

Pin Diagram of 8085

[Link for Pins Meaning](#)

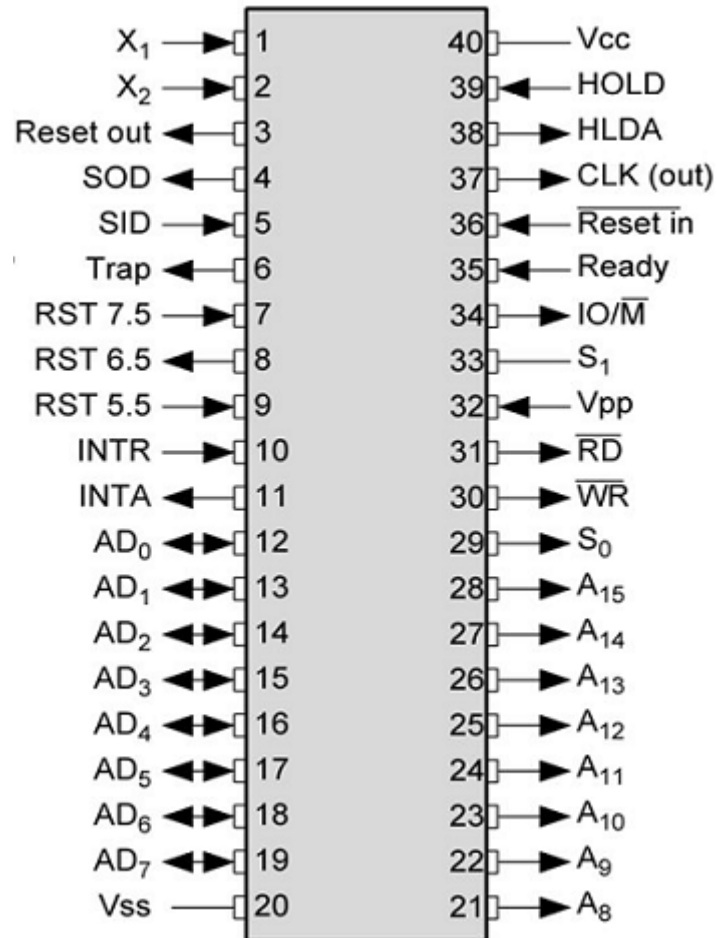


Figure 1: Pin Diagram

- 40 pin IC
- can be divided into 10 types:
 - Address Data bus 21 to 28:
 - * output tristate signal used as higher order 16bit signal
 - * unidirection signals, only address is given by 8085 to peripheral devices
 - * Reset, hold, halt
 - Multiplexed Address data Bus 12 to 19:
 - * input/output tristate signal, address in data
 - * lower order 8bit signal
 - * used as data bus later on
 - * less pins are required because of multiplexing
 - * demultiplexing is required which is disadvantage, hence more time and circuit is required.
 - Control Signals :
 - * 30th (ALE) demultiplexing of lower order data bus
 - * 34 ($\overline{IO/\overline{M}}$) Input/Output Memory, gives status of operation mode
 - * 32 (\overline{RD}) READ
 - * 31 (\overline{WR}) WRITE
 - * 35 (READY) input to microprocessor from lower peripheral to faster microprocessor and synchronizes it and check if data transfer is ready
 - Status Pins : Gives Status of what operation is performed
 - * 29 (S_0)
 - * 33 (S_1)

S1	S0	Operation
0	0	Halt
0	1	Write
1	0	Read
1	1	Fetch

- Clock Signal:
 - * 37 Clock out input signal used as internal clock
 - * 1 : connected to crystal
 - * 2 :
- Interrupt Signal:
 - * 6 Trap: level high signal, edge triggered, level triggered, highest priority, non maskable interrupt
 - * 7 RST 7.5: Restart interrupts, active high, edge or level triggered, maskable interrupt
 - * 8 RST 6.5
 - * 9 RST 5.5
 - * 10 INTR: Interrupt request
 - * 11 \overline{INTA}

- Serial Signal :
 - * 5 SID: input signal for software contro
 - * 4 SOD: output signal
- DMA Request Signal: Direct memory access
 - * 39 HOLD: active high, used by other control to access data signals and address signals, input signal
 - * 38 HLDA: acknowledgment signal to HOLD
- RESET Singal:
 - * 3 RESET OUT:
 - * 35 RESET IN: used to clear program counter to 00000
- Power Supply:
 - * VCC: 5v
 - * VSS: Ground