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[Samsung Bets More On DDR2](#)

DDR2 to go mainstream



Samsung said that it will begin shifting its production from DDR1 (Double Data Rate 1) to DDR2 main memory. As of July, approximately 40 percent of the company's total DRAM (Dynamic Random Access Memory) output is DDR2 and approximately 30 percent is DDR1. This marks the first month that production of DDR2 has crossed over to take the lead from DDR1 in bits produced. After setting the first 10-million (256Mb equivalent) milestone in shipments in July 2004, Samsung has reached an aggregate production volume of 360 million (256Mb equivalent) units by the first half of this year. This is a 30-fold growth in the past 12 months and a direct reflection of the company's pivotal role in driving the DDR2 market. Currently, Samsung takes up more than 40 percent of the global DDR2 market, the company said. DDR2 provides faster speeds, better signal integrity, improved thermal characteristics and reduced power consumption -- more than any other memory available today for the desktop, server, workstation and notebook markets. The 1.8-volt JEDEC-compliant memory features high-speed data transfer rates of 667 Mbps or 533 Mbps, and will be offered in an 800 Mbps version by early next year. Pricing has dropped to where the cost of DDR2 is essentially on par with DDR1 on a per bit basis. Samsung is now producing 256, 512 Mb and 1 Gb versions of DDR2 at 533 Mbps, plus 256 and 512 Mb versions of its new DDR2-667 memory. Samsung's DDR2-667 optimizes performance in both single-core and dual-core processor systems. Features contained in DDR2 that are not available in other memory include on-die termination, 240-pin count, multiple drive controls, off-chip driver calibration and four-bit pre-fetch. A visible ramp of DDR2 has been in place since the second quarter of 2004 and has been slower than many would have expected initially. Tom Quinn, senior vice president of memory sales and marketing at Samsung Semiconductor admitted that the company "originally had expected a faster pace in 2005."