



HE-1600

✓ RoHS

Harsh Environment LCD Controller

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

TFT :	1600 x 1200	1280 x 800	800 x 600
	800 x 480	1366 x 768	1280 x 768
	640 x 480	1280 x 1024	1024 x 768

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)

OPTIONS

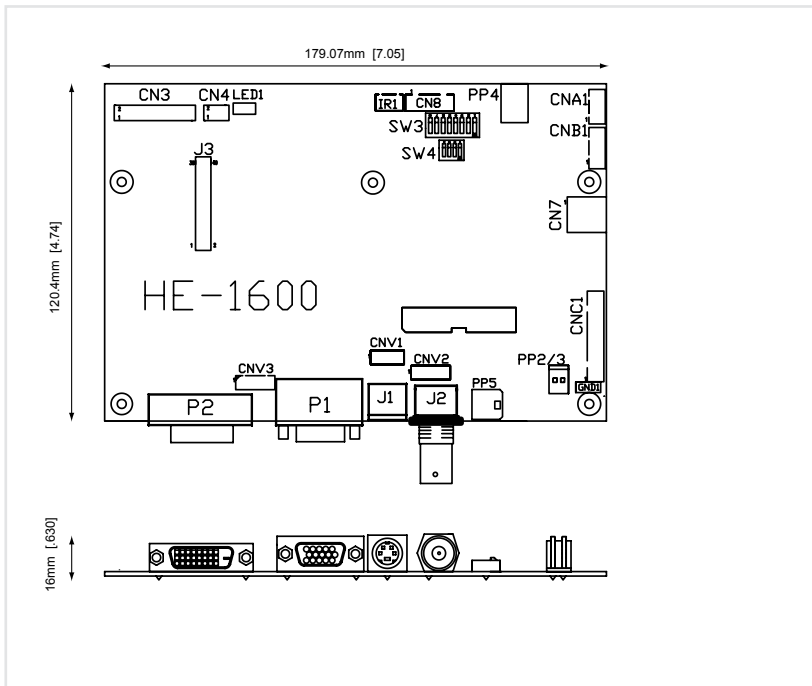
2W per channel stereo amplifier, Infra-Red controller.

RELIABILITY

Calculated Mean Time Between Failures
In excess of 150,000 hours. Warranty - 3 years.

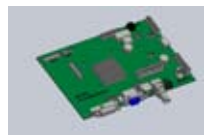
FEATURES

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



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)



Ready-made 3D drawing files

File Type: SLDPRT Save time and effort for your system volumetric analysis design. Includes jpg file previews. <http://www.digitalview.com/controllers/products.php>

** Available upon request.

*** Laboratory certification report available at <http://www.digitalview.com/controllers/support.php>

Overall suitability for usage in critical applications must be independently tested and verified by the user.

ACCESSORIES

- Kit 60110-3: OSD Digital Button Board Kit
- Kit 60121-3: OSD Vertical Membrane Kit
- Kit 60125-3: OSD Horizontal Membrane Kit
- 416040010-3: Inverter Interface board
- 426013800-3: Power-Input Cable ##
- 559000104-3: IR remote control
- 426090200-3: RS-232 cable

AVAILABLE DOCUMENTATION

- [Instruction Manual](#)
- [Revision control documentation**](#)
- [Mechanical Drawings](#)
- [Firmware Upgrade Manual**](#)
- [MTBF Analysis**](#)
- [Certified Laboratory test results](#)

CUSTOM ENGINEERING SERVICES

Digital View offers a wide range of customization for OEM customers. Services range from unique part number and configuration control, custom layouts and features.

Digital View offers managed product lifecycles with extended product lifetime options and EOL planning. US manufacturing is available on all Digital View products.

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