Abstract

A System for Horizontal Scrolling of Display Data

To enable horizontal scrolling of a message on a LCD panel (27), without requiring the microcontroller (20) to rewrite the whole RAM (26), a horizontal scrolling controller (24) and a horizontal scrolling shift register (28) are provided to allow data to be shifted by a Horizontal Shift Value (HSV) in a number of clock cycles less than that HSV. This is enabled by providing MSB (35) and LSB (36) counters in the horizontal scrolling controller (24) to count down from the HSV, with the MSB counter (35) providing Shift-by-8 signals to the horizontal scrolling shift register (28) while it is counting down and the LSB counter (36) providing Shift-by-1 signals to the horizontal scrolling shift register (28) while it is counting down, so that the data in the horizontal scrolling shift register (28) can be shifted in blocks of 8, and in blocks of 1, to reduce the clock cycles required.

FIG. 1