

# Via Shopping Spree Reshapes x86 Market

## *Cyrix, Centaur Combination Poses Challenges, Opportunities*



Via Technologies has made a bold entry into the x86 processor market by acquiring both Cyrix and IDT's Centaur group. This unusual tactic raises questions about how the Taiwanese company will combine the two design teams and two product lines. If Via plays its cards well, however, it could be a potent competitor for Intel and AMD in the low end of the PC processor market.

The first question is why Via bought both companies instead of just one. When Cyrix went up for sale, it looked like a better deal than Centaur, with a larger market share and a more powerful processor core. But upon further analysis, the advantages of Centaur's technology became clear.

Centaur's forthcoming WinChip 4 core has half as many transistors as Cyrix's next-generation Jalapeno core, making it much less expensive to build (see MPR 8/2/99, p. 1). In a 0.18-micron process, WinChip 4 will also dissipate less power than Jalapeno and is likely to achieve a higher clock speed, a metric that is more important than raw performance in the low-end PC market. Furthermore, Centaur's lean 60-person design team fit into Via's revenue projections much better than Cyrix's bloated staff of 330.

Sources indicate that Via was initially willing to pay as much as \$300 million, or about one times annual revenue, for Cyrix. But once Via got a good look, it decided to acquire Centaur while renegotiating the Cyrix price down to \$167 million, with much of that price dependent on future Cyrix revenues that may not be achieved. This reduction is probably more than enough to cover the cost of buying Centaur. The pair of purchases lets Via pick and combine the best assets of each.

Which assets will Via choose? Given the superior characteristics of the WinChip 4 core and its efficient design team, all indications are that Via will focus on that core in the future while discarding most of the Cyrix designers. Cyrix is ahead of Centaur in developing an Intel-compatible Socket 370 interface, however, so Via may keep some of the Cyrix team to graft that interface onto the WinChip 4 core.

Via may also choose to market future WinChips under the Cyrix brand, which has more recognition than WinChip, particularly in the U.S. market. In fact, Via could market the current WinChips under the M II brand, since they are plug-compatible with the current M II and could be PR-rated to deliver the same performance.

In the low end of the market, Intel has effectively used Celeron price cuts as a club to beat its competitors senseless.

I believe the only way for a competitor to survive in this segment is to match both Celeron's clock speed and its socket with a lower-cost product. Matching the socket is necessary, because there isn't enough profit in this segment to support a non-Intel infrastructure. Competitors must have a lower manufacturing cost to generate profits from their lower prices and lower volumes.

If Via produces a 0.18-micron Socket 370 version of WinChip 4, it could follow this path to success. Centaur's compact core will cost less to build than Celeron. With a Socket 370 interface, Via can ride Intel's coattails into standard PC motherboards.

As Via pursues this strategy, its enemy is not just Intel but AMD. That vendor's K6 parts are a big seller in the Celeron space, and AMD plans to push its new Athlon processor into the low end next year. Although Via has been working on a Slot A chip set for Athlon, I doubt that chip set will see the light of day, given the company's new strategy. Why build chip sets that support only your enemy? With Via and Intel controlling more than 90% of the chip-set market, that leaves only a few also-rans (and AMD itself) likely to support Slot A.

The final question concerns patent rights. Via will use National to fab at least some of its processors, but sources indicate that National's patent license with Intel does not extend to third-party products. IBM is an Intel-licensed foundry, but Via would rather shift production to lower-cost Taiwanese fabs. Intel has already sued Via over chip-set patents, and a suit blocking Via from selling unlicensed processors appears inevitable.

The Cyrix purchase includes some patents, and Via may hope to build a patent portfolio strong enough to launch an effective countersuit against Intel. Alternatively, the company could try to market its chips only in Asian countries with weak patent laws, but that would greatly limit the potential market.

If the company can overcome its patent problems, it has all the tools necessary to successfully develop and market low-cost PC processors: an efficient design team, a low-cost CPU core, a Socket 370 interface, and a base of previous customers totaling 5% of the market. As AMD's poor example shows, strong execution is also required to successfully compete against Intel, so we must wait to see if Via can effectively use its new tools.