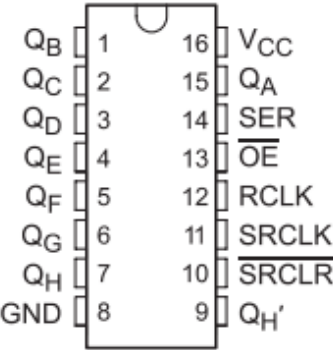


Shift Register - 74HC595

Description

The SNx4HC595 devices contain an 8-bit, serial-in, 1 shift register that feeds an 8-bit D-type storage register. The storage register has parallel 3-state outputs. Separate clocks are provided for both the shift and storage register. The shift register has a direct overriding clear (SRCLR) input, serial (SER) ICC input, and serial outputs for cascading. When the output-enable (OE) input is high, the outputs are in the high-impedance state.

D, N, NS, J, DB, or PW Package
16-Pin SOIC, PDIP, SO, CDIP, SSOP, or TSSOP
Top View



Features

- 8-Bit Serial-In, Parallel-Out Shift parallel-out
- Wide Operating Voltage Range of 2 V to 6 V
- High-Current 3-State Outputs Can Drive Up to 15 LSTTL Loads
- Low Power Consumption: 80-A (Maximum)
- tpd = 13 ns (Typical)
- ±6-mA Output Drive at 5 V
- Low Input Current: 1 A (Maximum) Device Information(1)
- Shift Register Has Direct Clear
- On Products Compliant to MIL-PRF-38535, All Parameters Are Tested Unless Otherwise Noted. On All Other Products, Production Processing Does Not Necessarily Include Testing of All Parameters.

Pins

Pin	Description
QA-QH	Data Output
SER	Serial Data Input
OE	Output Enabled (Active Low)
RCLK (Latch)	Register Clock Input
SRCLK (Clock)	Shift Register Clock Input
SRCLR	Shift Register Clear (Active Low) Set High for normal Operation.

Arduino Example Code

```
//Define PinModes
pinMode (latchPin,OUTPUT);
pinMode (dataPin, OUTPUT);
pinMode (clkPin, OUTPUT);
pinMode (oePin, OUTPUT);

//disable output on SR
digitalWrite(oePin,HIGH);

//define data
byte data = 0;

//set or clear bits in our byte variable data
bitSet(data,bitToSet);
bitClear(data,bitToClear);

//write out to SR
digitalWrite(latchPin,LOW);
shiftOut(dataPin,clockPin,LSBFIRST,data);
digitalWrite(latchPin,HIGH);

//Enable output on SR
digitalWrite(oePin,LOW);
```

Wiring

Add pull-ups to:

OE

SRCLK (Clock)

Add pull-downs to :

RCLK (Latch)

References

Reference	URL
Datasheet	http://www.ti.com/lit/ds/symlink/sn74hc595.pdf
Shift Register Tutorial	https://learn.sparkfun.com/tutorials/shift-registers?_ga=2.36116968.935449524.1518383708-1496492250.1516240716