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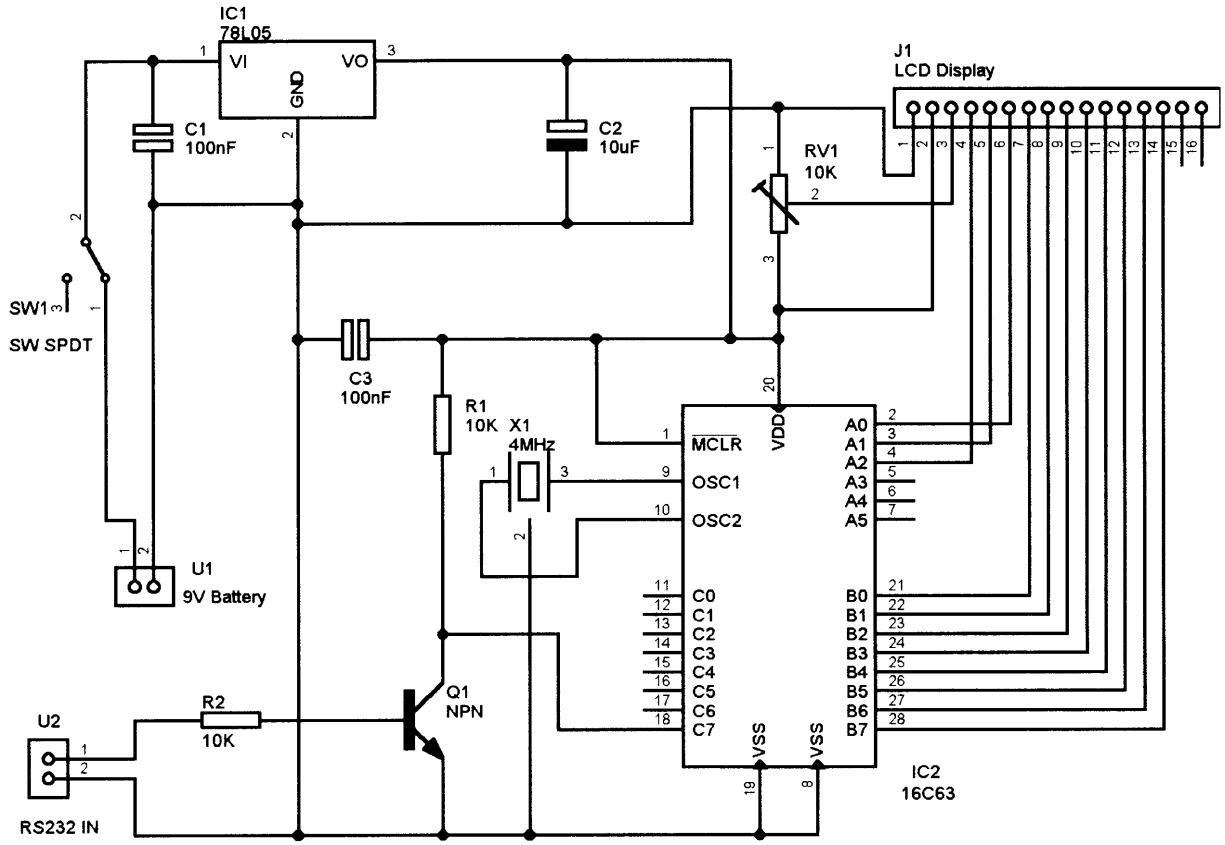
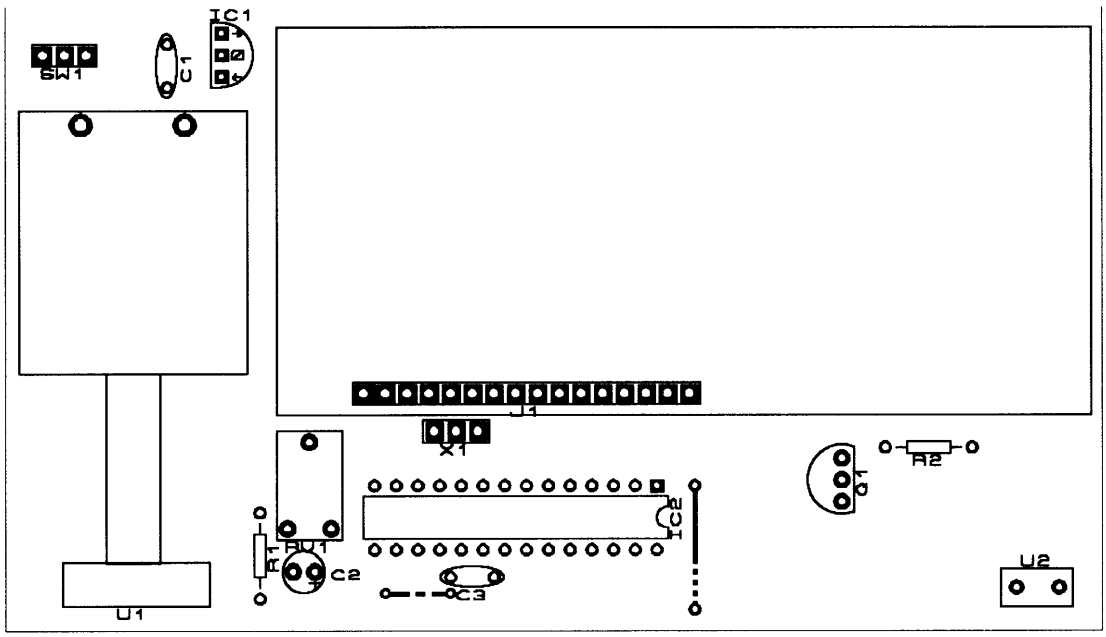
apPlICation's

AP9 – RS232 Baud Rate Monitor
Farnell Order code 120-145

Circuit Diagram



Board Layout



Operation

The RS232 Baud rate monitor will measure and display the baud rate, number of bits and parity of incoming data and present it on an LCD display. The software is a one-pass operation ie if another reading needs to be taken, the power needs to be cycled.

The user attaches the input from th RS232 source to the terminals on the board and switches on the power. Upper case U's are first sent and this enables the baud rate to be calculated. A's and C's are then requested and these characters are used to determine parity and bits. A program such as Windows Terminal will assist in testing the application.

The software is self explanitory and should not be difficult to follow. Modifications to the code could be to add full baud rate calculation for those non standard applications and looped character strings for stop bit calculation.

Assembly

Insert the components and links as shown on the previous page, ensuring the PIC is correnctly inserted. Use the pin connector strip for the LCD display. Observe static handling precautions when assembling the project. Check the board for solder bridges an dry joints before applying power. Adjust the contrast control (RV1) for the best viewing angle.

Moving on from here

If you wish to learn more about the PIC, there are a number of books on the subject which will assist.

Beginners Guide the the PIC	489-359
PIC Cookbook Vol 1	654-991
PIC Cookbook Vol 2	790-606

The minimum hardware needed to get started is the PIC Start Plus programmer (704-740) which is supplied with it's own development environment – MPLAB. From there you could branch out to an ICEPIC In Circuit Emulator which speeds up development time. The software on the disk is in a text format, which can be printed from any word-processor package, or DOS EDIT.

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