

Intel Dealt Two Major Legal Setbacks

Cyrix Wins on '338 Licensing; Foundry Licensing Ruling Stands

by Michael Slater

In two separate decisions rendered last month, the courts drastically reduced Intel's ability to use its patents as a weapon against other companies making x86 microprocessors. One decision lets stand prior rulings that as long as chips are made by a foundry that holds an Intel patent license, Intel cannot claim infringement against a company (such as Cyrix) that purchases the chips from the foundry and sells them to customers. The other decision blocks Intel's attempt to use system-related claims of one of its patents to seek royalties from system makers using non-Intel x86 processors.

The foundry licensing issue has been hotly disputed. In several cases, the courts have ruled that once a foundry has sold the chips to a fabless semiconductor vendor, any patent rights have been exhausted; Intel calls this "patent laundering."

Intel's suit against ULSI Systems Technology, a small maker of math coprocessors, has been the key test case for this issue. After losing in two lower courts, Intel had hoped to get the US Supreme Court to hear its appeal. Last month, the country's highest court turned Intel down, affirming the lower courts' decisions. This appears to settle the issue, leaving Intel without direct patent recourse against Cyrix or other future x86 vendors that use licensed foundries. Intel has abandoned its appeal in a separate suit against Cyrix on similar licensing issues and will pay Cyrix \$500,000 under the terms of a previous agreement (*see 0712MSB.PDF*).

System Makers Freed from '338 Patent

Intel also was trying to use its patents indirectly against companies such as Cyrix and AMD by demanding that system makers using non-Intel x86 processors pay Intel a royalty of 1% of the system price. This would make it much harder for other processor vendors to be price-competitive. Intel's royalty demand was based on two claims of patent 4,972,338, which describes the combination of segmentation and paging implemented by the 386 architecture (and also the 486 and Pentium).

This issue first became public last summer, when Intel filed an International Trade Commission action against Taiwanese system-maker Twinhead. Intel said that it had tried unsuccessfully to negotiate a royalty agreement, so it was attempting to block the importation of allegedly infringing products. Cyrix, which supplies microprocessors to Twinhead, sued Intel, seeking a determination that system makers had an implied license

to all claims of the '338 patent. Cyrix and AMD both told their Taiwanese customers that no Intel patent license was required. The victory at the US District Court in Sherman, Texas, validates Cyrix's and AMD's stance and can only increase the anger that many Taiwanese PC makers already feel about Intel's ITC action.

Claim 1 of the '338 patent describes the processor itself, with a segmentation unit and a paging unit. Intel agrees that, given the foundry licensing ruling, Cyrix's chips are licensed under Claim 1. Claims 2 and 6 describe the processor connected to a memory that holds page tables, or page and segment tables. Intel's assertion is that systems running software (such as Windows) that performs paging infringe these claims, and that system makers must therefore hold an Intel patent license—which is automatic if a customer buys the processor from Intel, but not if it is bought from AMD, Cyrix, or TI.

Cyrix successfully argued that system makers have an implied license because there is no way to use the chip except in combination with memory. DOS systems, which don't use paging, don't infringe claims 2 and 6, so Intel argued that these claims cover optional uses for which Intel could require a separate license from the system maker. The details are complex—the judge's decision is 42 pages long—but the bottom line is that the judge didn't buy Intel's arguments. In his written opinion, he criticizes Intel's position for its inconsistency and calls the testimony of its key witness "not credible."

Intel Settles to Protect '338 Patent

Following the ruling on the licensing issue, the trial continued before a jury, addressing Cyrix's allegations that the '338 patent is invalid and that Intel misused its patent and violated antitrust statutes. After a week of trial, Intel and Cyrix reached a complex settlement on most issues. It appears that Intel didn't want to risk having the '338 patent invalidated, and it therefore chose to make Cyrix a deal to drop the case.

Cyrix agreed to drop its antitrust and patent misuse claims. In return, Intel dismissed its patent infringement claims against Cyrix with respect to the '338 patent, granted Cyrix a paid-up license to claims 2 and 6, and agreed to notify the ITC that computers with Cyrix chips are licensed under '338. Intel also agreed to pay Cyrix \$5 million now and another \$5 million should Intel decide not to appeal or lose on appeal the first phase of the litigation (the system licensing issue). If Intel wins on appeal, Cyrix will have to return the first \$5 million payment. The fact that Cyrix has been granted a license

to claims 2 and 6, however, means that Cyrix's customers are protected, even if Intel wins on appeal. If Intel does not win on appeal, the company essentially will have paid Cyrix \$10 million to avoid litigating the issues of the validity of the '338 patent and whether Intel's actions violated antitrust statutes.

Intel also identified for Cyrix (but did not make public) a list of semiconductor companies that hold Intel patent licenses similar to those held by SGS-Thomson and Texas Instruments. Intel effectively told Cyrix which vendors could make the chips without producing another lawsuit on this issue. There are two foundries that Cyrix wanted to put on this list that Intel did not agree with: SGS-Thomson's Agrate, Italy, foundry and IBM. Cyrix's desire to have the IBM license considered suggests that IBM is the "mystery foundry" that Cyrix has been using but has declined to identify.

The dispute over SGS's Italian foundry arises from the fact that SGS acquired the license as part of its purchase of Mostek. Intel asserts that this acquisition was done by SGS's US arm, and that the license should not flow upward to the Italian parent. These licenses are important even though Intel has granted Cyrix a license to claims 2 and 6 of the '338 patent, because Cyrix does not have a license to claim 1, or to other Intel patents. Intel

and Cyrix have agreed that the company that ultimately prevails will pay the other \$1 million to cover expenses.

Intel also says that Cyrix has used unlicensed foundries, which would raise a host of other patent issues; a source close to Cyrix says that while an unlicensed foundry in the Far East was used for a short time, no parts were ever shipped to the US.

Intel Continues ITC Action

While Intel's appeal of the licensing ruling would not affect Cyrix's customers, it could affect customers of other x86 processor vendors. In particular, Intel says that it will proceed with its ITC action against Twinhead with respect to systems using AMD microprocessors. Unless Intel succeeds in reversing last month's licensing ruling on appeal, however, that ruling appears to render the ITC action moot. Curiously, Intel has not taken action against Texas Instruments, even though TI has supplied Cyrix-designed microprocessors to Taiwanese system makers.

The possibility that Intel will assert other system patents against users of non-Intel x86 microprocessors remains. Intel claims that the decision is limited to the particular foundry agreements and to the '338 patent, and that the same reasoning might not apply to other system patents or other foundry situations. ♦