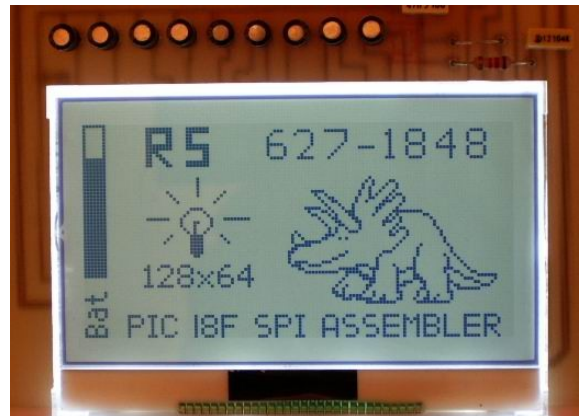


GLCDs with Pic 18F Assembler

by Richard.C July 2008



Having looked around the web for Assembler code to drive Glcds, the little code there was, often related to display modules that were either, now very expensive or simply not available in this country, the UK.

Looking at many of the modern units, SMD connectors seem to be very common making it rather difficult for the average hobbyist.

However some units with standard pins, reasonable price and availability were out there, but no assembler code apparent - so I had a go myself.

The original unit was the EA DogL, which fits directly into standard .1" ic type sockets, and comes in a variety of mix and match displays and back lights, plus touch screen stick ons if required. In the UK the distributor does sell one off, for the rest of the world you will have to check.

The RS units, have either solderable .05" pins or a .1" pin sub board, are very low cost, plus and available in most countries in one offs.

The supplied examples are the full working codes displaying the above bitmap image followed by two screens of text.

These files should allow you to get the hardware up and running, with plenty of scope to develop your own detailed text and graphic routines.

Bitmap images can be created in MS Paint and converted to assembler using the program bmp2asm. <http://www.piclist.com/techref/microchip/bmp2asm.htm>

No reason why the code could not be converted to the 16F chips, with some work.

Have fun..

EA Dog Displays

Manufactures Web

<http://www.electronicassembly.de/eng/dog/dog.htm>

UK Dealer

<http://www.mmselectronics.co.uk/lcdgraphicdog.htm>

DogL Datasheet

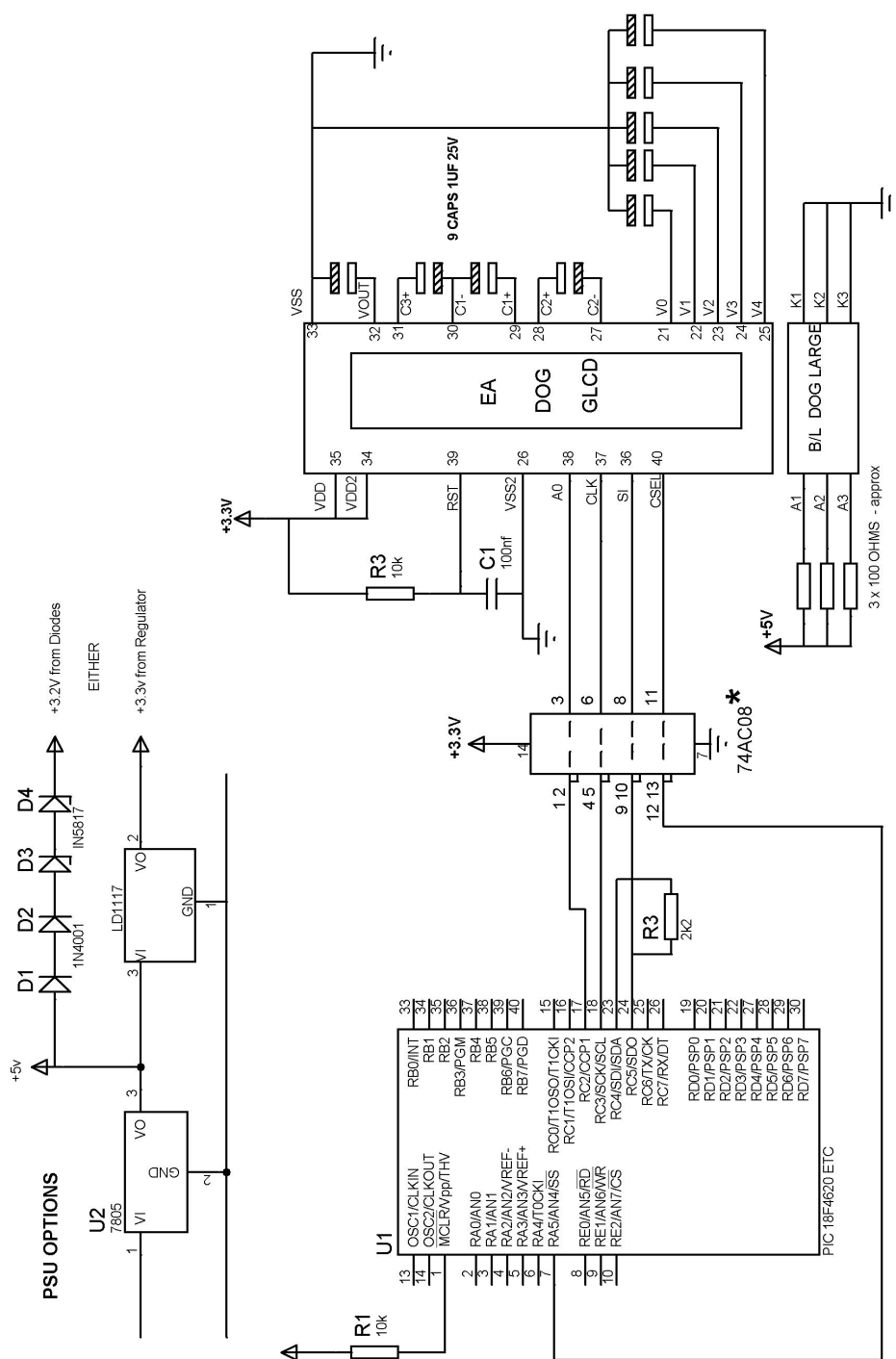
<http://www.electronicassembly.de/deu/pdf/grafik/dog1128-6.pdf>

DogM Datasheet

<http://www.electronicassembly.de/eng/pdf/grafik/dogm128e.pdf>

Controller DataSheet

<http://www.electronicassembly.de/eng/pdf/zubehoer/st7565r.pdf>



*** IF PIC CHIP IS RUN AT 5V THEN SOME FORM OF VOLTAGE REDUCTION MUST BE USED**
A 74AC08 chip used here (must be the AC type). Other active methods can be used - have tried

INB. STANDARD DECOUPLING CAPACITORS NOT SHOWN

RS Displays

Three units available:- 627-1824 Black on White with b/l - as shown

532-7120 Black on Green - no back light

627 – 1781 White on RGB back light

These three units share the same controller and the first two units are connected by 0.05" connectors which can be hand soldered with a pointed iron tip - see pic below.

The RS data sheet for the 532-7120 shows the best diagrams for the circuit used.

The 627 -1781 is shown mounted on a sub pcb with .1" connection points.

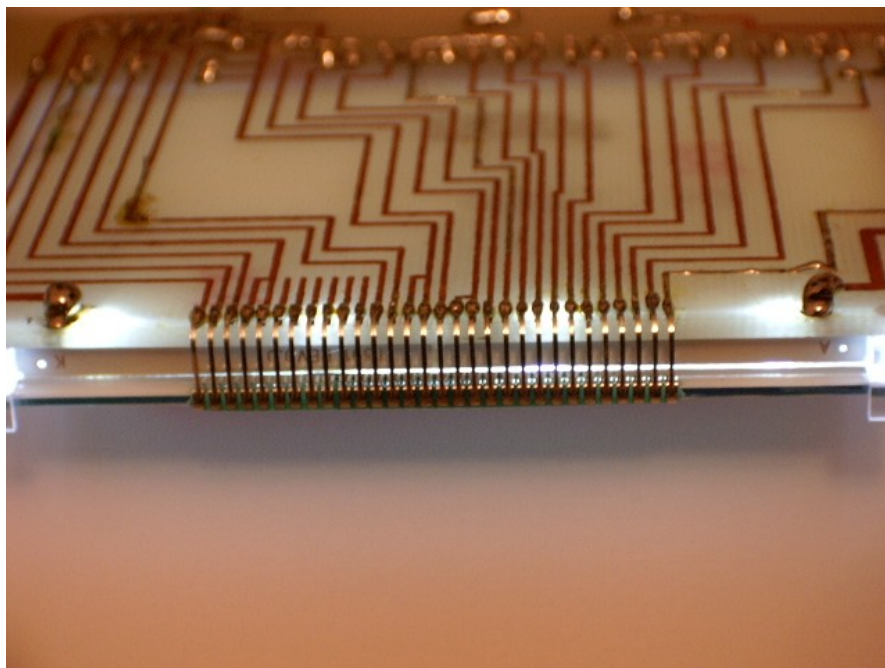
Note - only the Black and white unit has been built and tested – but see no reason why the others should not work.

Particular point on the B/W unit is that if taken into sunlight the display quality actually improves.
Very handy for outdoor modelers etc

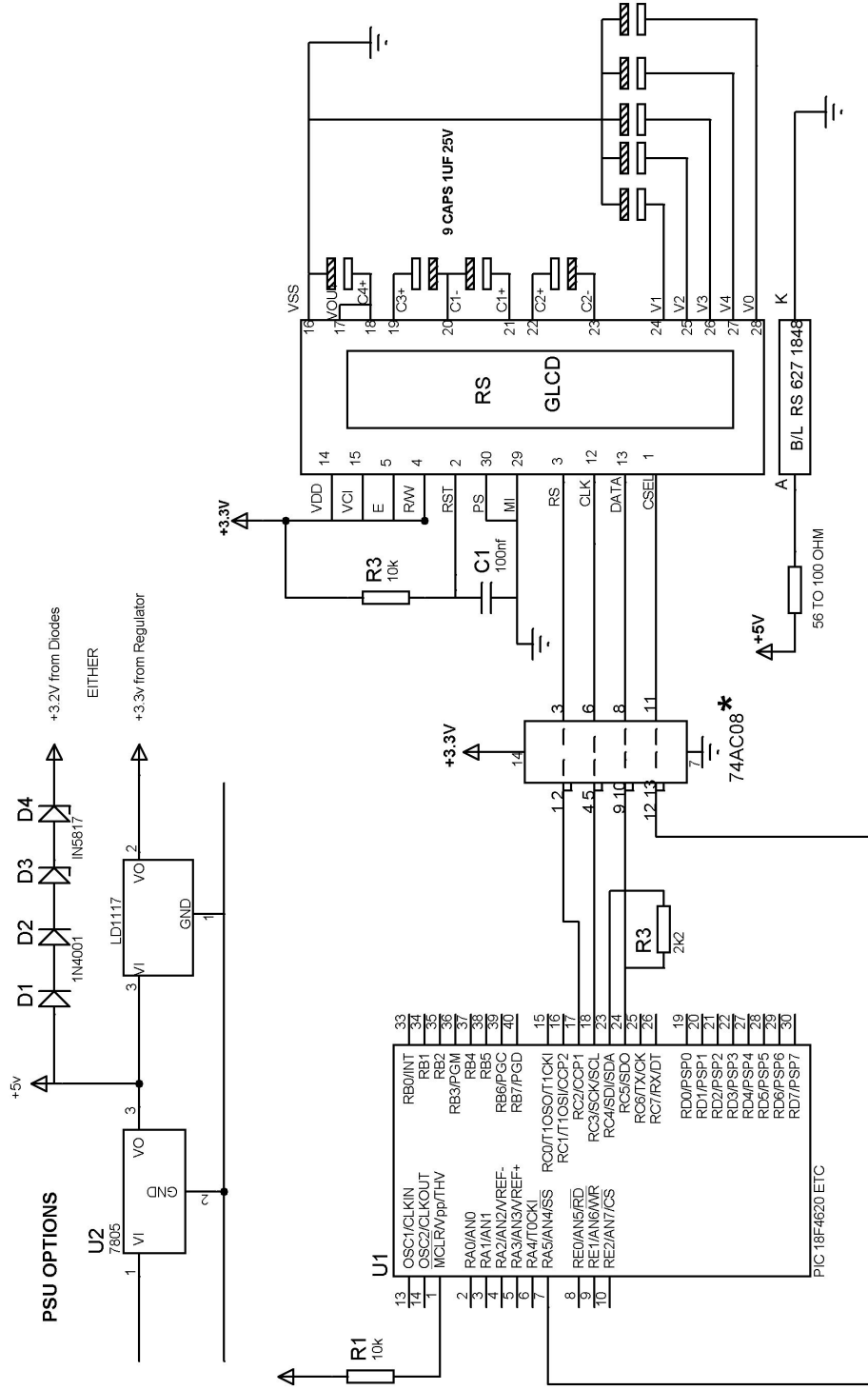
Manufactures Web search - RS – your country

Display Data sheet RS & search on the above codes

Controller Data sheet http://www.datasheetcatalog.com/datasheets_pdf/S/6/B/0/S6B0724.shtml



0.05" connectors - hand solderable with care



***** IF PIC CHIP IS RUN AT 5V THEN SOME FORM OF VOLTAGE REDUCTION MUST BE USED
 A 74AC08 chip used here (must be the AC type). Other active methods can be used - have tried resistors without success

NB. STANDARD DECOUPLING CAPACITORS NOT SHOWN