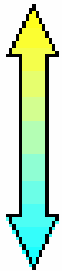


Dynamic RAM (DRAM) Memory Technologies					
Type	Year	Clock Rate	Bus Width	Peak Bandwidth	Volts
FPM (50,70ns)	1990	25MHz	64 bits	200 MBps	5
EDO(50,60,70ns)	1994	40MHz	64 bits	320 MBps	5
SDRAM(66MHz)	1996	66MHz	64 bits	528 MBps	3.3
SDRAM(100MHz)	1998	100MHz	64 bits	800 MBps	3.3
SDRAM(133MHz)	1999	133MHz	64 bits	1.1 GBps	3.3
DDR200 SDRAM(100MHz)(168)	2000	100MHz	64 bits	1.6 GBps	3.3
DDR266 SDRAM(133MHz)	2000	133MHz	64 bits	2.1 GBps	3.3
DDR300 SDRAM(150MHz)	2001	150MHz	64 bits	2.4 GBps	3.3
DDR333 SDRAM(166MHz)	2002	166MHz	64 bits	2.7GBps	3.3
DDR400 SDRAM(200MHz)	2003	200MHz	64 bits	3.2GBps	3.3
RDRAM PC800 PC3200	1999	400MHz	16 bits	1.6 GBps (3.2)	2.5
RDRAM PC1066 PC4200	2002	533MHz	16 bits	2.1GBps(4.2)	2.5
DC-DDR266 SDRAM(133MHz)	2003	133MHz	64 bits	3.2 GBps	3.3
DC-DDR333 SDRAM(166MHz)	2003	166MHz	64 bits	4.2GBps	3.3
DC-DDR400 SDRAM(200MHz)(184)	2003	200MHz	64 bits	6.4GBps	3.3
DDR2-400(240)		100MHz	64bits	3.2GBps PC2	1.8
DDR2-533		133MHz	64bits	4.264GBps	1.8
DDR2-667		166MHz	64bits	5.336 GBps	1.8
DDR2-800		200MHz	64bits	6.400 GBps	1.8
DDR2-1066		266MHz	64bits	8.500 GBps	1.8

faster/hotter/expensive

Internal to
processor die



slower/cooler/cheap

Registers: about 1KB, 1 clock cycle access time

L1 cache: 32-128KB, 1-10 cycle access time

L2 cache: 128-512KB, 10-20 cycle access time

SDRAM: 64-512MB, 100 cycle access time

Hard Disk: 4GB, 10,000,000 cycle access time

