

Table 1. Technology and circuit projections for processor chip components.

Process technology	2010	2017	
	40 nm	10 nm, high frequency	10 nm, low voltage
V_{DD} (nominal)	0.9 V	0.75 V	0.65 V
Frequency target	1.6 GHz	2.5 GHz	2 GHz
Double-precision fused-multiply add (DFMA) energy	50 picojoules (pJ)	8.7 pJ	6.5 pJ
64-bit read from an 8-Kbyte static RAM (SRAM)	14 pJ	2.4 pJ	1.8 pJ
Wire energy (per transition)	240 femtojoules (fJ) per bit per mm	150 fJ/bit/mm	115 fJ/bit/mm
Wire energy (256 bits, 10 mm)	310 pJ	200 pJ	150 pJ