

HSP-1920

LCD Controller for LCD Panels up to 1920x1200 Resolution

The Harsh Environment version of the SP-1920 LCD controller. The HSP-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: 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: 4176001xx-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. Customization available for other LCD panel resolutions.

Input / Sources

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
Component: 1xheader	PAL, NTSC 480p, 576p, 720p, 1080i, 1080p
EDID (coming soon):	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 OEM option.

Features

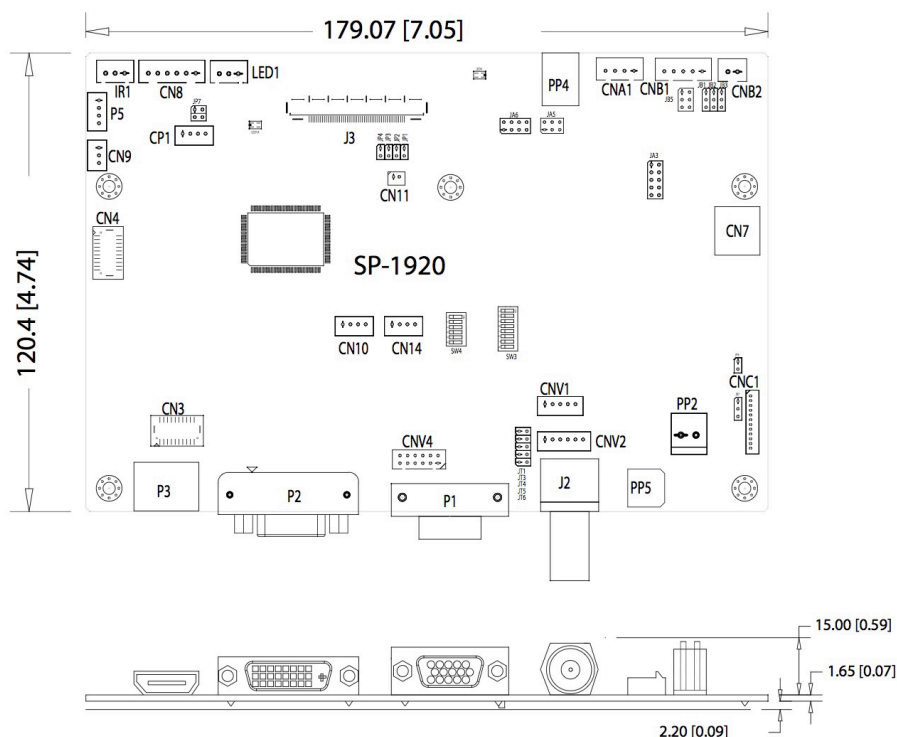
Colors:	Up to 10 bit per color, ie 1billion colors
Function Display:	On Screen Display (OSD) menu
Function Controls:	External buttons, IR remote, Serial Port commands
Image Scaling:	Up/Down scaling to fit input to panel resolution
Image Control:	Backlight brightness, Contrast, Color Temperature, Image 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%, 2.5W (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")
Operating Temp:	-20°C to +80°C
Custom Splash-screen:	The HSP-1920 supports a custom splash-screen when powering on. This custom firmware option.
Firmware Update:	The firmware version of the HSP-1920 can be updated using a USB flash key.

Reliability

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

HSP-1920 LCD Controller for Commercial Monitors

Mechanical Drawing



Connector Definitions

CN3	Alternate HDMI 1 input connector
CN4	HDMI 2 input connector
CN7	Audio board connector
CN8	RS-232 serial control
CN9	Ambient Light sensor connector
CN10	Analog (Stereo) audio in
CN11	SPDIF audio output connector
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 2 input connector
CNV2	HD/SD Component video input connector
CNV4	Alternate VGA input connector
CP1	Reserved for factory use for programming
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

HSP-1920

P/N: 4176001xx-3

OSD digital button board	Kit 67110-3
OSD membrane kit - Vertical	Kit 67135-3
OSD membrane kit - Horizontal	Kit 67134-3
Inverter interface	P/N 416040010-3
IR remote control	P/N 559000106-3
Audio Add-on board	P/N 416940020-3

Drawings (pending)

- » 2D (dwg)
- » 3D (SLDPRT and IGS)

Download at:

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

Resources (pending)

- » 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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