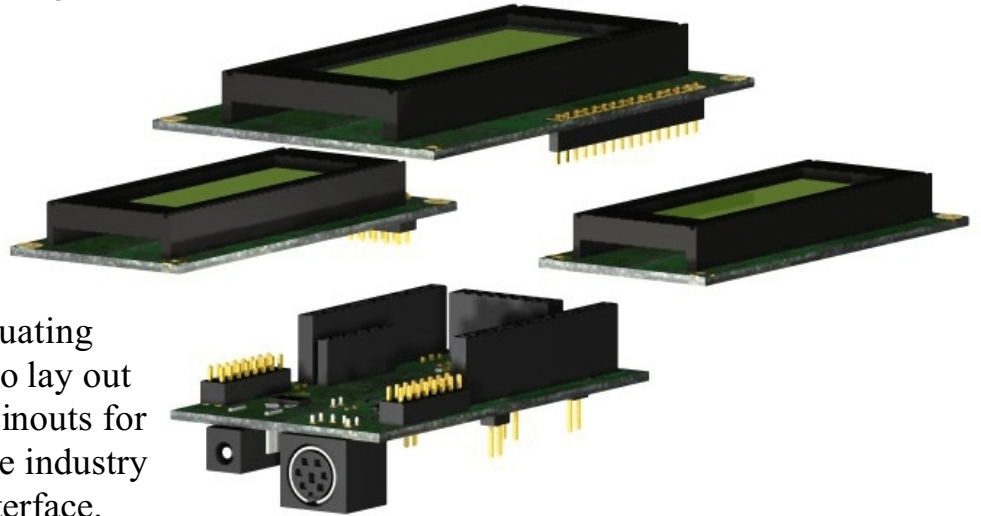


EDP-I

LCD Module Evaluation & Development Platform

The simplest way to evaluate LCD modules!



The EDP-I is designed for evaluating LCD modules without having to lay out your own design. It provides pinouts for the most popular modules in the industry and an easy to use keyboard interface.

Demonstrating, comparing and evaluating different modules has never been easier. Just plug in a standard AT style keyboard and the LCD module of your choice. The built-in line editor will give you complete control over the display.

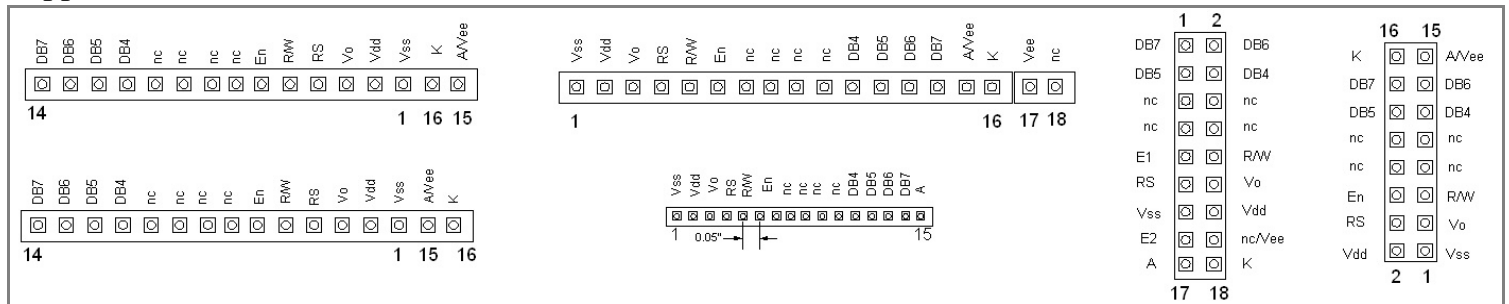
Software selectable modes:

- 8x1, 8x2,
- 12x2
- 16x1, 16x2, 16x4
- 20x2, 20x4
- 24x2
- 40x2, 40x4

Contrast and backlight levels can be controlled via the keyboard. Two user defined screens can be stored in memory, one of which is displayed on power up.

Supported pinouts are shown below. These allow most LCD modules that use an HD44780 compatible controller to be connected directly. Of course, non-standard pinouts can always be wired in using ribbon cable.

Supported Pinouts



EDP-I Technical Specifications and Features:

Basic software Functions:

F1: toggle between modes: 8x1 → 8x2 → 12x2 ... 40x4 → 8x1; optionally stored in non-volatile memory

F2: recall screen 1 <shift> F2: store current screen in memory 1

F3: recall screen 2 <shift> F3: store current screen in memory 2 (displays at power up)

F5: Increase contrast F6: Decrease contrast

F7: Increase backlighting F8: Decrease backlighting

Standard editor keys: backspace, enter, home, delete, end, page up, page down, arrow keys, caps lock, num lock.

Tab: centers cursor on the current line.

Due to the wide current range of backlighting options, the EDP-I must be used with an external regulated 5 volt supply (5 VDC +/- 5%). Both a standard 2.1 mm (P-5) connector and solder connections are provided.

EDP-I only:	< 5mA
EDP-I, LCD (no backlight), with typical keyboard:	350 mA
Backlight alone, using on-board control	0 - 650 mA

The EDP-I uses an Atmel ATMEGA8 processor and can be reprogrammed for custom embedded applications. There are 12 available I/O pins (including 8 ADC inputs).

Of course, we'd be happy to provide custom features such as a serial port interface; monitoring and displaying ADC inputs or just about anything you can dream up. Contact JEM Innovation for details.

Notes:

1. All connectors are top view. All pins are on 0.10" centers unless otherwise noted.
2. The EDP-I does not include headers, connectors, keyboard or power supply. These are available from our distributors.
3. Some modules may require separate connection to A or K for the backlight. Solder pads are provided on the board.
4. Backlight currents above 650 mA require external control. See users guide for details.
5. This board supports the pseudo-standard HD44780 7 bit interface; DB0, DB1, DB2 and DB3 are not used and are labeled as NC. An extra Enable line is provided for 40 x 4 displays.
6. Only one display can be used at a time; verify interface prior to installation.
7. Numerous jumpers and test points are provided. These include access for measuring the backlight current.
8. The user can reprogram the board using the ATMEL development connector. However, source code for the keyboard interface is NOT provided. *Reprogramming the EDP-I will erase the keyboard interface routine.*
9. Users must ensure that they do not exceed the maximum backlight current for the particular module they are using!
10. Very few modules require a negative voltage at room temperature; therefore, we recommend using modules without Vee.
11. Software contrast control must be disabled to use the negative voltage in the contrast circuit.
12. Configuration details are available in the user's guide.