CPU Sockets Chart
This list is not comprehensive.

Sockets						
Sockets	**Pin Holes**	**Typical Voltages**	**Typical Bus Speeds**	**Typical Multipliers**	**Typical Chipsets**	**Processors**
486 Socket 486 bus	168 pin LIF	5v	20MHz 25MHz 33MHz	1.0x 2.0x 3.0x	?	486DX 20~33 486DX2 50~66 486DX4 75~120[1] Am5x86 133[1] Cx5x86 100~120[1] -- ComputerNerd RA4 Gainbery 5x86 133 Kingston TurboChip 133 PowerLeap PL/586 133 PowerLeap PL-Renaissance/AT Trinity Works 5x86-133
Socket 1 486 bus	169 pin LIF 169 pin ZIF	5v	16MHz 20MHz 25MHz 33MHz	1.0x 2.0x 3.0x	?	486SX 16~33 486SX2 50~66 486SXODP 25~33 486SX2ODP 50 486DX 20~33 486DX2 50~66 486DX4 75~120[1] 486DXODP 25~33 486DX2ODP 50~66 486DX4ODP 75~100 486DX2ODPR 50~66 486DX4ODPR 75~100 Am5x86 133[1] Cx5x86 100~120[1] -- ComputerNerd RA4 Evergreen 586 133 Gainbery 5x86 133 Kingston TurboChip 133 Madex 486 PowerLeap PL/586 133 PowerLeap PL-Renaissance/AT Trinity Works 5x86-133
Socket 2 486 bus	238 pin LIF 238 pin ZIF	5v	25MHz 33MHz 40MHz 50MHz	1.0x 2.0x 3.0x	Intel 420TX (Saturn) VLSI 82C480	486SX 25~33 486SX2 50~66 486SXODP 25~33 486SX2ODP 50 486DX 25~50 486DX2 50~80 486DX4 75~120[1] 486DXODP 25~33 486DX2ODP 50~66 486DX4ODP 75~100 486DX2ODPR 50~66 486DX4ODPR 75~100 Pentium ODP 63~83 Am5x86 133[1]

CPU Sockets Chart
This list is not comprehensive.

						Cx5x86 100~120[1] -- ComputerNerd RA4 Evergreen 586 133 Gainbery 5x86 133 Kingston TurboChip 133 Madex 486 PowerLeap PL/586 133 PowerLeap PL-Renaissance/AT Trinity Works 5x86-133
Socket 3 486 bus	237 pin LIF 237 pin ZIF	3.3v 5v	25MHz 33MHz 40MHz 50MHz	1.0x 2.0x 3.0x	ALi M1429 ALi M1439 ALi M1489 (FinALi) Intel 420EX (Aries) Intel 420TX (Saturn) Intel 420ZX (Saturn-II) OPTi 82C495 OPTi 82C895 SiS 85C406 SiS 85C461 SiS 85C471 SiS 85C49x UMC UM8498 UMC UM888x VIA 82C496 (Pluto)	486SX 25~33 486SX2 50~66 486SXODP 25~33 486SX2ODP 50 486DX 25~50 486DX2 50~80 486DX4 75~120 486DXODP 25~33 486DX2ODP 50~66 486DX4ODP 75~100 486DX2ODPR 50~66 486DX4ODPR 75~100 Pentium ODP 63~83 Am5x86 133 Cx5x86 100~120 -- ComputerNerd RA4 Evergreen 586 133 Gainbery 5x86 133 Kingston TurboChip 133 Madex 486 PowerLeap PL/586 133 PowerLeap PL-Renaissance/AT PowerLeap PL-Renaissance/PCI Trinity Works 5x86-133
Socket 4 P5 bus	273 pin LIF 273 pin ZIF	5v	60MHz 66MHz	none	Intel 430LX (Mercury) OPTi 82C546 (Python) OPTi 82C596 (Cobra)	Pentium 60~66 Pentium OverDrive 120~133 -- Computer Nerd RA3 Evergreen AcceleraPCI PowerLeap PL/54C PowerLeap PL/54CMMX PowerLeap PL-Renaissance/AT PowerLeap PL-Renaissance/PCI Trinity Works P6x
Socket 5 P54C bus	296 pin LIF 296 pin ZIF 320 pin LIF 320 pin ZIF	STD VR VRE	50MHz 60MHz 66MHz	1.5x 2.0x	ALi Aladdin III ALi Genie Intel 430FX (Triton I) Intel 430NX (Neptune) OPTi 82C546 (Python)	K5 PR75~PR133 6x86L PR120+~PR166+[1] Pentium 75~133 Pentium ODP 125~166 -- K6 166~300[1] K6-2 266~400[1] Winchip 180~200

CPU Sockets Chart
This list is not comprehensive.

					OPTi 82C596 (Cobra) OPTi Vendetta SiS 501/02/03 SiS 5511/12/13 SiS 5571 (Trinity) SiS 5581/82 SiS 5596 (Genesis) SiS 5597/98 (Jedi) UMC 881x VIA Apollo Master VLSI 82C59x	Winchip-2 200~240 Winchip-2A 233 6x86MX PR166~PR233[1] Pentium ODP MMX 125~180 Pentium MMX 166~233[1] -- Concept Manuf. VA55C Evergreen PR166 Evergreen MxPro Evergreen AcceleraPCI Evergreen Spectra Kingston TurboChip Madex 586 PNY QuickChip 200 PNY QuickChip-3D 200 PowerLeap PL/OD54C PowerLeap PL-ProMMX PowerLeap PL/K6-III PowerLeap PL-Renaissance/AT PowerLeap PL-Renaissance/PCI Trinity Works P7x
Socket 6 486 bus	235 pin ZIF	3.3v	25MHz 33MHz 40MHz	2.0x 3.0x	?	486DX4 75~120
Socket 7 P54C bus P55C bus	296 pin LIF 321 pin ZIF	Split STD VR VRE VRT	40MHz 50MHz 55MHz 60MHz 62MHz 66MHz 68MHz 75MHz 83MHz 90MHz 95MHz 100MHz 102MHz 112MHz 124MHz	1.5x 1.75x 2.0x 2.33x 2.5x 2.66x 3.0x 3.33x 3.5x 4.0x 4.5x 5.0x 5.5x 6.0x	ALi Aladdin III ALi Aladdin IV ALi Aladdin IV+ ALi Aladdin V ALi Aladdin V+ *ALi Aladdin 7* AMD 640 Intel 430FX (Triton I) Intel 430HX (Triton II) Intel m430MX (Ariel) Intel 430TX Intel 430VX (Triton II/III) OPTi 82C556 (Viper) OPTi 82C566 (ViperMax) OPTi 82C576 (Viper Xpress) OPTi 82C750 (Vendetta) SiS 530 (Sinbad) SiS 540 SiS 5511/12/13 SiS 5571 (Trinity) SiS 5581/82 SiS 5591/92 (David) SiS 5596 (Genesis) SiS 5597/98 (Jedi) VIA Apollo Master	K5 PR75~PR200 6x86 PR90+~PR200+ 6x86L PR120+~PR200+ Pentium 75~200 Pentium ODP 125~166 -- K6 166~300 K6-2 266~550 K6-2+ 450~*???* K6-III 400~450 K6-III+ 450~*???* Winchip 150~240 Winchip-2 200~240 Winchip-2A 200~266 6x86MX PR166~PR333 M II 233~433 Pentium ODP MMX 125~200 Pentium MMX 166~233 mP6 166~266 -- Computer Nerd RA5 Concept Manuf. VA55C Evergreen PR166 Evergreen MxPro Evergreen AcceleraPCI Evergreen Spectra Kingston TurboChip Madex 586 PNY QuickChip-3D 200 PowerLeap PL/OD54C PowerLeap PL/ProMMX PowerLeap PL/K6-III PowerLeap PL-

CPU Sockets Chart
This list is not comprehensive.

					VIA Apollo MVP3 VIA Apollo MVP4 VIA Apollo VP-1 VIA Apollo VP-2 VIA Apollo VP-2/97 VIA Apollo VP-3 VIA Apollo VPX VIA Apollo VPX/97 VLSI 82C541 (Lynx)	Renaissance/AT PowerLeap PL-Renaissance/PCI
Socket 8 P6 bus	387 pin LIF 387 pin ZIF	VID VRM (2.1v~3.5v)	60MHz 66MHz 75MHz	2.0x 2.5x 3.0x 4.5x 5.0x 5.5x 6.0x 6.5x 7.0x 7.5x 8.0x	Corollary Profusion Intel 440FX (Natoma) Intel 450GX (Orion) Intel 450KX (Mars) OPTi 650 (Discovery) VIA Apollo P6	Pentium Pro 133~200 Pentium II OverDrive 300~333 -- Evergreen AcceleraPCI PowerLeap PL-Pro/II PowerLeap PL-Renaissance/AT PowerLeap PL-Renaissance/PCI
Slot 1 P6 bus	242 pin SECC 242 pin SECC2 242 pin SEPP	VID VRM (1.3v~3.3v)	60MHz 66MHz 68MHz 75MHz 83MHz 100MHz 102MHz 112MHz 124MHz 133MHz	3.5x 4.0x 4.5x 5.0x 5.5x 6.0x 6.5x 7.0x 7.5x 8.0x 8.5x 9.0x 9.5x 10.0x 10.5x	ALi Aladdin Pro I ALi Aladdin Pro II ALi Aladdin TNT2 ALi Aladdin Pro 4 *ALi Aladdin Pro 5* Intel 440BX Intel 440EX Intel 440FX (Natoma) Intel 440GX Intel 440LX Intel 810 (Whitney) Intel 810e (Whitney) Intel 815 (Solano) Intel 815e (Solano-2) Intel 820 (Camino) Intel 820e (Camino-2) Intel 840 (Carmel) SiS 5600 SiS 600 SiS 620 SiS 630 SiS 630E SiS 630S *SiS 640* VIA Apollo P6 VIA Apollo Pro VIA Apollo Pro+ VIA Pro133 VIA Pro133A VIA Pro266 VIA PM-133 *VIA PM-266* VIA PM601	Celeron 266~300 (Covington) Celeron 300A~433 (Mendocino) Celeron 300A~533[1] (Mendocino PGA) Celeron 500A~*???*[1] (Coppermine-128) Pentium Pro 133~200[1] Pentium II 233~300 (Klamath) Pentium II 266~450 (Deschutes) Pentium III 450~600B (Katmai) Pentium III 533EB~1.13 (Coppermine) -- Evergreen Performa PowerLeap PL/PII various Slotket adapters
Slot 2	330 pin	VID VRM	100MHz	4.0x	Intel 440GX	Pentium II Xeon 400~450

CPU Sockets Chart
This list is not comprehensive.

P6 bus	SECC	(1.3v~3.3v)	133MHz	4.5x 5.0x 5.5x 6.0x 6.5x 7.0x	Intel 450NX Intel 840 (Carmel) Intel Profusion	(Drake) Pentium III Xeon 500~550 (Tanner) Pentium III Xeon 600~1GHz (Cascades)
Socket 370 *Socket 418* P6 bus	370 pin ZIF 418 pin ZIF	VID VRM (1.3v~2.1v)	66MHz 100MHz 133MHz	4.5x 5.0x 5.5x 6.0x 6.5x 7.0x 7.5x 8.0x 8.5x 9.0x 9.5x 10.0x 10.5x	ALi Aladdin TNT2 ALi Aladdin Pro 4 *ALi Aladdin Pro 5* Intel 440BX Intel 440ZX Intel 810 (Whitney) Intel 810e (Whitney) Intel 810e2 (Whitney) Intel 815 (Solano) Intel 815e (Solano-2) Intel 815ep (Solano-3) Intel 820 (Camino) Intel 820e (Camino-2) *Intel 830 (Almador)* SiS 630 SiS 630E SiS 630S *SiS 635* VIA Apollo Pro+ VIA Pro133A VIA Pro266 VIA PM-133 *VIA PM-266* VIA PM601	~~Cyrix III PR433~PR533 (Joshua)~~ Cyrix III 533~*???* (Samuel) *Cyrix III ???* (Samuel 2) *Cyrix III ???* (Ezra) *M3 600~???* (Mojave) Celeron 300A~533 (Mendocino) Celeron 500A~*???* (Coppermine-128) Pentium III 500E~*???* (Coppermine) *Pentium III ???* (Tualatin) -- PowerLeap PL Neo-S370
Slot A EV6 bus	242 pin SECC	VID VRM (1.3v~2.05v)	100MHz (x2) 133MHz (x2)	5.0x 5.5x 6.0x 6.5x 7.0x 7.5x 8.0x 8.5x 9.0x 9.5x 10.0x	AMD 750 (Irongate) VIA KX-133	Athlon 500~700 (K7) Athlon 550~1GHz (K75) Athlon 750~1GHz (Thunderbird)
Socket A EV6 bus	453 pin ZIF	VID VRM (1.3v~2.05v)	100MHz (x2) 133MHz (x2) 200MHz (x2)	6.0x 6.5x 7.0x 7.5x 8.0x 8.5x 9.0x 9.5x 10.0x 11.0x 12.0x	*ALi MAGiK 1* *ALi Aladdin K7 II* *ALi Aladdin K7 III* AMD 760 (Irongate-4) *AMD 760MP (Irongate-4)* *AMD 770* SiS 730S *SiS 740* VIA KM-133 *VIA KM-266*	Duron 600~*850* (Spitfire) Duron *???* (Morgan) Duron *???* (Appaloosa) Athlon 750~*1.26GHz* (Thunderbird) Athlon *???* (Palomino) Athlon *???* (Thoroughbred)

CPU Sockets Chart
This list is not comprehensive.

					VIA KT-133 VIA KT-133A VIA KT-266	
Socket 423 P6.8 bus	423 pin ZIF	VID VRM	100MHz (x4)	13.0x 14.0x 15.0x	Intel 850 (Tehama) *Intel 850e (Tehama-E)*	Pentium 4 1.3~*???* (Willamette)
Socket 478 P6.8 bus	478 pin ZIF	VID VRM	100MHz (x4)	?	*Intel 850e (Tehama-E)* *Intel ? (Tulloch)* *Intel ? (Brookdale)* *VIA PX-266V*	*Pentium 4 1GHz+* (Northwood)
Socket 603 P7 bus	603 pin	VID VRM	100MHz (x4)	?	*IBM Summit* *Intel 860 (Colusa)*	*Xeon 1GHz+* (Foster) *Xeon 1GHz+* (Gallatin)
Slot M P7 bus	417 pin (plus power slot)	?v	133MHz (x2) 100MHz (x4)	5.5x 6.0x	*IBM Summit* *Intel 460GX* *Intel 870*	*Itanium 733~???* (Merced) *Itanium 1GHz+* (McKinley) *Intel 1GHz+* (Madison) *Intel 1GHz+* (Deerfield)
Socket ? ? bus	? pin	?v	?MHz (x2)	?	*AMD ?*	*AMD 1GHz+* (Clawhammer) *AMD 1GHz+* (Sledgehammer)

CPU Sockets		
Socket 1	Type	PGA
	Class	486
	Voltage	5V
	Pins	169
	Pin Layout	17 x 17 (3 rows)
	ZIF	No
	Processors	486 SX 486 DX 486 DX2 486 DX4 Overdrive
Socket 2	Type	PGA
	Class	486
	Voltage	5V
	Pins	238
	Pin Layout	19 x 19 (4 rows)
	ZIF	No
	Processors	486 SX 486 DX 486 DX2 486 DX4 Overdrive Pentium 66/88 MHz Overdrive
Socket 3	Type	PGA
	Class	486

CPU Sockets Chart
This list is not comprehensive.

	Voltage	3.3V; 5V
	Pins	237
	Pin Layout	19 x 19 (4 rows)
	ZIF	No
	Processors	486 SX 486 DX 486 DX2 486 DX4 Overdrive Cyrix 5x86 Pentium 66/88 MHz Overdrive
Socket 4	Type	PGA
	Class	Pentium
	Voltage	5V
	Pins	273
	Pin Layout	21 x 21 (4 rows)
	ZIF	No
	Processors	Pentium 60/66 MHz Pentium 125-166 MHz Overdrive
Socket 5	Type	SPGA
	Class	Pentium
	Voltage	3.3V
	Pins	320
	Pin Layout	37 x 37 (5 rows staggered)
	ZIF	Yes
	Processors	Pentium 75-133 MHz Pentium 125-166 MHz Overdrive Pentium MMX 125-166 MHz Overdrive
Socket 6	Type	PGA
	Class	486
	Voltage	3.3V
	Pins	235
	Pin Layout	19 x 19 (4 rows)
	ZIF	No
	Processors	486 DX4 Pentium Overdrive
Socket 7	Type	SPGA
	Class	Pentium
	Voltage	2.5V - 3.3V
	Pins	321
	Pin Layout	37 x 37 (5 rows staggered)
	ZIF	Yes
	Processors	Pentium 75-233 MHz Pentium with MMX Pentium Overdrive AMD K5/K6 Cyrix 6x86

CPU Sockets Chart
This list is not comprehensive.

Socket 8	Type	PGA; SPGA
	Class	Pentium Pro
	Voltage	3.1V; 3.3V
	Pins	387
	Pin Layout	19 x 19 (5 rows dual)
	ZIF	Yes
	Processors	Pentium Pro
Slot 1	Type	SEC
	Class	Pentium II, Celeron
	Voltage	2.8V - 3.3V
	Pins	242
	Pin Layout	2 rows
	ZIF	n/a
	Processors	Pentium II 233-450 MHz Celeron 266-400 MHz
Slot 2	Type	SEC
	Class	Pentium II XEON
	Voltage	2.8V - 3.3V
	Pins	?
	Pin Layout	?
	ZIF	n/a
	Processors	Pentium II Xeon

[1] - Special voltage and/or pin adapter may be required.
LIF - Low Insertion Force socket (no handle).
MD - Minimum Delay (modified timing).
MSPGA - Modified Staggered Pin Grid Array.
ODP - OverDrive Processor.
ODPR - OverDrive Processor Replacement.
PGA - Pin Grid Array.
SECC - Single Edge Contact Cartridge.
SEPP - Single Edge Processor Package (Celeron).
SPGA - Staggered Pin Grid Array.
Split - Split voltages (lower core with a 3.3v I/O).
STD - 3.3v (3.135v ~ 3.465v) - Standard Voltage.
VR - 3.38v (3.300v ~ 3.465v) - Voltage Regulated.
VRE - 3.52v (3.450v ~ 3.600v) - (B-step) Voltage Regulated Extended.
VRE - 3.5v (3.400v ~ 3.600v) - (C2 step and later) Voltage Regulated Extended.
VRT - $2.9v_{core}$ / $3.3v_{I/O}$ - split Voltage Reduction Technology (mobile chips only).
VID VRM - Voltage ID Voltage Regulator Module (allows CPU to program VRM to proper voltage).
ZIF - Zero Insertion Force socket (with handle).

Notes:

- Socket 7 and Socket 5 are very similar in appearance, but there are significant differences.
- Socket 7 requires 5.0 amps at 3.3v, while Socket 5 only requires 4.33 amps.
- The maximum power dissipation for Socket 7 is 17 watts, two watts higher than Socket 5.

CPU Sockets Chart
This list is not comprehensive.

- Vertical clearance above the CPU was raised from 1.35" to 1.75".
- Socket 7 comes with a 321st pin located at AH-32 to be used for a KEY pin, which is not electronically connected to either the CPU or the motherboard.
- Pin AL-01 is changed to Vcc2DET to identify split-rail voltages within newer processors.
- Socket 7 is defined as a *superset* of Socket 5, and can handle all the previous processors that worked in Socket 5.
- Also note that most all Socket 5 motherboards only support 1.5x and 2.0x multipliers, making their maximum processor speed 133MHz (66x2.0). And there are also some Socket 5 boards that can only go up to 120MHz.
- Earlier Socket 7 motherboards do not have split voltage capabilities required by MMX-capable chips (AMD K6, Cyrix 6x86MX, Intel Pentium MMX) as well as the Cyrix 6x86L processor.
- 233MHz (66x3.5) chips utilize the 1.5x multiplier as 3.5x on Socket 7 boards that do not have a jumper for 3.5x. Newer motherboards, on the other hand, will add a third jumper (BF2) to take care of higher clock multipliers.
- Newer chips that use a 4.0x multiplier or higher require a Socket 7 motherboard that has a third multiplier jumper. Unlike using the '1.5x' setting as '3.5x', setting a motherboard to '2.0x' won't produce a '4.0x' multiplier in the chip.
- The 62MHz and 68MHz bus speeds are 'turbo' modes for 60MHz and 66MHz speeds.
- As long as it isn't on-Die, the L2 cache on a Slot 1 processor runs at only half the core processor speed. Slot 2 has processors with full-speed L2 cache and larger size caches (1MB, 2MB).
- All bus speeds listed on this page are actual speeds; not DDR. The Slot A, Socket A, Socket 423, Socket 603, and Slot M chips all use a dual (2x) or quad-pumped (4x) bus that hits on the rising and falling edges of the clock, yielding a faster effective bus speed. The quad-pumped bus works similar to that of AGP 4x mode (it uses a synchronous signal to double strobe each rising and falling edge).