

MIPS® Architecture More Ways to Win

If you're looking for smarter design solutions look no further than the MIPS® architecture. You'll find the broadest range of low-power and high-performance 32-bit and 64-bit CPUs, ASSPs, ASICs, hard and soft cores, architecture licenses, and application-specific extensions, for the embedded market.

MIPS Technologies' open architecture and unique licensing model have allowed more than 40 companies to create an enormous array of processor products: from quad-issue CPUs running at up to 1 GHz, to ultralow-power CPU cores occupying less than a half-millimeter of silicon. With choices like these, it's easy to find the right solution, at the chip or core level, for running your embedded application software—now and in the future.

HUNDREDS OF DEVELOPMENT TOOLS

If you're looking for rapid, reliable, cost-effective development, we have the solution. Only the MIPS architecture gives you access to hundreds of development tools and support from dozens of leading third-party vendors. You name it: RTOSs, debug-ins, middleware, applications, boards and device drivers; compilers (GNU and non-GNU), debuggers, IDEs, simulators, models, design and consulting services, and SoC components. The MIPS architecture provides the tools and support you need to succeed.



MIPS-Based™ Products

VENDOR	PRODUCT NAME	PRODUCT TYPE	INSTRUCTION SET	CLOCK FREQUENCY (MHz)	INSTRUCTION CACHE (KB)	DATA CACHE (KB)	FLOATING POINT UNIT	PACKAGE	ON-CHIP PERIPHERALS
SYNTHESIZABLE CORES									
Artix Microsystems, Inc.	TC790	64-bit CORE	HiVU	200	32	32	YES	CORE	SDRAM, ROMC, DMAC, PCIC, SIO, Timer, SPI, 10/100MAC
LSI Logic	TinyRISC EZ4103	32-bit Synthesized Core	II w/ MIPS16	120 (0.18 G12)	0-32	0-32	NO	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MIPS32 4KEc	32-bit Synthesized Core	MIPS32 w/ MIPS16e	200 (0.18u G12)	0-64	0-64	NO	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MIPS32 4KEc	32-bit Synthesized Core	MIPS32 w/ MIPS16e	250 (0.13u G1b)	0-64	0-64	NO	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MiniRISC EZ4021	64-bit Synthesized Core	III	250 (0.18u G12)	16	16	NO	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MiniRISC EZ4030	64-bit Synthesized Core	III w/ FPU	250 (0.18u G12)	16	16	YES	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MIPS64 5Kf	64-bit Synthesized Core	MIPS64 w/ FPU	250 (0.18u G12)	0-64	0-64	YES	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
LSI Logic	MIPS64 5Kf	64-bit Synthesized Core	MIPS64 w/ FPU	300 (0.13u G1b)	0-64	0-64	YES	SYNTHESIZED CORE	EJTAG, AMBA I/F, Extensive AMBA I/F Portfolio and Reference Platforms
MIPS	MIPS32 4Kc	32-bit CORE	MIPS32	up to 200 (0.18u)	0-16	0-16	NO	RTL CORE	EJTAG Rev. 2.5
MIPS	MIPS32 4Kcm	32-bit CORE	MIPS32	up to 200 (0.18u)	0-16	0-16	NO	RTL CORE	EJTAG Rev. 2.5
MIPS	MIPS32 4Kcp	32-bit CORE	MIPS32	up to 200 (0.18u)	0-16	0-16	NO	RTL CORE	EJTAG Rev. 2.5
MIPS	MIPS32 4KEc	32-bit CORE	MIPS32	up to 200 (0.18u)	0-64	0-64	NO	RTL CORE	MIPS16e, COP2, EJTAG Rev. 2.5
MIPS	MIPS32 4KEcm	32-bit CORE	MIPS32	up to 200 (0.18u)	0-64	0-64	NO	RTL CORE	MIPS16e, COP2, EJTAG Rev. 2.5
MIPS	MIPS32 4KEcp	32-bit CORE	MIPS32	up to 200 (0.18u)	0-64	0-64	NO	RTL CORE	MIPS16e, COP2, EJTAG Rev. 2.5
MIPS	MIPS32 4KSc	32-bit CORE	MIPS32	up to 150 (0.13u)	0-64	0-64	NO	RTL CORE	SmartMIPS, MIPS16e, COP2, EJTAG Rev. 2.5
MIPS	MIPS64 5Kc	64-bit CORE	MIPS64	up to 310 (0.13u)	0-64	0-64	NO	RTL CORE	EJTAG Rev. 2.5
MIPS	MIPS64 5Kf	64-bit CORE	MIPS64 w/ FPU	up to 310 (0.13u)	0-64	0-64	YES	RTL CORE	EJTAG Rev. 2.5

4000 CORES FOR INTEGRATION									
Chartered-MIPS	MIPS32 4Kp/HKm/4Kc	32-bit CORE	MIPS32	100 (0.25u)	16	16	NO	CORE	EJTAG Rev. 2.5
Chartered-MIPS	MIPS32 4Kp/HKm/4Kc	32-bit CORE	MIPS32	160 (0.18u)	8	8	NO	CORE	EJTAG Rev. 2.5
NEC	NX4120A	64-bit CORE	III w/ MIPS16	167 (0.13u)	8	8	NO	CORE	
Philips	PR1900	32-bit CORE	II w/ MIPS16	50 (0.35u)	8	4	NO	CORE	MIPS EJTAG Rev. 1.53, full line of Philips peripheral blocks, optional
Philips	PR1900	32-bit CORE	II w/ MIPS16	80 (0.25u)	8	4	NO	CORE	MIPS EJTAG Rev. 1.53, full line of Philips peripheral blocks, optional
Philips	PR3910	32-bit CORE	II w/ MIPS16	100 (0.18u)	8	4	NO	CORE	MIPS EJTAG Rev. 1.53, full line of Philips peripheral blocks, optional
Philips	PR3930	32-bit CORE	II w/ MIPS16	80 (0.35u)	8	4	NO	CORE	MIPS EJTAG Rev. 1.53, full line of Philips peripheral blocks, optional
Philips	PR3930	32-bit CORE	II w/ MIPS16	110 (0.25u)	8	4	NO	CORE	MIPS EJTAG Rev. 1.53, full line of Philips peripheral blocks, optional
Philips	PR3940	32-bit CORE	II w/ MIPS16	140 (0.25u)	16	8	NO	CORE	MIPS EJTAG Rev. 2.0, full line of Philips peripheral blocks, optional
Philips	PR3940	32-bit CORE	II w/ MIPS16	145 (0.18u)	16	8	NO	CORE	MIPS EJTAG Rev. 2.0, full line of Philips peripheral blocks, optional
Philips	PR3940	32-bit CORE	II w/ MIPS16	168 (0.12u)	16	8	NO	CORE	MIPS EJTAG Rev. 2.0, full line of Philips peripheral blocks, optional
Philips	PR3950	32-bit CORE	MIPS32 w/MIPS16	300 (0.12u)	16	16	NO	CORE	MIPS EJTAG Rev. 2.5, full line of Philips peripheral blocks, optional
Philips	PR7530	64-bit CORE	MIPS64 w/MIPS16	360 (0.18u)	32	32	YES	CORE	MIPS EJTAG Rev. 2.5, full line of Philips peripheral blocks, optional
TI-MIPS	MIPS32 4Kp/HKm/4Kc	32-bit CORE	MIPS32	145 (0.18u G530)	0-16	0-16	NO	CORE	EJTAG Rev. 2.5
TI-MIPS	MIPS32 4Kp/HKm/4Kc	32-bit CORE	MIPS32	175 (0.13u G540)	0-16	0-16	NO	CORE	EJTAG Rev. 2.5
TI-MIPS	MIPS32 4Kp/HKm/4Kc	32-bit CORE	MIPS32	225 (0.09 SR40)	0-16	0-16	NO	CORE	EJTAG Rev. 2.5
TI-MIPS	MIPS64 5Kc	64-bit CORE	MIPS64	200 (0.18u G530)	0-32	0-32	NO	CORE	EJTAG Rev. 2.5
TI-MIPS	MIPS64 5Kc	64-bit CORE	MIPS64	250 (0.13u G540)	0-32	0-32	NO	CORE	EJTAG Rev. 2.5
TI-MIPS	MIPS64 5Kc	64-bit CORE	MIPS64	320 (0.09u SR40)	0-32	0-32	NO	CORE	EJTAG Rev. 2.5
Toshiba	TX39H2	32-bit CORE	I	70	4	1	NO	CORE	n-wire
Toshiba	TX39H2	32-bit CORE	I	100	4	1	NO	CORE	n-wire
Toshiba	TX39H3	32-bit CORE	I	133	8	4	NO	CORE	n-wire
Toshiba	TX49H1	64-bit CORE	III	150	32	32	YES	CORE	EJTAG 1.5.1
Toshiba	TX49H1	64-bit CORE	III	150	16	16	YES	CORE	EJTAG 1.5.1
Toshiba	TX49H1	64-bit CORE	III	150	32	32	NO	CORE	EJTAG 1.5.1
Toshiba	TX49H1	64-bit CORE	III	150	16	16	NO	CORE	EJTAG 1.5.1
Toshiba	TX49H2	64-bit CORE	III	180	32	32	YES	CORE	EJTAG 1.5.1
Toshiba	TX49H2	64-bit CORE	III	180	16	16	YES	CORE	EJTAG 1.5.1
TSMC-MIPS	MIPS32 4Kc	32-bit CORE	MIPS32	166 (0.18u)	16	16	NO	CORE	EJTAG Rev. 2.5
TSMC-MIPS	MIPS32 4Kcm	32-bit CORE	MIPS32	160 (0.18u)	8	8	NO	CORE	EJTAG Rev. 2.5
TSMC-MIPS	MIPS64 5Kc	64-bit CORE	MIPS64	210 (0.18u)	64	64	NO	CORE	EJTAG Rev. 2.5, COP2
TSMC-MIPS	MIPS64 20Kc	64-bit CORE	MIPS64	400 (0.18u)	32	32	Single/Double/SMD	CORE	EJTAG Rev. 2.5

STANDARD PRODUCT — HIGH-PERFORMANCE 32-BIT RISC CPU'S/CONTROLLERS

Alchemy	Au1000	32-bit CPU	MIPS32	266, 400 (0.5W @ 1.5V), 500 (0.9W @ 1.8V)	16	16	NO	324-PBGA	SDRAM controller, Flash EPROM/SRAM controller, 10/100 Ethernet MAC (2), USB Host/Device, fast I2DA, UART (4), AC97 Link, RTC (2), DMA, I2S, EJTAG Rev. 2.5
Alchemy	Au1500	32-bit CPU	MIPS32	333/0.4W @ 1.5V, 400 (0.7W @ 1.5V), 500 (1.2W @ 1.8V)	16	16	NO	424-PBGA	3336 MHz PCI controller 2.2, SDRAM controller, Flash EPROM/SRAM controller, 10/100 Ethernet MAC (2), USB Host/Device, UART (2), AC97 Link, RTC (2), DMA, EJTAG Rev. 2.5
BRECIS Communications	MSP3000	32-bit CPU	MIPS32	150	16	16	NO	PBGA	Packet Engine, Security Engine, 3 10/100 Eth, UTOPIA, Serial WAN
IDT	RS3018/R3041	32-bit CPU	I	202/253	2	0.5	NO	88-PLCC, 100-TQFP	
IDT	RS3051	32-bit CPU	I	253/340	4	2	NO	88-PLCC	
IDT	RS3052	32-bit CPU	I	253/340	8	2	NO	88-PLCC, 84-MQUAD	
IDT	RC3081	32-bit CPU	I	40/50	16	4	Single/Double	84-MQUAD	
IDT	RC32364	32-bit CPU	II	100/133	8	2	NO	144-TQFP	EJTAG Rev. 1.5.3
Toshiba	TMP1940CAF	32-bit CPU	I w/ MIPS16	32	256 (ROM)	10	NO	100-LQFP	DMAC, SIO, Timer, I2C, ADC, Watchdog Timer
Toshiba	TMP1940DFB	32-bit CPU	I w/ MIPS16	32	512 (Flash)	16	NO	100-LQFP	DMAC, SIO, Timer, I2C, ADC, Watchdog Timer
Toshiba	TMP1941AF	32-bit CPU	I w/ MIPS16	40	NO	10	NO	100-LQFP	DMAC, SIO, Timer, I2C, ADC, Watchdog Timer
Toshiba	TMP1942CCU	32-bit CPU	I w/ MIPS16	32	256 (ROM)	16	NO	144-LQFP	DMAC, SIO, Timer, I2C, ADC, DAC, RWUP/5V port, ROM correction, Watchdog Timer
Toshiba	TMP1942CYXB	32-bit CPU	I w/ MIPS16	32	256 (ROM)	16	NO	177-FBGA	DMAC, SIO, Timer, I2C, ADC, DAC, RWUP/5V port, ROM correction, Watchdog Timer
Toshiba	TMP1942DFU	32-bit CPU	I w/ MIPS16	32	512 (Flash)	20	NO	144-LQFP	DMAC, SIO, Timer, I2C, ADC, DAC, RWUP/5V port, ROM correction, Watchdog Timer
Toshiba	TMP1942FDB	32-bit CPU	I w/ MIPS16	32	512 (Flash)	20	NO	177-FBGA	DMAC, SIO, Timer, I2C, ADC, DAC, RWUP/5V port, ROM correction, Watchdog Timer
Toshiba	TMPS3903AF	32-bit CPU	I	60	4	1	NO	208-PQFP	SDRAMC, ROMC, DMAC, SIO, Timer, Graphics
Toshiba	TMPS3910F	32-bit CPU	I	40	4	1	NO	208-PQFP	SDRAMC, ROMC, DMAC, SIO, Timer, Graphics, DUAL CAN
Toshiba	TMPS3903AF	32-bit CPU	I	66	4	1	NO	208-PQFP	SDRAMC, ROMC, DMAC, SIO, Timer
Toshiba	TMPS3907AF	32-bit CPU	I	70	4	1	NO	208-PQFP	SDRAMC, ROMC, PCIC, SIO, Timer
Toshiba	TMPS3911BU	32-bit CPU	I	58	4	1	NO	176-LQFP	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3911XBX	32-bit CPU	I	58	4	1	NO	177-FBGA	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3912AU	32-bit CPU	I	75	4	1	NO	176-LQFP	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3912XB-75	32-bit CPU	I	75	4	1	NO	217-FBGA	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3912AU-92	32-bit CPU	I	92	4	1	NO	208-LQFP	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3912XB-92	32-bit CPU	I	92	4	1	NO	217-FBGA	SDRAMC, ROMC, SIO, Timer, PCMCIA, LCD, I2DA/LCDC
Toshiba	TMPS3922CU	32-bit CPU	I	129	16	8	NO	208-LQFP	SDRAMC, ROMC, SIO, Timer, PCMCIA, I2DA
Toshiba	TMPS3927BF	32-bit CPU	I	133	8	4	NO	240-PQFP	SDRAMC, ROMC, DMAC, PCIC, SIO, Timer

STANDARD PRODUCT — HIGH-PERFORMANCE 64-BIT CPU'S

IDT	RC4640	64-bit CPU	III	133/150/180/200/250/267	8	8	Single	128-PQFP	
IDT	RC4650	64-bit CPU	III	133/150/180/200/250/267	8	8	Single	208-PQFP	
IDT	RC46474	64-bit CPU	III	180/200/250	16	16	Single/Double	128-PQFP	
IDT	RC46475	64-bit CPU	III	180/200/250	16	16	Single/Double	208-PQFP	
IDT	RC5000	64-bit CPU	IV	180/200/250	32	32	Single/Double	272-SBGA	
IDT	RC46574	64-bit CPU	IV	200/250	32	32	Single/Double	128-PQFP	
IDT	RC46575	64-bit CPU	IV	200/250	32	32	Single/Double	208-PQFP	
NEC	VR4300	64-bit CPU	III	100	16	8	Single/Double	128-PQFP	
NEC	VR4305	64-bit CPU	III	80	16	8	Single/Double	128-PQFP	
NEC	VR4310	64-bit CPU	III	133/167	16	8	Single/Double	128-PQFP	
NEC	VR5000	64-bit CPU	IV	200	32	32	Single/Double	272-ABGA	
NEC	VR5000A	64-bit CPU	IV	250/266	32	32	Single/Double	272-ABGA	
NEC	VR5452	64-bit CPU	IV	167/200	32	32	Single/Double	208-PQFP	
NEC	VR4000	64-bit CPU	IV	300/400	32	32	Single/Double	272-ABGA	
NEC	VR10000	64-bit CPU	IV	250	32	32	Single/Double	599-CBGA	
NEC	VR12000A	64-bit CPU	IV	360/400	32	32	Single/Double	1153-FCBGA	
NEC	VR14000	64-bit CPU	IV				Single/Double		
NEC	VR16000	64-bit CPU	IV				Single/Double		
PMC-Sierra	RM5231	64-bit CPU	IV	200/250/266	32	32	Single/Double	128-PQFP	
PMC-Sierra	RM5231A	64-bit CPU	IV	250/300/350	32	32	Single/Double	128-MQFP	
PMC-Sierra	RM5261	64-bit CPU	IV	200/250/266	32	32	Single/Double	208-PQFP	
PMC-Sierra	RM5261A	64-bit CPU	IV	250/300/350	32	32	Single/Double	208-MQFP	
PMC-Sierra	RM5271	64-bit CPU	IV	250/266/300	32	32	Single/Double	304-SBGA	
PMC-Sierra	RM7000	64-bit CPU	IV	250/266/300	16	16	Single/Double	304-TBGA	
PMC-Sierra	RM7000A	64-bit CPU	IV	300/350/400	16	16	Single/Double	304-TBGA	
PMC-Sierra	RM70								