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The 790i is more than
hot
Nvidia

[Nvidia's 790i Chipset Will Sport Enhanced SLI](#)

The chip is the hottest in the series. Literally!

The upcoming nForce 790i chipset from Nvidia will be the company's first PCI-Express 2.0 chip. It is a real business in itself, given the fact that when it arrives on the market, in April, it will sell for more than \$300, which is the price you could get a really good mid-range motherboard, chipset and CPU socket included. The 790i chip is nothing more than an evolutionary version of the previous nForce 780i or 680i chipsets that have arrived earlier on the market. The new chip will feature the same functions as the above-mentioned 680i and 780i units, but it will feature native support for the PCI-Express 2.0 interface. Moreover, the chip will be able to run Intel's new 45-nanometer quad-core processors in the Penryn family, thanks to the new power circuits of the 780i boards. The nForce 790i will mark another milestone for graphics expert Nvidia, as the chip will be the first one to sport DDR3 memory. Nvidia also added support for DDR3 memory modules running at 2000 MHz and a little above (overclockers surely know why), but the series of surprises does not stop here. The 790i chipset has some other aces hidden in its sleeves. For instance, the 790i will sport a brand new technology, called Enhanced SLI. The Enhanced SLI is a cocktail of two new features, namely, the PW Shortcut and Broadcast. The PW Shortcut implementation creates a direct path between the GPUs, via the northbridge chipset. The technology is essential for the performance of the SLI system, but at the same time, it offers additional functionality by taking off the workload from the system CPU. The classical SLI system will transfer data from the first GPU to the CPU via the northbridge chipset to the second GPU. The Broadcast technology allows the system processor to send information to all GPUs of a system with a single packet, just like a radio antenna. All the delivered performance will have a major drawback: excessive heat. The estimations claim that the chipset will need professional cooling, that will make the MSI CircuPipe technology a joke. The 790i chip is to be found in the ASUS R.O.G. Striker II Extreme motherboard, which uses hybrid cooling with a water block on the northbridge.