

By ~~March 2008~~ Botezatu, Hardware Editor

## **AMD Unveils Energy-Efficient Athlon X2 4850e Dual-Core CPU**

*Built especially for home-theater PCs*

Chip manufacturer Advanced Micro Devices has unveiled a new energy-efficient dual core processor in the Athlon family. Coming with a thermal envelope of 45 watts, the X2 4850E processor is especially designed to offer improved performance per watt. The chip's predecessor, the dual-core Athlon X2 4800 came with a thermal power design of 65 watts. However, AMD's newest dual-core offering, the 4850E packs identical specifications as the 4800, while consuming less power. The default specifications for the two processors are a default clock speed of 2.5 GHz, 1MB of total dedicated L2 cache and a 2000-MHz HyperTransport bus. According to the company, the new 4850E processor will arrive on the market at the same price tag as its predecessor, namely \$89 for 1,000-unit tray quantities. "This AMD Athlon X2 45-watt processor is the latest effort by AMD to enable energy-efficient platform solutions with technologies such as AMD Cool'n'Quiet," said a spokesman in a statement. The Cool'n'Quiet technology has been implemented quite a while ago by the chip manufacturer, and allows computers based on AMD hardware to take up less space, and at the same time, to operate with a minimum amount of noise. The AMD Athlon X2 4850e dual-core processor features 64K of L1 instructions and 64K of L1 data cache per core. It is built on the 65 nm DSL silicon-on-insulator technology and comes with a Socket AM2 interconnect. HyperTransport has one 16-bit/16-bit link at 2GHz, while the integrated memory controller can deliver a data bandwidth of up to 12.8 Gbps. The 4850e has approximately 221 million transistors and a die about 118 mm square. The company has previously announced that it will release an energy-efficient Phenom quad-core chip in the shortest time: the 9100E quad-core. The E chip has been touted as using a third less power than any regular Phenom processor, and will arrive most probably in the second or third quarter of 2008, but it seems that will arrive on the market this quarter, sooner than expected.