

PLR2 PanelLink Board

Low cost DVI Receiver / LCD Controller. Converts DVI input to LCD output.
Supports VGA, SVGA, and XGA panels and associated inverters



Features include:

- Industry standard DVI / PanelLink™ interface with 10 meter range from PC
- Efficient 12V powers board and inverter
- Switching voltage regulator for cool operation
- Can be directly powered from a wall mount power brick
- Power and DVI inputs on same card edge for ease of enclosure mounting
- DF9 panel connectors so “high-tech” thin flat flex cables can be used for VGA and SVGA displays
- Backlight inverter control options: fixed, up / down pushbuttons, or dial knob
- Backlight brightness control via potentiometer or via software (EEPOT)

The DVI interface has become the standard for digital displays. It enables high quality video with distances between the computer and display of up to 10 meters. In order to use DVI with a raw LCD flat panel, an OEM needs an interface board that accepts the DVI signals and drives the panel and its inverter. This is known as a DVI Receiver board. The PLR2 Board is a DVI (PanelLink) receiver board that connects main-stream PC digital graphics output to flat panel displays for embedded applications. The PLR2 supports VGA, SVGA, and XGA panels and their associated inverters. The board is small in size and easily mounts behind an LCD panel. It needs only 0.7" total depth (0.5" above the board) to facilitate slim display housings.

Multi-Vendor Panel Support

The PLR2 supports panels from a wide range of vendors including NEC, Sharp, LG, Phillips, Samsung and others. It uses the DF9 style mating connectors found on popular VGA and SVGA panels. Flat ribbon style DF9 cables from Meritec, Parlex and Quadrangle make the finished assembly look neat and high-tech compared to clunky discrete wire solutions. The board can also support XGA (dual pixel) panels using custom cable assemblies that Reach can either provide or specify. Panels can be either 5V or 3.3V powered. Jumpers are provided for common panel options such as reverse orientation.

DVI 1.0 PanelLink™ Interface

- Compatible with popular DVI compatible graphics cards from ATI, Appian, and Matrox, Nvidia
- Supports resolutions up to SXGA (1280x1024) at 24 bits per pixel

Options

- Custom designs available (no touch, smaller size)

Simplified Cabling

- DF9 connectors support lightweight flat flex cabling to VGA and SVGA panels
- Modular connectors for scaling from single to dual pixel, and from 18 to 24 bit per pixel
- Single cable connects to backlight inverter using the same high density connectors used by most inverters/panel types

Universal Backlight Inverter Interface

- Jumpers support either positive or negative enable with adjustable high level voltage
- Brightness Vmax. and Vmin adjustable; PWM optional
- Brightness control via DPMS, external control, or software

Specifications

- Compatible with 5V CMOS-level panels such as the Sharp LQ10D421
- 3.3V and 5V Panel support
- Standard DVI input connector as well as header for OEM custom cable

Board Specifications

Board Size	3"W x 4"H / 7.62mmW x 10.16mm
Operating Temperature	0° to 50°C
Inverter Connector	Molex 53261-0890
EDID / DDC2B	Yes
Power input	12VDC, supply current panel dependent; typically 1A for common SVGA panel including backlight
Storage Temperature	0° to 50°C
Panel Connectors	DF9-31P, DF9-41P, DF13-30DP, DF13-20DP
Input Connector	DVI-D
Power Management	Windows DPMS compatible