

HX-1920-PRO

LCD Controller Board for Harsher Environments

Key Features :

- > HDMI, DisplayPort, DVI, VGA (ARGB)
- > LVDS panel connection
- > 10-Bit, 1920 x 1200 WUXGA @60Hz
- > Image Flip (Horizontal & Vertical)
- > RS-232, Ethernet Control (optional), I2C
- > Part number: 4177301xx-3

The HX-1920-PRO is a full frame buffered multi-sync LCD controller board for display applications in harsher environments. It supports analog and digital video input, and a wide range of TFT LCD panels up to WUXGA resolution. It is a true 10-bit board providing 10-bit color depth on a 10-bit LCD panel.

Options include a range of accessories, and customization of features and functions.

Panel Connectivity

1920 x 1200	1440 x 900	1024 x 768
1920 x 1080	1366 x 768	1024 x 600
1680 x 1050	1280 x 1024	800 x 600
1600 x 1200	1280 x 800	800 x 480
1600 x 900	1280 x 768	640 x 480

Panel Power: Supports 3.3V, 5V, 10V, 12V, 18V
Panel Signal: Four channel LVDS support
LED driver support: PWM, DPMS Enable pin (3.3V or 5V)

Input

HDMI 1.4	60Hz up to 1920x1200 1080p, 1080i, 720p, 576p, 480p
Displayport	60Hz up to 1920x1200 1080p, 1080i, 720p, 576p, 480p
DVI (single link)	60Hz up to 1920x1200
ARGB / VGA	60Hz up to 1920x1200 With auto detect of Digital Separate Sync, Sync-On-Green & composite Sync. Auto detects VGA-WUXGA.

Reliability

Calculated Mean Time Between Failures - In excess of 100,000 hours*
 Warranty: 3 years

Features

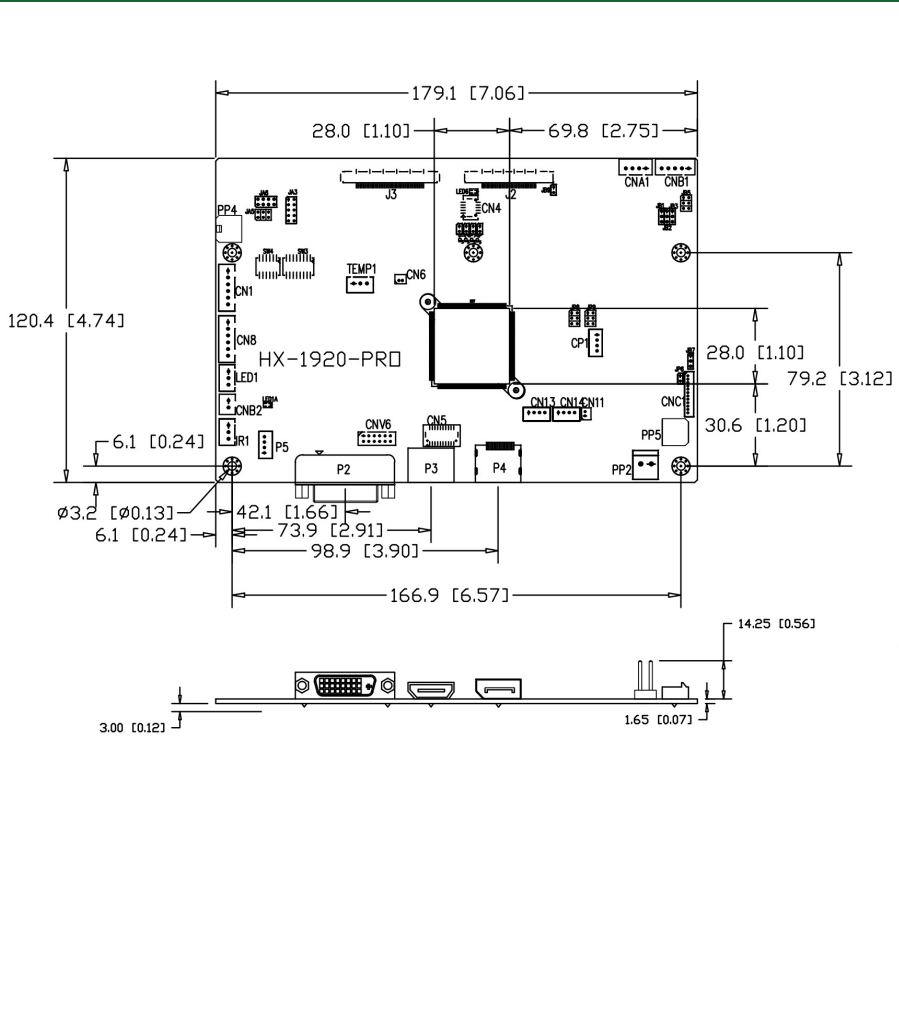
- Colors:** Up to 10 bit per color, ie 1.06 billion colors
- Functions :** On Screen Display (OSD) menu
- Function Controls:** External buttons, Infra-red controls, Serial port control, Ethernet (option)
- Image Scaling :** Up / Down scaling to fit input to panel resolution
- Image Control :** Auto Picture Setup, Black level, Contrast, Sharpness, Backlight brightness, Clock, Phase, Color temperature, Image position, Gamma, Aspect ratio
- Other Features :** Auto source seek, OSD timeout, OSD transparency, Select input source, Volume, Language, Image rotation, Picture in Picture and Picture by Picture, Programmable hotkeys. Fast input port switching. Onboard temperature sensor. Conformal Coating Support for options such as ambient light sensor, Load factory defaults.
- Operating Temp:** -40°C to 80°C
- Power:** +12V/+24VDC ±5%, 4W (controller only)
- Plug & Play:** DDC 1,2/b compatible
- Status Indicator:** Dual color LED for operating status
Single color LED for power status
- Form factor:** DV standard & mounting holes
- Dimensions:** 179mm x 120.4mm x 16.9mm
- Build options:** See Connector Definitions section

*Specifications subject to change, MTBF is calculated using Telcordia SR-332 procedure, based on 25°C

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Mechanical Drawing



Connector Definitions

- CN1** Reserved for second RS-232 serial control
- CN4** Panel control signal (GPIO) connector
- CN6** Ambient light sensor connector
- CN8** RS-232 serial control
- CN11** SPDIF audio output
- CN13** Analog (stereo) audio in
- CN14** Analog (stereo) audio out
- CNA1** Auxiliary power output
- CNB1** Backlight inverter
- CNB2** Backlight status input connector
- CNC1** OSD control
- CNV6** Alternate VGA input
- CP1** Reserved
- IR1** Infra-red sensor connector
- J2** LVDS panel signal output 1
- J3** LVDS panel signal output 2
- LED1** Dual Color LED Connector
- P2** DVI-I input
- P3** HDMI input
- P4** Displayport input
- P5** Connector for firmware upgrade
- PP2** Power input (alternative)
- PP4** External panel power input
- PP5** Power input
- TEMP1** Reserved for external temperature sensor
- LINE_OUT** Audio jack (stereo) output from HDMI/ Displayport

Build options:

- Alternate input headers: HDMI, Displayport, DVI
- Ethernet connection for RS-232 comms
- Onboard LED backlight driver
- USB type connector for firmware upgrade

Ordering Options

HX-1920-PRO	P/N 4177301xx-3
OSD button board, 8 button	Kit 67110-3
OSD button board, 5 button	Kit 67204-3
OSD horizontal membrane kit	Kit 67134-3
OSD vertical membrane kit	Kit 67135-3
IR Remote Control	P/N 5590001xx-3

Drawings

- > Includes 2D (jpg)
 - > 3D (SLDPRT)
- Please download at:**
www.digitalview.com/products/hx-1920-pro-lcd-controller.html

Available Resources

- > Instruction Manual
 - > Revision Control Documentation**
 - > Firmware Upgrade Manual**
 - > Mechanical Drawing
- ** Available on Request

Controller Solution Generator
<https://www.digitalview.com/csg>

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