

# PRESS RELEASE

COPYRIGHT © EMERGING TECHNOLOGIES, LLC. 2002 ALL RIGHTS RESERVED.



## 32 SEGMENT ADDRESSABLE SERIAL LCD CONTROLLER

Emerging Technologies, LLC is pleased to announce the introduction of the **32SSLCD** 32 Segment Serial LCD Controller.

### DESCRIPTION

The 32SSLCD (32 Segment Serial LCD Controller) provides a simple interface to the control of LCD displays. The input is asynchronous serial communication and it outputs the required waveforms for LCD segment drive. Serial data is displayed on the LCD and is latched until new data is received. The input is a simple single wire serial interface. The serial communication requires a baud rate of 2400 bps, no parity bit, eight data bits, and one stop bit (2400N81).

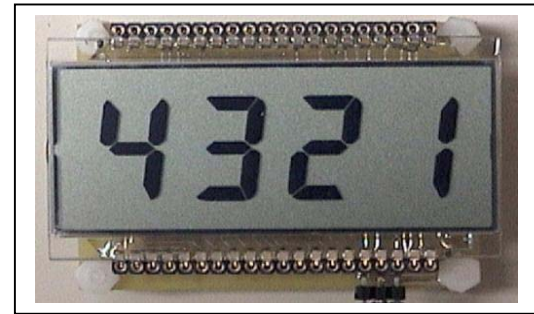
The address and mode are user configurable using dip switches on the controller. The address is made up of a three bit sub-nibble (A0, A1, & A2) and eight addresses are available (0 – 7) so multiple 32SSLCD's can be used together on one serial line. The display mode (Md) is either 32 Segment mode (default) or Standard mode. The 32 Segment mode allows control of each of the 32 segments of the display via four bytes of serial data (plus ID and address bytes). The Standard mode is used to drive 4 digit displays with numbers (0 through 9) only.

### OPERATION

The 32SSLCD is simple to operate and no external components (aside from the LCD display) are required for operation. Emerging Technologies IDComm™ protocol is used for communicating to the controller in the following six byte format: IAdddd where I = ID Byte, A = Address Byte (0-7), dddd = four user data bytes for display (dddd = MSD, 3rdSD, 2ndSD, LSD). On power up, the 32SSLCD first reads the Mode and Address selections made on the controller dip switches. The controller then waits for data to arrive on its serial input. The data is sent in hexadecimal format. In 32 segment mode, the following example string would turn on all 32 segments for ID "d" at Address 3: 64 03 FF FF FF FF. In standard mode the data bytes must be ASCII characters "0" through "9". The following example string would display the number 8761 on four digit display at ID "d" and Address 0: d08761



Controller Only  
(use with your unique LCD display)



Shown with  
Optional 4-Digit  
Display Plugged  
On

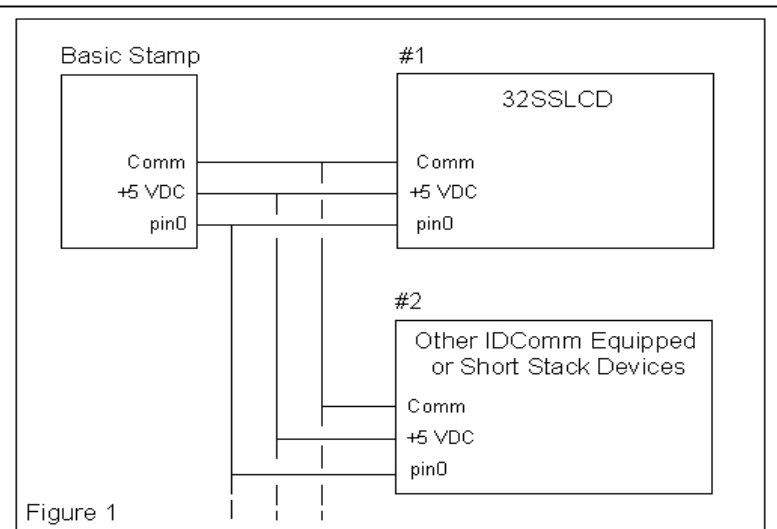


Figure 1

Standard Mode Code Example: (see data sheet for more details)  
SEROUT SO, T2400, ("d", "0", #MSD, #THRDSD, #SCNDSD, #LSD)

### USER BENEFITS

- Single line serial interface
- Up to eight 32SSLCD's can share a single serial connection.
- Other addressable, ID enabled devices can share the serial line with the 32SSLCD using the IDComm™ protocol.
- Several variations are available: controller only, controller with large 0.7" high 4 digit LCD, and with or without green LED backlight.
- The controller is designed for direct plug in of large 0.7" character 4 digit 40 pin LCD displays, like the VI-415.
- Use stand alone or with other Emerging Technologies Short Stack™ products.
- \$34.95 (Controller Only)
- Questions? E-Mail [info@emergingtech-llc.com](mailto:info@emergingtech-llc.com) for more information on the 32SSLCD or other products.

## SPECIALISTS IN CUSTOM EMBEDDED AND SOFTWARE INTERFACES