

SP-1920v2

LCD Controller for LCD Panels up to 1920x1200 Resolution

Designed for commercial LCD display systems such as digital signage, the SP-1920 includes H.264 media failover support. In addition the Composite input support is ideal for legacy and analog video applications.

Key Features:

- » LCD support: from 640x480 to 1920x1200, 10-Bit
- » Panel connectivity: LVDS
- » Inputs: HDMI x2, DVI, VGA, Component, Composite x2
- » Integrated H.264 media player / failover
- » Separate power in for high power panels
- » RS-232 control, IR remote control
- » Part number: 4178100xx-3.

LCD Panel Support

| | |
|----------------------------------|---|
| Connectivity: | LVDS (Single/Dual channel), up to 1920 x 1080, 1920 x 1200 @60Hz |
| Panel power: | Supports 3.3V, 5V, 10V, 12V & 18V panels |
| Panel compatibility: | All major brands |
| Resolutions & timing: | Supports common panel resolutions and timings from 640 x 480 up to 1920 x 1200 selected by dip switch. Custom panel timing available for other LCD panels & resolutions. |

Input / Sources

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|--|---|
| HDMI 1.4: 1xconnector, 1xheader | 60Hz up to 1920x1200 75Hz up to 1600x1200 |
| DVI-D (single-link 1.0): 1xconnector | 60Hz up to 1920x1200 75Hz up to 1600x1200 CVT modes |
| Analog RGB ('VGA'): 1xconnector | 60Hz up to 1920x1200 75Hz up to 1600x1200 Auto detect of Digital Separate Sync, Sync-On-Green & Composite Sync. Auto detects VGA~WUXGA, interlaced & non-interlaced |
| Composite: 1xBNC, 1xheader | PAL, NTSC, SECAM (interlaced) |
| Component: 1xheader | PAL, NTSC 480p, 576p, 720p, 1080i, 1080p |
| EDID: | The EDID preferred timing data is automatically set by reference to the LCD panel resolution settings (VESA data). Custom EDID data programming is available as an option. |

Features

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|---------------------------|---|
| Colors: | Up to 10 bit per color, ie 1billion colors |
| Function Display: | On Screen Display (OSD) menu |
| Function Controls: | External buttons, IR remote, Serial Port commands |
| Image Scaling: | Up/Down scaling to fit input to panel resolution |
| Image Control: | Backlight brightness, Contrast, Color Temperature, Image positioning, Saturation, Hue, Sharpness, Black level. |
| Other Features: | Input source select, Auto source seek, Auto picture setup, Auto color gain, Manual clock & phase, OSD timeout, OSD menu transparency, Image orientation, System Information, Aspect ratio. Load factory defaults. Input source failover functions. |
| Power: | +12VDC / +24VDC ±5%, 4W (controller only) |
| Inverter Support: | PWM, D/A DPMS Enable pin (3.3V or 5V) |
| Plug & Play: | DDC 1,2/b compatible |
| Status Indicator: | Dual color LED support |
| Dimensions: | 179mm x 120.4mm (7" x 4.8") |

Custom Splash-screen: The SP-1920 supports a custom splash-screen when powering on. This custom firmware option.

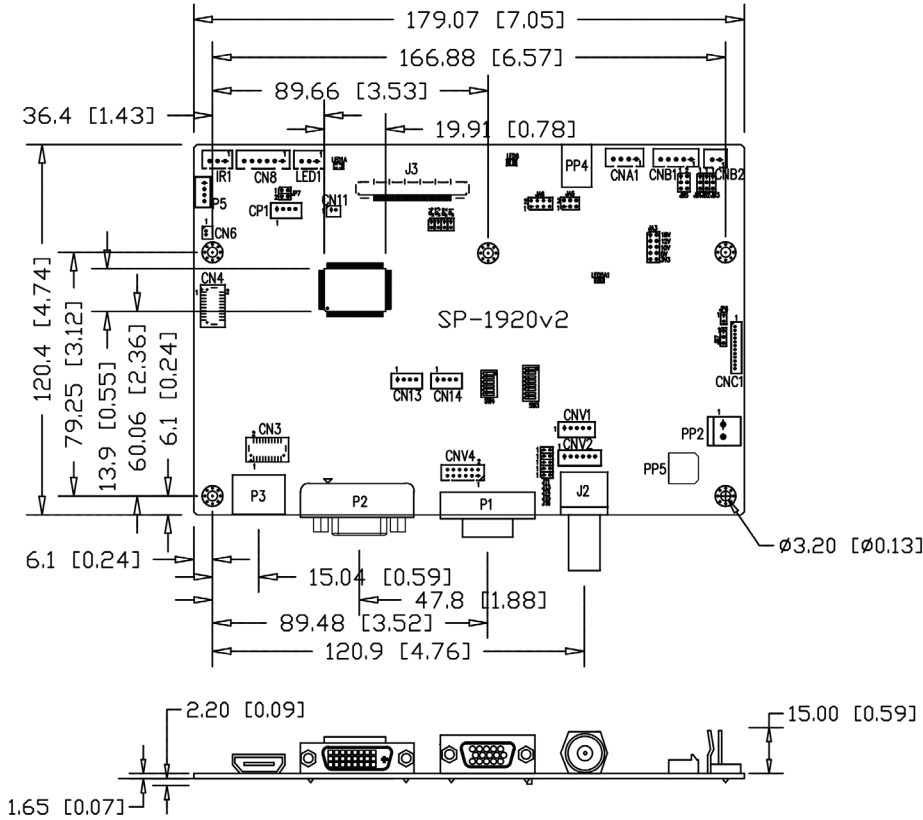
Firmware Update: The firmware version of the SP-1920 can be updated using a USB flash key.

Reliability

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|-------------------------|----------------------------|
| Calculated MTBF: | In excess of 500,000 hours |
| Warranty: | 3 years |

SP-1920v2 LCD Controller for Commercial Monitors

Mechanical Drawing



Connector Definitions

| | |
|-------------|--|
| CN3 | Alternate HDMI 1 input connector |
| CN4 | HDMI 2 input connector |
| CN6 | Ambient light sensor connector |
| CN8 | RS-232 serial control |
| CN11 | SPDIF audio output connector |
| CN13 | Analog (Stereo) audio in |
| CN14 | Analog (Stereo) audio out |
| CNA1 | Auxiliary power input |
| CNB1 | Backlight inverter |
| CNB2 | Backlight status input connector |
| CNC1 | OSD controls |
| CNV1 | Alternate Composite 1 and loop out connector |
| CNV2 | HD/SD Component video input connector |
| CNV4 | Alternate VGA input connector |
| IR1 | Infra-Red Sensor connector |
| J2 | Composite video 1 in |
| J3 | Panel signal for LVDS panel |
| LED1 | Dual Color LED connector |
| P1 | VGA analog input |
| P2 | DVI-D input |
| P3 | HDMI 1 connector |
| P5 | USB input connector |
| PP2 | Power input (alternate) |
| PP4 | External panel power input |
| PP5 | Power input |

Ordering Options

| SP-1920v2 | P/N: 4178100xx-3 |
|-------------------------------|------------------|
| OSD digital 8 button board | Kit 67110-3 |
| OSD digital 5 button board | Kit 67204-3 |
| OSD membrane kit - Vertical | Kit 67135-3 |
| OSD membrane kit - Horizontal | Kit 67134-3 |
| IR remote control | P/N 559000106-3 |

Drawings

- » 2D (dwg)
- » 3D (SLDPRT and IGS)

Download at:

<http://www.digitalview.com/products/sp-1920v2-lcd-controller>

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>

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