

VIEWPixx Lite™

Display toolbox optimized for vision researchers



OVERVIEW

The VIEWPixx Lite is a display toolbox which has been conceived specifically to replace CRTs in vision science labs. The VIEWPixx features high-performance industrial LCD glass, and a panel controller which has been custom designed to support vision research. Our innovative LED backlight design features superior display uniformity, and a wide color gamut exceeding that of any CRT. In addition the VIEWPixx Lite includes peripherals which often need to be synchronized to video during an experiment, including a button box port for precise reaction-time measurement, and triggers for electrophysiology equipment. Because we implemented the video controller and peripheral control on the same circuit board, you can now successfully synchronize all of your subject I/O to video refresh with microsecond precision.

FEATURES

- 12-BIT RGB INTENSITY
- 1920 x 1200 DISPLAY RESOLUTION AT 120 Hz
- DETERMINISTIC TIMING BETWEEN RECEPTION OF VIDEO SIGNAL AND UPDATE OF DISPLAY PIXELS
- SCANNING LED BACKLIGHT WITH DIRECT RGB LED ARRAY
- 24 TTL TRIGGER INPUT / OUTPUTS
- ALL DIGITAL INPUTS /OUTPUTS FEATURE MICROSECOND SYNCHRONIZATION TO VIDEO REFRESH
- RESPONSE BOX INTERFACE
- **UPGRADABLE TO FULL FEATURED VIEWPixx**

SOFTWARE

Software support includes a low-level ANSI C API, PsychToolbox MATLAB / Octave libraries for Mac OS X, Windows and Linux, and HID support (PsychoPy, E-Prime, Presentation). The VIEWPixx is also supported by the VPixx program.



www.vpixx.com

VIEWPixx Lite SPECIFICATIONS

LCD SPECIFICATIONS

- Display resolution: 1920(H) x 1200(V) pixels
- 22.5 inch display size (diagonal)
- Pixel pitch: 0.252(H) x 0.252(V) mm
- Pixel arrangement: RGB (Red dot, Green dot, Blue dot) vertical strip
- Active matrix LCD
- 12 bits of resolution on each of the RGB channels
- 100Hz to 120Hz refresh rate with zero latency stimulus presentation
- 60Hz to 100Hz refresh rate with internal frame buffering
- Grey-to-Grey response time :
 - 1ms typical in scanning backlight mode
 - 7ms typical in normal backlight mode
- Luminance:
 - 100 cd/m2 in scanning backlight mode
 - 250 cd/m2 in standard backlight mode
- Uniformity: 95% over 95% of display area
- Contrast ratio: Typical 800:1
- Viewing angle: 176° (Horizontal), 176° (Vertical)
- Polarizer surface: Antiglare

BACKLIGHT SPECIFICATIONS

- Scanning LED backlight
- Direct RGB LED array
- Wide gamut LED
- Factory white point D65

VIDEO PROCESSING

- Video input: 1920 x 1200 pixels, 60 to 120 Hz, 24 bits (Dual link DVI)
- Deterministic timing between reception of video signal and update of display pixels
- Completely bypass all image processing “enhancements” prevalent in standard consumer LCD panels
- Multiple displays can be synchronized, showing copies or subsets of original video



DIGITAL INPUT

- Number of digital inputs: 24 on db-25 connector
- Input termination: >20kΩ pullup to 3.3V
- Input tolerance: 5V

DIGITAL OUTPUT

- Number of digital outputs: 24 on db-25 connector
- Output drive stage: 5V through 25Ω series resistor
- Maximum output current:
 - Source: 15mA
 - Sink: 12mA

POWER

- Power consumption: 180W
- Input voltage: 48Vdc – 3.75A
- International AC adaptor input: 90Vac – 264Vac (47Hz – 63Hz)

VIEWPixx STAND

- Mounting standards: VESA MIS-D/E, MIS-F
- Hole pattern: 100 x 100mm & 75 x 75mm

Lift	Tilt	Pan	Rotation	VESA
5" 13 cm	30°	Base 360°	90° P/L	MIS-D/E MIS-F

ORDERING INFORMATION

DESCRIPTION: VIEWPixx Lite
P/N: VPX-VPX-2000A

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