

Speed per Dollar Ratios for Fixed-Point Packaged Processors (Single-Core / Single-Thread Scores)

Updated March 2012

Copyright © 2012 Berkeley Design Technology, Inc.

No reproduction or reuse is permitted without the express authorization of BDTI.

See page 2 for details.



ADI ADSP-218x	8–31
ADI ADSP-219x	9–30
ADI ADSP-BF5xx (Blackfin)	n/a
ADI ADSP-TS201S (TigerSHARC)	16–23
ADI ADSP-TS202S/203S (TigerSHARC)	24–28
Freescale B4860 (SC3900)	n/a
Freescale DSP563xx ¹	n/a
Freescale DSP5672x ¹	n/a
Freescale DSP5685x/56F8xxx (56800E)	n/a
Freescale DSP56F8xx (56800)	n/a
Freescale MSC71xx (SC1400)	60–78
Freescale MSC814x (SC3400)	n/a
Freescale MSC815x/825x (SC3850)	n/a
Freescale MSC815x/825x (SC3850) ²	n/a
Freescale MSC81xx (SC140)	n/a
Marvell PXA255	n/a
Marvell PXA27x	n/a
Microchip dsPIC3x	12–62
NEC μPD77050 (SPXK5)	n/a
Qualcomm Hexagon V2 (single-thread)	n/a
Texas Instruments C55x+ ²	n/a
Texas Instruments OMAP35x	109–201
Texas Instruments TMS320C54x	n/a
Texas Instruments TMS320C55x	54–323
Texas Instruments TMS320C62x	n/a
Texas Instruments TMS320C64x	45–212
Texas Instruments TMS320C64x+	n/a
Texas Instruments TMS320C66x	n/a
VeriSilicon VSI40x	n/a

¹ Benchmarked with 24-bit fixed-point data; all other processors benchmarked with 16-bit fixed-point data

² Not available to the general market

BDTIsimMark2000™/\$ Series2

BDTIsimMark2000™ scores may be based on projected clock speeds. For information, see www.BDTI.com/Services/Benchmarks

Speed per Dollar Ratios for Fixed-Point Packaged Processors (Single-Core / Single-Thread Scores)

Updated March 2012

Copyright © 2012 Berkeley Design Technology, Inc.

No reproduction or reuse is permitted without the express authorization of BDTI.



Processor Family	Clock Rate (min-max)	BDTI [™] mark2000 [™] , BDTIsimMark2000 [™] (min-max)	Cost 1K units (min-max)	BDTI [™] mark2000 [™] /\$, BDTIsimMark2000 [™] /\$ (min-max)
ADI ADSP-218x	80 MHz	240	\$8–31	8–31
ADI ADSP-219x	100–160 MHz	250–410	\$13–33	9–30
ADI ADSP-BF5xx (Blackfin)	200–600 MHz	1120–3360	\$2–48	n/a
ADI ADSP-TS201S (TigerSHARC)	500–600 MHz	5330–6400	\$252–339	16–23
ADI ADSP-TS202S/203S (TigerSHARC)	500 MHz	5130	\$184–210	24–28
Freescale B4860 (SC3900)	1200 MHz	37460	n/a	n/a
Freescale DSP563xx ¹	150–275 MHz	450–820	\$5–45	n/a
Freescale DSP5672x ¹	200–250 MHz	590–740	\$6–11	n/a
Freescale DSP5685x/56F8xxx (56800E)	32–120 MHz	90–340	n/a	n/a
Freescale DSP56F8xx (56800)	60–80 MHz	50–130	n/a	n/a
Freescale MSC71xx (SC1400)	200–300 MHz	2240–3370	\$37–43	60–78
Freescale MSC814x (SC3400)	800–1000 MHz	9520–11900	\$122–147	n/a
Freescale MSC815x/825x (SC3850)	800–1000 MHz	12330–15420	n/a	n/a
Freescale MSC815x/825x (SC3850) ²	1200 MHz	18500	n/a	n/a
Freescale MSC81xx (SC140)	300–500 MHz	3370–5610	\$58–127	n/a
Marvell PXA255	200–400 MHz	470–930	n/a	n/a
Marvell PXA27x	312–624 MHz	1070–2140	n/a	n/a
Microchip dsPIC3x	16–60 MHz	50–190	\$2–8	12–62
NEC μ PD77050 (SPXK5)	250 MHz	1770	n/a	n/a
Qualcomm Hexagon V2 (single-thread)	100 MHz	1550	n/a	n/a
Texas Instruments C55x+ ²	400–500 MHz	2530–3160	n/a	n/a
Texas Instruments OMAP35x	600–720 MHz	4540–5450	\$23–50	109–201
Texas Instruments TMS320C54x	50–160 MHz	150–500	\$4–130	n/a
Texas Instruments TMS320C55x	100–300 MHz	490–1460	\$5–17	54–323
Texas Instruments TMS320C62x	150–300 MHz	960–1920	n/a	n/a
Texas Instruments TMS320C64x	400–1000 MHz	3650–9130	\$17–202	45–212
Texas Instruments TMS320C64x+	400–1200 MHz	4390–13170	\$10–216	n/a
Texas Instruments TMS320C66x	1000–1500 MHz	13350–20030	\$79–399	n/a
VeriSilicon VS140x	120–200 MHz	560–940	n/a	n/a

¹ Benchmarked with 24-bit fixed-point data; all other processors benchmarked with 16-bit fixed-point data

² Not available to the general market

BDTI[™]mark2000[™], BDTIsimMark2000[™]: The BDTI[™]mark2000[™] and BDTIsimMark2000[™] provide a summary measure of signal processing speed. BDTIsimMark2000[™] scores may be based on projected clock speeds. For information see www.bdti.com/Services/Benchmarks

Note: In general, BDTI[™]mark2000[™]/\$ and BDTIsimMark2000[™]/\$ scores cannot be computed from the speed and pricing data presented here. For example, the fastest processors are not always the most expensive processors. Therefore, it is not always possible to calculate a speed per dollar ratio by dividing the maximum speed for a family by the maximum price for the family.