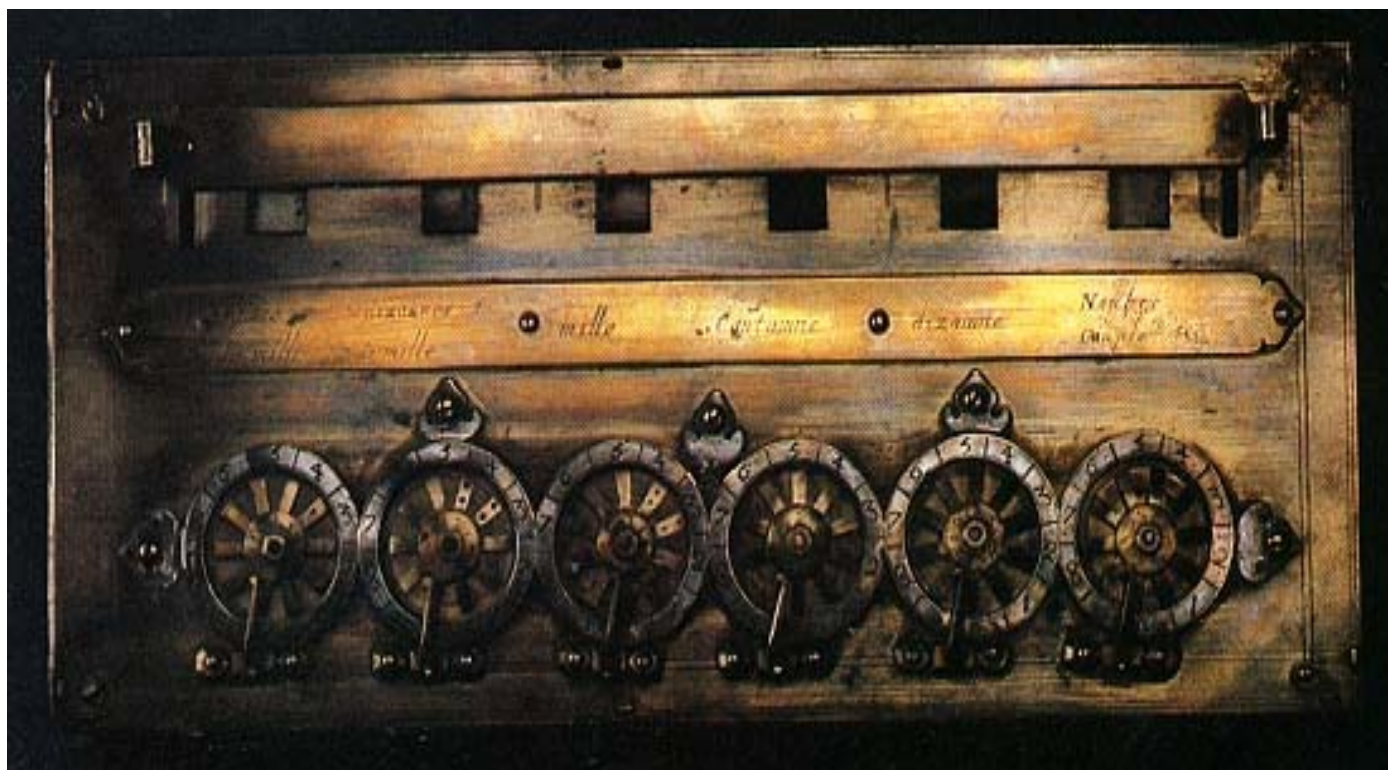


Máquina de calcular Pascal (frente) - 1642



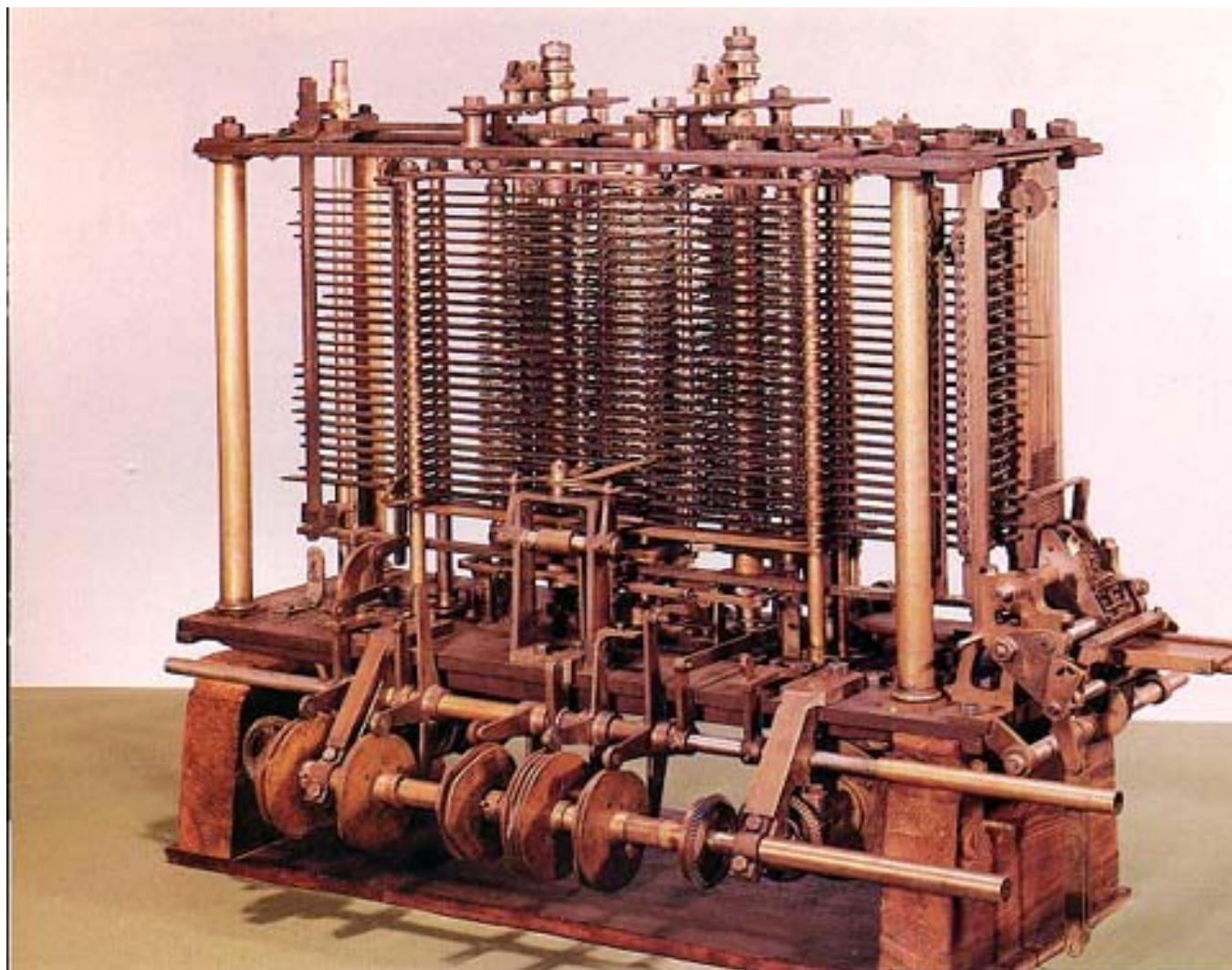
Máquina de calcular Pascal (interior) - 1642



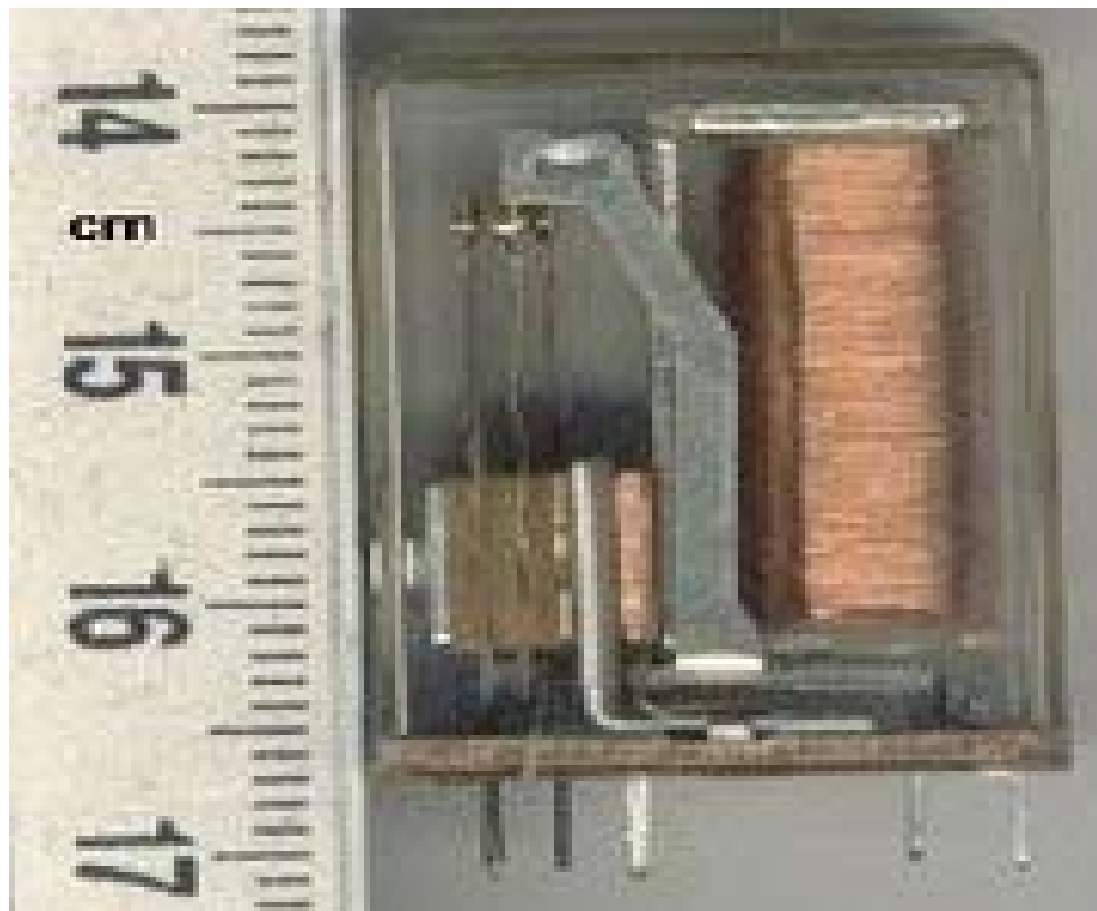
Máquina de diferenças Babbage - 1834



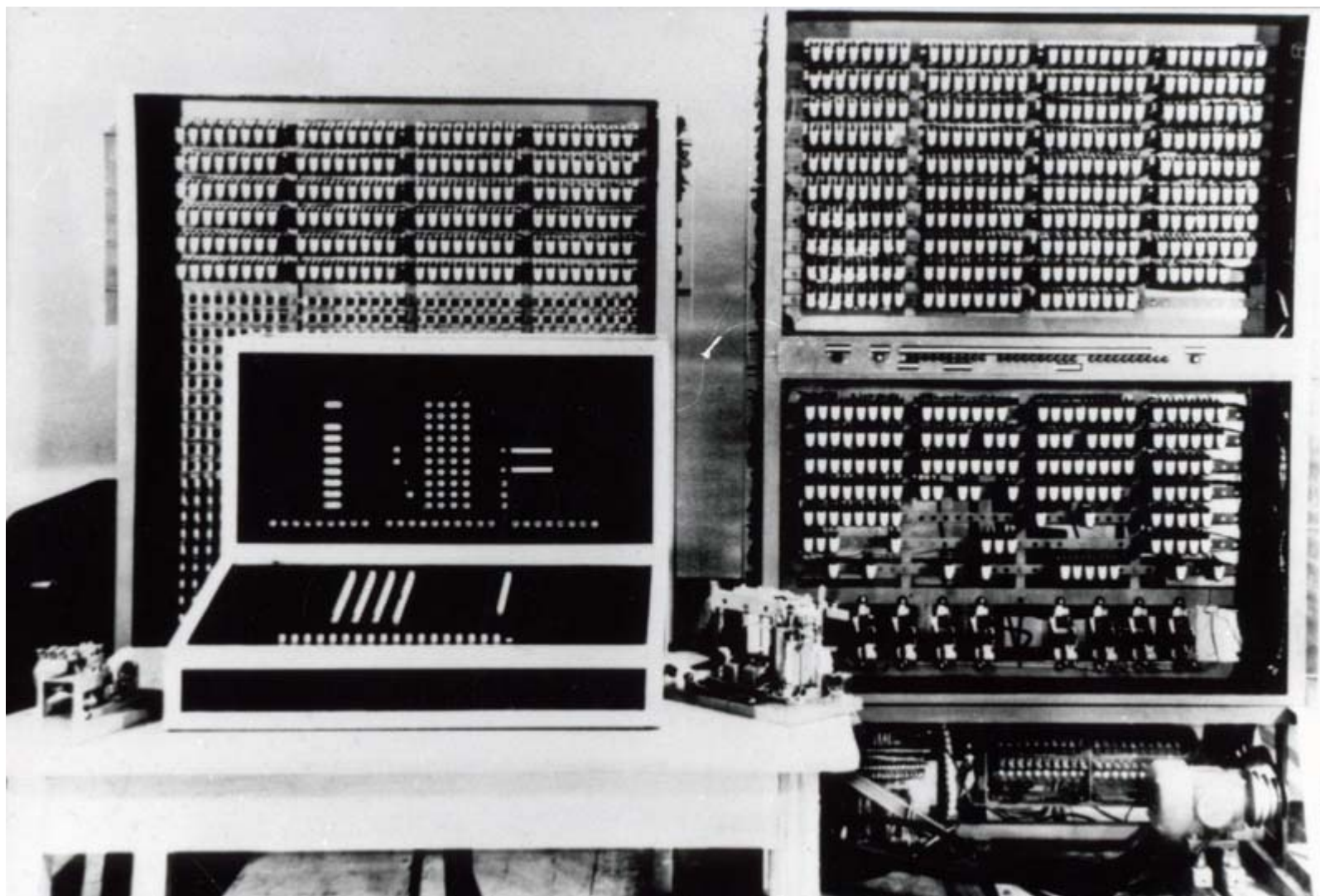
Máquina analítica Babbage - 1834



Relay eletromecânico



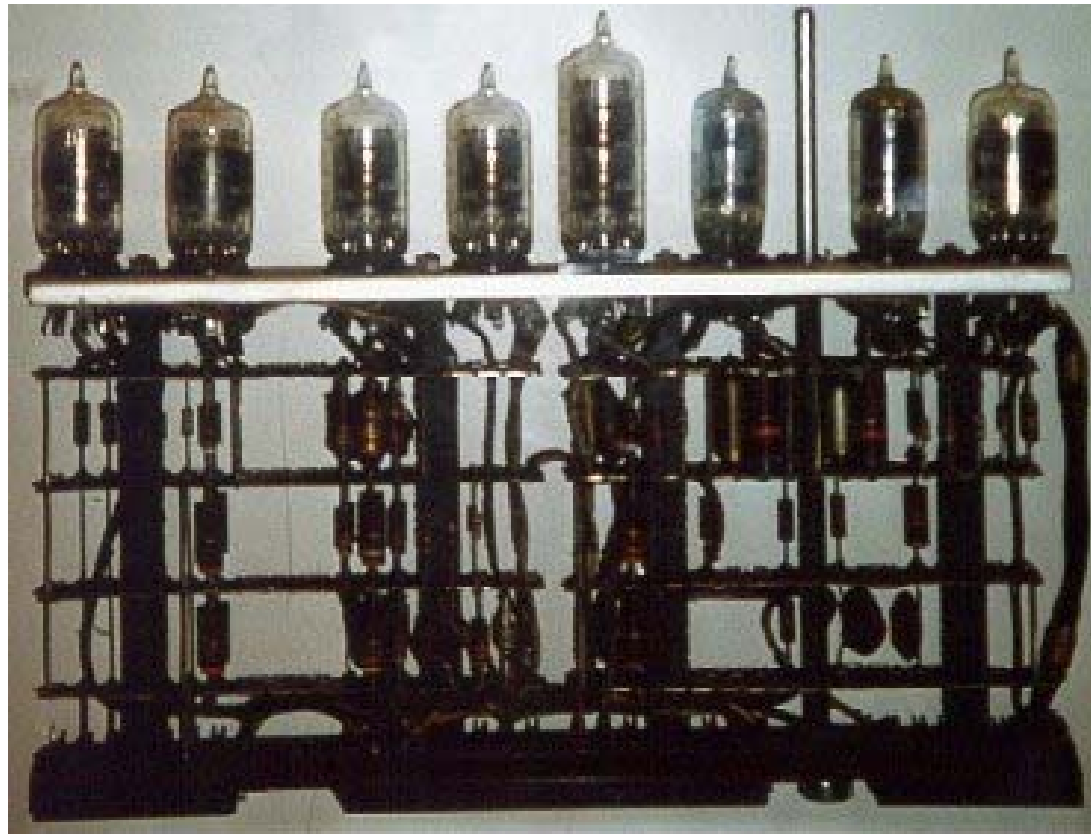
Máquina Z3 Zuse - 1941



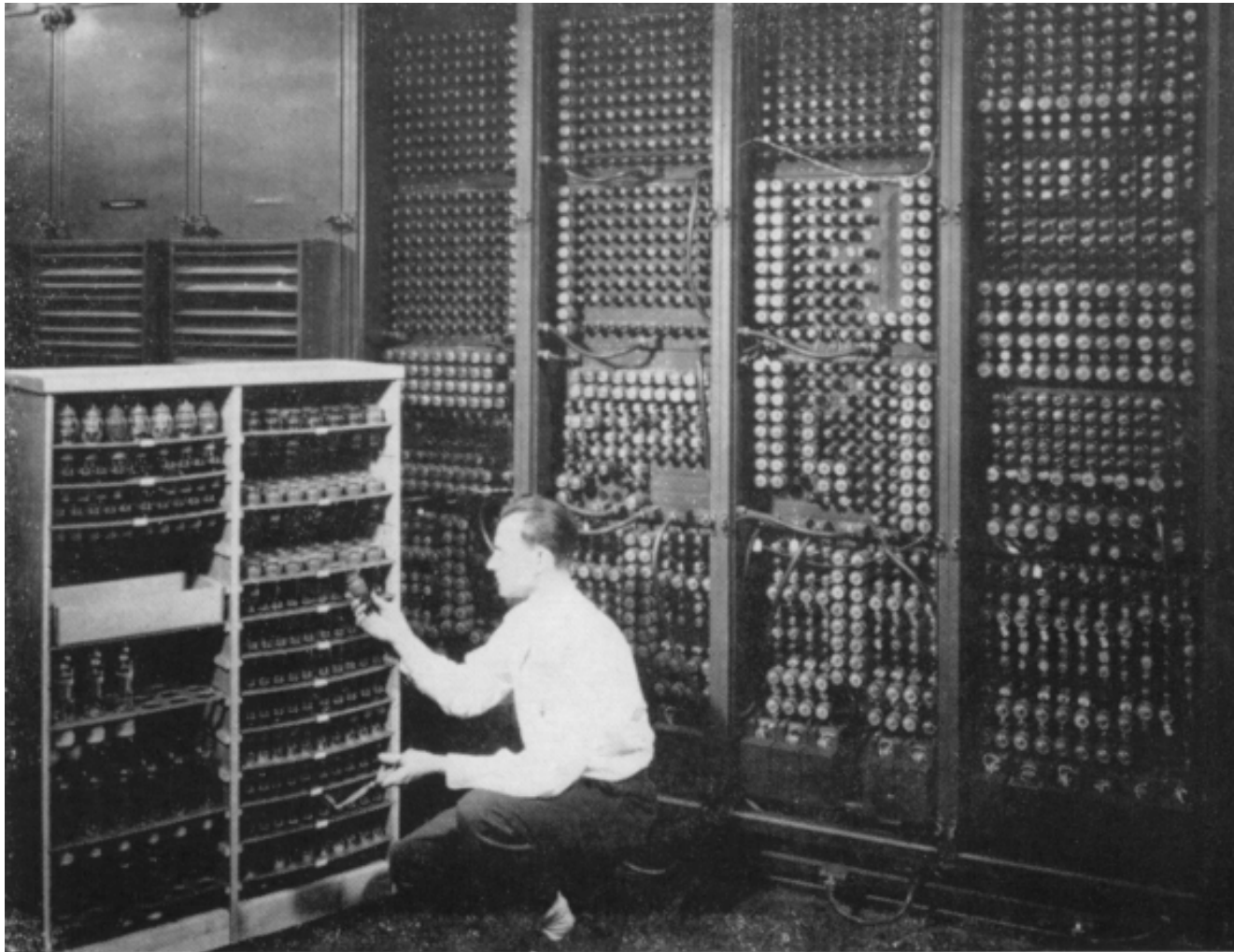
Válvula - 1906



Circuito com válvula

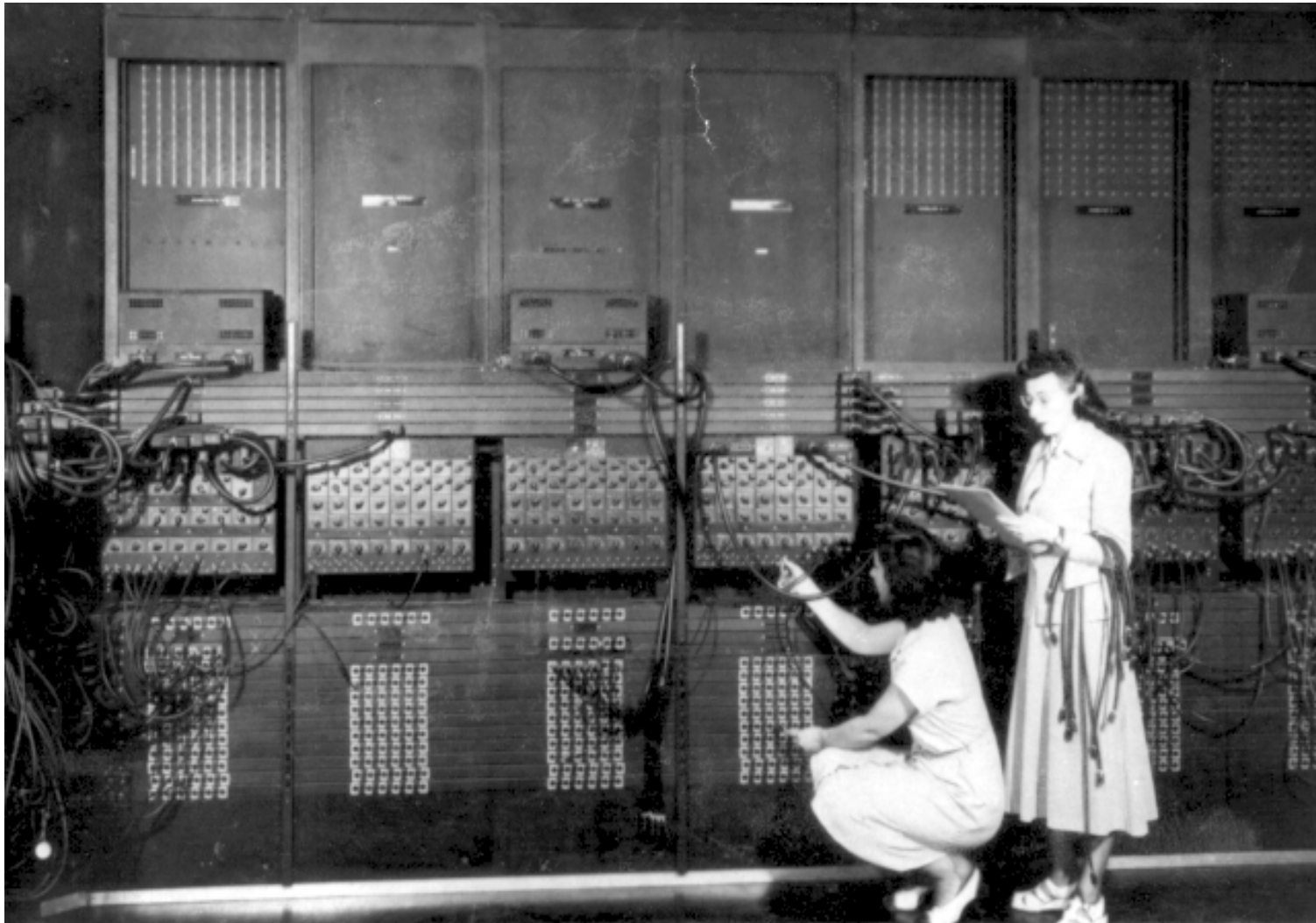


ENIAC - 1946

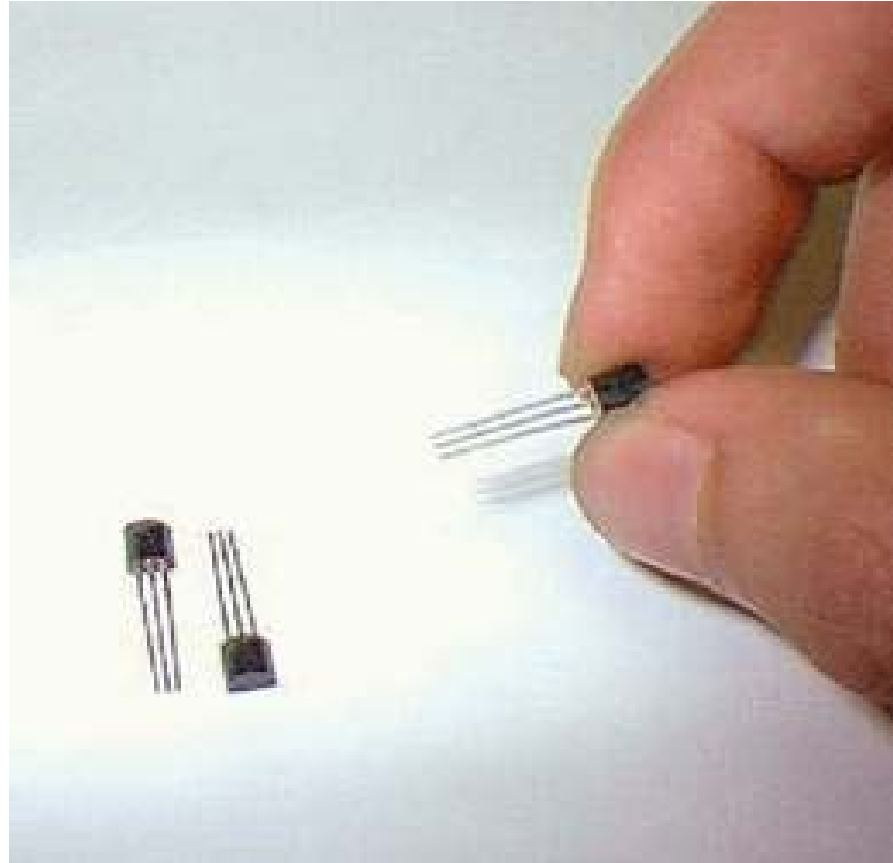


Replacing a bad tube meant checking among ENIAC's 19,000 possibilities.

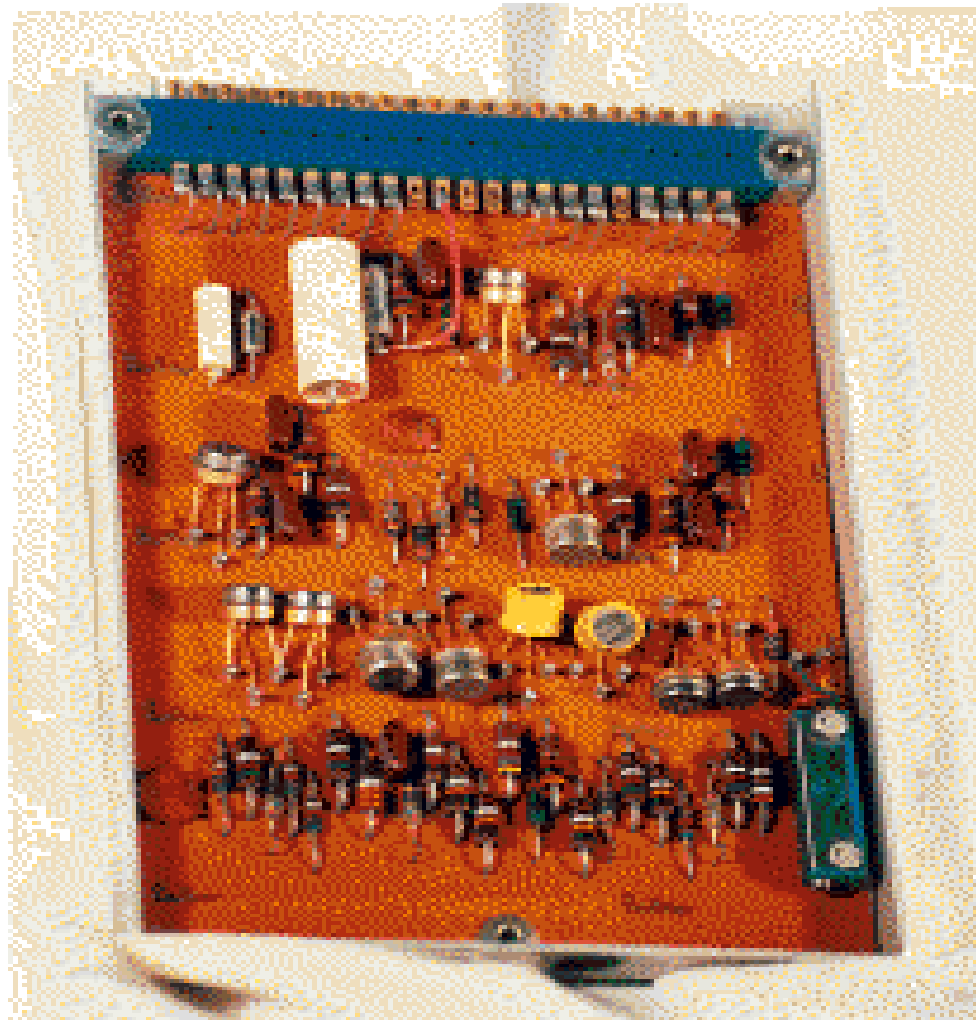
ENIAC - 1946



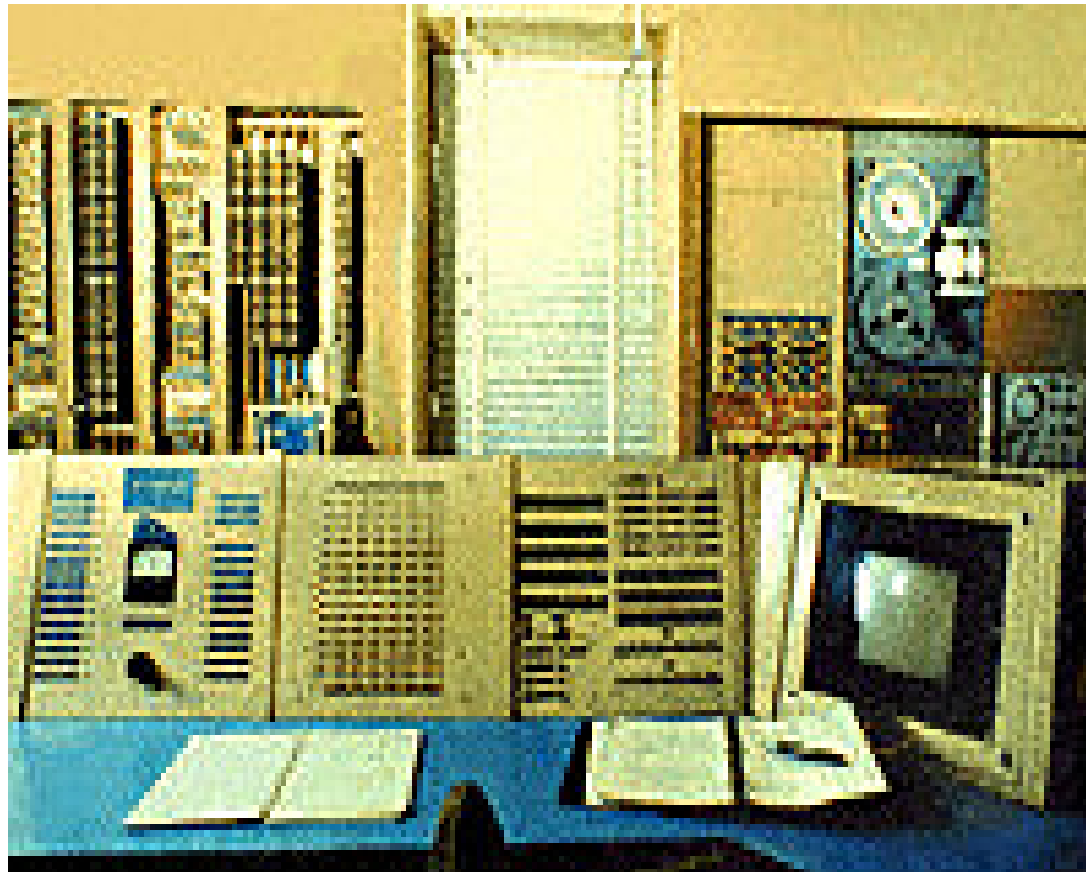
Transistor - 1947



Circuito transistorizado



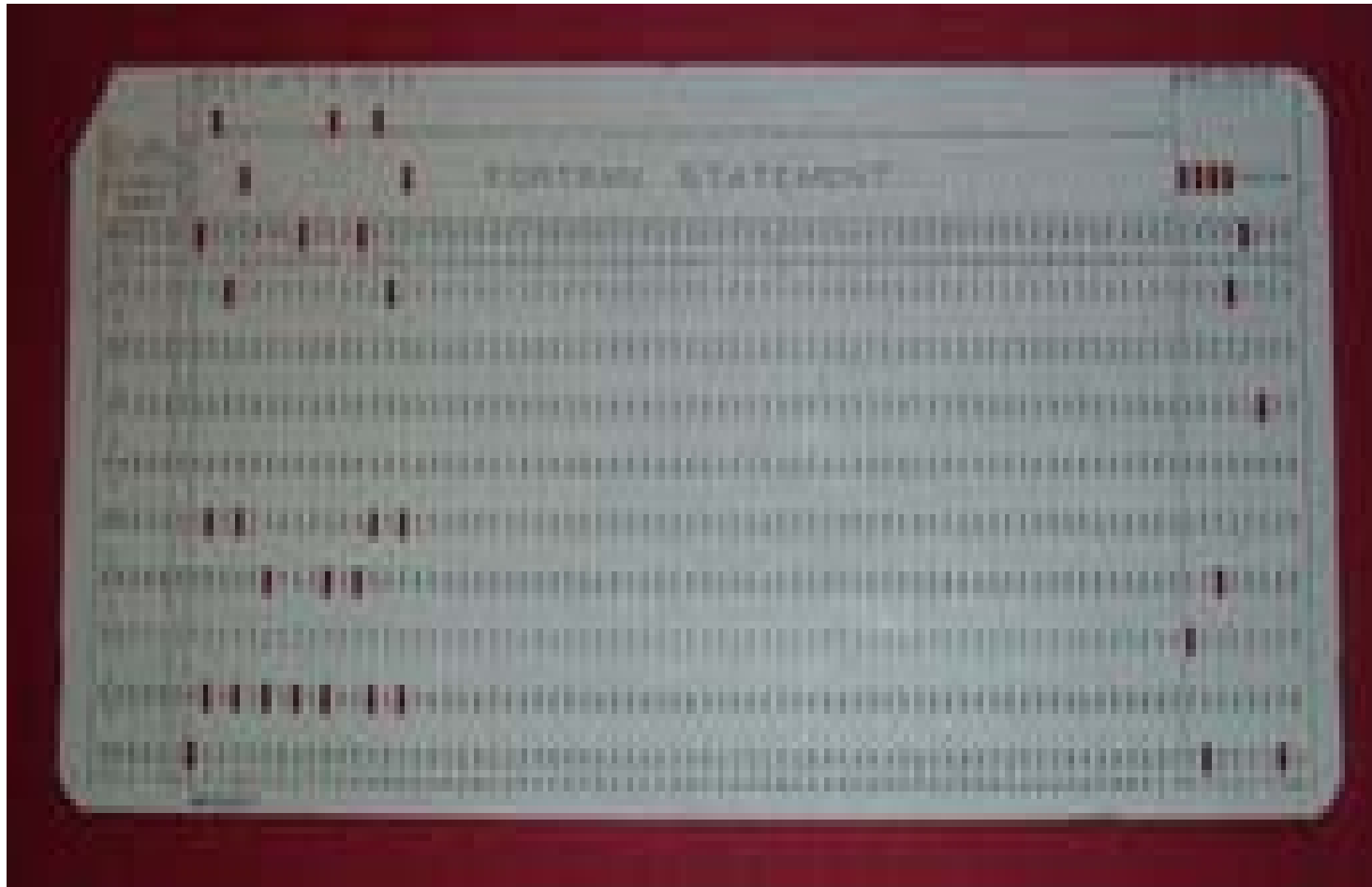
TX-0: Primeiro computador transistorizado - 1956

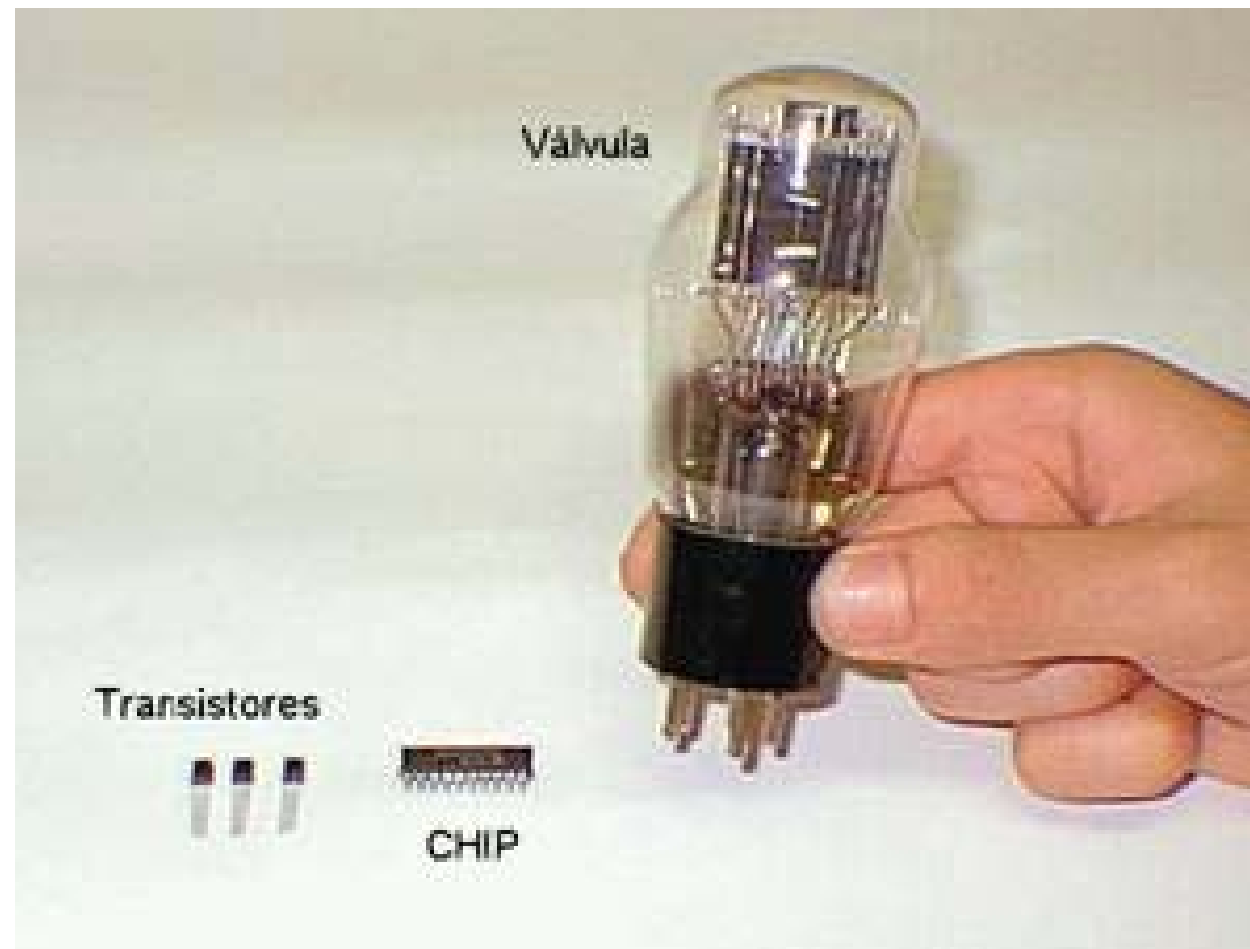


IBM 360 - 1964

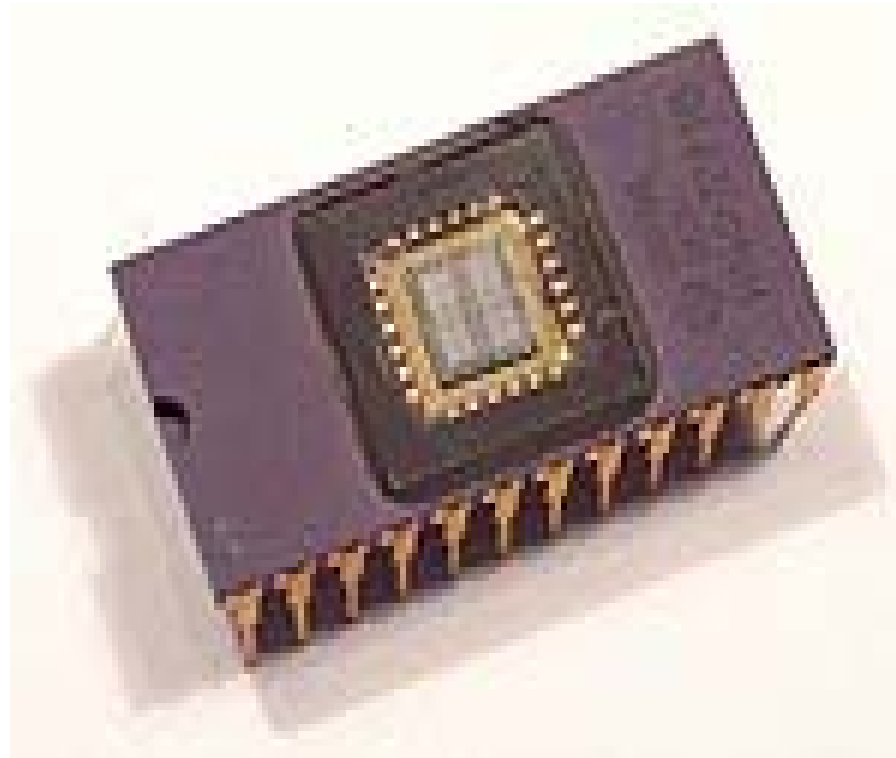


Cartão perfurado – FORTRAN - 1957

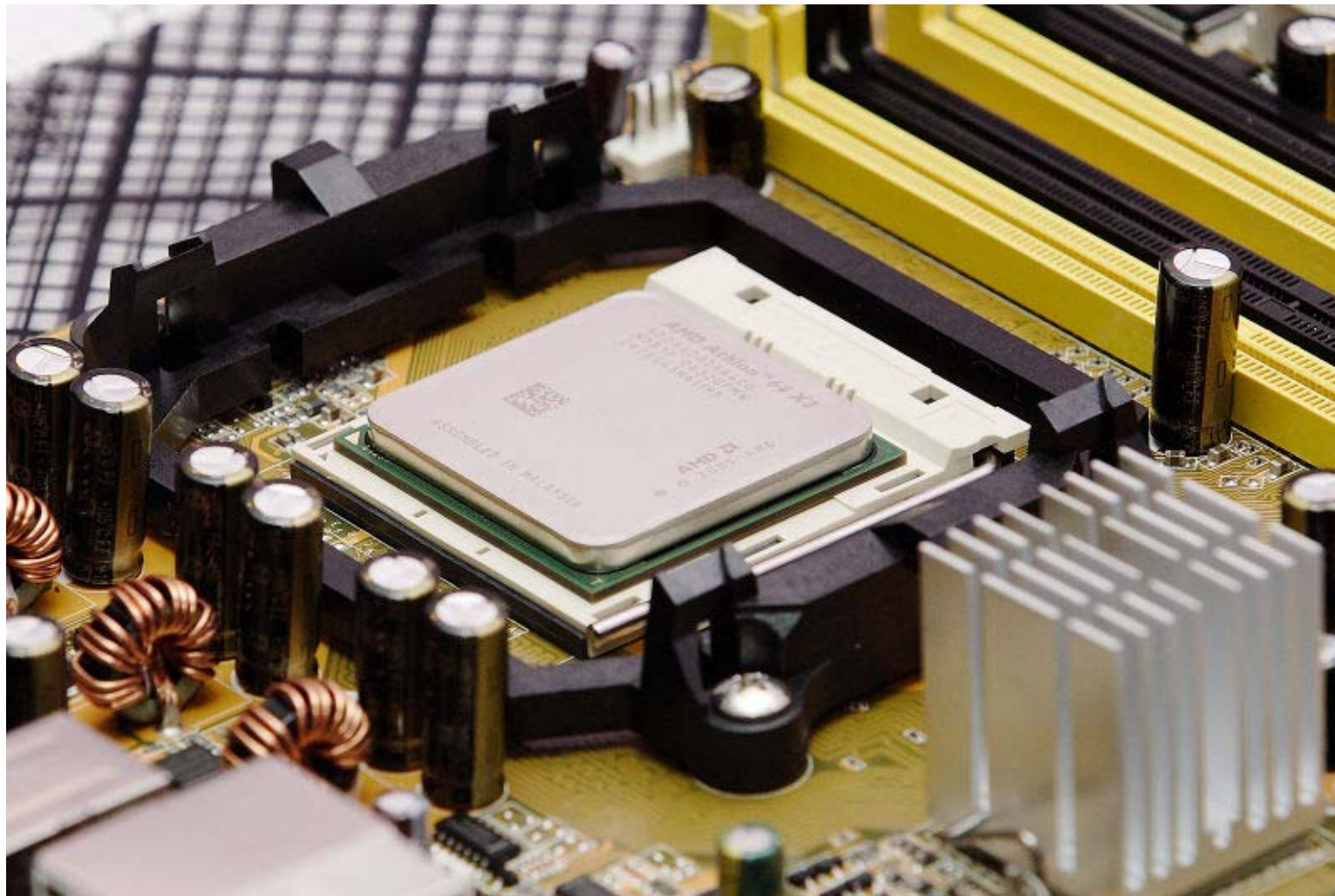


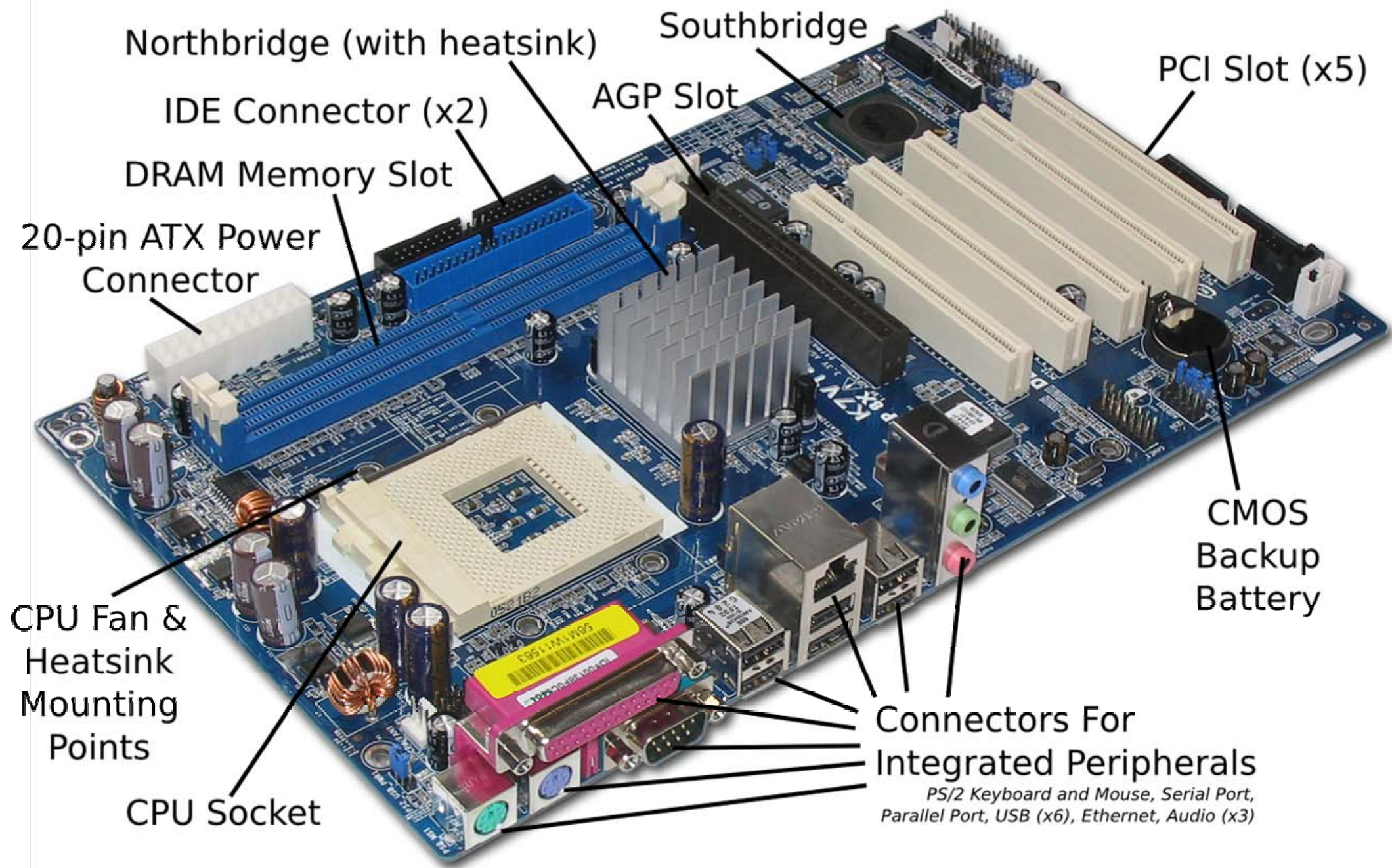


Circuito integrado

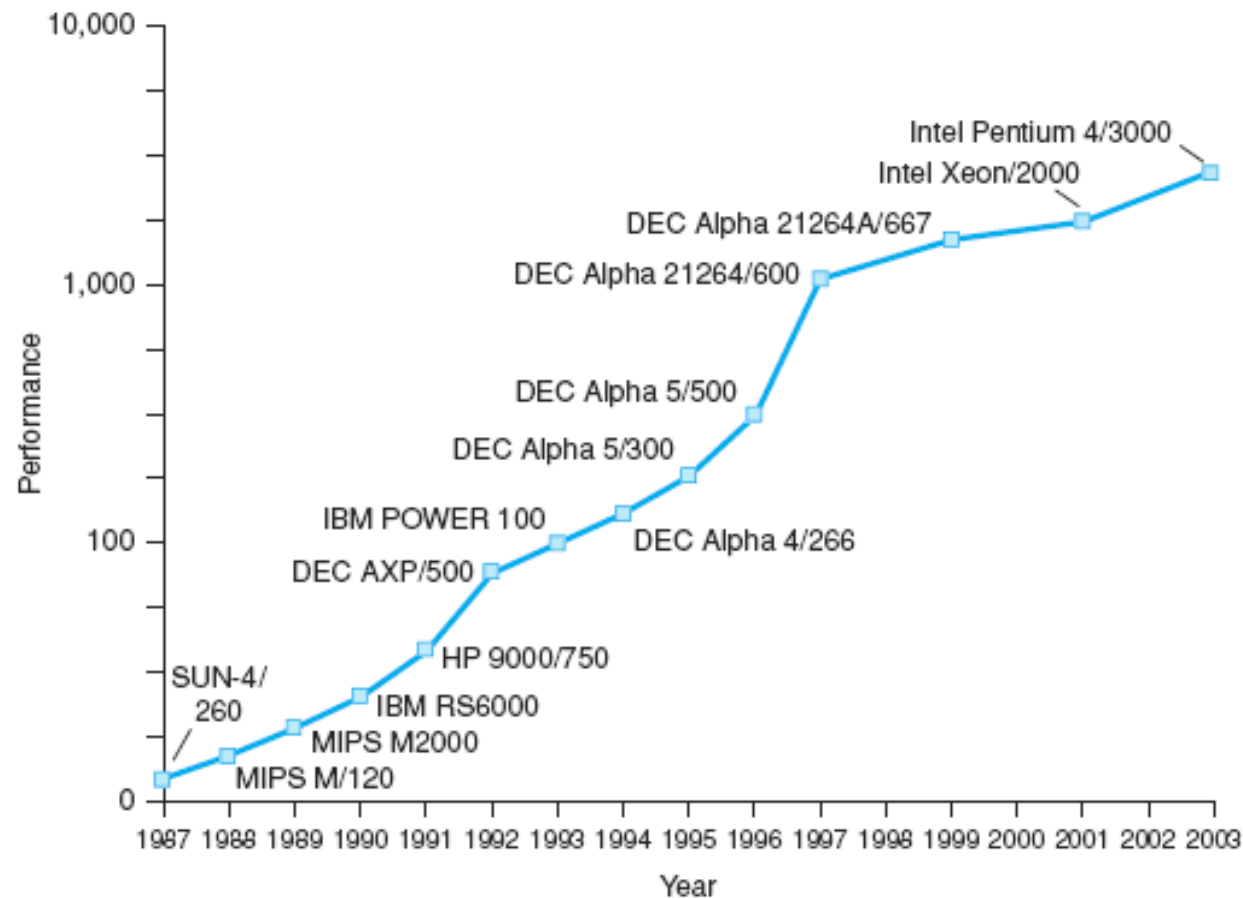


Processador AMD dual core





Histórico do Desempenho das Estações de Trabalho

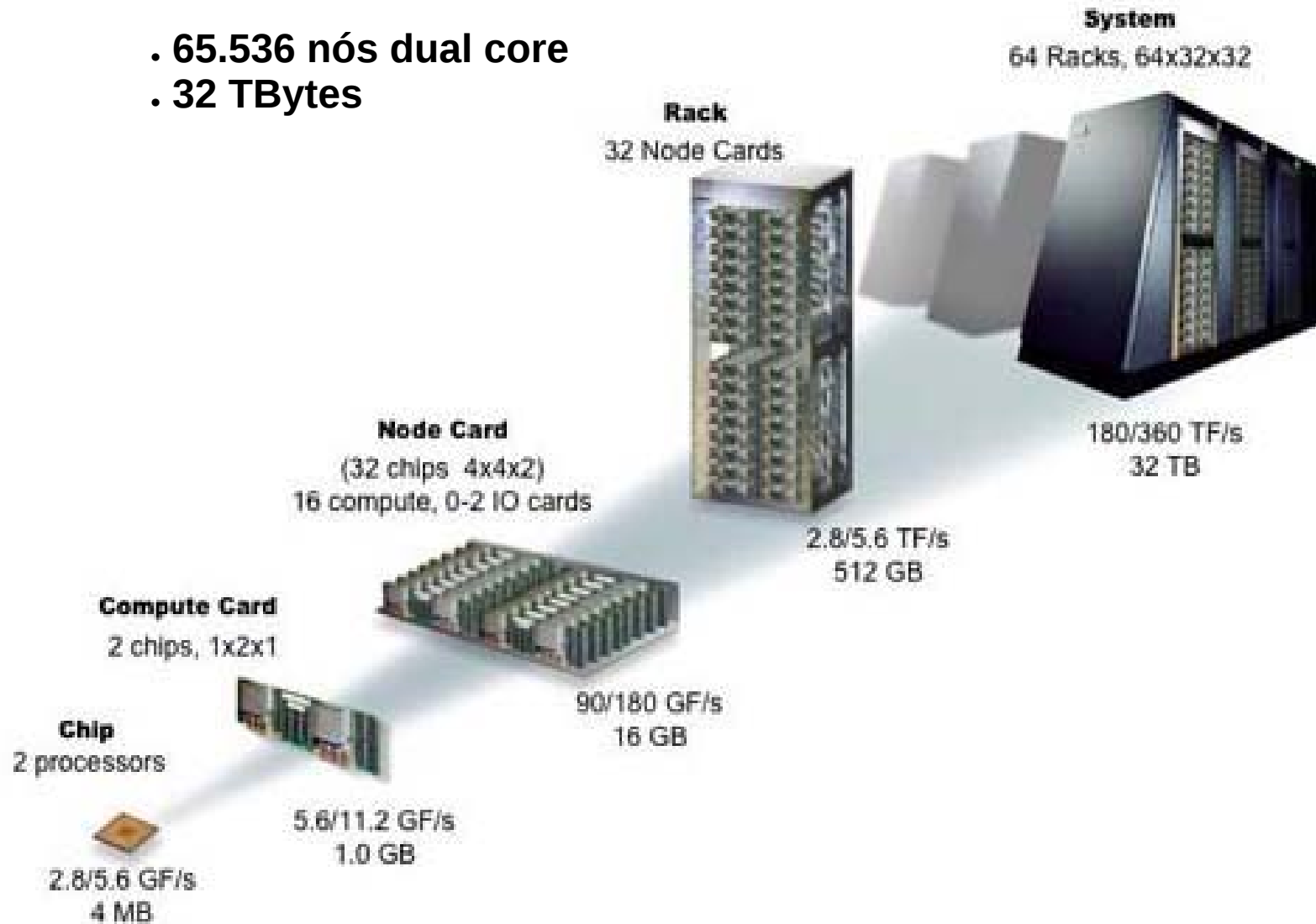


Histórico do Desempenho das Estações de Trabalho

	ENIAC	IBM 704	IBM S/360 M50	VAX 11-780	Sun SPARC Station 2	Dell 4600
data	1946	1955	1965	1978	1992	2003
Tempo para soma	200 μ s	24 μ s	4 μ s	400 ns	25 ns	208 ps
Tempo de acesso á memória		12 μ s	2 μ s	200 ns	80 ns	3 ns
Capacidade de memória		168 KB	64 KB	128 KB	128 MB	256 MB
Aluguel		\$48.000,00/mês	\$32.00,00/mês	\$6.000,00/mês		
Compra	\$500.000,00	\$1.390.000,00	\$409.000,00	\$128.000,00	\$15.000,00	\$800,00
Valor atualizado para 2003	\$4,7 M	\$9,5 M	\$2,4 M	\$360.000,00	\$19.600,00	\$800,00

Blue Gene/ IBM

- . 65.536 nós dual core
- . 32 TBytes



Blue Gene/ IBM – Lawrence Livermore



Top500

Summit - IBM Power System AC922, IBM POWER9 22C
3.07GHz, NVIDIA Volta GV100, Dual-rail Mellanox EDR
Infiniband

