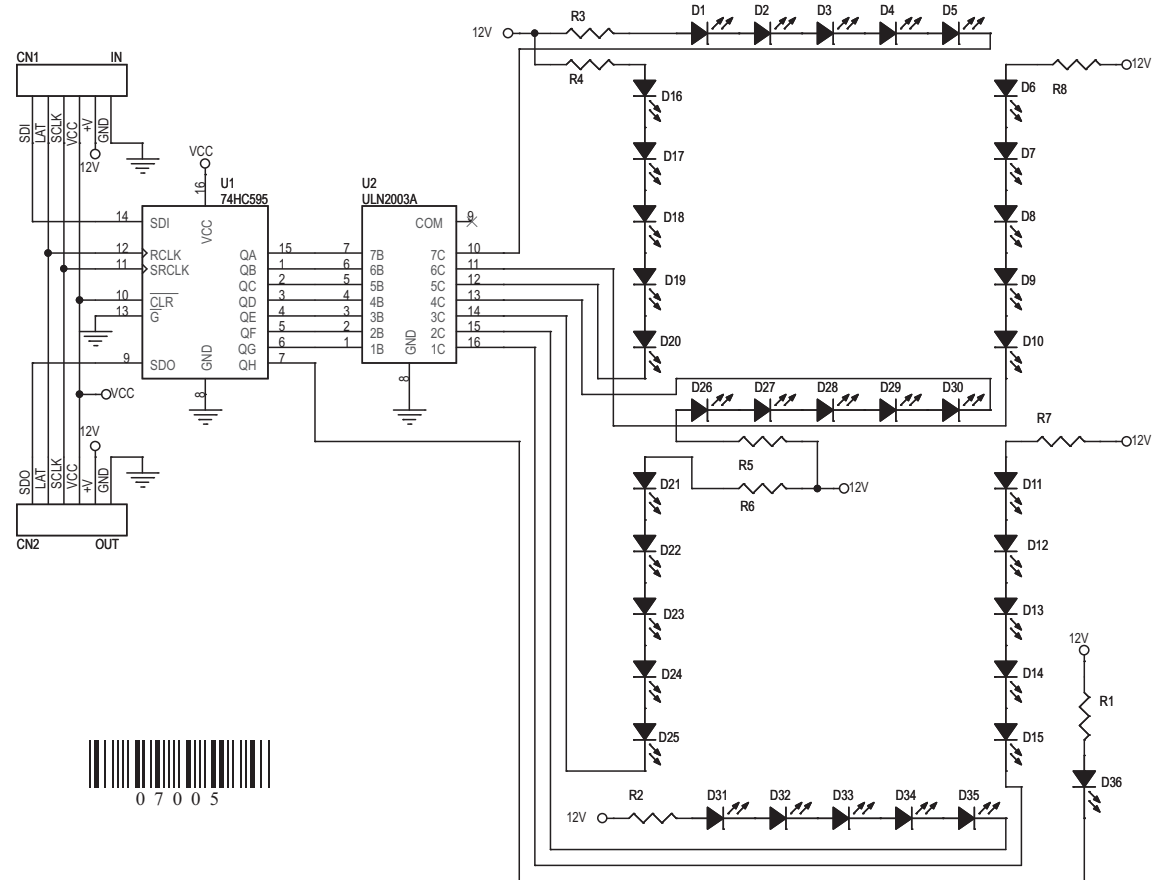
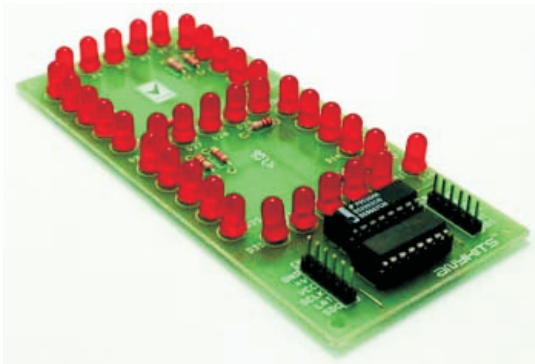


## SINGLE DIGIT 7 SEGMENT LED BASED DISPLAY USING 74HC595 WITH SPI INTERFACE

Single Digit Big Display module using 74HC595 IC project will display large size 7 segment single digit number. 3.5inch height, which can be visible over large distance. More digit can be connected serially to each other easily trough connector.

This circuit is a single digit seven segment big display using a set of 5 LEDs per segment and a shift register for easy control by micro-controller input. Each of the LEDs used in this project are 5mm high glow type.

- A ULN2003 IC helps sink higher current flowing through the LEDs to grounds.
  - Resistor R1 to R8 are current limiting Resistors for the LEDs connected in series.
  - CN1 Connector is Data In connector
  - CN2 Connector is optional Data Out Connector if you need to stack more than 1 single display board in series
  - +V CN1 & CN2 should be connected to higher voltage to drive the LEDs
  - VCC Should be connected to 5V DC. This supply can be source from host controller
- 
- Each Segment made up of 5LEDs
  - Series Current limiting resistor provide on each segment
  - Series latched type display using SPI protocol
  - Separate Header Connector for connection input/output
  - Four Mounting holes 3.2MM each
  - PCB Dimension's 125MM X 58MM



| SR. | QTY. | REF.                 | DESCRIPTION                   |
|-----|------|----------------------|-------------------------------|
| 1   | 2    | CN1,CN2              | 6 PIN BERG/RELIMATE CONNECTOR |
| 2   | 36   | D1 TO D36            | RED LED                       |
| 3   | 7    | R2,R3,R4,R5,R6,R7,R8 | 220E                          |
| 4   | 1    | R1                   | 1K                            |
| 5   | 1    | U1                   | 74HC595                       |
| 6   | 1    | U2                   | ULN2003A                      |
| 7   | 2    | SOCKET               | 16 PIN DIP IC SOCKET          |
| 8   | 5    | JUMPER               | WIRE JUMPER                   |

