

Sveučilište J.J. Strossmayera u Osijeku
Odjel za matematiku

GRAĐA RAČUNALA
(predavanja u ak. god. 2005./2006.)

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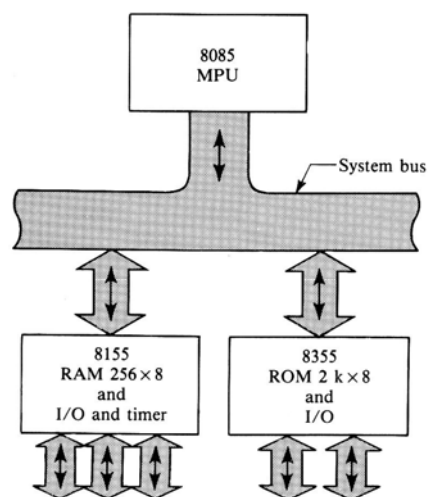
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Osijek, 2006.

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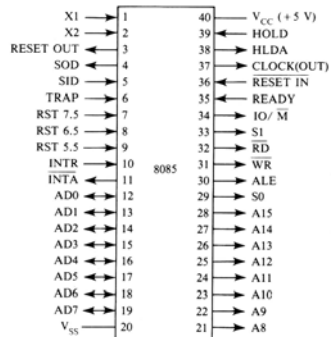
MIKROPROCESOR INTEL 8080/8085



Block diagram of simple 8085 system using special interface chips

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Pinovi i funkcije 8085 uP



(a) Pin diagram of 8085 MPU

Pin name	Description	Type
AD0—AD7	Address/Data bus	Bidirectional, tristate
A8—A15	Address bus	Output, tristate
ALE	Address latch enable	Output*
RD	Read control	Output, tristate
WR	Write control	Output, tristate
IO/M	I/O or memory indicator	Output, tristate
S0, S1	Bus state indicators	Output
READY	Wait state request	Input
SID	Serial data input	Input
SOD	Serial data output	Output
HOLD	Hold request	Input
HLDA	Hold acknowledge	Output
INTR	Interrupt request	Input
TRAP	Nonmaskable interrupt request	Input
RST 5.5	Hardware vectored interrupt requests	Input
RST 6.5		
RST 7.5		
INTA	Interrupt acknowledge	Output
RESET IN	System reset	Input
RESET OUT	Peripherals reset	Output
X1, X2	Crystal or RC connections	Input
CLK	Clock signal	Output
Vcc, Vss	Power, ground	

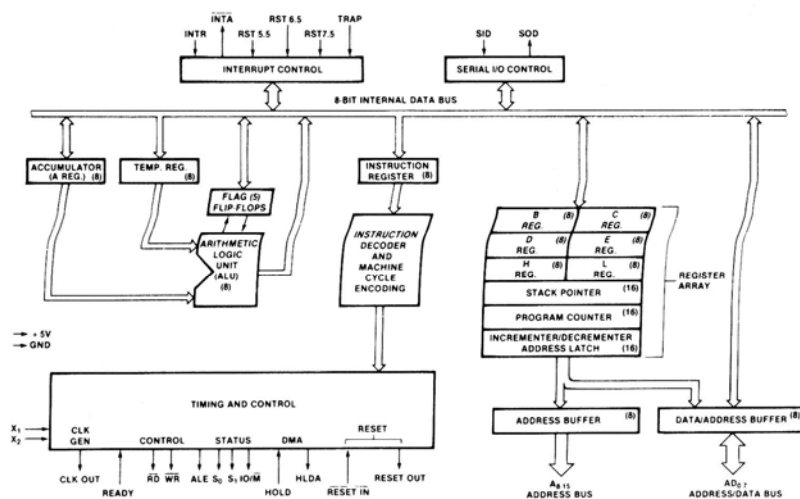
8085 control signals			Machine cycle status
IO/M	S ₁	S ₀	
0	0	1	Memory write
0	1	0	Memory read
1	0	1	I/O write
1	1	0	I/O read
0	1	1	Op code fetch
1	1	1	Interrupt acknowledge
*	0	0	Halt
*	x	x	Hold
*	x	x	Reset

* = three-state condition
x = unspecified

The 8085 machine cycles

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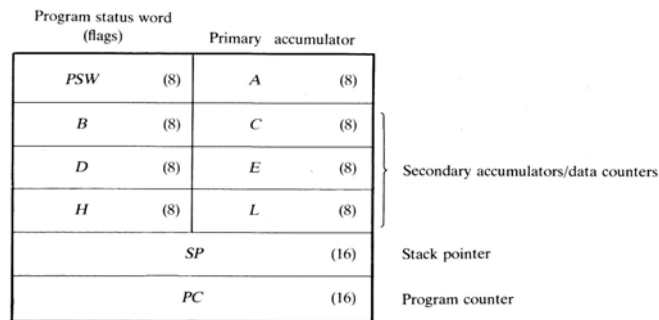
Građa 8085 uP



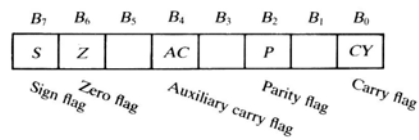
Functional block diagram of 8085 MPU (Courtesy of Intel Corporation)

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Građa 8085 uP



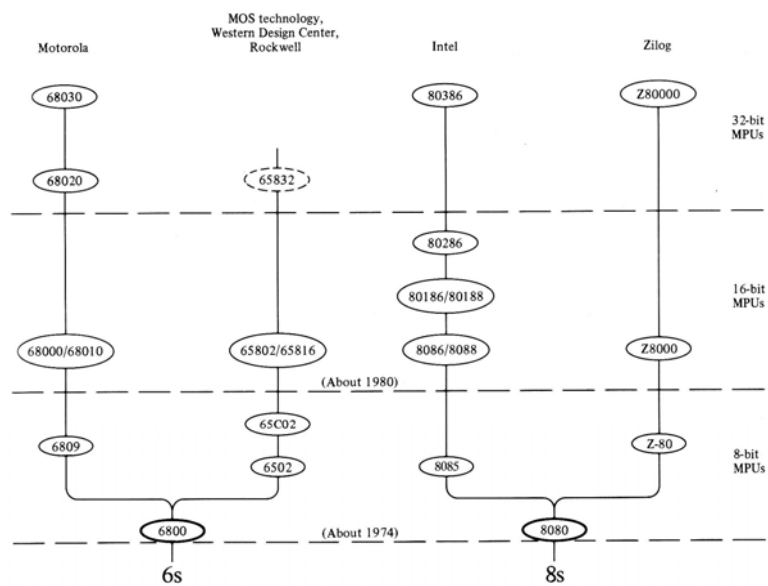
Programming model of the 8085 microprocessor



Flags in the 8085's status register

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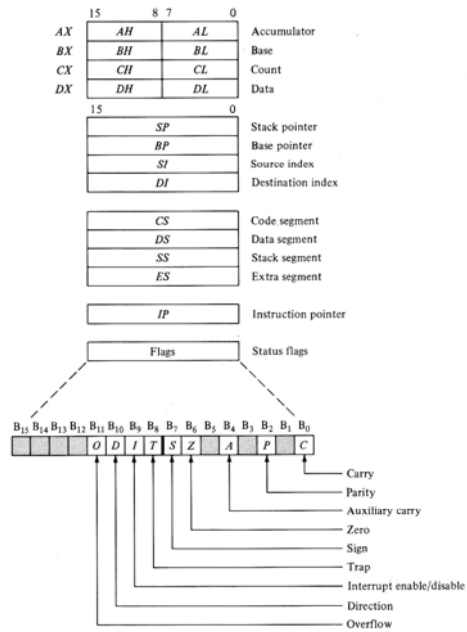
NEKI 16-BITNI I 32-BITNI MIKROPROCESORI



Genealogy for 6's group and 8's group of microprocessors

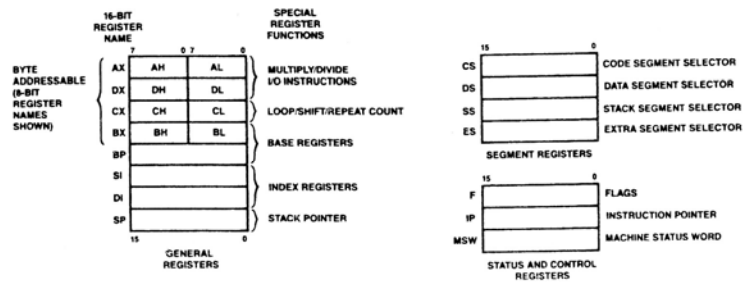
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Intel 8086 i 8088



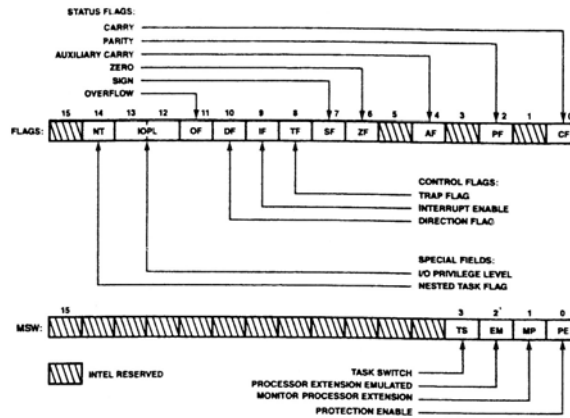
Programming model for the Intel 8086 and 8088 microprocessors (Courtesy of Intel Corporation) 7

Intel 80186, 80188 i 80286



(a) Register set for 80286 microprocessor (Courtesy of Intel Corporation)

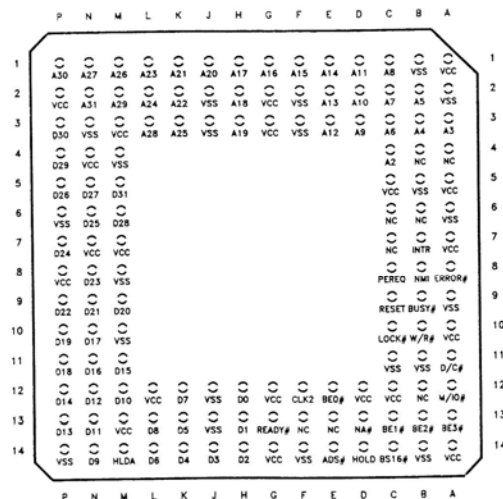
Intel 80186, 80188 i 80286



(b) Status (flags) and control register bit functions for the 80286 microprocessor
(Courtesy of Intel Corporation)

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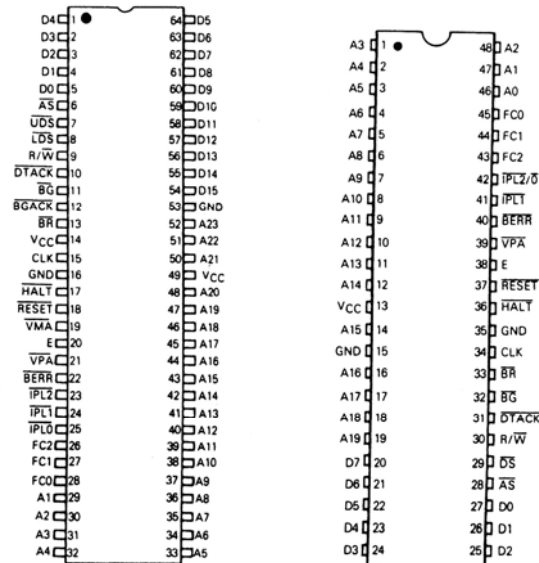
Intel 80386



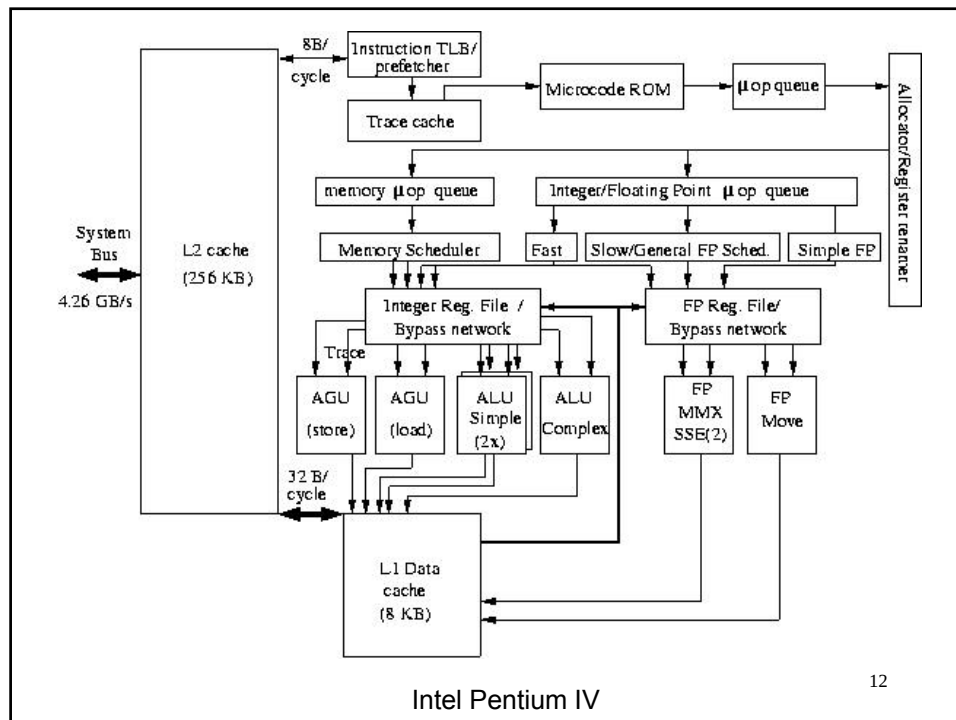
Pin diagram for 80386 microprocessor packaged in a 132-pin PGA (pin-grid array) IC

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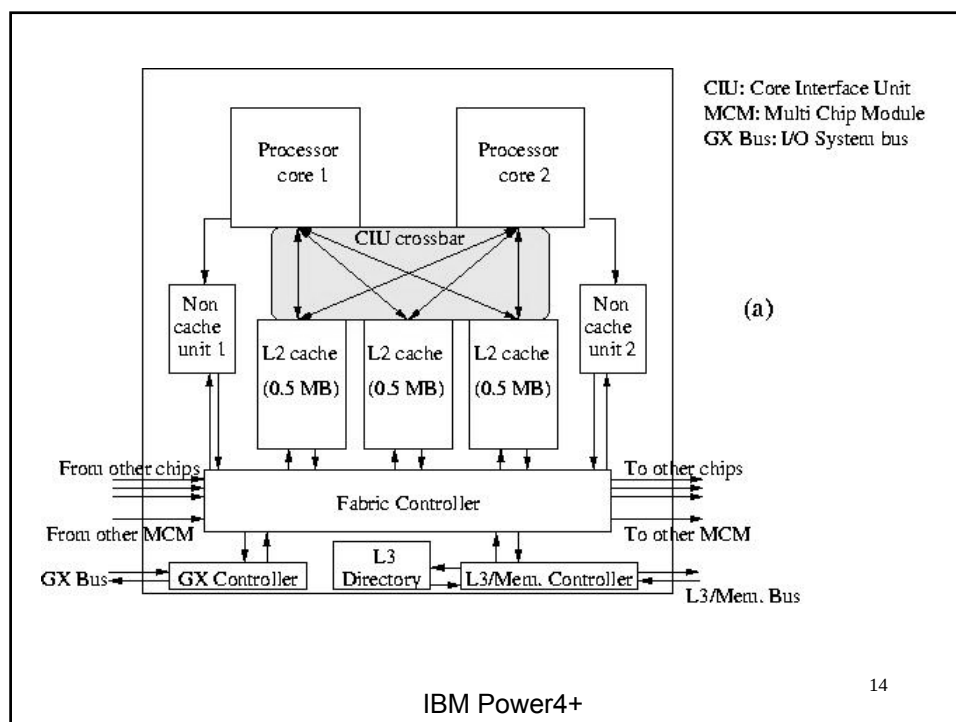
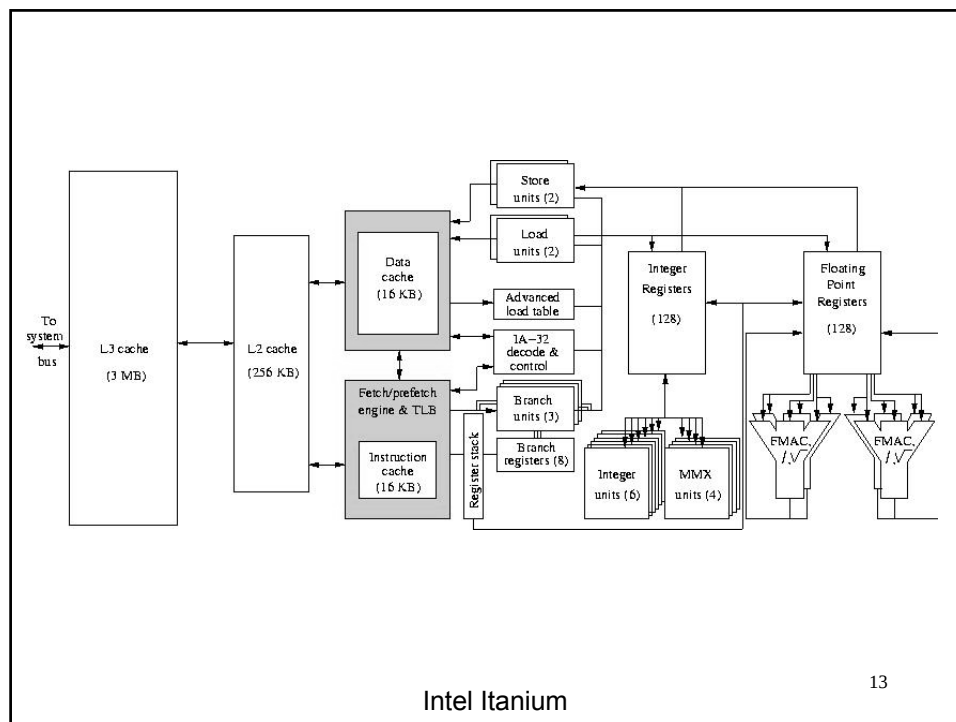
Motorola 68000 i 68008

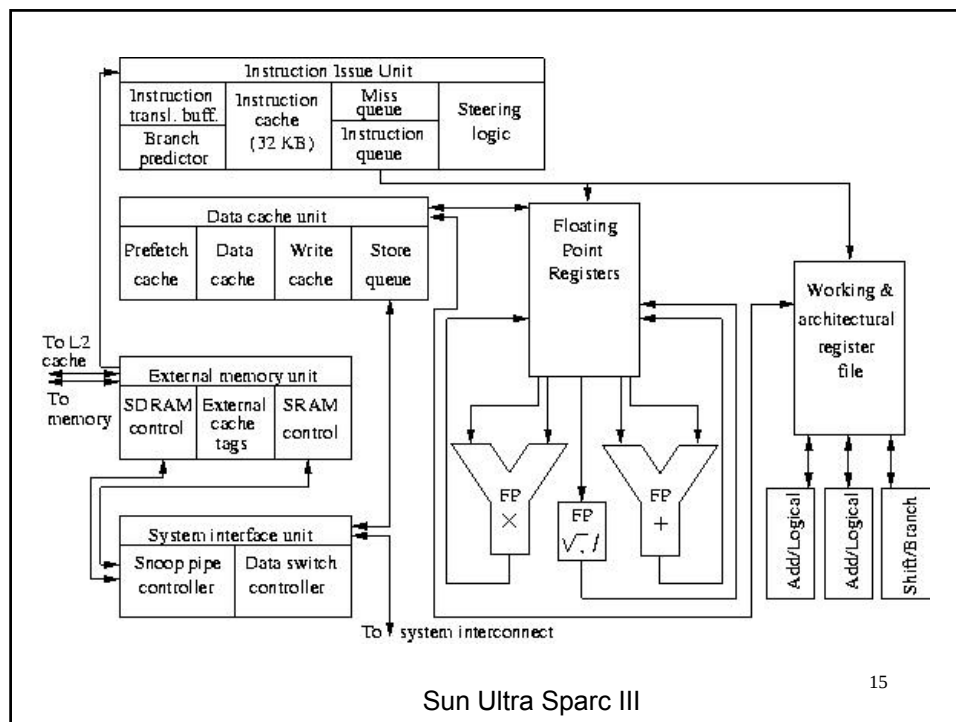


(a) Pin diagram for the 68000 microprocessor (b) Pin diagram for the 68008 microprocessor



Intel Pentium IV





Sun Ultra Sparc III

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