

2008 EDN Microcontroller/Microprocessor Directory

64-bit microprocessors sorted by company

Company name	Device name or family	Instruction set architecture	CPU frequency (MHz)	Bus interface (address/data) (bits)	Instruction width (bits)	Core / I/O operating voltages (V)	Typical power at maximum frequency	Powerdown modes and minimum power	DSP/multiplication hardware support (bits)	FPU	Caching
AMD www.amd.com	AMD Athlon 64	x86	1800 to 2400	16/16, 128-bit memory bus	variable (x86)	1.25 to 1.5	35W, 62W TDP (socket AM2); 67W, 89W (socket 939)	ACPI, 3W (Halt), 250mW (S3), multiple p-states		Integrated	64-kbyte instruction/data, L2: 512-kbyte- or 1000-Mbyte
AMD www.amd.com	AMD Athlon 64 FX dual-core	x86	2600 to 2800	16/16, 128-bit memory bus	variable (x86)	1.2 to 1.35	125W TDP (socket AM2); 110W TDP(socket 939)	ACPI, 3W (Halt), 250mW (S3), multiple p-states		Integrated	64-kbyte instruction/data (per core) L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Athlon 64 X2 dual-core	x86	2000 to 2800	16/16, 128-bit memory bus	variable (x86)	1.3 to 1.4	35W, 65W, 89W TDP (socket AM2); 89W, 110W (socket 939)	ACPI, 3W (Halt), 250mW (S3), multiple p-states		Integrated	64-kbyte instruction/data (per core), L2: 512-kbyte or 1-Mbyte (per core)
AMD www.amd.com	AMD Mobile Athlon 64	x86	1600 to 2400	16/16	variable (x86)	1.15 to 1.35 (1.2 HT)	62W TDP	ACPI C1/C2/C3		Yes	64-kbyte instruction/data, L2: 1-Mbyte
AMD www.amd.com	AMD Opteron 144EE	x86	1800	16/16	variable (x86)		30W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 148HE	x86	2200	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 152	x86	2600	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 244EE	x86	1800	16/16	variable (x86)		30W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 248HE	x86	2200	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 252	x86	2600	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 848HE	x86	2200	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Opteron 852	x86	2600	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	AMD Sempron	x86	1600 to 2200	16/16, 128-bit memory bus	variable (x86)	1.25 to 1.4	35W, 62W TDP (socket AM2); 62W (socket 939)	ACPI, 3W (Halt), 250mW (S3), p-states on select models		Integrated	64-kbyte instruction/data, L2: 512-kbyte or 1-Mbyte
AMD www.amd.com	AMD Turion 64	x86	1600 to 2200	16/16	variable (x86)	0.85 to 1.35 (1.2 HT)	25 and 35W TDP	ACPI C1/C2/C3/C3 Deeper sleep		Yes	64-kbyte instruction/data, L2: 512-kbyte or 1-Mbyte
AMD www.amd.com	AMD Turion 64 X2	x86	1600 to 2200	16/16	variable (x86)						
AMD www.amd.com	Dual-Core AMD Opteron 165	x86	1800	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	Dual-Core AMD Opteron 165HE	x86	1800	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
AMD www.amd.com	Dual-Core AMD Opteron 265	x86	1800	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	Dual-Core AMD Opteron 265HE	x86	1800	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
AMD www.amd.com	Dual-Core AMD Opteron 865	x86	1800	16/16	variable (x86)		95W				L2: 1-Mbyte (per core)
AMD www.amd.com	Dual-Core AMD Opteron 865HE	x86	1800	16/16	variable (x86)		55W				L2: 1-Mbyte (per core)
Broadcom Corporation www.broadcom.com	BCM1122	MIPS	400	16/64	64	1.2/3.3	4W			Two pipelines; single and double precision	32K/32K instruction/data L2 - 128KB
Broadcom Corporation www.broadcom.com	BCM1125H	MIPS	800	16/64	64	1.2/3.3	6W			Two pipelines; single and double precision	32K/32K instruction/data L2 - 256KB
Broadcom Corporation www.broadcom.com	BCM1250	MIPS64	700		64		12 W	Power management		Two pipelines; single and double precision	Up to 512-Kbyte shared between cores
Cavium Networks www.caviumnetworks.com	OCTEON CN3005	MIPS64 Release 2, 1 core	300, 400	16	32	1.0, 1.1/1.8, 2.5, 3.3	2	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		16/8-kbyte instruction/data, shared L2: 64-kbyte

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DDR2-800/667 (socket AM2) or DDR-400/333/266/200 (socket 939)	Integrated, operating at full processor clock speed		940 LGA; 939 uPGA		2 GHz Hyper-Transport to chipset and I/O			+5 to +65 or higher	Cool'n'Quiet, Enhanced Virus Protection, AMD Digital Media Xpress	\$231 to \$343
DDR2-800/667 (socket AM2) or DDR-400/333/266/200 (socket 939)	Integrated, operating at full processor clock speed		940 LGA; 939 uPGA		2 GHz Hyper-Transport to chipset and I/O			+5 to +63 or higher	Cool'n'Quiet, Enhanced Virus Protection, AMD Digital Media Xpress	\$827 to \$1031
DDR2-800/667 (socket AM2) or DDR-400/333/266/200 (socket 939)	Integrated, operating at full processor clock speed		940 LGA; 939 uPGA		2 GHz Hyper-Transport to chipset and I/O			+5 to +65 or higher	Cool'n'Quiet, Enhanced Virus Protection, AMD Digital Media Xpress	\$303 to \$696
DDR400/333/266/200	Integrated		754 uPGA, lidless		Hyper-Transport			0 to +95	NX bit, SSE3	\$115 to \$307
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$163
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$455
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$455
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$873
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$873
DDR2-800/667 (socket AM2) or DDR-400/333/266/200 (socket 939)	Integrated, operating at full processor clock speed		940 LGA; 754 uPGA		1.6 GHz + E19 Hyper-Transport to chipset and I/O			+5 to +69 or higher	Cool'n'Quiet, Enhanced Virus Protection+X15	\$67 to \$145
DDR400/333/266/200	Integrated		754 uPGA, lidless		Hyper-Transport			0 to +95	NX bit, SSE3	\$150 to \$354
Dual-channel DDR2 controller					Hyper-Transport			0 to +95	NX bit, SSE3	\$184 to \$354
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$316
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$690
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$698
DDR400/333/266/200	Integrated		Lidded 940 oPGA		Hyper-Transport			0 to +95	NX bit	\$1165
Up to 4-Gbyte DRAM, up to 256-Mbyte Flash	64-bit DDR1 up to 200MHz data	Yes	899-FCBGA	2 watchdog, 4 general	1G Ethernet, Fast Ethernet, 2 serial, 2 SMBus, 16 GPIO, PCMCIA	Multiple Sources		0 to +100 (junction)	HT Port, PCI 32-bit/66MHz, JTAG, Generic Bus	\$65
Up to 4-Gbyte DRAM, up to 256-Mbyte Flash	64-bit DDR1 up to 400MHz data	Yes	899-FCBGA	2 watchdog, 4 general	Two 1G Ethernet, 2 serial, 2 SMBus, 16 GPIO, PCMCIA	Multiple Sources		0 to +100 (junction)	PCI 32-bit/66MHz, JTAG, Generic Bus	\$85 to \$200
Up to 4-Gbyte	Four 32-bit or two 64-bit; DDR/DDR2 up to 200MHz	64-entry TLB	PBGA Package	Two watchdog, four general	Three 1G Ethernet, two serial, two SMBus, GPIO, PCMCIA	Many sources		0 to +100 (junction)	One SPI/HT port	\$150 to \$300
2-Gbyte DDR2 main, 256-Mbyte Flash	DDR2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	564 BGA	16 independent chains	2 RGMII/MII or one GMII, 2 UART, USB 2.0 w/PHY, TDM / PCM for voice	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP hardware acceleration, Security	\$19 to \$29

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Cavium Networks www.caviumnetworks.com	OCTEON CN3010	MIPS64 Release 2, 1 core	300, 400, 500	32	32	1.0, 1.1/1.8, 2.5, 3.3	3	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		16/8-kbyte instruction/data, shared L2: 128-kbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3020	MIPS64 Release 2, 2 cores	300, 400	33	32	1.0, 1.1/1.8, 2.5, 3.3	4	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data, shared L2: 128-kbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3110	MIPS64 Release 2, 1 core	300, 400, 550, 550	72	32	1.0, 1.1/1.8, 2.5, 3.3	4	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data, shared L2: 256-kbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3120	MIPS64 Release 2, 2 cores	300, 400, 500, 550	72	32	1.0, 1.1/1.8, 2.5, 3.3	6	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 256-kbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3630	MIPS64 Release 2, 4 cores	400, 500, 550, 600	72	32	1.1,1.2, 1.3/1.8,2.5, 3.3	14	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 512-kbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3830	MIPS64 Release 2, 4 cores	400, 500, 550, 600	72/144	32	1.1,1.2, 1.3/1.8,2.5, 3.3	19	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3840	MIPS64 Release 2, 8 cores	400, 500, 550, 600	72/144	32	1.1,1.2, 1.3/1.8,2.5, 3.3	21	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3850	MIPS64 Release 2, 12 cores	400, 500, 550, 600	72/144	32	1.1,1.2, 1.3/1.8,2.5, 3.3	23	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON CN3860	MIPS64 Release 2, 16 cores	400, 500, 550, 600	72/144	32	1.1,1.2, 1.3/1.8,2.5, 3.3	26	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/8-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5420	MIPS64 Release 2, 2 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	10	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5430	MIPS64 Release 2, 4 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	13	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5434	MIPS64 Release 2, 6 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	16	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5520	MIPS64 Release 2, 2 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	10	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5530	MIPS64 Release 2, 4 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	13	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5534	MIPS64 Release 2, 6 cores	600, 800, 900, 1000	72	32	1.0,1.2/1.8,2.5, 3.3	16	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 512Kbyte/1Mbyte

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4-Gbyte DDR2 main, 256-Mbyte Flash	DDR2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	564 BGA	16 independent chains	RGMII/MII, 2 RGMII or one RGMII/MII and one GMII, 2 UART, USB 2.0 w/PHY, TDM / PCM for voice	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP hardware acceleration, Security	\$29 to \$39
4-Gbyte DDR2 main, 256-Mbyte Flash	DDR2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	564 BGA	16 independent chains	RGMII/MII, 2 RGMII or one RGMII/MII and one GMII, 2 UART, USB 2.0 w/PHY, TDM / PCM for voice	32 Internal, 20 external		-40 to +70	JTAG debugging, Ethernet/IP/TCP/UDP hardware acceleration, Security	\$35 to \$55
8-Gbyte DDR2 main, 1-Gbyte DDR2 DFA (optional) 256-Mbyte Flash	DDR2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	3 RGMII or one RGMII and one GMII, 2 UART, USB 2.0 w/PHY, TDM / PCM for voice	32 Internal, 20 external		-40 to +85	Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors, JTAG debugging	\$49 to \$125
8-Gbyte DDR2 main, 1-Gbyte DDR2 DFA (optional) 256-Mbyte Flash	DDR2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	3 RGMII or one RGMII and one GMII, 2 UART, USB 2.0 w/PHY, TDM / PCM for voice	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$49 to \$125
8-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	One SPI4.2 or four RGMII, 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$125 to \$725
16-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64-bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$125 to \$725
16-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64-bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$125 to \$725
16-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$125 to \$725
16-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	32 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$125 to \$725
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$59 to \$250
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$59 to \$250
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$59 to \$250
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$59 to \$250
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$59 to \$250
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	868 BGA	16 independent chains	12 serdes configurable as ([2x 1,2,4-lanes PCIe or 1x 8-lane PCIe] + 4x SGMII or 4x 1000BX or 1x XAU)	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$59 to \$250

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Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5634	MIPS64 Release 2, 6 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	18	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5640	MIPS64 Release 2, 8 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	22	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5645	MIPS64 Release 2, 10 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	26	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5650	MIPS64 Release 2, 12 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	30	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5734	MIPS64 Release 2, 6 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	18	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 1-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5740	MIPS64 Release 2, 8 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	22	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5745	MIPS64 Release 2, 10 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	26	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5750	MIPS64 Release 2, 12 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	30	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5830	MIPS64 Release 2, 4 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	23	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5840	MIPS64 Release 2, 8 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	27	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5850	MIPS64 Release 2, 12 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	31	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
Cavium Networks www.caviumnetworks.com	OCTEON Plus CN5860	MIPS64 Release 2, 16 cores	600, 800, 900, 1000	72/144	32	1.0, 1.2/ 1.8, 2.5, 3.3	35	Extensive conditional clocking	Up to 256 bit product MULs. CRC32, GFM		32/16-kbyte instruction/data (per core), shared L2: 2-Mbyte
CPU Tech www.cputech.com	ACALIS 872 (two cores)	PowerPC	400, 533, 677, 800	64/64	32	1.2 / 1.8 / 2.5 / 3.3	8W	Idle, stop	MAC	Dual	32-kbyte instruction/data eight-way set-associative 256-kbyte 8-way set-associative L2 with ECC
CPU Tech www.cputech.com	ACALIS 878 (eight cores)	PowerPC	400, 533, 677, 800	64/64	32	1.2 / 1.8 / 2.5 / 3.3	32W	Idle, stop	MAC	Eight	32-kbyte instruction/data eight-way set-associative 256-kbyte 8-way set-associative L2 with ECC

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Memory	DMA / memory controller	MMU	Package selection	Timers / PWM	Serial, Parallel I/O	Interrupts	ADC; DAC	Temperature ranges (degrees Celsius)	Additional features	Price (\$/10,000)
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 SERDES configurable as PCIe (2 controllers), XAU, SGMII	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$199 to \$575
16-Gbyte DDR2, 256-Mbyte Flash	DDR2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1217 BGA	16 independent chains	16 serdes configurable as (2x 8-lanes PCIe or 2x 4-lane PCIe + 2x [4x SGMII, 4x 1000BX, 1x XAU])	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RAID coprocessors	\$199 to \$575
16-Gbyte DDR2, 512-Mbyte RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$255 to \$987
16-Gbyte DDR2, 512-Mbyte RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$255 to \$987
16-Gbyte DDR2, 512MB RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two [SPI4.2 or four RGMII], 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$255 to \$987
16-Gbyte DDR2, 512-Mbyte RDRAM2 (optional), 256-Mbyte Flash	DDR2, RDRAM2	64 dual-entry TLB, fully associative, 4-kbyte to 256-Mbyte pages	1521 BGA	16 independent chains	Two SPI4.2 or four RGMII, 2 UART, PCI-X 64 bit/133MHz	32 Internal, 20 external		-40 to +85	JTAG debugging, Ethernet/IP/TCP/UDP acceleration, Security, (de)compression, RegEx coprocessors	\$255 to \$987
4-Mbyte DRAM per core (two cores)	DDR2 64 bit + ECC (2) / MPI Hardware (2) / Streaming Hardware (2)	64 entry TLB	899 BGA	Programmable I/O and Timers	Five 10G Express Links, 10/100/1G Ethernet, IIC, 16 GPIO	45 with two priority levels		-40 to +105	On Chip Firewall and AT Security Fabricated at the IBM Trusted Foundry	from \$200
4-Mbyte DRAM per core (eight cores)	DDR2 64 bit + ECC (2) / MPI Hardware (8) / Streaming Hardware (8)	64 entry TLB	1500 BGA	Programmable I/O and Timers	Eight 10G Express Links, four 10/100/1G Ethernet, IIC, 64 GPIO	180 with two priority levels		-40 to +105	On Chip Firewall and AT Security Fabricated at the IBM Trusted Foundry	

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IBM ibm.com/technology	PowerPC 970FX	Power Architecture	1000 to 2200	32 in, 32 out	64	1.0 to 1.3/ 1.5	48W (2.2 GHz)	Nap, doze, sleep, deep sleep		Two double precision units	64-/32-kbyte instruction/data
IBM ibm.com/technology	PowerPC 970MP	Power Architecture	1200 to 2500	32 in, 32 out	64	1.0 to 1.3/ 1.3 to 1.5	90W (2.5 GHz)	Nap, doze, sleep, deep sleep		Two double precision units per core	64-/32-kbyte instruction/data
IMEC www.imec.be	ADRES SDR M4	ADRES ISA 1.0	400	AHB 32/32, 28/128, 8/32	32, 46 (dataflow mode)	1.0/3.3	250 mW	User-added	dataflow operation mode with 16 ALUs, 16x16 fixpoint muls, 4-way SIMD support		32k
Intel www.intel.com	64-bit Intel Xeon Processor	x86	3200		64		65			Yes	1-Mbyte
Intel www.intel.com	64-bit Intel Xeon Processor MP	x86	3660		64		110			Yes	1-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor 5128	x86	1860		64		40			Yes	4-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor 5130	x86	2000		64		65			Yes	4-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor 5138	x86	2130		64		35			Yes	4-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor 5140	x86	2330		64		65			Yes	4-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor 5148	x86	2330		64		40			Yes	4-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor E5220	x86	2330		64		65			Yes	6-Mbyte
Intel www.intel.com	Dual-Core Intel Xeon Processor E5240	x86	3000		64		65			Yes	6-Mbyte
Intel www.intel.com	Intel Celeron D Processor 315	x86	2260		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 320	x86	2400		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 325	x86	2530		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 330	x86	2660		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 331	x86	2660		64		65			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 335	x86	2800		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 336	x86	2800		64		84			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 340	x86	2930		64		73			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 341	x86	2930		64		84			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 346	x86	3060		64		84			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 347	x86	3060		64		65			Yes	512-kbyte
Intel www.intel.com	Intel Celeron D Processor 351	x86	3200		64		84			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 352	x86	3200		64		80			Yes	512-kbyte
Intel www.intel.com	Intel Celeron D Processor 355	x86	3330		64		84			Yes	256-kbyte
Intel www.intel.com	Intel Celeron D Processor 356	x86	3330		64		65			Yes	512-kbyte
Intel www.intel.com	Intel Celeron D Processor 360	x86	3460		64		65			Yes	512-kbyte

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512-kbyte L2 plus VMX/SIMD		1024-entry TLB, 4-way set associative plus 128-entry data/instruction ERAT, 2-way	576 CBGA, 25 mm					0 to +105	Support for virtualization; dynamic voltage and frequency scaling	
1-Mbyte L2 plus VMX/SIMD per core		1024-entry TLB, 4-way set associative plus 128-entry data/instruction ERAT, 2-way	576 CBGA, 25 mm					0 to +105	Support for virtualization; dynamic voltage and frequency scaling	
32-kbyte L1 data			IP core					0 to +125	debug interface, dataflow operation mode (coarse-grained reconfigurable array) for loop acceleration	Perpetual white-box-IP license
Varies by Chipset			PPGA604						90 nm	
Varies by Chipset			PPGA604						90 nm	
Varies by Chipset			LGA771						65 nm	
Varies by Chipset			LGA771						65 nm	\$316
Varies by Chipset			LGA771						65 nm	
Varies by Chipset			LGA771						65 nm	\$455
Varies by Chipset			LGA771						65 nm	\$519
Varies by Chipset			LGA771						45 nm	
Varies by Chipset			LGA771						45 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA775						65 nm	

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Company name	Device name or family	Instruction set architecture	CPU frequency (MHz)	Bus interface (address/data) (bits)	Instruction width (bits)	Core / I/O operating voltages (V)	Typical power at maximum frequency	Powerdown modes and minimum power	DSP/multiplication hardware support (bits)	FPU	Caching
Intel www.intel.com	Intel Celeron D Processor 365	x86	3600		64		65			Yes	512-kbyte
Intel www.intel.com	Intel Celeron M Processor 530	x86	1730		64		31			Yes	1-Mbyte
Intel www.intel.com	Intel Celeron Processor 440	x86	2000		64		35			Yes	512-kbyte
Intel www.intel.com	Intel Celeron Processor 550	x86	2000		64		31			Yes	1-Mbyte
Intel www.intel.com	Intel Core2 Duo Desktop Processor E4300	x86	1800		64		65			Yes	2-Mbyte
Intel www.intel.com	Intel Core2 Duo Desktop Processor E6400	x86	2130		64		65			Yes	2-Mbyte
Intel www.intel.com	Intel Core2 Duo Desktop Processor E8400	x86	3000		64		65			Yes	6-Mbyte
Intel www.intel.com	Intel Core2 Duo Mobile Processor L7400	x86	1500		64		17			Yes	4-Mbyte
Intel www.intel.com	Intel Core2 Duo Mobile Processor L7500	x86	1600		64		17			Yes	4-Mbyte
Intel www.intel.com	Intel Core2 Duo Mobile Processor T7400	x86	2160		64		34			Yes	4-Mbyte
Intel www.intel.com	Intel Core2 Duo Mobile Processor T7500	x86	2200		64		35			Yes	4-Mbyte
Intel www.intel.com	Intel Core2 Duo Mobile Processor U7500	x86	1060		64		10			Yes	2-Mbyte
Intel www.intel.com	Intel Core2 Quad Processor Q9400	x86	2660		64		95			Yes	6-Mbyte
Intel www.intel.com	Intel Pentium Dual-Core Desktop Processor E2160	x86	1800		64		65			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 521	x86	2800		64		84			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 530	x86	3000		64		84			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 531	x86	3000		64		65			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 540	x86	3200		64		84			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 541	x86	3200		64		84			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 550	x86	3400		64		115			Yes	1-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 551	x86	3400		64		84			Yes	1-Mbyte

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Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PBGA479						65 nm	\$86
Varies by Chipset			LGA775						65 nm	\$44
Varies by Chipset			PBGA479						65 nm	\$86
Varies by Chipset			LGA775						65 nm	113
Varies by Chipset			LGA775						65 nm	183
Varies by Chipset			LGA775						45 nm	\$163
Varies by Chipset			PBGA479						65 nm	316
Varies by Chipset			PBGA479						65 nm	284
Varies by Chipset			PBGA479						65 nm	307
Varies by Chipset			PBGA479						65 nm	241
Varies by Chipset			PBGA479						65 nm	262
Varies by Chipset			LGA775						45 nm	
Varies by Chipset			LGA775						65 nm	64
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	
Varies by Chipset			PPGA478						90 nm	
Varies by Chipset			PLGA775						90 nm	

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Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 631	x86	3000		64		65			Yes	2-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 641	x86	3200		64		86			Yes	2-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 651	x86	3400		64		65			Yes	2-Mbyte
Intel www.intel.com	Pentium 4 Processor supporting Hyper-Threading Technology 661	x86	3600		64		80			Yes	2-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor E5335	x86	2000		64		80			Yes	8-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor E5345	x86	2330		64		80			Yes	8-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor E5440	x86	2830		64		80			Yes	12-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor L5318	x86	1600		64		40			Yes	8-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor L5408	x86	2130		64		40			Yes	12-Mbyte
Intel www.intel.com	Quad-Core Intel Xeon Processor L5410	x86	2330		64		50			Yes	12-Mbyte
PMC-Sierra www.pmc-sierra.com	MSP8510	MIPS64	600 to 1000	64 DDRI/DDRII SDRAM, GE, 32 PCI, PL3, Local	32	1.2, 2.5, 3.3	5 to 8W	Standby	64-bit	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, ECC
PMC-Sierra www.pmc-sierra.com	MSP8520	MIPS64	600 to 1000	64 DDRI/DDRII SDRAM, GE, 32 PCI, PL3, Local	32	1.2, 2.5, 3.3	5 to 8W	Standby	64-bit	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, ECC
PMC-Sierra www.pmc-sierra.com	RM5231A	MIPS IV	250, 300, 350, 400		32	1.65, 1.8/2.5, 3.3	Less than 1W (400 MHz)	Standby	MAC/MAD/MADU, multiply (three-operand and cycle)	One/two-cycle rate single/double-precision IEEE 754	32-kbyte instruction/data, two-way set associative
PMC-Sierra www.pmc-sierra.com	RM5261A	MIPS IV	250, 300, 350, 400		64	1.65, 1.8/2.5, 3.3	Less than 1W (400 MHz)	Standby	MAC/MAD/MADU, multiply (three-operand and cycle)	One/two-cycle rate single/double-precision IEEE 754	32-kbyte instruction/data, two-way set associative
PMC-Sierra www.pmc-sierra.com	RM7000C	MIPS IV	533, 600		64	1.5/2.5/3.3	2.5W (600 MHz)	Standby	MAD/MADU, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through
PMC-Sierra www.pmc-sierra.com	RM7035C	MIPS64	300, 466, 533, 600		32	1.5/2.5/3.3	2.5W (600 MHz)	Standby	MAD/MADU, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through

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Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA775						65 nm	
Varies by Chipset			PLGA771						65 nm	\$316
Varies by Chipset			PLGA771						65 nm	\$455
Varies by Chipset			LGA771						45 nm	\$690
Varies by Chipset			PLGA771						65 nm	
Varies by Chipset			LGA771						45 nm	
Varies by Chipset			LGA771						45 nm	\$320
32-kbyte scratch	200 MHz DDRI/DDRII SDRAM	64 dual-entry TLB, 4-kbyte to 256-Mbyte pages	896 FCBGA	Four general-purpose, watchdog	Two GE, two PCI, DUART	256 vectored		0 to +85		\$90 to \$140
32-kbyte scratch	200 MHz DDRI/DDRII SDRAM	64 dual-entry TLB, 4-kbyte to 256-Mbyte pages	896 FCBGA	Four general-purpose, watchdog	Two GE, two PCI, DUART	256 vectored		0 to +85	Integrated IPSec H/W Security Engine	\$95 to \$150
		48 dual-entry TLB, 96 pages, 4-kbyte to 16-Mbyte	128 QFP 128 Exposed Pad		32-bit SysAD	6, non-maskable		-45 to +85 0 to +70 0 to +85		\$12 to \$18
		48 dual-entry TLB, 96 pages, 4-kbyte to 16-Mbyte	208 QFP		64-bit SysAD	6, non-maskable		-45 to +85 0 to +70 0 to +85		\$16 to \$22
	L3 cache controller for up to 8-Mbyte external cache	64/48 dual-entry TLB, 128/96 pages	304 TBGA	32-bit	64-bit SysAD	10 external, two internal, two software		0 to +70 0 to +85		\$80 to \$90
		64/48 dual-entry TLB, 128/96 pages	128 Exposed Pad	32-bit	32-bit SysAD	10 external, two internal, two software		0 to +70 0 to +85		\$34 to \$74

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Company name	Device name or family	Instruction set architecture	CPU frequency (MHz)	Bus interface (address/data) (bits)	Instruction width (bits)	Core / I/O operating voltages (V)	Typical power at maximum frequency	Powerdown modes and minimum power	DSP/multiplication hardware support (bits)	FPU	Caching
PMC-Sierra www.pmc-sierra.com	RM7065C	MIPS IV	300, 466, 533, 600	64	32	1.5/2.5/3.3	2.5W (600 MHz)	Standby	MAD/MADU, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through
PMC-Sierra www.pmc-sierra.com	RM7900	MIPS64	668, 750, 835	64	32	1.5/2.5/3.3	4.8W (835 MHz)	Standby	MAD/MADU, multiply/subtract, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through, ECC
PMC-Sierra www.pmc-sierra.com	RM7935	MIPS64	668, 750, 835	32	32	1.5/2.5/3.3	4.7W (835 MHz)	Standby	MAD/MADU, multiply/subtract, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through, ECC
PMC-Sierra www.pmc-sierra.com	RM7965	MIPS64	668, 750, 835	64	32	1.5/2.5/3.3	4.7W (835 MHz)	Standby	MAD/MADU, multiply/subtract, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through, ECC
PMC-Sierra www.pmc-sierra.com	RM7965A	MIPS64	900,1000	64	32	1.5/2.5/3.3	5W (1000 MHz)	Standby	MAD/MADU, multiply/subtract, multiply (three-operand and cycle)	Single/double-precision IEEE 754	16-kbyte instruction/data, L2: 256-kbyte, four way set associative, line locking, write back/through, ECC
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4925XBG-200	MIPS64	200	20 to 28/8 to 64	32	1.5/3.3	0.9W	Halt, doze, reduce frequency	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	16-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4926XBG-200	MIPS64	200	20 to 28/8 to 32	32	1.5/3.3	0.9W	Halt, doze, reduce frequency	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	16-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4937XBG-300/333	MIPS64	300	20 to 28/8 to 32	32	1.5/3.3	1.2W	Halt	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4938XBG-300/333	MIPS64	300, 333	20 to 28/8 to 32	32	1.5/3.3	1.2W	Halt	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4955BFG-200/300	MIPS64	200, 300	32	32	1.5/3.3	450 or 600 mW	Halt, doze	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4955CFG-400	MIPS64	400	32	32	1.2/3.3	600 mW	Halt, doze	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR 4956CXBG-400	MIPS64	400	64/32	32	1.2/3.3	700 mW	Halt, doze	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TMPR4951BFG-200	MIPS64	200	32	32	1.5/3.3	350mW	Halt, doze	One-cycle 64x64 MAC		16/8-kbyte instruction/data, four-way set associative, FIFO, lock

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Memory	DMA / memory controller	MMU	Package selection	Timers / PWM	Serial, Parallel I/O	Interrupts	ADC; DAC	Temperature ranges (degrees Celsius)	Additional features	Price (\$/10,000)
		64/48 dual-entry TLB, 128/96 pages	256 TBGA	32-bit	64-bit SysAD	10 external, two internal, two software		-40 to +85 0 to +70 0 to +85		\$37 to \$78
	L3 cache controller for up to 8-Mbyte external cache	64/48 dual-entry TLB, 128/96 pages	304 EPBGA	Two 32-bit	64-bit SysAD	10 external, two internal, two software		0 to +70 0 to +85	ECC on L2 cache, on-chip EJTAG	\$80 to \$96
		64/48 dual-entry TLB, 128/96 pages	128 Exposed Pad	Two 32-bit	32-bit SysAD	10 external, two internal, two software		0 to +85	ECC on L2 cache, on-chip EJTAG	\$76 to \$115
		64/48 dual-entry TLB, 128/96 pages	256 TBGA	Two 32-bit	64-bit SysAD	10 external, two internal, two software		0 to +85	ECC on L2 cache, on-chip EJTAG	\$84 to \$111
		64/48 dual-entry TLB, 128/96 pages	256 CSBGA+	Two 32-bit	64-bit SysAD	10 external, two internal, two software		0 to +85	ECC on L2 cache, on-chip EJTAG	\$96 to \$106
	Four-channel SDRAM, NOR/NAND Flash, DMA	48-entry TLB, fully associative	256 PBGA Lead-free	Three 32-bit, real-time, watchdog	PCI 2.2 32-bit, 33-MHz, two serial, up to 32 PIO, SPI, ACLC, PCMCIA	7 external, non-maskable		0 to +70	EJTAG debug	\$13
	Four-channel SDRAM, NOR/NAND Flash, ROM, DMA	48-entry TLB, fully associative	256 PBGA Lead-free	Three 32-bit, real-time, watchdog	PCI 2.2 32-bit, 33-MHz, two serial, up to 32 PIO, SPI, ACLC, PCMCIA	7 external, non-maskable		0 to +70	DES/3DES, EJTAG debug	\$18
	Four-channel SDRAM, NOR Flash, ROM, DMA	48-entry TLB, fully associative	484 PBGA Lead-free	Three 32-bit, watchdog	PCI 2.2 32-bit, 66-MHz, two serial, up to 16 PIO, ACLC	5 external, non-maskable		0 to +70	EJTAG debug	\$20
	Four-channel SDRAM, NAND/NOR Flash, ROM, DMA	48-entry TLB, fully associative	484 PBGA Lead-free	Three 32-bit, watchdog	PCI 2.2 32-bit, 66-MHz, ACLC, SPI, two Ethernet, two serial, up to 16 PIO	5 external, non-maskable			EJTAG debug	\$20 to \$22
		48-entry TLB, fully associative	160 QFP Lead-free			6 external		0 to +70	EJTAG debug	\$8 to \$12
		48-entry TLB, fully associative	160 QFP Lead-free			6 external		-20 to +85	EJTAG debug	\$14
		48-entry TLB, fully associative	217 FPBGA Lead-free			6 external		-20 to +85	EJTAG debug	\$16
		48-entry TLB, fully associative	100QFP Lead-free			4 external		-20 to +85	EJTAG debug	

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Toshiba America Electronic Components www.toshiba.com/taec	TX4939XBG-400	MIPS64	400	8/16	32	1.2/2.6/3.3	1.5W	Halt	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	32-kbyte instruction/data, four-way set associative, FIFO, lock
Toshiba America Electronic Components www.toshiba.com/taec	TX4961XBG-240	MIPS64	240	27/16	32	1.5/2.5/3.3	1.3W	Halt, doze, sleep	One-cycle 64x64 MAC	IEEE-754-compliant, single/double-precision	16/16-kbyte instruction/data, 4-way set associative, write-back, lock
Toshiba America Electronic Components www.toshiba.com/taec	TX4964FG-120	MIPS64	120	29/16	32	1.2/2.5/3.3	<1W	Halt, doze, sleep	One-cycle 64x64 MAC		8K/8K-byte instruction/data, 4-way set associative, write-back, lock

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Memory	DMA / memory controller	MMU	Package selection	Timers / PWM	Serial, Parallel I/O	Interrupts	ADC; DAC	Temperature ranges (degrees Celsius)	Additional features	Price (\$/10,000)
	Two-channel DDR, NAND/NOR Flash, DMA	48-entry TLB, fully associative	456 PBGA Lead-free	Six 32-bit, real-time, watchdog	PCI 2.2 32-bit, 66-MHz, ACLC/I2S, SPI, two Ethernet, PIO, I2C four serial, two ATA ports, video ports	3 external, non-maskable		0 to +85	Security Engine(AES,SHA1,etc), EJTAG debug	\$22
4-kbyte SRAM	2-channel DDR SDRAM, NAND/NOR Flash, ROM, DMA	48-entry TLB, fully associative	456 PBGA Lead-free	6 x 32-bit, 6 x PWM, watchdog	3 x UART, 2 x SPI, 3 x CAN, MOST, GPIO, I2C, AC97	4 external maskable, 1 NMI	8-channel 10-bit	-40 to +85	Graphics accelerator HW, display controller w/TCON, digital camera input, EJTAG debug	\$24 to \$29
4-kbyte SRAM, on-chip embedded DRAM	on-chip DRAM, NOR Flash, ROM, DMA	48-entry TLB, fully associative	176 LQFP Lead free	3 x 32-bit, 3 x PWM, watchdog	2 x UART, 2 x SPI, 2 x CAN, GPIO, I2C, I2S	6 external maskable, 1 NMI		-40 to +85	Graphics accelerator HW, display controller w/TCON, digital camera input, embedded DRAM, EJTAG debug	\$19 to \$23