

HE-1600

Harsh Environment LCD Controller Board

Key Features :

- > VGA to UXGA resolutions
- > Dual S-Video and Dual Composite inputs
- > Harsh Environment Features
- > PAL, NTSC, SECAM support

The HE-1600 is a fully buffered, multi-sync interface controller providing direct analog and digital connection to a wide range of TFT LCD panels up to UXGA resolution. Key features include a flexible port architecture that provides inputs for DVI, dual VGA channels, Composite, S-Video and Component Video across both 4:3 and 16:9 format panels. The HE-1600 supports the Digital View serial protocol allowing all controller functions and parameters to be controlled via the built-in serial port.

Panel Connectivity

1680 x 1050	1600 x 1200	1440 x 900
1400 x 1050	1366 x 768	1280 x 1024
1280 x 800	1280 x 768	1024 x 768
800 x 600	640 x 480	

Input

Analog RGB:	60Hz at UXGA 75Hz at SXGA, WXGA, XGA, SVGA, VGA 1152 x 900 @66Hz 1152 x 900 @76Hz 1280 x 1024 @76Hz
	With auto detect of Digital Separate Sync, Sync-On-Green & Composite Sync. Auto detects VGA-UXGA, interlaced & non-interlaced.
DVI-I	60Hz at UXGA 75Hz at SXGA, WXGA, XGA, SVGA, VGA
Video:	NTSC/PAL/SECAM (Interlaced) Composite Video, S-video, Component Video (YCbCr)

Reliability

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

Custom Engineering Services

Custom input timing, panel timing, splash screen, OSD Menu, conformal coatings, layouts etc

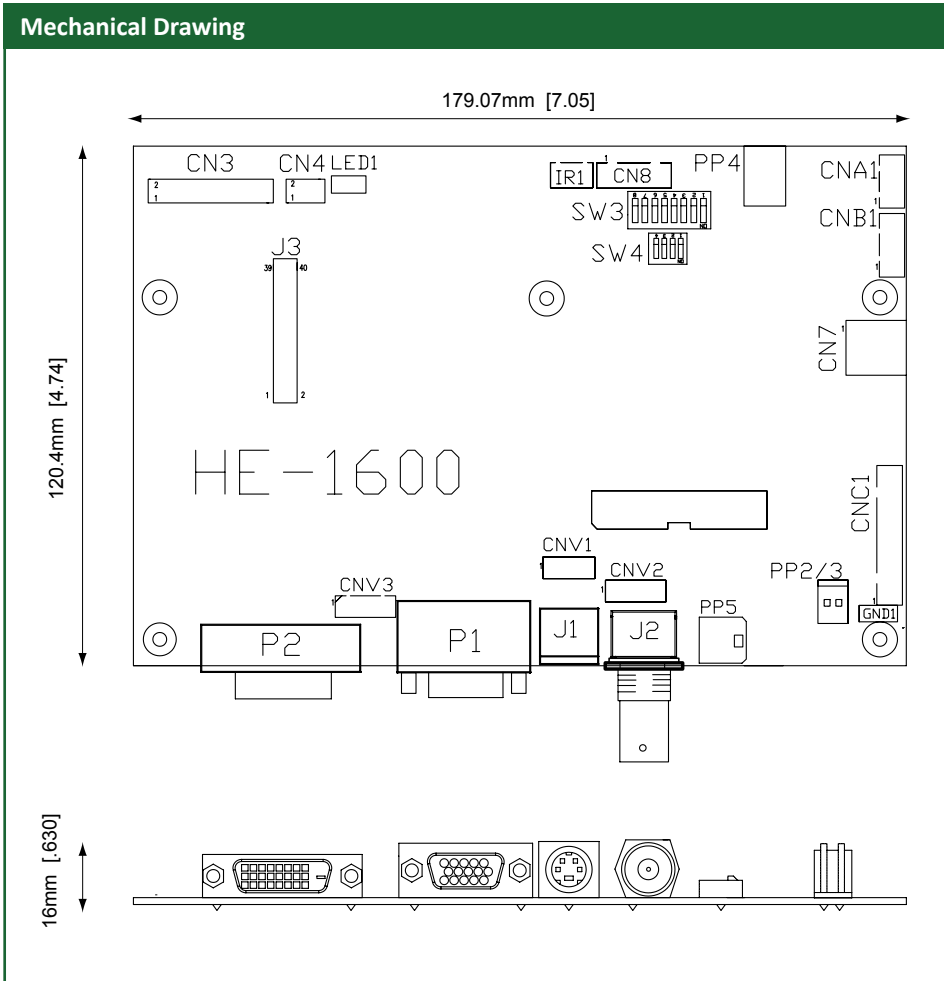
Features

Colors :	Up to 8-bit per color, 16.7 million colors.
Functions :	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 :	Auto configuration, Brightness, Contrast, Clock, Phase, Color temperature, Image position, Saturation, Hue, Gamma.
Other Features :	Auto picture setup, Auto color gain, Auto power, OSD timeout position and transparency, Programmable hot keys.
Dimensions :	179mm x 120.4mm (7" x 4.74")
Form Factor :	DV standard & mounting holes.
Power Requirements :	+12VDC ±25%, 10w (controller only)
Panel Power :	Supports 3.3V, 5V, 12V panels.
Panel Signal :	TTL (single pixel) & LVDS.
Inverter Support :	DPMS, Analog or PWM brightness control via serial port controll brightness
Plug & Play:	DDC 1,2/b compatible
Status Indicator :	Dual color LED support.
Operating Temperature:	-40°C to +80°C**
Storage Temperature:	-40°C to 85°C
Coating:	Silicone resin conformal coating. (MOD) DEF-STAN 59/47 Issue 4 & UL QMJU2 compliant

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Mechanical Drawing



Connector Definitions

CN3	TTL Panel Signal
CN4	TTL Panel Signal
CN7	Audio board connector
CN8	RS-232 serial control
CNA1	Auxiliary power output
CNB1	Backlight inverter
CNC1	OSD Function controls
CNV1	Alternate Video-In
CNV2	Component Video-In
CNV3	ARGB 2 Input
J1	S-Video In
J2	Composite Video-In
J3	Panel Signal for LVDS Panel
IR1	Infra-Red Sensor Connector
LED1	Dual color LED connector
P1	VGA analog input
P2	DVI-I input
PP4	External Panel Power Input
PP5	Main Power Input ##
PP2	Power Input (alternative)

Ordering Options

HE-1600 Controller	P/N 4169901xx-3
OSD Digital Button Board	Kit 60110-3
OSD Vertical Membrane	Kit 60121-3
OSD Horizontal Membrane	Kit 60125-3
Inverter Interface Board	P/N 416040010-3
Audio Amplifier	P/N 416940020-3
IR Remote Control	P/N 559000106-3

3D Drawings (SLDPRT)

Save time and effort for your system volumetric analysis design. Includes jpg file previews.

Please download at www.digitalview.com/products/he-1600-lcd-controller

Available Resources

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

Controller Solution Generator

A web based resource matching controllers & panels with connection diagrams for download. Please go to <http://www.digitalview.com/csg>

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