Andy Here are the emails and data sheets for the LCD screen, the first set and the addressable latch the second part.

Robert,

Here is the LCD that I have to work with.

nhd-0420d3z-fl-gbw

<http://www.digikey.com/product-detail/en/NHD-0420D3Z-FL-GBW-V3/NHD-0420D3Z-FL-GBW-V3-ND/1701256>

Direct link to data sheet:

<http://www.newhavendisplay.com/specs/NHD-0420D3Z-FL-GBW-V3.pdf>

Thanks again for your help.  I think I have a good idea of what I am to do.

Erik

Erik,

To make your life easier, setup the unit as I2C.

<http://tronixstuff.com/2010/10/20/tutorial-arduino-and-the-i2c-bus/>

Then it’s a matter of first initializing display (turning it on, clearing, cursor underline on or off, setting contrast, setting backlight)

and then moving cursor to location for placing character. Note the execution time for each command which may require a

delay before sending the next command. For example, displaying changing data (like temperature), you can employ the

0x49 and 0x4A commands instead of the Set cursor command. Ex: ‘A’ = b01000001 = 0x41 = 65 = standard ASCII code for the letter

‘A’. <http://web.cs.mun.ca/~michael/c/ascii-table.html>

Cursor locations: Top left = 0x00 = 0, top-right = 0x13 = 19 (20 spaces horizontally)

Bottom-left = 0x54 = b01010100 = 84, bottom-right = 0x67 = b01100111 = 103

Be careful since the positions are not linear from top to bottom.

The gist of the matter: send command and then parameter if required. The display is using a PIC microcontroller

(similar to the Atmel on the Arduino), which just sits there waiting for incoming data to tell it how to drive the

display.

-robert

Erik,

Found what I was thinking about:

296-8291-5-ND

Note they do not have a 16-bit version. Thus:

1. You can tie the CLR line to high, but that only gives

you an extra 3 channels since you need 5 to drive it

(G = enable, 3 address lines, and the D input).

2. Cascade a second chip by using a sixth line for

the second G enable pin. I’ll show you on the board

how it’s done.

3. Note that these digital chips do not supply much

current (4-6 mA), but plenty for driving a mosfet (switch)

or other downstream logic (actual intention). There is

the MC74ACT259DGOS-ND which provides +/- 24mA, and

is available in surface mount. More importantly it’s for

older logic and thus, not as readily available anymore.

-r