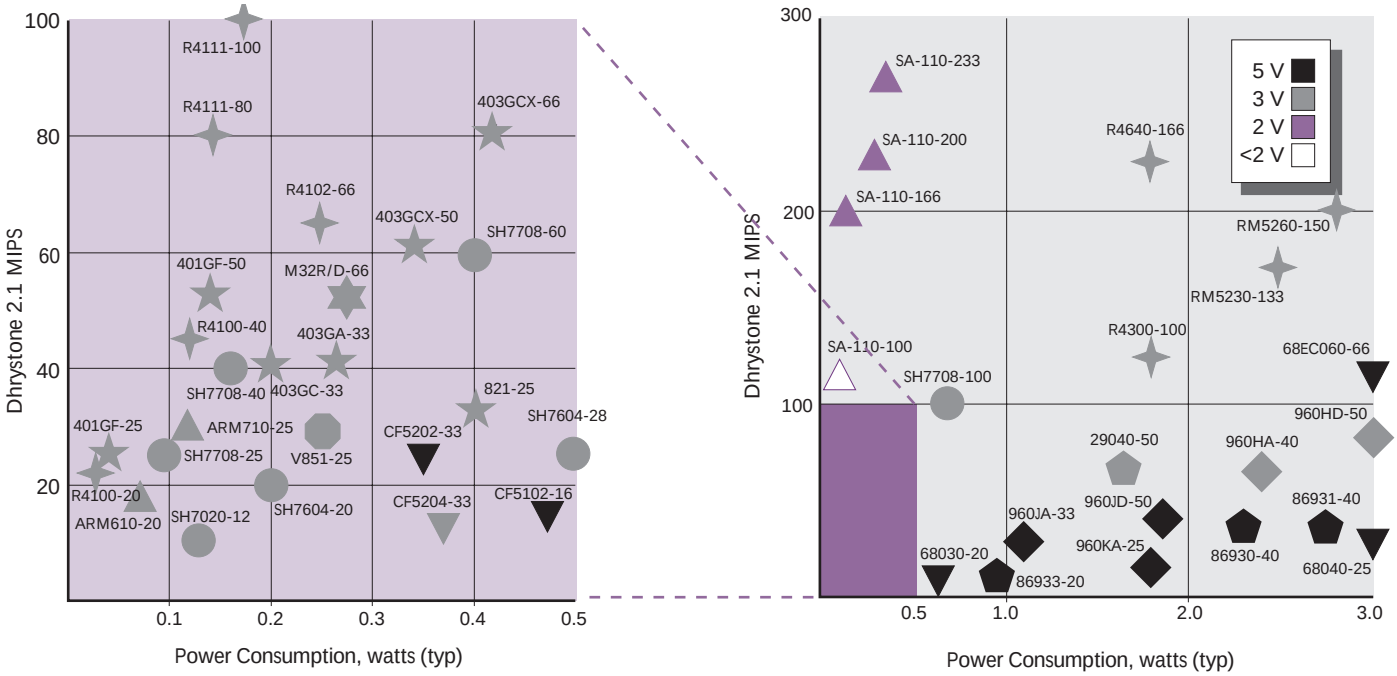
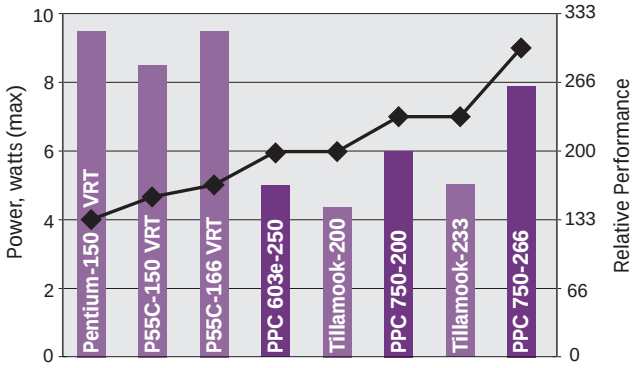


This Chart Watch covers low-power processors for portable and battery-powered systems. The table and the chart in the upper right show the performance/power ratio for a number of embedded CPUs and notebook processors; the chart above is an inset for those that consume the least power.

The chart on the right compares x86 and PowerPC processors for notebooks, including relative performance (diamonds) and typical power consumption (bars).



	SA-110	ARM710	SH7708	401GF	403GCX	R4111	M32R/D	CF5202	V851
Vendor	Digital	VLSI	Hitachi	IBM	IBM	NEC	Mitsubishi	Motorola	NEC
Clock rate	**233 MHz**	25 MHz	25 MHz	50 MHz	66 MHz	100 MHz	66 MHz	33 MHz	25 MHz
I/D cache	**16K/16K**	8K	8K/0K	2K/1K	16K/8K	16K/8K	4K	2K	None
FPU?	No	No	No	No	No	No	No	No	No
MMU?	Yes	Yes	No	No	Yes	Yes	No	No	No
Bus width	32 bits	32 bits	32 bits	32 bits	32 bits	32 bits	16 bits	32 bits	32 bits
Bus frequency	**66 MHz**	25 MHz	25 MHz	25 MHz	33 MHz	33 MHz	16 MHz	33 MHz	25 MHz
MIPS	**268 MIPS**	30 MIPS	25 MIPS	52 MIPS	81 MIPS	100 MIPS*	52 MIPS	24* MIPS	29 MIPS
Voltage§	2.0/3.3 V	3.3 V	3.3 V	3.3 V	3.3 V	2.5/3.3 V	3.3 V	5 V	3.3 V
Power (typ)	360 mW	120 mW	95 mW	140 mW	420 mW	180 mW	275 mW	348 mW	250 mW
MIPS/watt	**745**	250	263	371	194	555	189	69	116
MIPS/mm²	**5.4**	0.75	0.57	2.36	1.35*	2.38	0.34	0.73*	0.69
Transistors	2,100,000	341,000	800,000	345,000	1,820,000	n/a	7,000,000	n/a	n/a
IC process	0.35µ 3M	0.8µ 2M	0.5µ 3M	0.5µ 3M	0.5µ 3M	0.25µ 3M	0.42µ 2M	0.65µ 3M	0.8µ 2M
Die size	50 mm²	40 mm²	44 mm²	22 mm²	60* mm²	42 mm²	154 mm²	33 mm²	42 mm²
Est mfg cost	$18*	$9*	$10*	$4*	$14*	$14*	$65*	$4*	$14*
Availability	Now	Now	Now	Now	Now	1Q98	Now	Now	Now
Price (10K)	$49	$35	$15	$11	$45	$29	$80	$9	$19

§core/bus voltage n/a: information not available (Source: vendors except *MDR estimates)