HBR/4 lane HBR2):** 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** (connector) 60Hz up to 4096 x 2160  
75Hz up to 1600 x 1200  
1080p, 720p, 576p, 480p

**DisplayPort 1.2** (connector) 60Hz up to 4096 x 2160  
75Hz up to 1600 x 1200  
1080p, 720p, 576p, 480p

#### Reliability

**Calculated MTBF:** In excess of 500,000 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

**Image Scaling:** Up / Down scaling to fit input to panel resolution

**Image Control:** Brightness, Contrast, Color Temperature, Gamma, Black level, Saturation, Hue, Sharpness

**Other Features:** System information, Aspect ratio, Display rotate, OSD position, OSD menu orientation, OSD transparency, Volume control.  
Programmable hotkeys, Factory reset.  
DDC-CI support.  
Auto EDID - panel matched.

**Sensors:** Light sensor support, onboard temperature sensor

**Communication:** RS-232, I2C

**Input Power:** +12VDC / +24VDC ±5%, 4W (controller only)

**Panel Power:** Supports 3.3V, 5V, 10V, 12V & 18V panels

**Panel Signal:** V-by-One, eDP

**Backlight Support:** DPMS Enable pin (3.3V or 5V), PWM

**Plug & Play:** DDC 1,2/b compatible

**Status Indicator:** Dual color LED for operating status  
Single color LED for power status

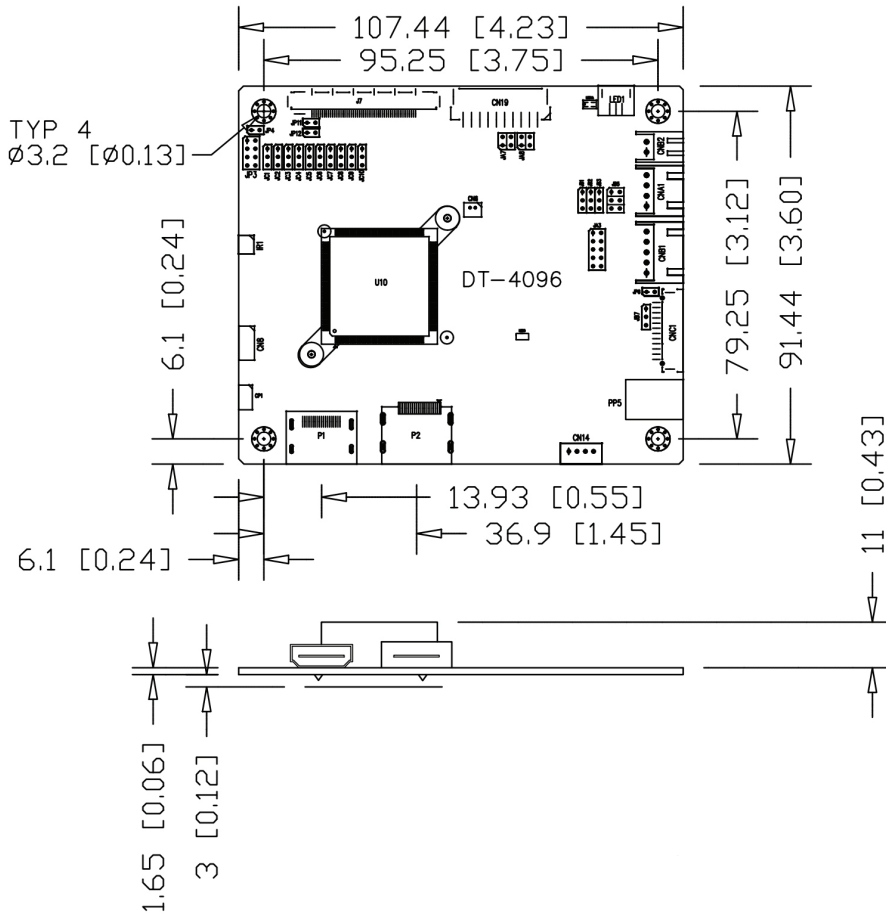
**Audio:** Stereo line-out

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

**Firmware upgrade:** The DT-4096 firmware version can be upgraded via the displayport directly, or via the HDMI port with a programming board. Contact Digital View or distribution partner for details.

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

## Mechanical Drawing



## Connector Definitions

<b>CN6</b>	Ambient light sensor connector
<b>CN8</b>	RS-232 serial control
<b>CN14</b>	Audio line out (analog stereo)
<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>IR1</b>	Infra-red sensor connector
<b>J7</b>	V-by-One / eDP panel signal output
<b>LED1</b>	Power LED connector
<b>P1</b>	HDMI 2.0 input
<b>P2</b>	Displayport 1.2 input
<b>PP5</b>	12V/24VDC input power

## Accessories

Digital View accessories for the DT-4096 include:

- Cables for panel and other connectivity
- Buttons for the OSD control
- Sensors
- Add-on boards
- Other

### See:

<https://www.digitalview.com/accessories/accessories.html>

## Ordering Options

<b>DT-4096</b>	<b>P/N: 4178200xx-3</b>
	<b>P/N: 4178200xx-5</b>
Inverter interface board	[subject to panel model]
IR remote control	P/N: 5590001xx-3
OSD digital 5 button board	Kit 67204-3
OSD digital 8 button board	Kit 67110-3
OSD membrane kit - Horizontal	Kit 67134-3
OSD membrane kit - Vertical	Kit 67135-3

## Drawings

- » 2D (DWG, PDF)
- » 3D (SLDPRT, STEP)

### Download at:

<https://www.digitalview.com/controllers/dt-4096-lcd-controller.html>

## 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, Suite 130, 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