8085 Microprocessor Pin Diagram

8085 Microprocessor is a 40-pin microprocessor that defines how it connects to other components and devices. Here is a simplified pin diagram for the 8085 microprocessor and a brief description of some of the important pins:

VCC (+5V): Power supply pins, the 8085 microprocessor typically operates on a +5V DC power supply.

CLKOUT: Clock output pin, used to provide the clock signal for other devices.

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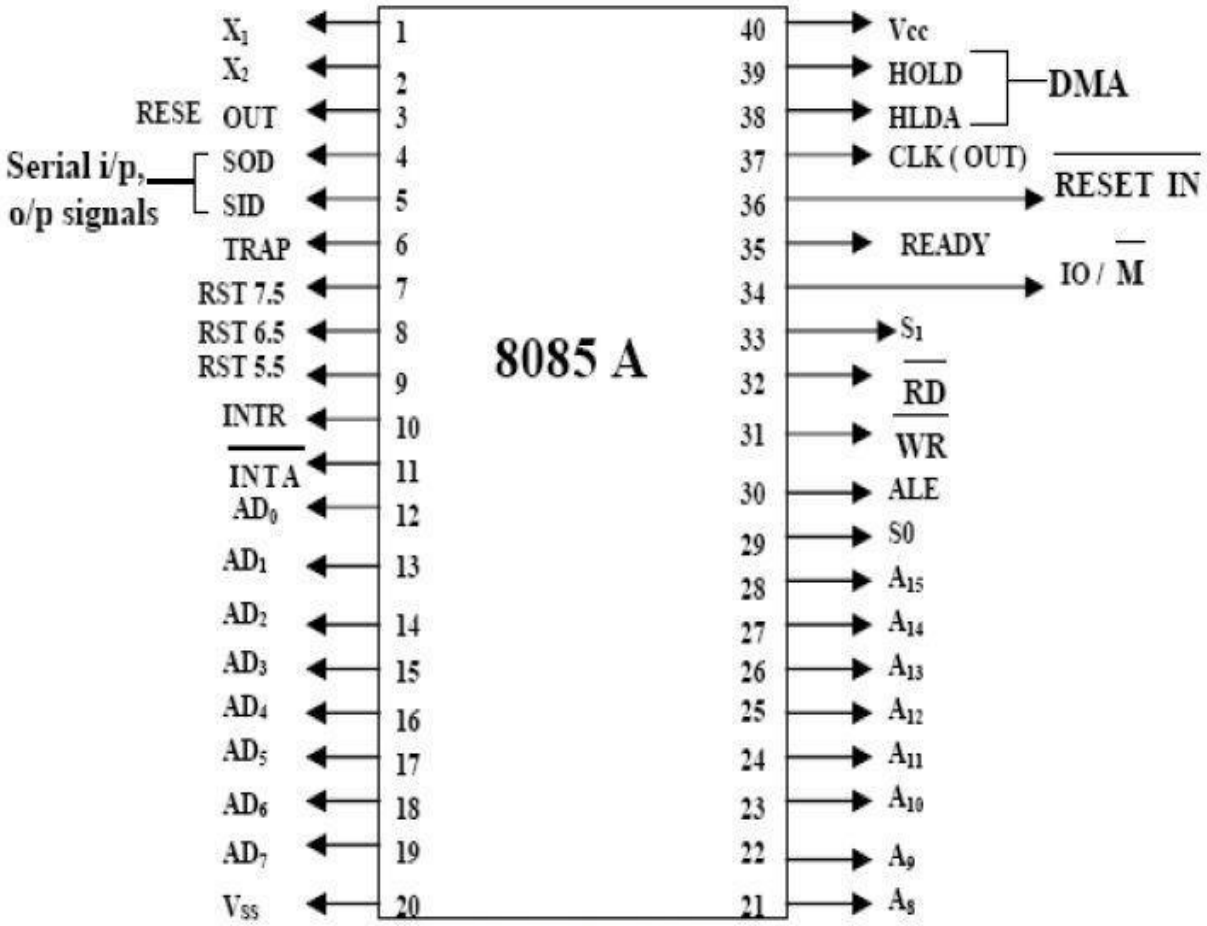
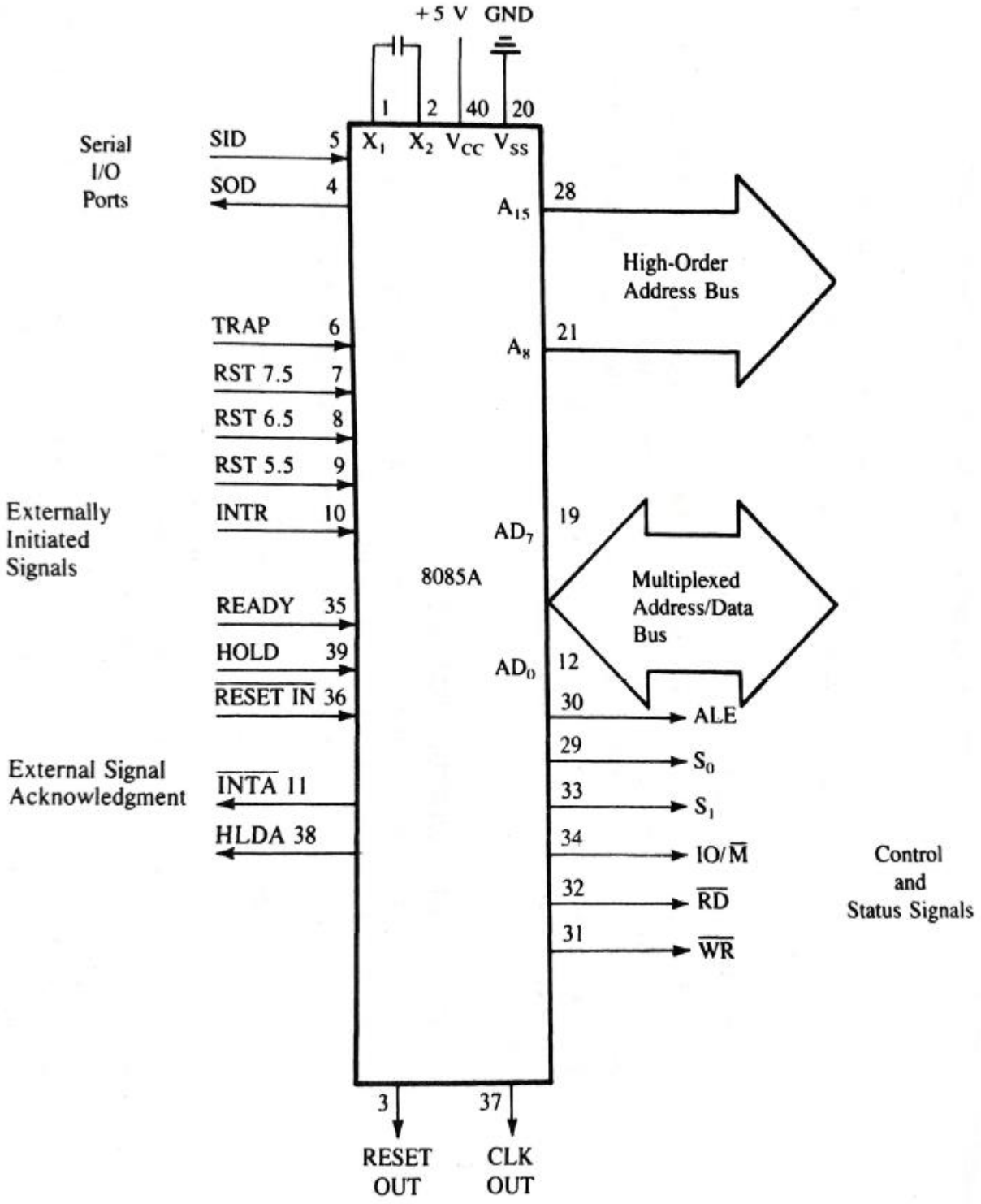


8085 Pin Diagram

INTR: Interrupt Request, External devices can use this pin to request an interrupt.

HOLD and HLDA: Hold and Hold Acknowledge pins. Used for DMA (Direct Memory Access) operations.

INTA: Interrupt Acknowledge. It indicates that the microprocessor has acknowledged an interrupt request.



8085 Signals

RESET OUT and RESET IN: Used for resetting the microprocessor.

X1 and X2: Crystal oscillator input and output pins for connecting an external clock source.

AD0-AD7: Address/Data Bus. These pins carry both address and data information.

SID and SOD: Serial Input Data and Serial Output Data pins for serial communication.

ALE: Address Latch Enable. It is used to latch the address from the address bus during the first clock cycle of a machine cycle.

TRAP, RST7.5, RST6.5, RST5.5: Pins for handling software and hardware interrupts.

GND: Ground reference....

Serial Data Input/Output and Its Method

In a microcomputer-applied system, several bits of digital data are sometimes input or output through time-division using one pin.

These time-divided bits of digital data are called "serial data" and the function for inputting/outputting serial data is called the "serial port".

Although the serial port has a different name on some products, it is referred to as the "serial communication interface" (hereinafter referred to as the "SCI") in the H8/3048.

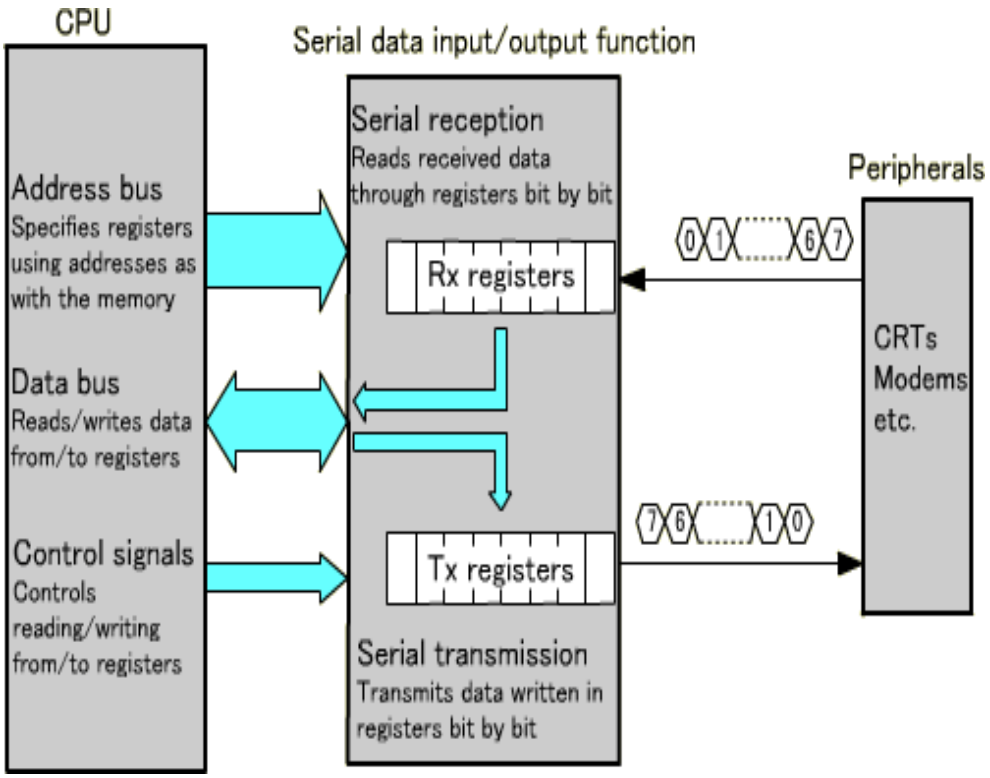


Figure : Serial Data Input/Output

Although data input/output using the serial port takes longer time than that using the I/O port, it uses fewer signal lines for exchanging data with other parties (such as microcomputers, equipment and devices).

As such, the serial port is mostly used for input/output with more distant parties, for which connection using a large number of signal lines is unsuitable.

Data input/output using the serial port is often referred to as "communication", with input being referred to as "reception" and output "transmission".

Serial data communication is conducted via the RS-232C and USB (Universal Serial Bus) ports, used to connect PCs and peripherals, as well as data communication using Ethernet or telephone lines.