

AMD Awarded 386 Rights, \$15 Million Damages

Intel to Dispute Award of 386 Rights

By Michael Slater

Retired Judge Barton Phelps issued his long-awaited remedies ruling in the arbitration regarding the ill-fated ten-year technology exchange pact between Intel and AMD, but it does not, alas, resolve the disputes between the two companies. The decision is a moral victory of sorts for AMD, but it also includes considerable criticisms of AMD's business abilities, and overall it is a far better result for Intel than many had expected. Both companies are clearly unhappy with parts of the decision.

This ruling was preceded by the liabilities ruling in October, 1990, in which Phelps ruled that AMD was not entitled to the 386 design as part of the technology exchange agreement because it did not produce any designs that Intel should be required to accept. (See μ PR 10/31/90, p. 10.) He also ruled, however, that Intel breached the implied covenant of good faith and fair dealing, and he left to the remedies module, which has just now been completed, the task of determining how AMD would be compensated for this breach.

Phelps awarded AMD only \$15 million in damages, a mere pittance compared to the \$2.2 billion AMD had asked for. He ruled that Intel could keep \$23 million in royalties that AMD had been paying under protest into a reserve account, so the net cash impact on Intel is a positive \$8 million—a remarkably good result for Intel.

More importantly, however, Phelps also created an innovative remedy for Intel's breach of the covenant of good faith and fair dealing by essentially granting AMD immunity from prosecution for violating Intel's intellectual property rights with regard to the 386:

"AMD is hereby awarded a permanent, royalty-free, non-exclusive, non-transferable, worldwide right (but not the right to assign, license, or sublicense such right to any other party) under any and all Intel copyrights, patents, trade secrets and maskwork rights contained in the current versions of AMD's reverse-engineered 80386 family of microprocessors, to make, have made by a third party solely for AMD, use and sell the prior, current and future revisions and modifications of those products."

No transfer of Intel technology is involved; the award is intended simply to prevent Intel from claiming infringement of any intellectual property rights with regard to AMD's 386. This is all AMD needs; since its

386 chip has established an excellent compatibility record and exceeds Intel's performance, the company would have no use for Intel's 386 design database.

The "holy-water license," as Intel calls it, that "blesses" the AMD design, is specific to the 386. Phelps explicitly states that this license does not extend to future products, such as the 486. AMD's 486 chip is expected to use Intel's microcode, and nothing in the arbitration ruling gives AMD any rights to 486 technology.

Phelps also awarded AMD a two-year extension of its license agreement with Intel, which was scheduled to expire in 1995 but will now run through 1997, but this extension applies "only insofar as they relate to or concern the AMD 80386 and its revisions or modifications, if any."

AMD issued a statement from CEO Jerry Sanders stating that "The award of technology will effectively end Intel's use of the courts to harass AMD and stifle competition in the 386 arena." As much as AMD must wish this were true, it is not. Intel has made clear its intent to challenge the award of technology rights on the grounds that it is beyond the arbitrator's power to award such a license. The arbitration ruling must be confirmed by the California Superior Court, and Intel is expected to challenge this confirmation.

Intel similarly overstated its success. Intel's General Counsel Tom Dunlap said that the big issue has been the transfer of 386 technology, and since the judge did not require any transfer of technology, Intel had won—only Intel still has the "genuine" Intel 386. This posturing is rather absurd, since the AMD part is clearly just as good as Intel's, and better in some respects, and at this point AMD probably wouldn't make chips from Intel's mask set even if it was given to them. The true victory for Intel is that the cash award was so small—only \$15 million—when AMD had asked for \$2.2 billion and many observers thought that AMD might get hundreds of millions of dollars.

The Microcode Maze

AMD's claimed license to use Intel's copyrighted microcode in its own products is the subject of two pending court cases. At issue is whether the agreement between the two companies that gives AMD the right to copy Intel's microcode means just that—copy, but not sell, as Intel claims—or whether the right to sell chips using the microcode is implied.

The first case is based on AMD's 287 math coprocessor, which uses Intel's microcode. While this litigation

does not specifically refer to the 386 or 486, it will establish the court's interpretation of the disputed agreement and will therefore determine whether AMD can use Intel's microcode in these products. The long-delayed trial in this case is now scheduled to begin April 21, and its outcome remains critical to AMD regardless of whether or not the arbitration ruling is upheld.

Another lawsuit specifically addresses the alleged 386 copyright infringement, but the primary issue will be rendered moot if AMD wins the 287 microcode copyright case (establishing its right to the microcode copyright license). Intel would still have one card left to play here, however; Intel claims that the contents of one of the PLAs in the 386 qualifies as software, so it is protected by copyright, but that it is not microcode, so it is not covered by AMD's claimed license. Intel is seeking \$600 million in damages from AMD for the alleged violation of the 386 copyrights. The "holy-water license" from the arbitration ruling, if it is upheld, gives AMD a complete defense in this case, but it will not help in the 287 case, nor will it protect AMD's 486 design.

Phelps' Reasoning

In addition to the award itself, Phelps issued a 90-page "Memorandum of Decisions" to explain his reasoning. He notes in the introduction to this document:

"I am afraid that the end of the arbitration does not mean the end of the conflict. Intel has made no secret of its intention to appeal nearly any arbitration award to and through the court system. Therefore, since this proceeding has been a factually complex, multi-issued heavily litigated affair with feelings rising to or above gang warfare or mid-Eastern levels, I write this decision for my judicial brethren who will have to deal with this litigation at the trial and appellate court level..."

A fundamental issue that Phelps faced was how to "fashion a remedy," given the terms of the contract between AMD and Intel, which specifically prohibits awarding of lost profits and consequential damages. Phelps decided early in the arbitration that this limitation was void, since it "so stripped the arbitrator of his usual and necessary powers that it could not be allowed to stand in the way of a just decision..." In February 1989, he asked Intel to object immediately if it did not agree, but "Intel was not even polite enough to comment on the subject in any helpful fashion either to AMD or to the Arbitrator until after a year and a half and millions of litigation dollars later..." Intel tried, unsuccessfully, to get the California Superior Court to overturn the liability decision because of the contractual limitations.

Even so, Phelps felt constrained in what he could award AMD, and his feeling that Intel got off lightly is clear:

If there be some who, upon reading this decision and then comparing the Intel conduct with the final result, feel that Intel has been dealt with too lightly let them be assured that the Arbitrator is and has been aware of the problem. Were he permitted by contract law to award punitive damages he would have imposed some; and were he permitted by law to slice out arbitrarily from Intel's bountiful income from the 80386 to 'even out the balance' ... for AMD he would have done that too. But neither of these things can be done without sacrificing the integrity of the decision."

Phelps is confident that he is within his rights:

"... the Arbitrator's decision and the manner in which he exercises his power in this case is final unless he has been guilty of some egregious impropriety, has failed to receive relevant evidence or has acted clearly beyond his jurisdiction.... In only one respect has the Arbitrator departed from a conventional approach to relief... he has in effect put an end to the incessant litigation between AMD and Intel over the 386 ... and has in effect allowed AMD to market its part free from Intel's harassment... The remedy is not in excess of the Arbitrator's jurisdiction."

Phelps comments that AMD's requested \$2.2 billion in damages is

"more than the total state budget of eight states in the United States, more than the 1990 net income of 495 of the Fortune 500 companies, more than the total profits earned by Intel in the last two decades, and many times the amount of AMD's total net profits since its founding!"

In further criticizing AMD's claims, Phelps notes that:

"AMD's claims here are simply overreaching. They invite speculation on the part of the Arbitrator and they are so extreme that it has made it difficult for the Arbitrator as a fact finder to separate the wheat from the chaff."

The \$15 million in damages Phelps awarded AMD were not with respect to the 386 at all; they were for "Intel's failure to deliver updates to the 80286 D-step in proper form and when due" and for failure to deliver the 8087 manufacturing package. In explaining why he did not, in the case of the 8087, order Intel to deliver the manufacturing package, he noted that the device was now obsolete and no longer has value, "and the Arbitrator might as well order Intel to throw a dead cat on the doorstep of AMD...."

Intel's Attitude Problem

The more significant issue—and the area in which AMD stood to gain a sizable award—was Intel's alleged bad-faith dealings with regard to the 386. The heart of this allegation is that Intel decided internally not to accept from AMD the chip designs that would have entitled AMD to the 386 in return, but withheld this fact from AMD to keep it from joining up with another partner. The arbitrator notes that

“... I am of the opinion that Intel believes to this day—and more's the pity for it—that it did nothing wrong and that the Arbitrator's holding in this regard came about because, as Intel counsel has stated, the Arbitrator 'doesn't like Intel.’

“In order to dispel any such illusion I quote here from relevant internal Intel memoranda...”

These Intel memoranda present a clear picture of Intel's strategy of preventing AMD from getting the 386 but not making this clear to AMD. For example, this memo was written by an unnamed Intel executive in September 1985:

“I think our strategy should be, first and foremost, to keep the negotiations going. This will give us an opportunity to establish the 386 in the market and, hopefully, delay any AMD discussions with our other competitors. As one way to prolong the negotiations, we should begin a serious effort with them to identify high-value products for them to develop. If we're successful in identifying these products, and if we conclude that we do need them as a 386 second source, we can 1) justifiably delay transfer of the 386 until their exchange products are completed and 2) obtain high value product(s) in return.” [Emphasis in original.]

AMD's response to this, summarized in an internal Intel memo: “They correctly interpreted our proposal as a non-proposal.” Another internal Intel memo noted:

“We have put ourselves in the strange position of asking someone to design something for us, then subsequently telling them it's not fast enough, we know a better way to do it but we will not tell you how.”

Another example:

“Intel Strategy with AMD

1. Assure AMD they are our primary source through regular management contact and formal meetings.
2. Take no more AMD products under the current agreement.”

Intel CEO Andy Grove's attitude was summed up in

a note to VP Dave House, written in October 1984 in reaction to AMD CEO Jerry Sanders telling the press how much money AMD was making from the agreement:

“May you ‘even out’ the balance with these bastards soon!”

And in Dave House's notes of a conversation with Andy Grove:

“Key point—we are in no hurry. We don't need a 386 2nd source, especially since everyone assumes AMD will be one.... We need new ideas on a new deal since the current activity is only aimed at keeping AMD tied up with us.”

And more:

“Best for Intel is no second source, but... A public sole source strategy would limit the 386 market and have negative impact on Intel's architecture in general.... Strategy: ... Maintain a second-source, business as usual posture in the marketplace.”

This comment shows that Intel was out to deceive not only AMD, but also its own customers.

Phelps concludes “Given all of this, it is difficult to see how any disinterested and impartial observer could ever say that Intel's conduct was in good faith or that Intel was dealing fairly with AMD.” In a press release describing the award, Grove tries to explain away the incriminating memos:

“During 1985 and 1986, we tried to make the agreement work in spite of AMD's non-performance. After it became clear that they couldn't deliver products, the frustration level understandably rose at Intel. This frustration triggered the memos cited by the arbitrator as proof of our bad faith. During this same time period, however, we made repeated attempts at finding a new formula that would work. All our proposals were rejected by AMD. The arbitrator felt our efforts during this period were not sincere; we strongly disagree.”

While the arbitrator didn't agree with Grove on the bad faith issue, he did acknowledge AMD's poor performance, and this cost AMD a several-hundred-million dollar award:

“Intel's plan succeeded all right, but it didn't succeed because of Intel, it ‘succeeded’ because of AMD's own inertia.... Had I believed that AMD was truly the victim of Intel's breach in this regard and that it had not been the victim of its own myopia the damages award would have been \$268,000,000 [the percentage of Intel's sales AMD says it would have had] plus—and plus a lot.”

In commenting on why he dismissed AMD's three-quarter-billion-dollar claim for loss of goodwill, Phelps notes that AMD's losses and the company's decline in value were not due entirely to the delayed production of the 80C286 and the 386:

"In 1985 only about 10% of AMD's sales were Intel products, including microprocessors transferred under the Contract. The rest of its income in 1985 came from sales of bipolar products (50%), NMOS memories (25%), Telecom products (10%), and miscellaneous products (5%). Tremendous technical change affected the semiconductor industry in the 1984/85/86 time period. NMOS and bipolar technologies gave way to CMOS; EPROM memory products were lost to the Japanese (and AMD was heavily into EPROMs); AMD stumbled in designing VLSI circuits; and AMD was slow to realize the impact of the 1984 chip recession. It was heavily investing in R&D in products which had no market value; it was heavily invested in additional capital plants for bipolar (which had no future) and the depreciation of which torpedoed its balance sheets; and it hung on too long to a 'no lay-off' policy which, while admirable in AMD as an employer, was disastrous to AMD as a business entity. There is absolutely no question but what all of these factors operating together caused the decline in value."

Phelps agrees with AMD, however, that its losses due to Intel's refusal to allow AMD to get the 386 were "immeasurable," and this is what led him to award the limited license to Intel's 386. He writes, "These intellectual property rights are at this time just as immeasurable as is AMD's loss in the covenant case."

Conclusions

The "holy-water license" to the 386 design may help AMD lift the veil of uncertainty that has surrounded its Am386, but the fact that Intel contests the validity of this award largely negates its value until it can be ratified by the courts. It does not reduce the long-term importance of the 287 microcode case, because AMD is depending on this copyright license for its 486 design as well. It does, however, make it seem very unlikely that Intel will succeed in getting its claimed \$600 million damages from AMD, or that Intel will be able to force AMD to withdraw the chip or modify its design.

If AMD wins the copyright case, then it probably doesn't need the "holy-water license." The only regard in which it might still be useful is in defusing Intel's claim that one of the PLAs in the 386 is protected by copyright, but is not microcode.

In a worst-case scenario in which the license award is overturned by the court and AMD loses the copyright

case, AMD would have to replace the 386 microcode with a clean-room version. This is not fundamentally very difficult, but it would make it harder for AMD to ensure compatibility. AMD hopes to use its "genuine Intel microcode" claim to give it an advantage over other 386-compatible processors, which will be faster on a cycle-by-cycle basis.

This case creates no precedents of use to other makers of 386-compatible processors, since it is essentially a contract dispute. Intel's recently filed patent infringement suit against C&T (see p. 11) is more indicative of the troubles other companies will face.

For all the time and effort that has gone into this arbitration (which began before *Microprocessor Report* began publication nearly five years ago!), the outcome is rather insignificant. The legal fees are surely far greater than the damages awards, so the old saying—only the lawyers win—is as true as ever. Of course, Intel's efforts may all be justified—at least from a financial viewpoint—by the degree to which they delayed AMD's entry into the market, placed an additional burden on AMD's management, and kept prospective AMD customers wary. ♦

SGI/MIPS Merger

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To the degree that SGI is motivated by a desire to make low-end MIPS-based systems a high-volume alternative to Intel-based systems, the new company is considerably riskier than the old SGI. As the unchallenged leader in high-performance graphics computers, SGI was in a relatively safe, comfortable position. In attempting to take on the Intel-based PC standard in mainstream business computing markets, it has taken on the role of underdog. In a worst-case scenario, a failure of the low-end ARC systems could drag down SGI's profitable graphics workstation business.

MIPS and SGI were both founded in the early '80s by Stanford professors, using outgrowths of university research; both companies were venture funded, and both went public. While MIPS has had a more widespread impact on the computing world, SGI has had the more successful financial model. SGI has benefited from a consistent focus on meeting a user need—visual computing systems—while MIPS has struggled with its business model. First it was a fabless semiconductor vendor, then it was a technology developer and licensor with a small systems business, and in its latest stage it placed an increasing emphasis on building a high-volume systems business. It is sad to see the end of the only independent company founded as a RISC microprocessor developer, but hopefully it will live on in an incarnation that is a stronger business. ♦