

# MIPS® RISC Microprocessors



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For transistor count and die size, contact company.  
Compiled September 1998

\*superscalar

PROCESSOR	PRODUCT TYPE	MIPS ISA	MIPS ASE	CLOCK FREQUENCY	PIPELINE TO BUS CLOCK FREQUENCY	MAXIMUM MIPS	INSTR CACHE (KB)	INSTR CACHE ATTRIBUTES	DATA CACHE (KB)	DATA CACHE ATTRIBUTES	L2/L3 CACHE SUPPORT	FLOATING-POINT UNIT	FLOATING-POINT PERFORMANCE	WATTS	VOLTS	PROCESS	PACKAGE	WINDOWS® CE COMPATIBLE
R3041	32-bit CPU	I	-	16/20/25/33	1	23.5	2	Direct Mapped	0.5	Direct Mapped, Write Thru	NO	NO	-	1.4	5	0.5µ	84-PLCC, 100-TQFP	
RV3041	32-bit CPU	I	-	16/20/25/33	1	23.5	2	Direct Mapped	0.5	Direct Mapped, Write Thru	NO	NO	-	0.6	3.3	0.5µ	84-PLCC, 100-TQFP	
R3051	32-bit CPU	I	-	25/33/40	1	47	4	Direct Mapped	2	Direct Mapped, Write Thru	NO	NO	-	2.5	5	0.6µ	84-PLCC	
R3052	32-bit CPU	I	-	25/33/40	1	47	8	Direct Mapped	2	Direct Mapped, Write Thru	NO	NO	-	2.5	5	0.6µ	84-PLCC, 84-MQUAD	
R3081	32-bit CPU	I	-	40/50	1,2	56.3	16	Direct Mapped	4	Direct Mapped, Write Thru	NO	Single/Double	25 MFLOPS	2.5	5	0.5µ	84-MQUAD	
RV3081	32-bit CPU	I	-	20/25/33/40	1,2	47	16	Direct Mapped	4	Direct Mapped, Write Thru	NO	Single/Double	25 MFLOPS	1.3	3.3	0.5µ	100-TQFP, 84-MQUAD	
RC32364	32-bit CPU	II	-	100/133	1	31	4	Direct Mapped	1	Direct Mapped, Write Thru	NO	NO	-	2.4	5	0.5µ	208-MQUAD	YES
R4640	64-bit CPU	III	-	100/133	2,3,4,5,6,7,8	175	8	2-Way Assoc	2	2-Way Assoc, Write Thru/Back	NO	NO	-	1.19	3.3	0.3µ	144-TQFP	
RV4640	64-bit CPU	III	-	100/133	2,3,4,5,6,7,8	175	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	3	5	0.5µ	128-MQUAD	
RV4650	64-bit CPU	III	-	100/133	2,3,4,5,6,7,8	260	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	67 MFLOPS	2.76	3.3	0.3µ	128-MQUAD	
RV4650	64-bit CPU	III	-	100/133	2,3,4,5,6,7,8	175	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	3.1	5	0.5µ	208-MQUAD	
RV4650	64-bit CPU	III	-	100/133/150/180/200	2,3,4,5,6,7,8	260	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	67 MFLOPS	3.63	3.3	0.3µ	208-MQUAD	
R4700	64-bit CPU	III	-	100/133	2,3,4,5,6,7,8	175	16	2-Way Assoc	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	66.5 MFLOPS	5.8	5	0.45µ	208-MQUAD	YES
RV4700	64-bit CPU	III	-	100/133/150/175/200	2,3,4,5,6,7,8	260	16	2-Way Assoc	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	100 MFLOPS	4.7	3.3	0.35µ	208-MQUAD	YES
RC64474	64-bit CPU	III	-	180/200/250	2,3,4,5,6,7,8	325	16	2-Way Assoc	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	125 MFLOPS	3.3	3.3	0.3µ	128-PQFP	YES
RC64475	64-bit CPU	III	-	180/200/250	2,3,4,5,6,7,8	325	16	2-Way Assoc	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	125 MFLOPS	4.49	3.3	0.3µ	208-MQUAD	YES
RV5000*	64-bit CPU	IV	-	180/200/250	2,3,4,5,6,7,8	330	32	2-Way Assoc	32	2-Way Assoc, Write Thru/Back	L2	Single/Double	500 MFLOPS	<6	3.3	0.3µ	272-SBGA	YES

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TR4101	32-bit CORE	V/II	MIPS16	81	-	70	1-32	2-Way Assoc, Direct	1-32	Direct Mapped, Write Thru	NO	NO	call factory	.081	3.3	0.35µ	CORE	
EV4101	32-bit CPU	V/II	MIPS16	81	1, 2	70	16	2-Way Assoc	8	Direct Mapped, Write Thru	NO	NO	-	.495	3.3	0.35µ	100-TQFP	
EZ4102	32-bit CORE	V/II	MIPS16	108	-	85	1-32	2-Way Assoc, Direct	1-32	Direct Mapped, Write Thru	NO	NO	call factory	.054	2.5, 1.8	0.25µ	CORE	TBA
LR4102	32-bit CPU	V/II	MIPS16	108	-	85	16	2-Way Assoc	8	Direct Mapped, Write Thru	NO	NO	-	TBD	2.5, 1.8	0.25µ	256-PBGA	
CW4011*	32-bit CORE	V/II	-	92	-	130	1-16 or 2-32	2-Way Assoc, Direct	1-16, 2-32	Direct Mapped or, 2-Way Assoc	NO	NO	call factory	.644	3.3	0.35µ	CORE	
LR4500*	32-bit CPU	V/II	-	92	2, 4	130	1-16 or 2-32	2-Way Assoc, Direct	1-16, 2-32	Direct Mapped or, 2-Way Assoc	NO	NO	-	1.2	3.3	0.35µ	256-PQFP	

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VR4100	64-bit CPU	III	-	40	1,2	45	2	Direct Mapped	1	Direct Mapped	NO	NO	-	0.12	3.3	0.35µ	100-TQFP	
VR4101	64-bit CPU	III	-	33	1,2	37	2	Direct Mapped	1	Direct Mapped	NO	NO	-	0.25	3.3	0.35µ	160-LQFP	YES
VR4102	64-bit CPU	III	-	54	1,2	74	4	Direct Mapped	1	Direct Mapped	NO	NO	-	0.25	3.3	0.35µ	216-TQFP	YES
VR4111	64-bit CPU	III	MIPS16	80, 100	1,2	130	16	Direct Mapped	8	Direct Mapped	NO	NO	-	0.19	2.5, 3.3	0.25µ	224-FPBGA	YES
VR4121	64-bit CPU	III	MIPS16	133, 166	1,2	216	16	Direct Mapped	8	Direct Mapped	NO	NO	-	0.25	2.5, 3.3	0.25µ	224-FPBGA	YES
VR4300	64-bit CPU	III	-	100/133	1,5,2,3,4	177	16	Direct Mapped	8	Direct Mapped	NO	Single/Double	133 MFLOPS	1.8/2.2	3.3	0.35µ	120-PQFP	YES
VR4305	64-bit CPU	III	-	80	1,2,3	106	16	Direct Mapped	8	Direct Mapped	NO	Single/Double	TBD	1.5	3.3	0.35µ	120-PQFP	YES
VR4310	64-bit CPU	III	-	100/133/167	1,5,2,3,4,5,6	210	16	Direct Mapped	8	Direct Mapped	NO	Single/Double	167 MFLOPS	2.2	3.3	0.25µ	120-PQFP	YES
VR4400*	64-bit CPU	III	-	250	2,3,4,5,6,7,8	250	16	2-Way Assoc	16	2-Way Assoc	NO	Single/Double	250 MFLOPS	10	3.45	0.35µ	447-FGA	
VR5000*	64-bit CPU	IV	-	150/180/200	2,3,4,5,6,7,8	260	32	2-Way Assoc	32	2-Way Assoc	L2	Single/Double	400 MFLOPS	<6	3.3	0.35µ	272-ABGA	
VR5432*	64-bit CPU	IV	-	167	2,2,5,3,4	347	32	2-Way Assoc	32	2-Way Assoc	NO	Single/Double	TBD	2.5	2.5, 3.3	0.25µ	208-PQFP	
VR5464*	64-bit CPU	IV	-	200/250	2,2,5,3,4	519	32	2-Way Assoc	32	2-Way Assoc	NO	Single/Double	TBD	3.5/4.4	2.5, 3.3	0.25µ	272-SBGA	
VR10000*	64-bit CPU	IV	-	200	1,1,5,2,2,5,3,3,5,4	800	32	2-Way Assoc	32	2-Way Assoc	L2	Single/Double	1200 MFLOPS	30	3.3	0.35µ	599-CLGA	

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NR3700	32-bit CPU	I	-	40	1,2,3,4	40	4	Direct Mapped	1	Direct Mapped, Write Thru	NO	NO	-	0.5	3.3	0.5µ	CORE	
NR4645L	64-bit CPU	III	-	100/133/167	2,3,4,5,6,7,8	220	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	2	3.3	0.45µ	128-QFP	
NR4645M	64-bit CPU	III	-	100/133/167	2,3,4,5,6,7,8	220	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	2	3.3	0.45µ	128-QFP	
NR4650L	64-bit CPU	III	-	100/133/167	2,3,4,5,6,7,8	220	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	2	3.3	0.45µ	208-QFP	
NR4650G	64-bit CPU	III	-	100/133/167	2,3,4,5,6,7,8	220	8	2-Way Assoc	8	2-Way Assoc, Write Thru/Back	NO	Single	44 MFLOPS	2	3.3	0.45µ	208-QFP	
NR4700	64-bit CPU	III	-	100/133/150	2,3,4,5,6,7,8	200	16	2-Way Assoc	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	75 MFLOPS	4.5	3.3	0.45µ	208-MQUAD, 179-PGA	
NR5000*	64-bit CPU	IV	-	180/200	2,3,4,5,6,7,8	260	32	2-Way Assoc	32	2-Way Assoc, Write Thru/Back	L2	Single/Double	400 MFLOPS	5	3.3	0.25µ	272-SBGA	

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PR31500	32-bit CPU	II	-	38	1	38	4	Direct Mapped, Write Thru	1	2-Way Assoc	NO	NO	-	0.35	3.3	0.5µ	LQFP-208	YES
PR31700	32-bit CPU	II	-	75	2	75	4	Direct Mapped, Write Thru	1	2-Way Assoc	NO	NO	-	0.35	3.3	0.35µ	LQFP-208	YES

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RM5230*	64-bit CPU	IV	-	100/133/150/175	2,3,4,5,6,7,8	230	16	2-Way Assoc, Write Thru/Back	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	350-MFLOPS	2.5	3.3	0.35µ	128-Power Quad 4	YES
RM5260*	64-bit CPU	IV	-	133/150/175/200	2,3,4,5,6,7,8	260	16	2-Way Assoc, Write Thru/Back	16	2-Way Assoc, Write Thru/Back	NO	Single/Double	400-MFLOPS	3.5	3.3	0.35µ	208-Power Quad 4	YES
RM5270*	64-bit CPU	IV	-	150/175/200	2,3,4,5,6,7,8	260	16	2-Way Assoc, Write Thru/Back	16	2-Way Assoc, Write Thru/Back	L2	Single/Double	400-MFLOPS	4	3.3	0.35µ	304-SBGA	YES
RM5231*	64-bit CPU	IV	-	150/200/250	2,3,4,5,6,7,8,9	325	32	2-Way Assoc, Write Thru/Back	32	2-Way Assoc, Write Thru/Back	NO	Single/Double	500-MFLOPS	2.5	2.5/3.3	0.25µ	128-Power Quad 4	YES
RM5261*	64-bit CPU	IV	-	150/200/250/266	2,2,5,3,3,5,4,4,5,5,6,7,8,9	345	32	2-Way Assoc, Write Thru/Back	32	2-Way Assoc, Write Thru/Back	NO	Single/Double	533-MFLOPS	3.5	2.5/3.3	0.25µ	208-Power Quad 4	YES
RM5271*	64-bit CPU	IV	-	150/200/250/266	2,2,5,3,3,5,4,4,5,5,6,7,8,9	345	32	2-Way Assoc, Write Thru/Back	32	2-Way Assoc, Write Thru/Back	L2	Single/Double	533-MFLOPS	4	2.5/3.3	0.25µ	304-SBGA	YES
RM7000*	64-bit CPU	IV	-	200/250/266/300	2,2,5,3,3,5,4,4,5,5,6,7,8,9	500	16	4-Way Assoc, Write Thru/Back	16	4-Way Assoc, Write Thru/Back	L2 On Chip/L3	Single/Double	600-MFLOPS	5.5	2.5/3.3	0.25µ	304-SBGA	IQ99

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TMPR1904AF	32-bit CPU	I,II	MIPS16	20	1,2,3,4	21	4	2-Way Assoc	1	2-Way Assoc	NO	NO	-	0.4	3.3	0.35µ	160-PQFP	
TMPR3901AF	32-bit CORE	I,II	-	70	1,2,3,4	74	4	Direct Mapped	1	2-Way Assoc, Write Thru	NO	NO	-	0.4	3.3	0.35µ	160-PQFP	
TMPR3903AF	32-bit CPU	I,II	-	50	1,2,3,4	52	4	Direct Mapped	1	2-Way Assoc, Write Thru	NO	NO	-	0.8	3.3	0.35µ	208-PQFP	
TMPR3904AF	32-bit CPU	I,II	-	66	1,2,3,4	70	4	Direct Mapped	1	2-Way Assoc, Write Thru	NO	NO	-	0.8	3.3	0.35µ	208-PQFP	
TMPR3907F	32-bit CPU	I,II	-	66	1,2,3,4	70	4	Direct Mapped	1	2-Way Assoc, Write Thru	NO	NO	-	0.8	3.3	0.35µ	208-PQFP	
TMPR3912U	32-bit CPU	I,II	-	75	1,2,3,4	79	4	Direct Mapped	1	2-Way Assoc, Write Thru	NO	NO	-	0.3	3.3	0.35µ	208-LQFP	YES
TMPR3922U	32-bit CPU	I,II	-	148	1,2,3,4	191	16	2-Way Assoc	8	2-Way Assoc, Write Thru	NO	NO	-					

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Product Description, ADA DEVELOPMENT TOOLS, COMPILERS, DEBUGGERS, NETWORK SUPPORT TOOLS, REAL-TIME OPERATING SYSTEMS, SIMULATION TOOLS AND MODELS, SOFTWARE DEVELOPMENT TOOLS. Columns: R3XXX, R4XXX, R5XXX, R7XXX, Company, Phone, Website.

Product Description, SOFTWARE DEVELOPMENT TOOLS (CONTINUED), SUPPORT COMPONENTS, X-TERMINAL SUPPORT, EVALUATION BOARDS, IN-CIRCUIT EMULATORS, LOGIC ANALYZERS. Columns: R3XXX, R4XXX, R5XXX, R7XXX, Company, Phone, Website.

# MIPS® Product Line Card

