

By: ~~Barbara~~ ~~2008~~tezatu, Hardware Editor

AMD Confirms Tri-Core Phenom Processors Roll-Out

The chips are on their way to system integrators

Chip manufacturer Advanced Micro Devices has started shipments of tri-core processors in the Phenom family. According to company officials, the first to get the new chips are, [as previously reported](#), system integrators and AMD's OEM partners. The first products in the Toliman family are low-end processors with frequencies between 2.1 and 2.4 GHz. The Phenom 8450 will run at 2.1 GHz and will hit the market at a little over \$159 per device in 1,000-unit trays, while the more powerful parts will ship for \$179 (the 2.3GHz 8650) and a little over over \$200 (the 2.4GHz 8750). The triple-core offerings will be more energy-efficient than the quad-core counterparts in AMD's portfolio, and will only take up 89 watts (as compared to 95 watts for the quads). They will also support AMD's AM2 socket with HyperTransport 3.0 technology, and will be fully interchangeable with AMD's 65-nanometer quad-cores. According to AMD officials, the triple-core processors have been redesigned to fix the translation lookaside buffer erratum that crippled both the Phenom and Opteron families of chips. "All the parts are fixed," said Leslie Sobon, director of product and brand management for AMD's Desktop Division. "We've had a lot of questions about scaling. In highly multi-threaded applications, like digital media-type and rendering-type applications, we're seeing an average of about 30 percent [performance] uplift between dual-core and triple-core, then 20 percent uplift from triple to quad," Sobon continued. According to Sobon, some system builders would launch triple-core systems before the end of of this month (probably HP and Dell), but the vast majority of integrators will mass-release their products in early and mid-April. Sobon also said that the company plans to combine the new 780G chipset with the tri-core offerings in order to form a new desktop platform, code-named Cartwheel. AMD is the first company to release a triple-core product, which is alleged to give the company an important advantage: it is more powerful than a dual-core offering, but at the same time, it is about as cheap. "I'm trying to figure out where the product fits into our mix, because it's unique. It's going to hit a price point a little bit lower than the quads. The story's going to be, hey, we're giving you a third core. You can push off anti-virus to the third core, then have a dual-core doing your desktop apps," said Brian Corn, VP of marketing and business development at the Source Code system builder.