Sistemi di elaborazione delle informazioni

Palmino Sacco

sacco@unisi.it

PROGRAMMA

- L’Informatica
- Il computer
- Cenni storici
- Grandezze analogiche e digitali
- Il sistema binario
- Il codice ascii
- Le immagini
- Il computer
- L’hardware
- Il software
- Le reti
- Internet

Informatica

inform(ation electronique ou autom)atique

Philippe Dreyfus (1962)

Informatica

Gestione automatica dell’informazione

mediante calcolatore

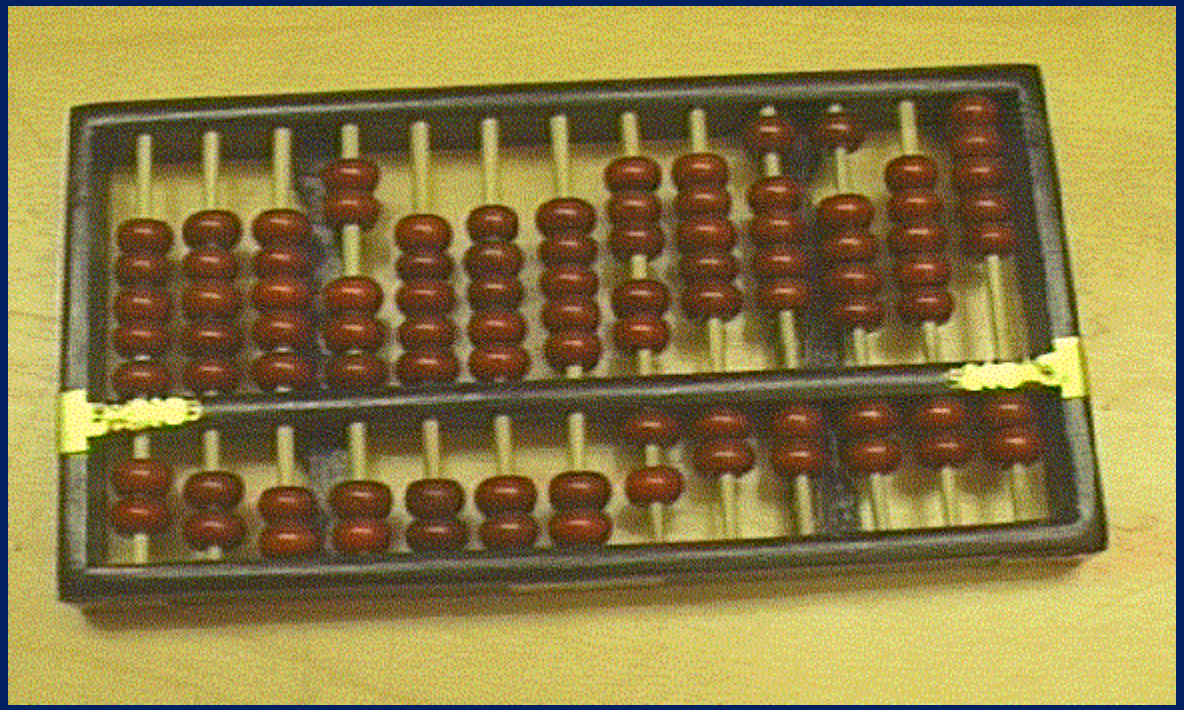
sacco@unisi.it

Definizioni

Informatica: scienza che studia la gestione automatica dell'informazione mediante calcolatore

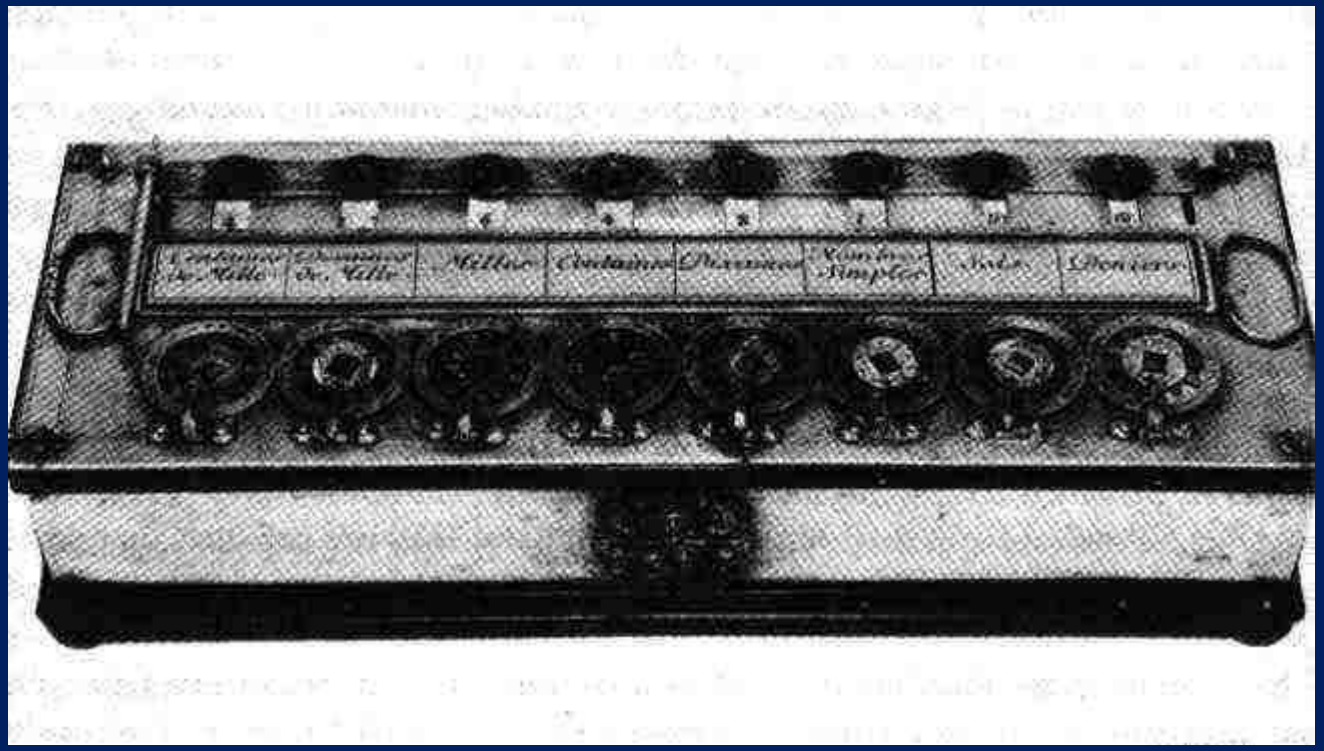
Calcolatore: strumento elettronico per l'elaborazione e memorizzazione dell'Informazione che, opportunamente programmato, esegue operazioni su oggetti (dati) per produrre altri oggetti (risultati)

Cenni storici



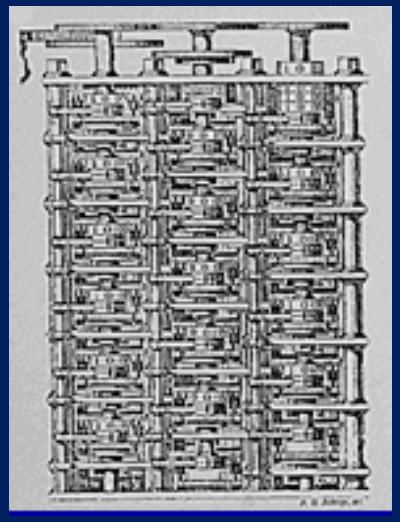
abaco

Cenni storici



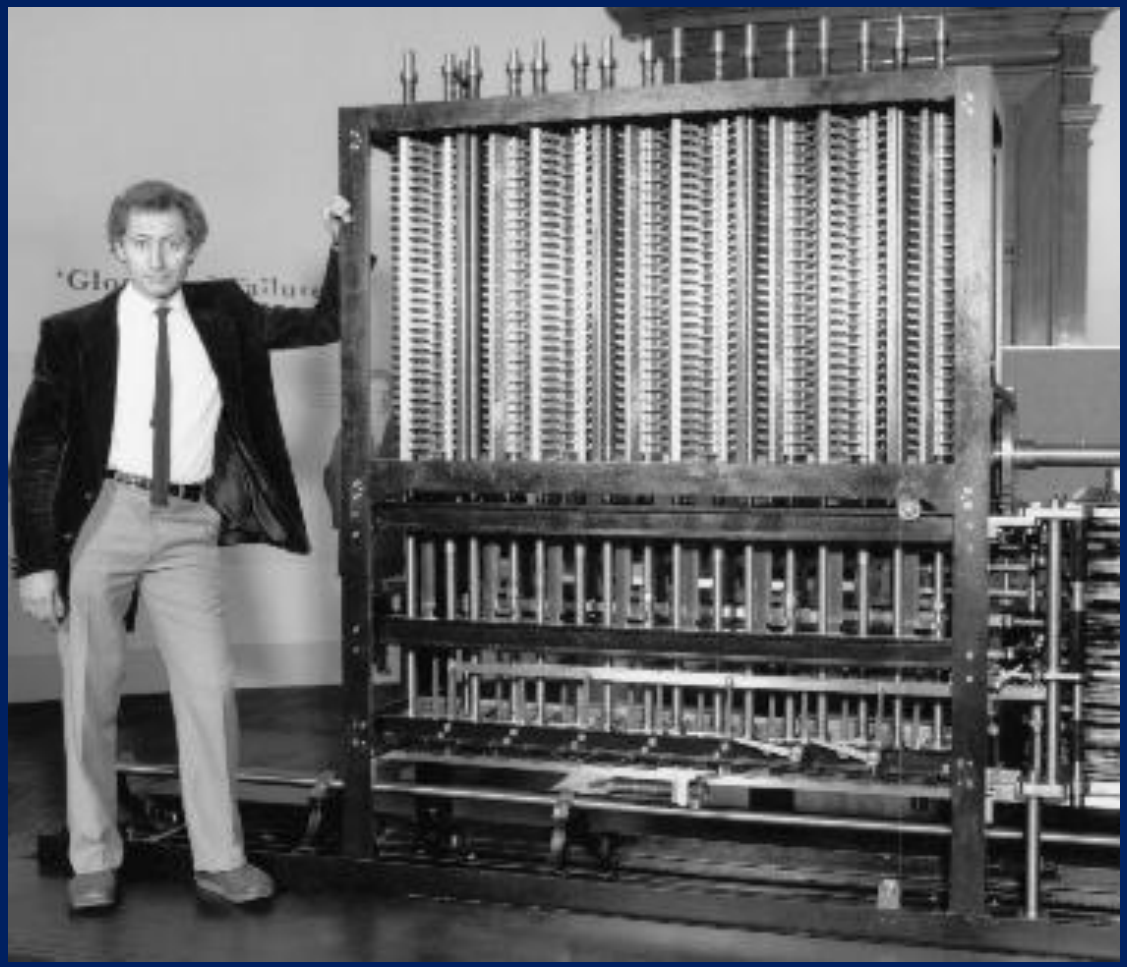
Pascaline

Cenni storici



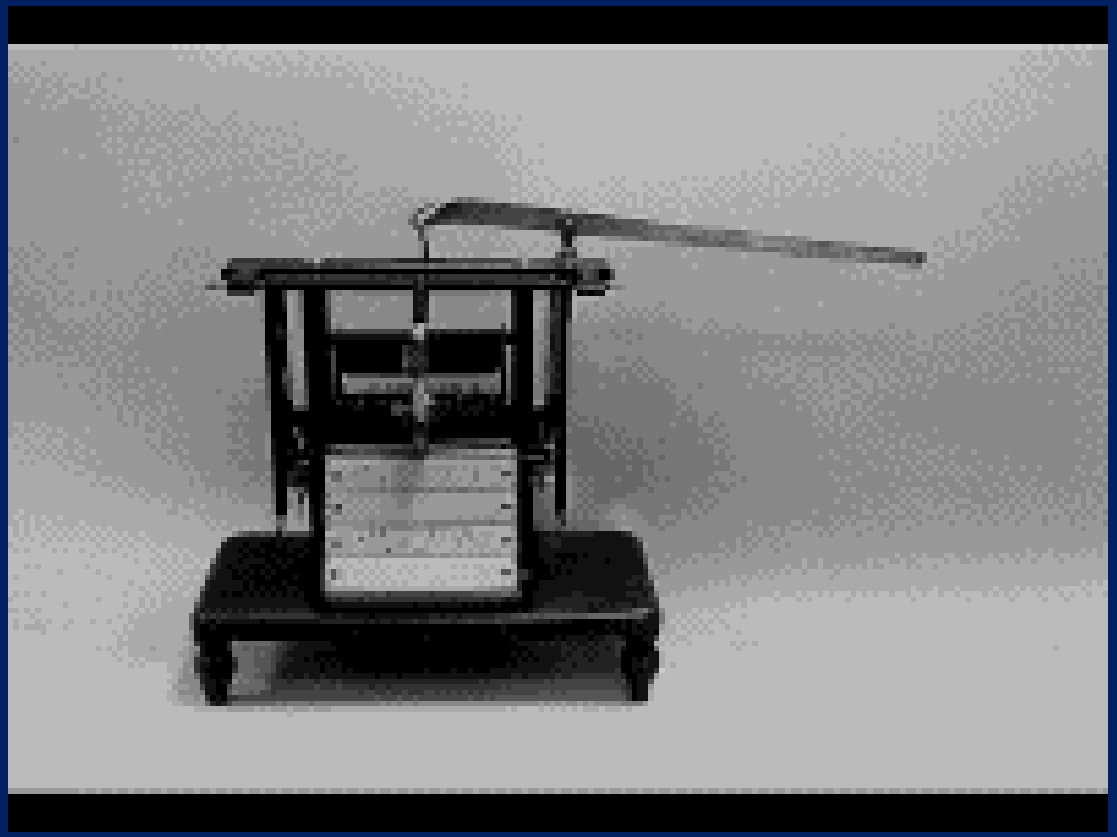
Difference

Engine



Cenni storici

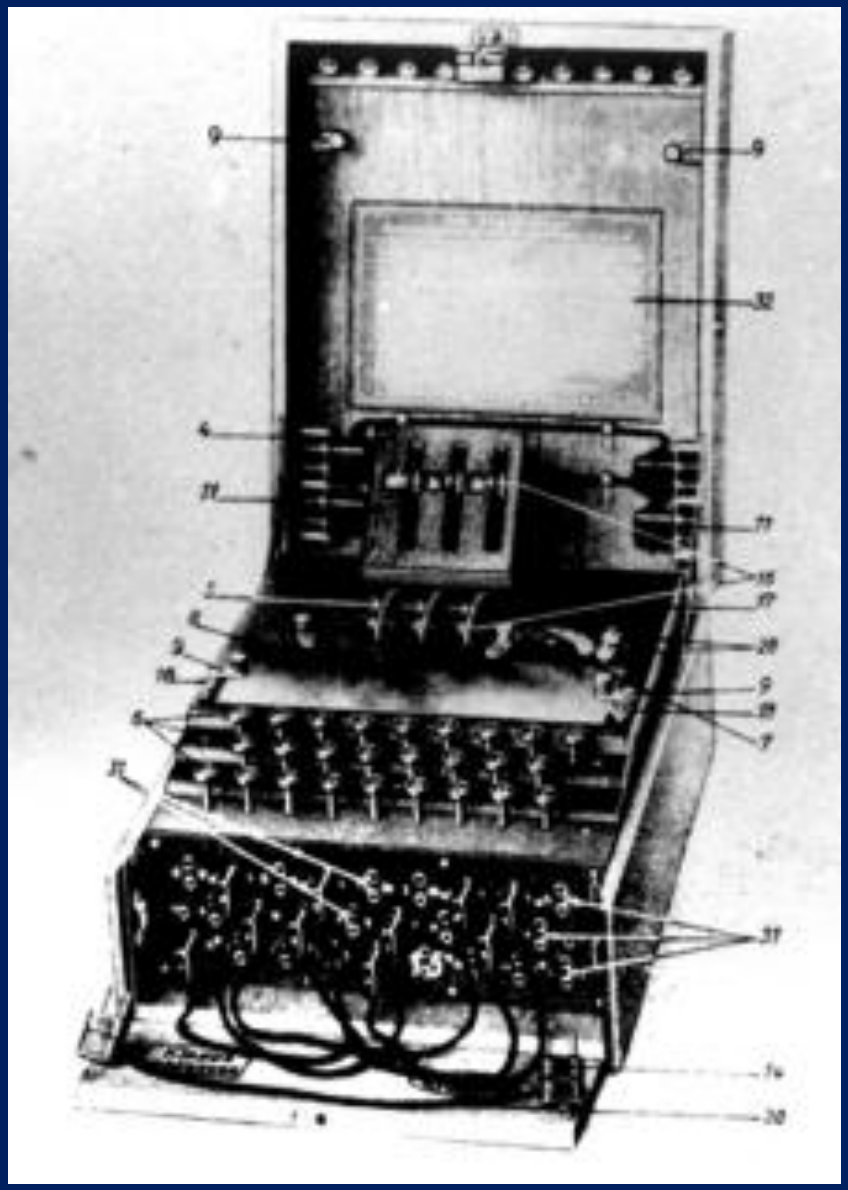
Il telaio di Jacquard



Cenni storici

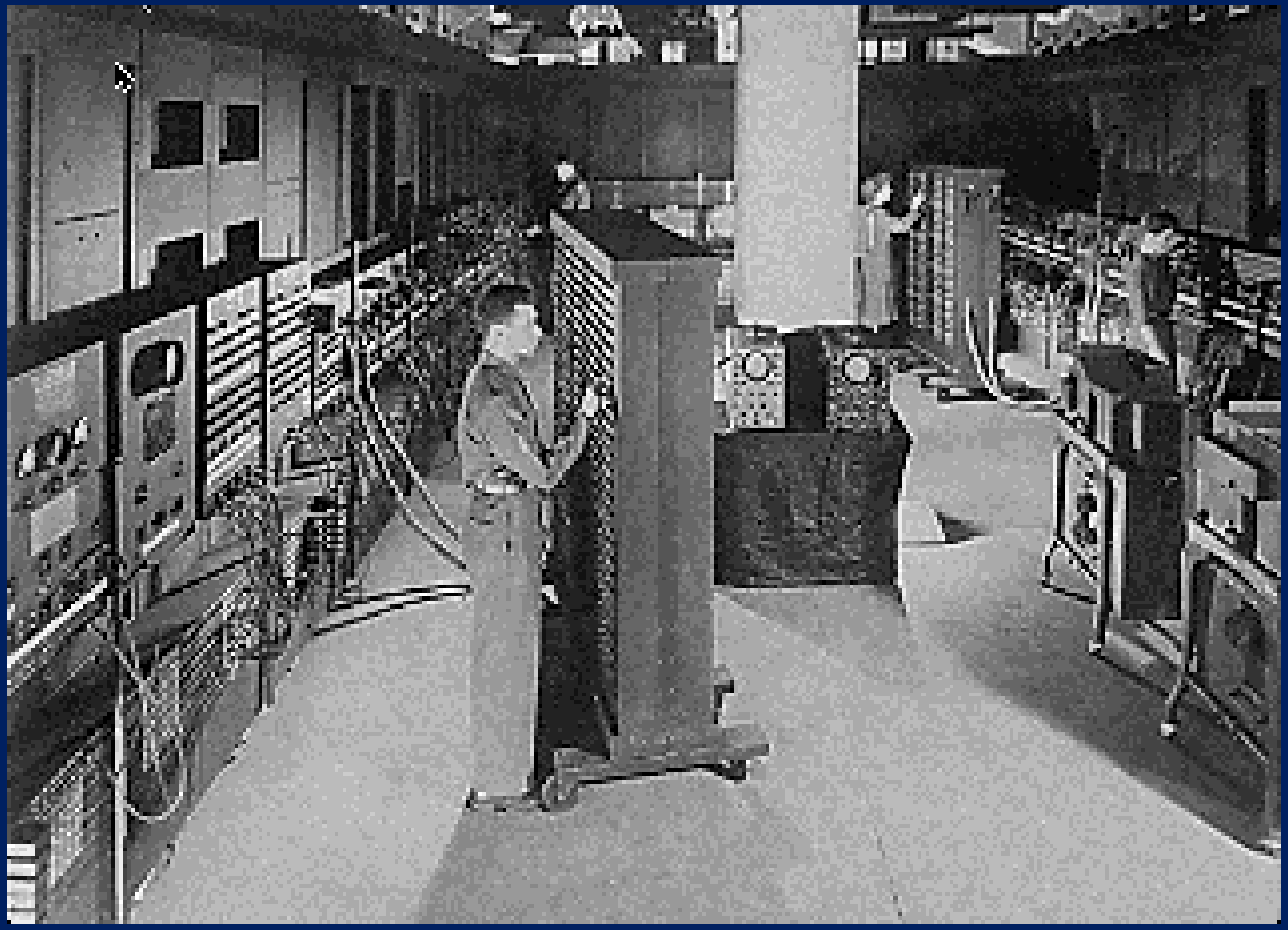
Colossus

(1943)



sacco@unisi.it

Cenni storici



ENIAC

Cenni storici

MITS Altair

(1974)

sacco@unisi.it

Computer

Hardware

Software

Computer

Hardware: parte meccanica ed elettronica del computer

Software: programma per il funzionamento del computer

Hardware

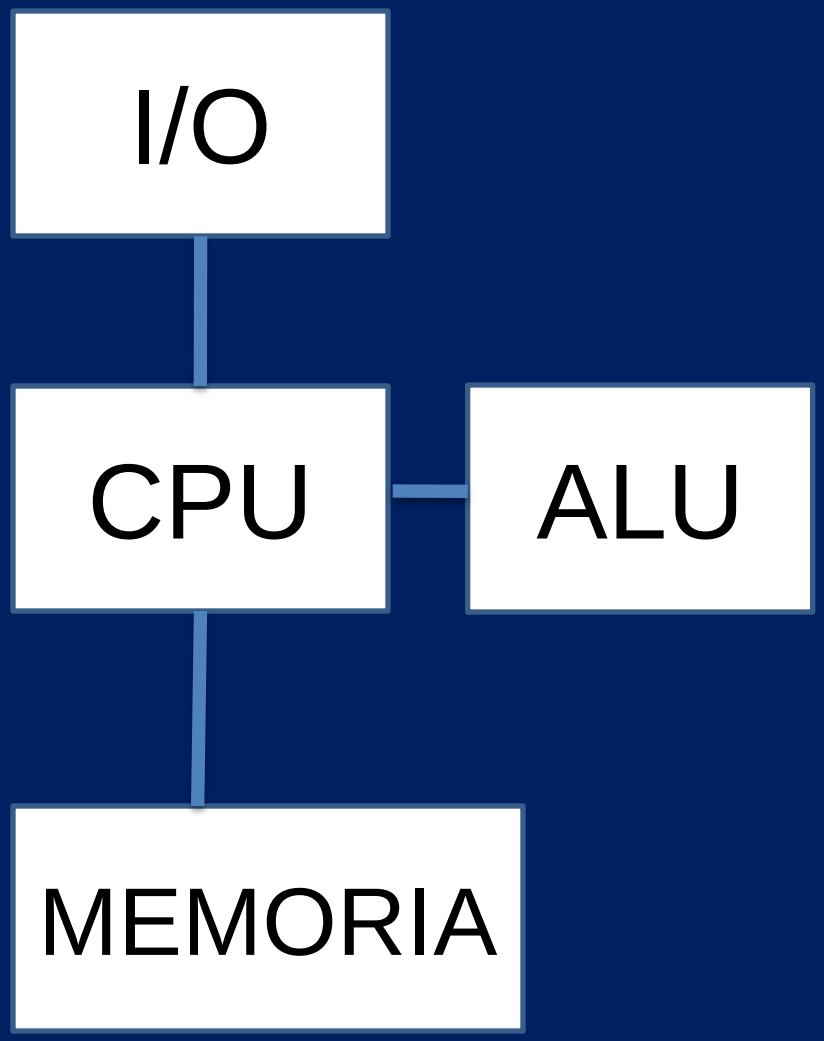
Processore

Memoria

Periferiche

Collegamenti

Struttura del Computer



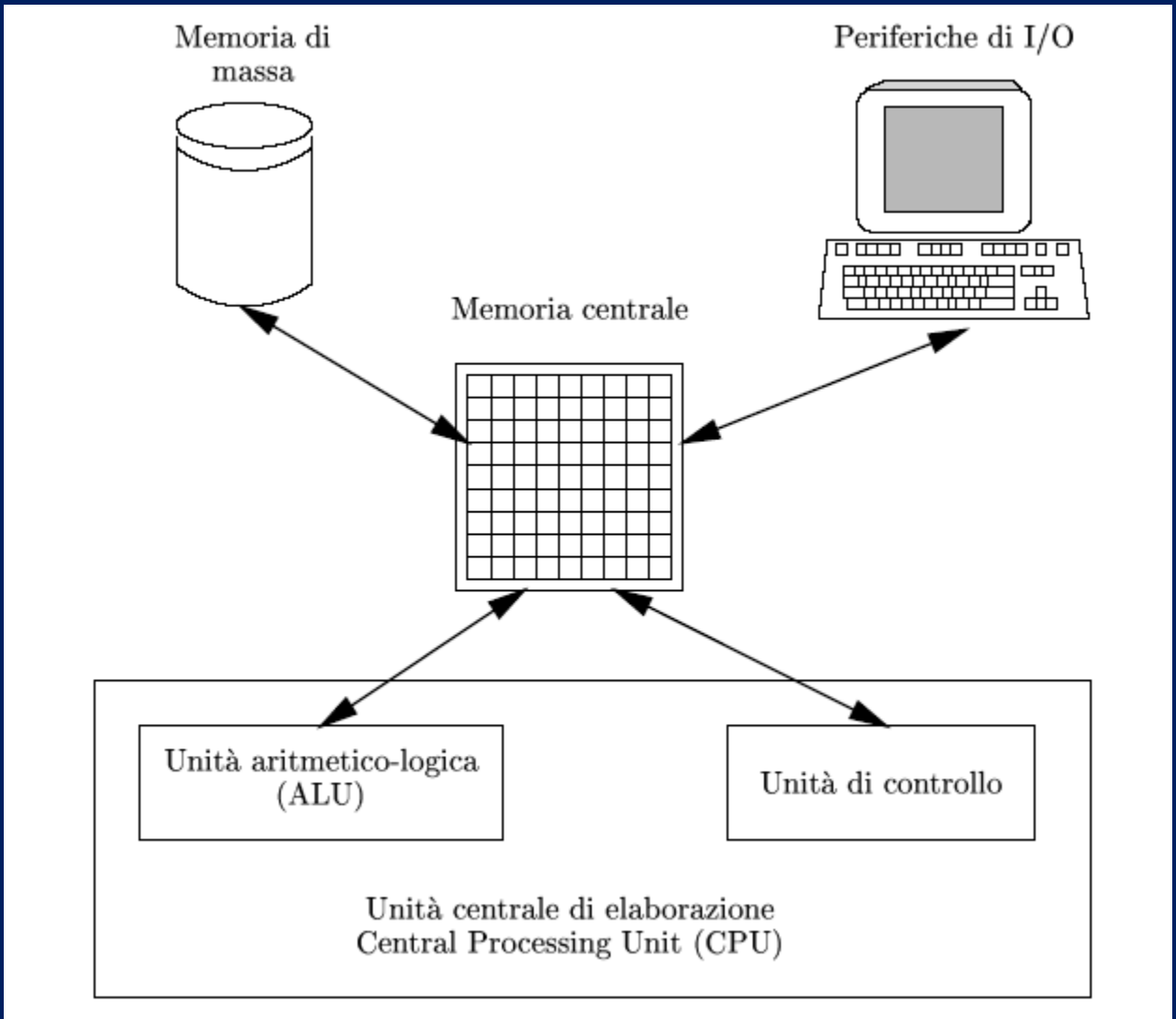
CPU: unità di esecuzione del programma e di elaborazione dei dati

ALU: unità per calcoli numerici ed operazioni logiche

Memoria: unità che contiene il programma ed i dati

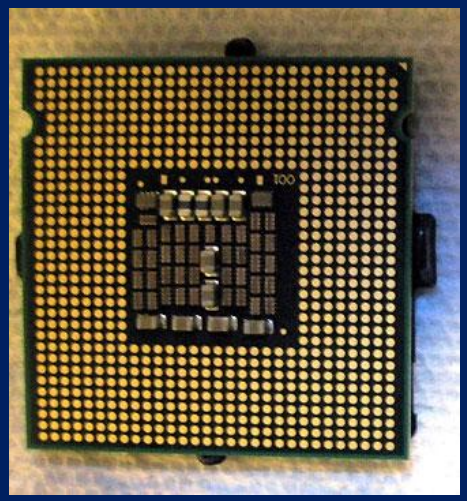
I/O: unità per l'immissione di dati e la presentazione di risultati

Architettura di Von Neumann



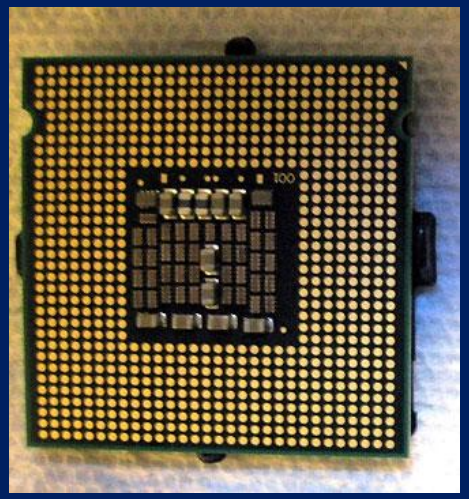
Computer

CPU + memoria



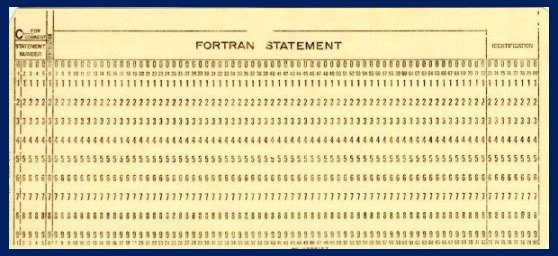
CPU

Unità di Elaborazione Centrale
(Central Processing Unit)



Legge i dati dalla memoria e ne esegue le istruzioni

Memoria



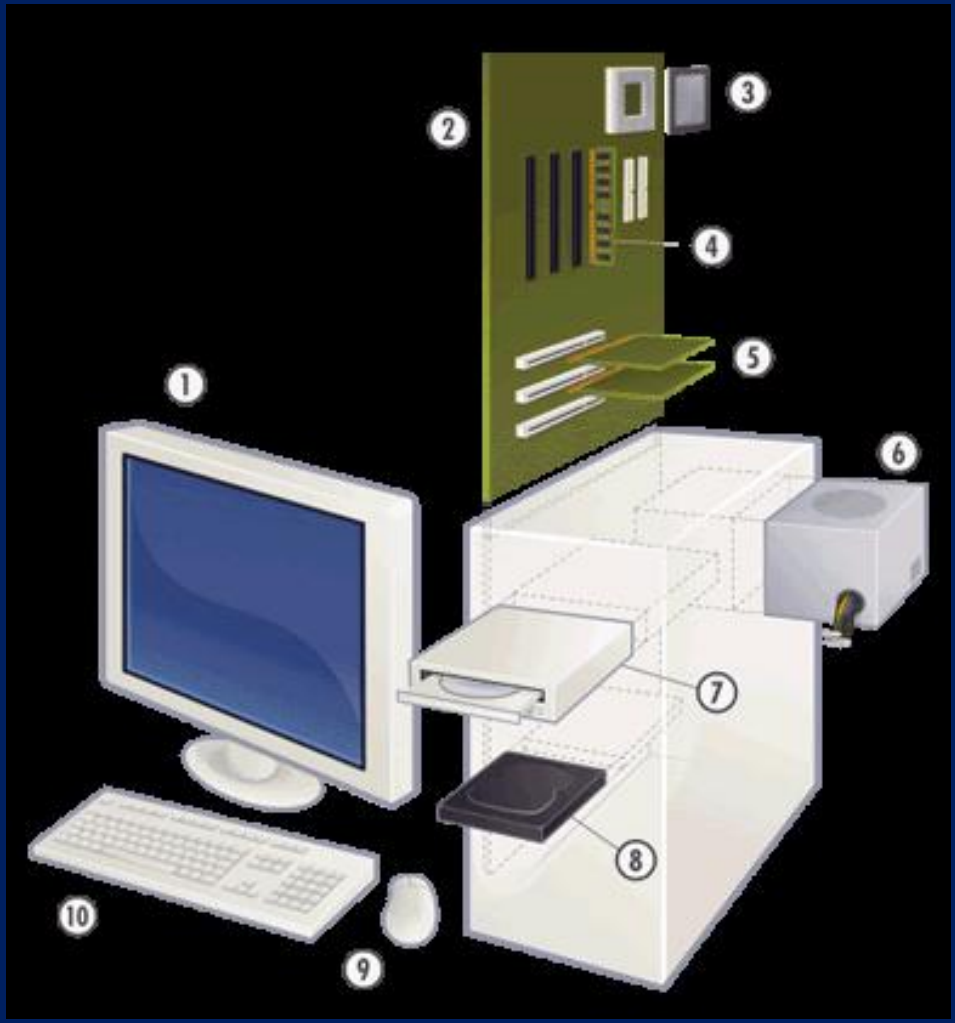
È la parte del computer destinata a conservare informazioni per un certo periodo di tempo

Periferiche di input/output

Tastiera	Scanner
Mouse	Casse audio
Display	Microfono
Stampante	Webcam

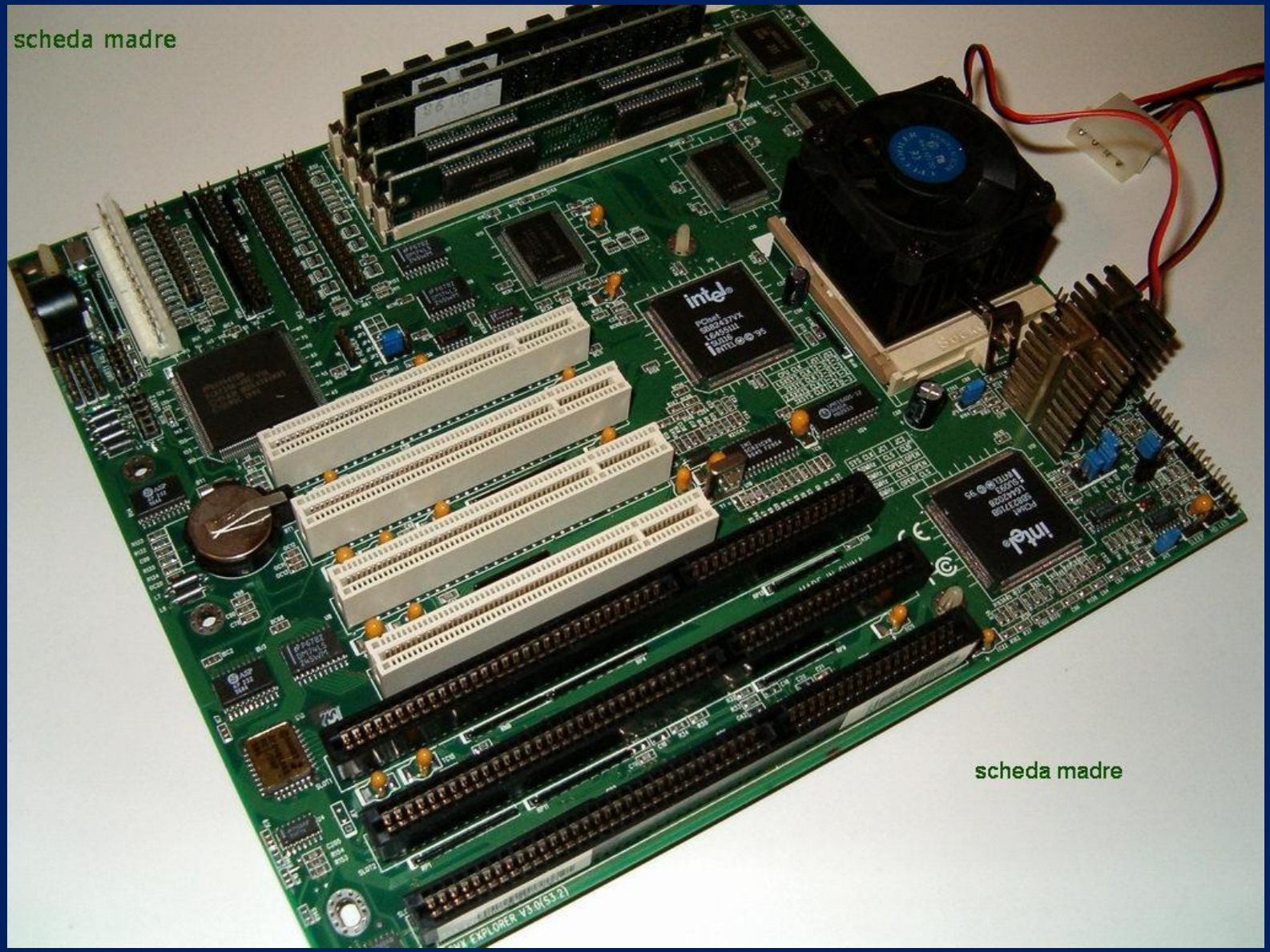
Periferiche di input/output

Periferiche di input/output

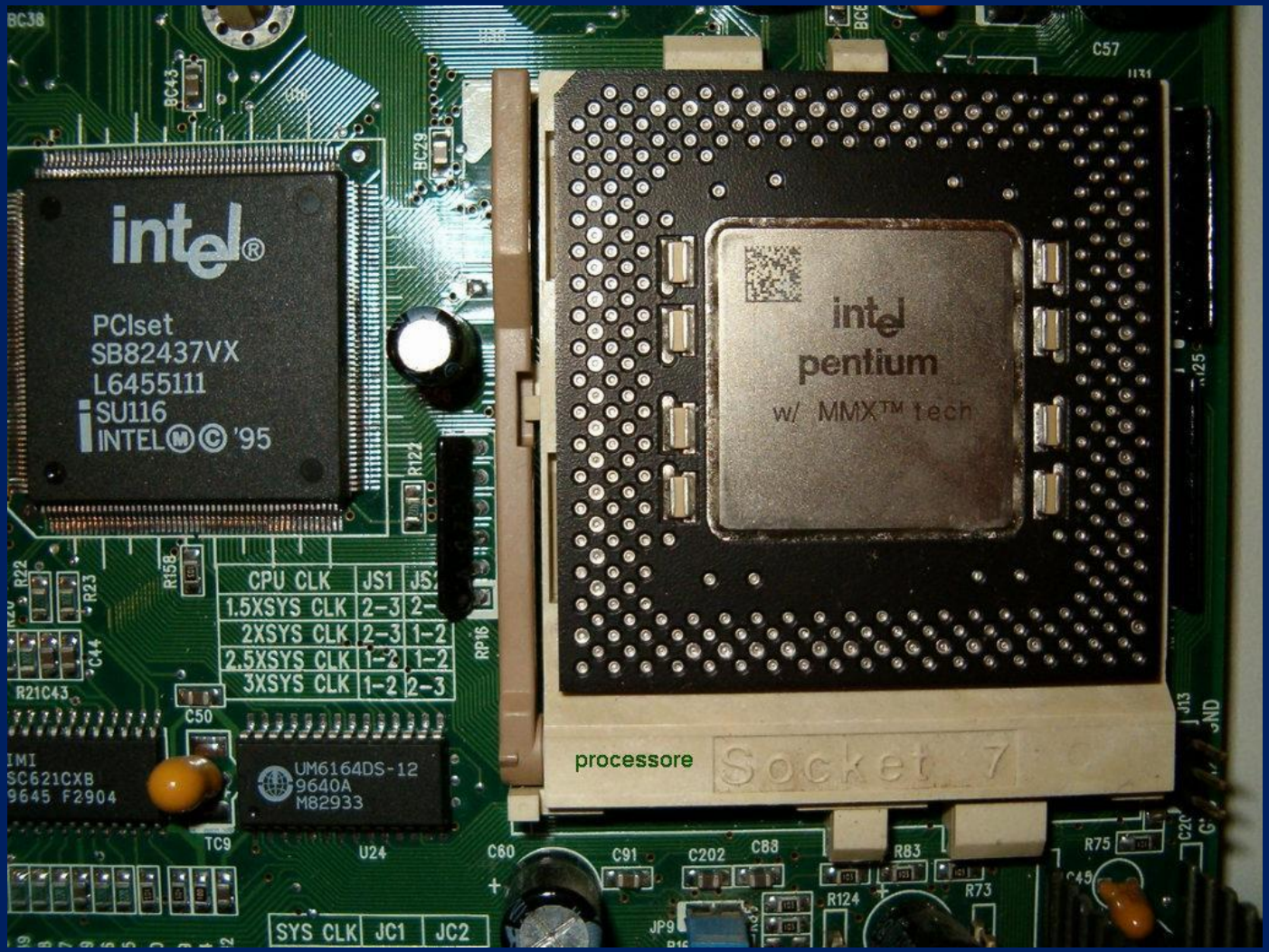


Anatomia del computer

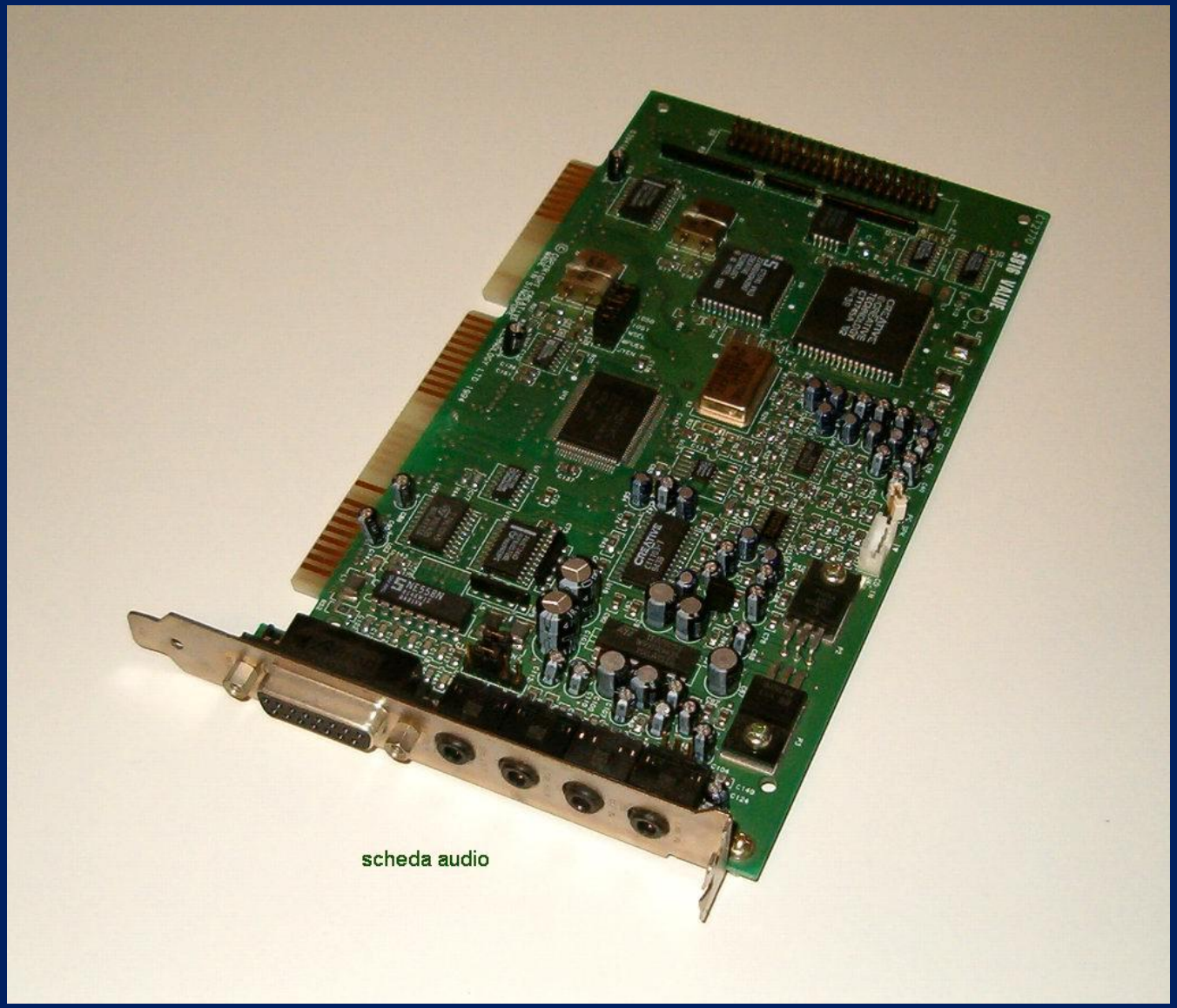
Anatomia del computer



Anatomia del computer

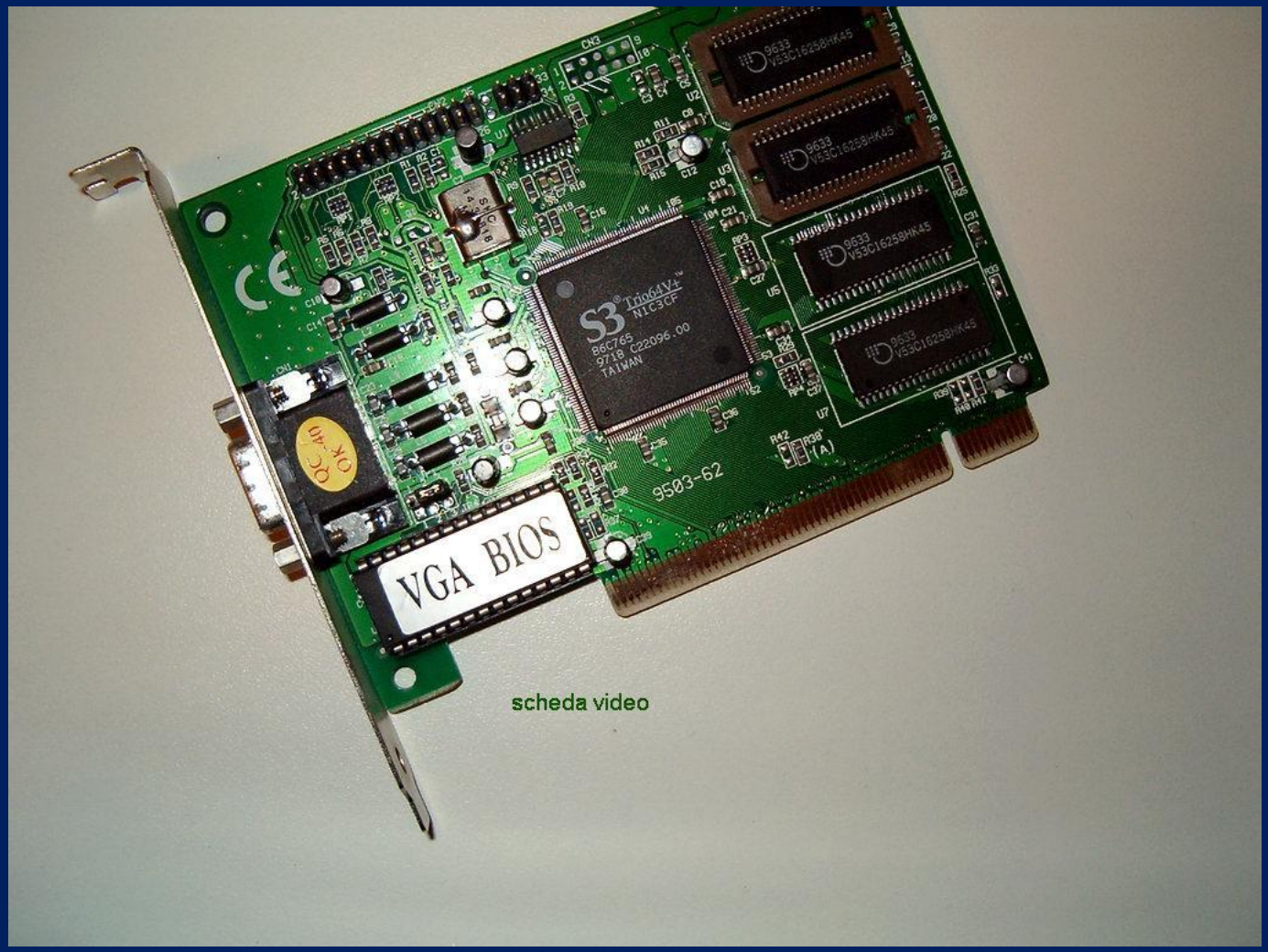


Anatomia del computer

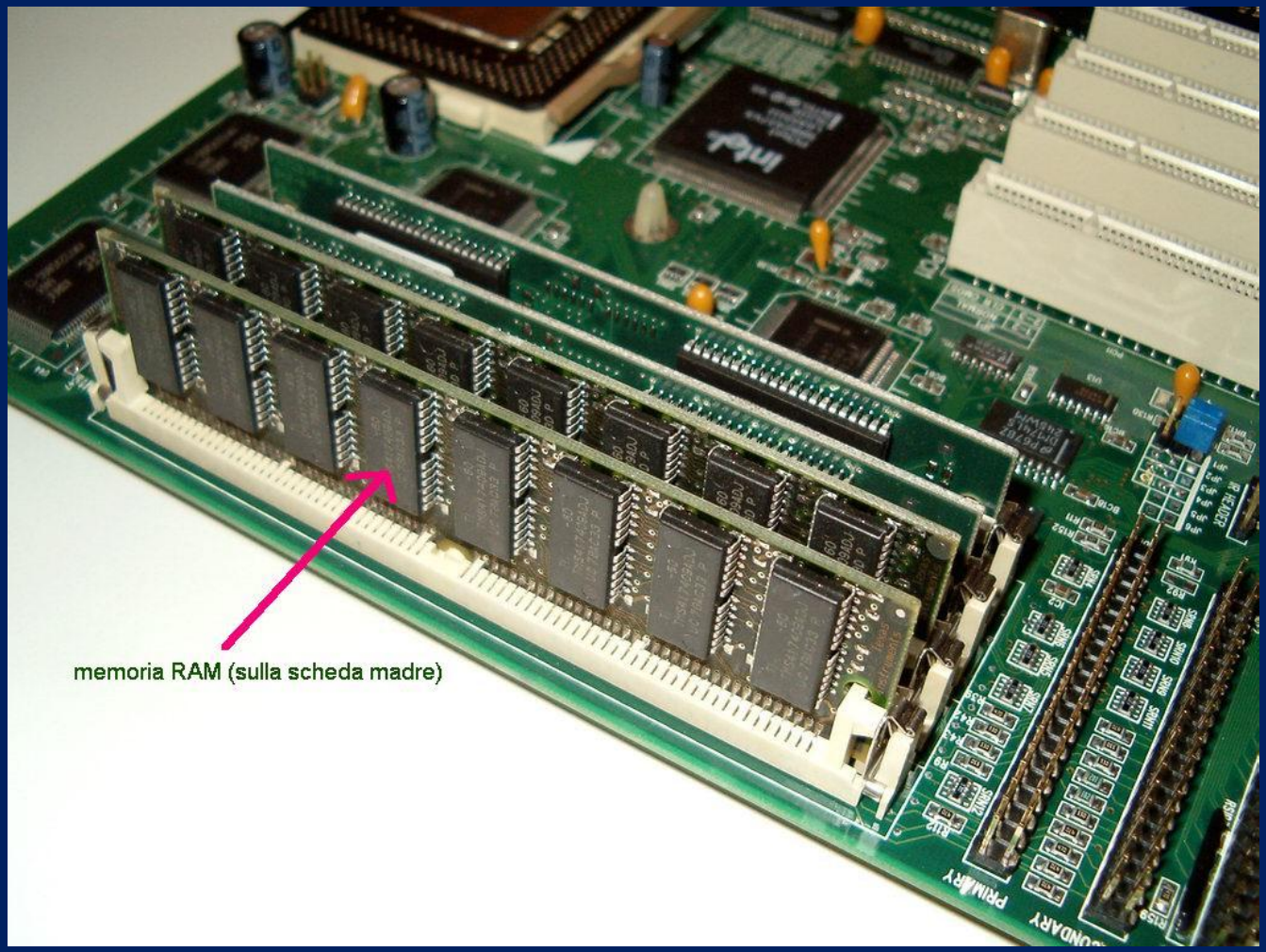


scheda audio

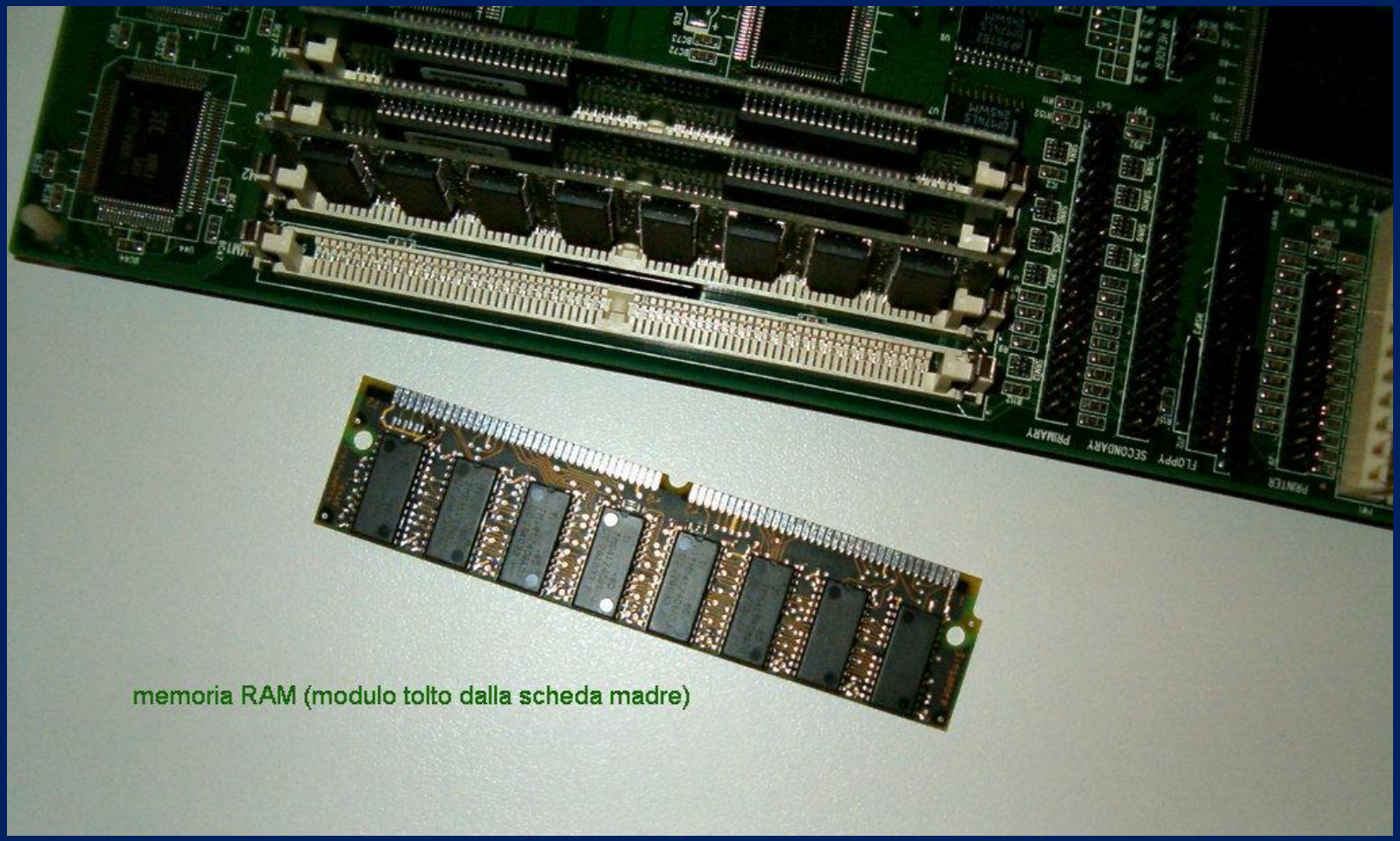
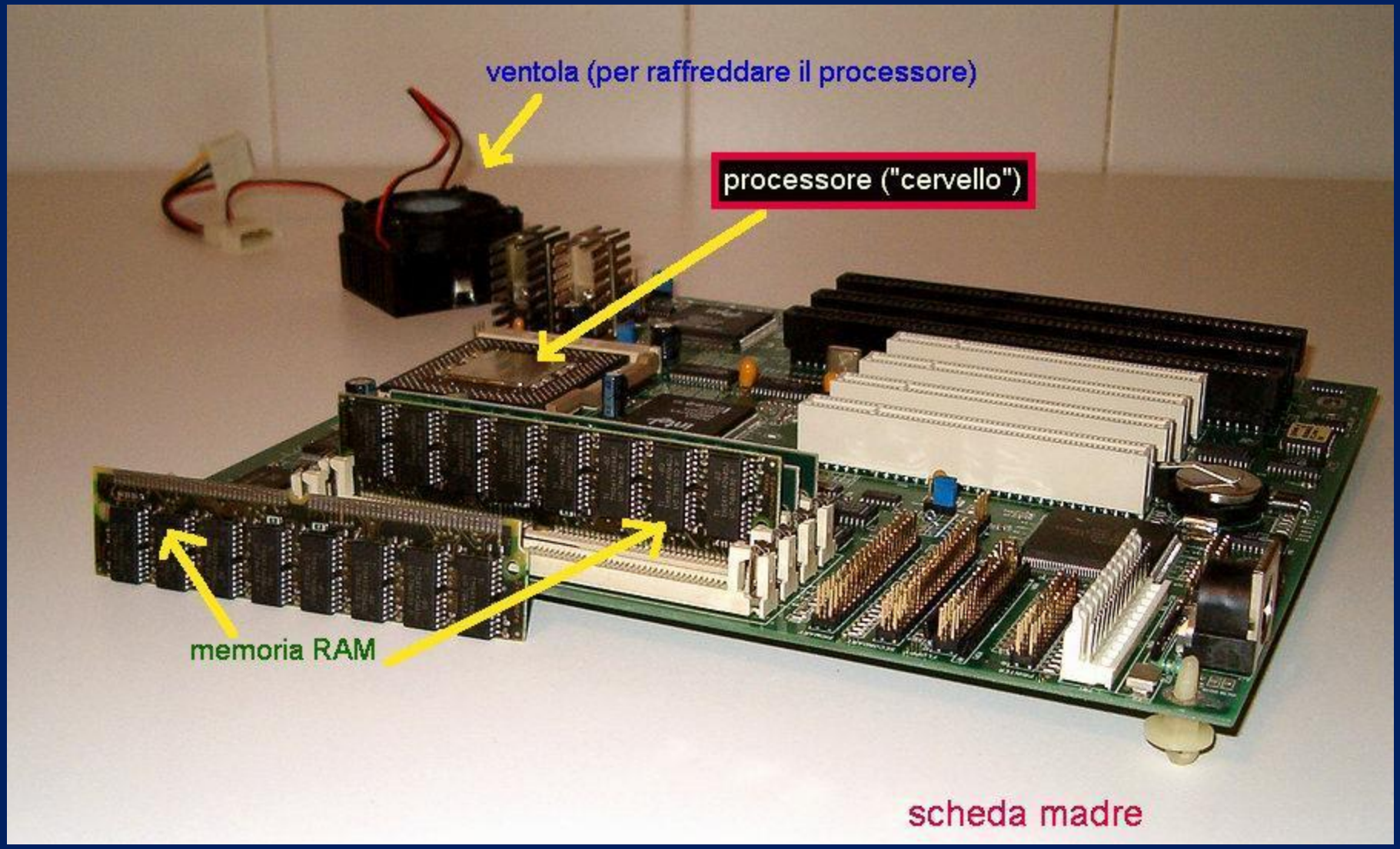
Anatomia del computer



Anatomia del computer



Anatomia del computer



Anatomia del computer