

## HLT-1920 LCD Controller Board for Full-HD

Compact LCD controller board suitable for harsher environments. The HLT-1920 supports three popular video input formats up to Full-HD for LCD panels with a resolutions of up to Full-HD.

### Key Features:

- » Inputs: HDMI, DisplayPort, VGA (ARGB)
- » Up to 1920 x 1200 input / Up to 1920 x 1200 LCD panels
- » LVDS panel connection @60Hz
- » Low latency, line memory buffer
- » RS-232, IR for commands & control
- » Conformal coating
- » Operating temperature -40°C to +80°C\*
- » Part number: 4176401xx-3

### Panel Connectivity

<b>LVDS (dual channel):</b>	up to 1920 x 1200 @60Hz
<b>Panel resolutions:</b>	supports standard panel resolutions from 640 x 480 up to 1920 x 1200. Customization options for other resolutions

### Input

<b>HDMI 1.3:</b>	60Hz up to 1920 x 1200
<b>DisplayPort 1.2a:</b>	60Hz up to 1920 x 1200
<b>VGA (ARGB):</b>	60Hz up to 1920 x 1200

### Reliability

<b>Calculated MTBF:</b>	In excess of 200,000 hours
<b>Warranty:</b>	3 years

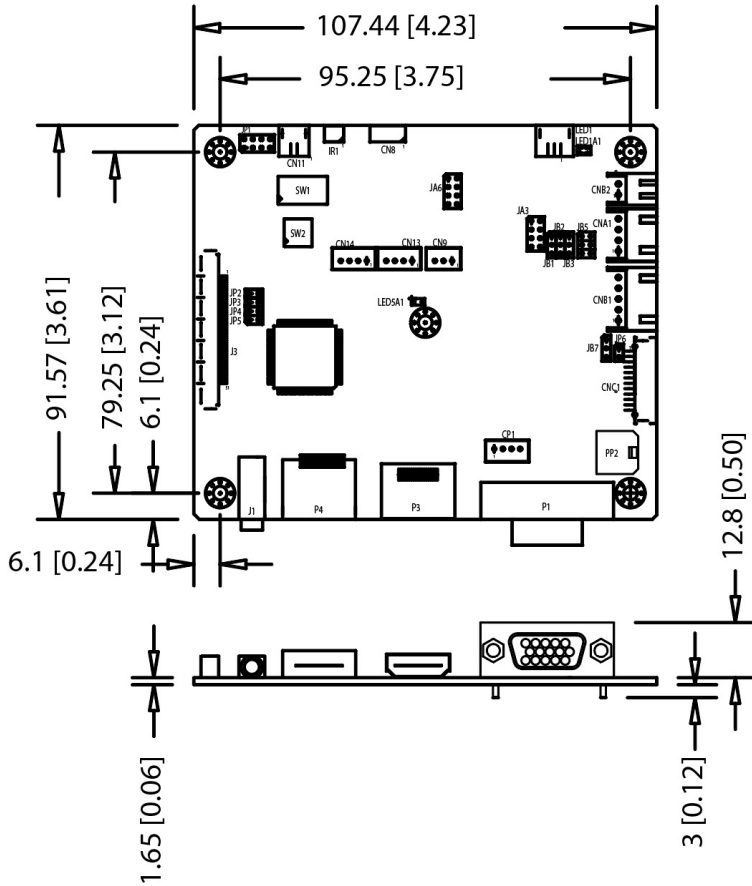
### Features

<b>Colors:</b>	Up to 8 bit per color, ie 16.7m colors
<b>Function Display:</b>	On Screen Display (OSD) menu
<b>Function Controls:</b>	External buttons, Infra-Red control, Serial Port control, DDC/CI, optional Ethernet control with IP-60
<b>Image Scaling:</b>	Up / Down scaling to fit input to panel resolution
<b>Image Control:</b>	Black level, Contrast, Color Temperature, Sharpness, Clock, Phase, Gamma
<b>Other Features:</b>	System Information, Scaling to fill screen or scale to 4:3 format, Ambient light sensor support, OSD menu transparency, DDC-CI support, OSD menu orientation, OSD position, OSD timeout, Language, Auto picture setup, Auto RGB calibration, Load factory defaults, Auto source seek, Volume
<b>Power:</b>	+12VDC / +24VDC ±5%, 4W (controller only) Ceramic capacitors. Consumption: ~2.5W operating, 1.3~1.5W standby
<b>Panel Power:</b>	Supports 3.3V, 5V, 12V & 18V panels
<b>Conformal Coating:</b>	HumiSeal IB73, acrylic, spray application
<b>Operating temp:</b>	-40°C to +80°C*
<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 for controller status
<b>Audio:</b>	Digital Audio SPDIF Analog line-out, with volume control, no amplification
<b>Custom options:</b>	Panel timing, Splash screen, OSD menu items, Hardware changes, Conformal coatings

Note: \* The Operating temperature is given for reference only, the controller should be tested and verified in the finished display product.

# HLT-1920 LCD Controller for Harsher Environments

## Mechanical Drawing



## Connector Definitions

<b>CN8</b>	RS-232 serial control
<b>CN9</b>	Ambient light sensor connector (reserved)
<b>CN11</b>	SPDIF Audio output
<b>CN13</b>	Audio line-in (stereo)
<b>CN14</b>	Audio line-out (stereo)
<b>CNA1</b>	Auxiliary power output
<b>CNB1</b>	Backlight inverter
<b>CNB2</b>	Backlight status input connector
<b>CNC1</b>	OSD control
<b>J1</b>	Audio out, stereo, from HDMI, Displayport, CN13
<b>J3</b>	LVDS panel signal
<b>IR1</b>	Infra-red sensor connector
<b>LED1</b>	Dual color LED for controller status
<b>P1</b>	VGA (ARGB) input
<b>P3</b>	HDMI input
<b>P4</b>	Displayport input
<b>PP2</b>	Power input

## Ordering Options

<b>HLT-1920</b>	<b>P/N: 4176401xx-3</b>
OSD digital button board	Kit 67110-3
OSD membrane kit - Vertical	Kit 67135-3
OSD membrane kit - Horizontal	Kit 67134-3
OSD 5 button switch mount	Kit 67204-3
IR remote control	P/N 559000106-3

## Drawings

- » 2D (jpg)
- » 3D (SLDPRT)

### Download at:

[www.digitalview.com/products/hlt-1920-lcd-controller.html](http://www.digitalview.com/products/hlt-1920-lcd-controller.html)

## Available Resources

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

### Controller Solution Generator

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

### USA

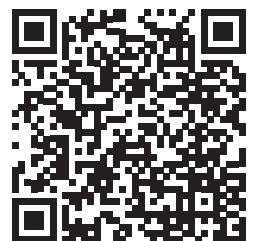
18440 Technology Drive, Morgan Hill, CA 95037, USA  
t: +1 (408) 782-7773

### EUROPE

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

### ASIA

705-708 Texwood Plaza, 8 How Ming St, Kwun Tong, Hong Kong  
t: (852) 2861-3615



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