

UNITED STATES OF AMERICA
BEFORE FEDERAL TRADE COMMISSION

In the Matter of

INTEL CORPORATION,

a corporation.

DOCKET NO. 9288

INTEL CORPORATION'S TRIAL BRIEF

PUBLIC VERSION

Robert E. Cooper
Michael L. Denger
Joseph Kattan
Joel S. Sanders
Daniel S. Floyd
Thomas G. Hungar
Jeffrey T. Gilleran
D. Jarrett Arp

GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5303
(202) 955-8500

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Attorneys for Respondent Intel Corporation

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To the Honorable James P. Timony, Chief Administrative Law Judge:

I. INTRODUCTION

The central tenet of Complaint Counsel's theory is that Intel's conduct has chilled microprocessor innovation:

“[T]he natural and probable effect of Intel's conduct is to diminish the incentives of the industry to develop new and improved microprocessor and related technologies.” Complaint ¶ 39.

The central fact, however, is that Complaint Counsel's economic expert, Prof. F.M. Scherer, concedes that he has found no evidence that innovation has been adversely affected.

Scherer Tr. 353-54.¹ Indeed, Dr. Scherer acknowledges that:

“It is unthinkable that a company could stand still in this kind of industry under any circumstances.” Scherer Tr. 98.

¹ Full citation references to the deposition transcripts and other discovery material referenced in this brief are set forth in Appendix A hereto.

Complaint Counsel's case is an assault on fundamental antitrust principles. After 18 months of a pre-complaint investigation and pre-trial discovery, in which they obtained over 1,000 boxes of documents from Intel and countless more from third parties, Complaint Counsel have no evidence that the conduct challenged in this case has had any adverse effect on competition. Indeed, the evidence shows that competition has intensified greatly since the time of that conduct. *E.g.*, **REDACTED**. In spite of this evidence, Complaint Counsel seek to intervene in private disputes between well-represented major corporations and to secure an order that would tilt the competitive playing field against Intel.

The Complaint alleges that Intel monopolized the market for general-purpose microprocessors by withholding the right to use its intellectual property from three companies – Digital Equipment Corporation, Compaq Computer Corporation and Intergraph Corporation – that had asserted that Intel had infringed their patents. It claims that in so doing Intel diminished the incentives of these and other companies to “develop new innovations relating to microprocessor technology.” Compl. ¶ 14. These allegations are contradicted by Complaint Counsel's own economic expert, Frederic M. Scherer, who admitted under oath that there is no evidence of any harm to innovation or competition:

Q: Well, let me ask you this: Has it [the challenged conduct] adversely affected research and development expenditures by any microprocessor competitor?

A: We've gone through this before, and I've not found evidence of such in [sic] effect.

* * *

Q: Has it adversely affected price competition in the marketplace for general-purpose microprocessors?

A: That's a hard one. I've seen no direct evidence on the point. At best, one would have to go to indirect evidence of the complex sort that follows in several – many paragraphs of my report.

Q: And we'll get to those one at a time, but no direct evidence of an impact on price competition, correct?

A: That's what I would say, yes.

Q: And no direct evidence of any limitation on the types of new microprocessors being introduced into the marketplace?

A: Correct.

Scherer Tr. 353-54. Indeed, Dr. Scherer admitted that he is not aware of *any source of micro-processor innovation* that has been harmed by the conduct challenged by Complaint Counsel:

Q: Okay. Now, are you aware of any source of innovation involving general purpose microprocessors that has reduced its efforts because of an awareness of Intel's, quote, harsh conduct, as you call it, close quote?

A: End of question?

Q: End of question.

A: Okay. As I've testified previously, and we've spent hours on this, I am not aware of any specific evidence to this effect.

Scherer Tr. 493-94.

In spite of the manifest absence of harm to competition and his admission that the conduct could benefit consumers (*id.* at 502-03, 602), Dr. Scherer asserts that Intel's conduct should be proscribed because it is "unfair." *Id.* at 560. In so doing, Dr. Scherer exposes this case as an attempt to sacrifice the interests of consumers to vindicate subjective notions of "fairness" held by Complaint Counsel and their economic expert. Their approach conflicts with Supreme Court decisions that emphasize that "[e]ven an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws." *Brooke*

Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 225 (1993); *Nynex Corp. v. Discon, Inc.*, 119 S. Ct. 493, 498-99 (1998). It attempts to impose a per se monopolization standard in contravention of the Supreme Court's admonition less than three months ago that "it is wrong categorically to condemn" even tortious practices that "could anticompetitively create or sustain a monopoly," just as it is categorically wrong to excuse them. *Nynex Corp. v. Discon, Inc.*, 119 S. Ct. at 499 (quoting 3 Phillip Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 651d, at 80 (1996)) (internal quotations omitted).

Complaint Counsel's case also disregards the legal norms articulated by the Commission's own guidelines. Although the adverse competitive effect alleged in this case is harm to innovation, Complaint Counsel's economic expert did not bother to perform any analysis within the framework of an innovation market under the *Antitrust Guidelines for the Licensing of Intellectual Property*, 6 Trade Reg. Rep. (CCH) ¶ 13,132 (Apr. 6, 1995). See Scherer Tr. 476. According to Dr. Scherer, the innovation market concept described in the Commission's guidelines is "an artificiality that didn't fit the facts of the case and didn't really go to the heart of the matter." Scherer Tr. 478. With this curt dismissal, an entire analytical framework is tossed out and replaced with subjective notions of right and wrong. These legally irrelevant notions of fairness, moreover, utterly disregard the obvious equity of Intel's defense of its own intellectual property rights against parties that asserted their rights had been infringed.

Complaint Counsel's disregard for legal norms flows directly from, but is not excused by, an evidentiary record that shows that Intel's conduct did not produce any anticompetitive effects. Complaint Counsel's claim that Intel's conduct has "chilled" the innovation efforts of others is a hollow falsehood that is refuted by the very companies that supposedly were inhibited from

innovating. Senior personnel at all major innovators in the microprocessor field have given deposition testimony or submitted declarations under oath confirming that their companies' R&D efforts were not affected adversely by the Intel conduct alleged in the Complaint. They include:

- IBM Corporation, which has recently introduced into the marketplace several significant innovations involving microprocessors, including the use of copper interconnect and "silicon-on-insulator" technology. See **REDACTED** ;
- Compaq Computer Corporation, and its Digital Equipment subsidiary, whose Alpha microprocessor is among the fastest microprocessors in the world. See **REDACTED** Palmer 11/20/98 Tr. 97, 120-23;
- Motorola, Inc., which co-developed the PowerPC microprocessor with IBM, and which has also been a pioneer in the use of copper interconnect technology. See **REDACTED** ;
- Hewlett-Packard Corporation, whose PA-RISC 8500 microprocessor recently claimed the honor of the world's fastest microprocessor. See RX 576;
- Sun Microsystems, Inc., which designs and markets the highly scaleable Ultra-SPARC microprocessors. See **REDACTED** ;

REDACTED

- National Semiconductor Corporation, a leading innovator in the area of highly-integrated microprocessors. See **REDACTED** ;

REDACTED

and

- Integrated Device Technology, Inc., which recently entered the microprocessor field as an innovator in low-cost microprocessor designs. See RX 545; **REDACTED**

With this overwhelming evidence that microprocessor innovation is thriving, Complaint Counsel are reduced to adopting a theory espoused by Intel's competitor and frequent litigation adversary, AMD. Echoing AMD's Form 10-K for 1997, Complaint Counsel now argue that

Intel's conduct has somehow prevented original equipment manufacturers (OEMs) of computer systems from innovating, which in turn supposedly limited their ability to differentiate their products, which in turn somehow frustrated their ability to buy microprocessors from AMD. This theory violates numerous written representations, sworn discovery responses, and stipulations agreed to by Complaint Counsel in which they repeatedly represented that the *only* market in which they claim harm to innovation is the market for general-purpose microprocessors. But even if Complaint Counsel are permitted to renege on their representations, this bizarre theory is easily shown to be contrary to the evidence.

Economic theory teaches that manufacturers benefit from maximizing innovation and competition in downstream markets, because such competition increases demand for their products. Shapiro Rebuttal Rep. 4-5. This was the central teaching of the Supreme Court's decision in *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977). This theory has certainly been borne out in the computer field, in which Intel has made very large investments to support complementary innovations. Shapiro Rebuttal Rep. 5-7. OEM innovations have thrived so much that Complaint Counsel's economic expert was forced to admit under oath that there are literally dozens of ways in which computer OEMs are able to differentiate their products. Scherer Tr. 504, 516, 671. The performance of AMD in the marketplace also flies in the face of Complaint Counsel's new theory. Two years ago, none of the top ten OEMs used AMD processors. Today nine out of the top ten do so. **REDACTED** . See also Scherer Tr. 235. Moreover, AMD sold every microprocessor it made during **REDACTED** , **REDACTED** ; RX 940. Even Complaint Counsel's economic expert is at a loss to explain how Intel's conduct stopped AMD from selling more microprocessors. Indeed, Dr. Scherer ad-

mitted under oath that he could not identify a single example where even one microprocessor sale has been lost by an Intel competitor because of an alleged impact of Intel's actions on the development of complementary technology. Scherer Tr. 667, 669.

Given the overwhelming evidence that competition is thriving, Complaint Counsel ultimately must argue for a per se monopolization rule that punishes companies for conduct that Complaint Counsel deem unjustified. This per se rule flows from the inherently inequitable premise that Intel's litigation adversaries have the right to demand value for their intellectual property but that Intel does not have the right to obtain reciprocal value for its intellectual property. In withholding its confidential information, Intel exercised the basic right of a trade secret owner to select the persons to whom it will disclose its trade secrets. In withholding samples of its future microprocessors, Intel exercised the basic right of a patent owner to "refuse to sell ... [its] patented products." *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 457 (1940). Under Complaint Counsel's per se monopolization rule, Intel's litigation adversaries have the right to exercise their monopoly power to exclude Intel from using their claimed inventions but Intel does not have the right to use its intellectual property to barter for the rights asserted against it. This approach is both unfair and anticompetitive.

Complaint Counsel have the burden of proving that the conduct alleged in the Complaint harmed competition by (1) creating a dangerous probability that Intel would obtain a monopoly, (2) actually creating such a monopoly, or (3) improperly maintaining an existing Intel monopoly in the market for general-purpose microprocessors, the only relevant market defined by the Complaint and identified by Complaint Counsel in response to Intel's interrogatories. See Compl. ¶ 4; Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's Fourth Set of

Irogs., No. 1 (Dec. 18, 1998). Although the Complaint alleges that Intel has maintained such a monopoly by reason of the challenged conduct, Compl. ¶¶ 40 - 41, Complaint Counsel cannot meet their burden under the law to prove the Complaint's allegation that the conduct has enabled Intel to maintain an alleged monopoly. Nor can Complaint Counsel meet their burden of showing that the challenged conduct is exclusionary. The Complaint therefore must be dismissed.

II. FACTUAL BACKGROUND

The Complaint focuses on Intel's withholding of the right to use intellectual property that it owns from three companies that sought to deny Intel the right to use intellectual property that they owned or controlled. All three companies – Digital, Intergraph, and Compaq – filed actions in which they alleged that Intel had made, used, or sold integrated circuits that infringed their patents. Digital and Intergraph further sought injunctive relief to prevent Intel from selling its flagship microprocessor products, while Compaq sought to enjoin Intel's sales of motherboards. Intel responded by withholding from these companies the right to use copyrighted materials containing trade secrets about future Intel microprocessors and other integrated circuits as well as samples of patented future Intel semiconductor products. In the case of Compaq, the withheld information related principally to products that were far away from commercialization and for which the parties had not negotiated new non-disclosure agreements.

Much of the intellectual property that Intel withheld is contained in so-called "color books," which provide sensitive technical or commercial data concerning Intel semiconductor products. These books have red, orange, and yellow covers, in descending order of sensitivity. All of these books contain information that has great competitive significance. A typical color

book contains highly detailed technical data on matters such as bus signaling protocols, arbitration phase signals, read and write transaction methods, request signals, and cache transaction processing. These attributes are set out with highly detailed textual descriptions of the microprocessor's characteristics, accompanied by charts and diagrams that illustrate such characteristics. Intel invests very substantial resources to develop these books, and takes great measures to protect their confidentiality. There can be little doubt that the information in these color books, which is not generally known and the confidentiality of which is strictly maintained, constitutes trade secrets. Milgrim Expert Rep. ¶¶ 13-15.

Intel also withheld from Digital and Intergraph samples of future semiconductor products, which are protected by numerous patents. A typical Intel microprocessor is protected by more than 300 patents. In both the Digital and Intergraph cases, Intel withheld access to samples of future versions of the very microprocessors that the two companies had sought to enjoin Intel from selling.

At all times, Intel has made color books and samples of future products available only to selected customers. The disclosures of Intel intellectual property are specifically tailored to individual customers and the benefits that Intel may derive from making particular disclosures to them. Shapiro Expert Rep. 51-53. There is no such thing as a "typical" disclosure, and the nature and scope of disclosures vary greatly among the customers to which they are made. All of the disclosures are made pursuant to non-disclosure agreements ("NDAs") that expressly provide that Intel has no obligation to make the disclosures and allows either party to terminate at any time without cause. Intel makes these disclosures when it determines that making the disclosures is mutually beneficial. The fact that a disclosure may be mutually beneficial at one point in time

does not mean that it continues to be mutually beneficial for all time. *Id.* at 53. Similarly, the fact that Intel finds the disclosure of a particular trade secret or patented product sample to be mutually beneficial does not mean that the disclosure of other trade secrets or patented product samples is also mutually beneficial. *Id.*

Intel terminated NDAs with both Digital and Intergraph based on those companies' assertions of patent infringement against Intel. It also declined for a time to disclose trade secrets regarding future products to Compaq in response to Compaq's assertion of patent infringement based on the use of Intel semiconductor products. Among the important considerations underlying Intel's withholding of its intellectual property were the following:

- Intel sought and was entitled to receive value for its intellectual property, just as the companies that had sued it sought to receive value for intellectual property that they claimed had been infringed by Intel.
- Intel had a contractual right to terminate intellectual property disclosures and to withdraw the right to use previously-disclosed Intel intellectual property, and depends on the ability to exercise that right to maintain its incentive to work closely with suppliers of complementary goods and make new disclosures.
- Disclosures to companies that had alleged that Intel's microprocessors infringed their patents created an unreasonable risk that Intel's confidential intellectual property would (a) be used as a source of extrajudicial discovery, (b) form the basis for broadened patent claims in patent applications by the recipient of Intel's information; or (c) be otherwise misused.

The withholding of the right to use Intel's intellectual property was not a response to competition from the three companies that had sued Intel. In fact, as Complaint Counsel's economic expert concedes, Compaq and Intergraph did not compete with Intel in the development and sale of microprocessors during the relevant period. Scherer Tr. 402-03 (Compaq), 352 (Intergraph). The third company, Digital, had competed with its Alpha processor for years prior

to the parties' intellectual property dispute, and Intel did not take any actions directed at excluding the Alpha processor from the marketplace. Shapiro Expert Rep. 3-4.

Intel's actions were nothing more than a response to the assertion of infringement claims against it. Digital recognized that its action against Intel was "a direct frontal attack on the future prospects of their company and product set." RX 30; Palmer 11/20/98 Tr. 146. *See also* Phillips Tr. 165-66 (Intergraph sought to enjoin the sale of every Intel microprocessor). As discussed in Part C below, Intel's withholding of the right to use its intellectual property from companies that had sought to exclude it from using intellectual property they claimed to own was a justified reaction to direct attacks on its business.

There is no factual basis for the Complaint's allegation that Intel's conduct impaired the ability of Compaq, Digital, and Intergraph "to remain competitive in developing and bringing to market in a timely manner computer systems based on Intel microprocessors." Compl. ¶ 13.

The evidence shows that Compaq did not experience

REDACTED

REDACTED

In the case of Digital, any

delay in product introductions that may be even arguably attributable to Intel's conduct were short in duration. Frame Tr. 83, 87-91. As Dr. Scherer has acknowledged, Digital "was not typically an early mover" and "if it was a couple of months late . . . that didn't matter much given its established customer relationships." Scherer Tr. 371. Dr. Scherer also acknowledged that the impact of Intel's conduct on Intergraph was "negligible." Scherer Tr. 355. In short, contrary to

Complaint Counsel's position, the evidence shows that the actual impact of Intel's conduct on the three companies was minuscule.²

More significantly, however, Intel's conduct challenged in the Complaint had no impact whatsoever on competition in the relevant market. The only impact on competition allegedly brought about by Intel's actions described in the Complaint is a diminution in the "incentives" of the Digital, Intergraph, and Compaq, as well as the incentives of other companies, to develop innovations relating to microprocessor technology. This allegation is demonstrably false.

A. Effect on Companies Named in the Complaint

As noted earlier, only one of the three companies named in the Complaint was engaged in the design and development of general-purpose microprocessors at the time of its dispute with Intel. That company was Digital, which at the time of its dispute with Intel was developing and producing Alpha microprocessors. Complaint Counsel's economic expert has acknowledged that neither Compaq nor Intergraph has been deterred in any fashion from engaging in any microprocessor innovation as a result of the conduct alleged in the Complaint. Scherer Tr. 402-03 (Compaq), 354 (Intergraph).

With respect to Digital, its Chairman has testified that the company did not cancel, curtail, delay, defer, scale back, reduce, or otherwise limit any research and development related to microprocessors as a result of Intel's conduct. Palmer 11/20/98 Tr. 97, 122. Mr. Palmer further testified that, because of Digital's settlement with Intel, the Alpha microprocessor was put in a

² Although Intel's response in each case included withholding the right to use trade secrets and, in some cases, samples of patented future Intel semiconductor products, each situation was complex and unique and not subject to the facile categorization urged by the Complaint Counsel.

stronger position to compete today than it had been prior to Digital's dispute with Intel (*id.* at 120-21), and that Digital's ability and incentive to innovate with regard to the Alpha increased as a result of that settlement. *Id.* His testimony was echoed by William Strecker, Compaq's Senior Vice President for Technology and Corporate Development, who was Digital's Senior Vice President and Chief Technology Officer prior to Digital's acquisition by Compaq. Dr. Strecker attested under oath that Intel's conduct had no effect on R&D related to the Alpha processor, and that Compaq is "very committed to further enhancing the capabilities of the Alpha Chip." RX 551, ¶¶ 6, 7.

B. Effect on Companies Not Named in the Complaint

It is telling that eight months after issuing a Complaint that alleges harm to the innovation efforts of an entire industry, Complaint Counsel are unable to identify any R&D projects that have been adversely affected by Intel's conduct. See Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's Fourth Set of Irogs., No. 2. Further, Complaint Counsel have acknowledged that they have no evidence "linking Intel's conduct to [the following companies'] decisionmaking with regard to innovations or research and development": IBM, AMD, Motorola, National Semiconductor and its Cyrix subsidiary, NEC Electronics, Hewlett-Packard, Samsung Electronics, Sun Microsystems, IDT and its Centaur subsidiary, Hitachi, Silicon Graphics, International Meta Systems, Rise Technology, Transmeta, and Metaflow Technologies. Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's First Set of RFAs, Nos. 1(b), 2(b), 3(b), 4(b), 5(b), 6(b), 7(b), 8(b), 9(b), 10(b), 11(b), 12(b), 13(b), 14(b), 15(b) (Dec. 18, 1998). These companies, together with Intel and Digital, constitute the universe

of known microprocessor innovators. Complaint Counsel essentially concede that not one of these companies has changed any of its R&D activities by reason of the challenged Intel conduct.

In a similar vein, Digital Chairman Robert Palmer testified that he is not aware of any company that has canceled, curtailed, delayed, deferred, scaled back, reduced, or otherwise limited its microprocessor research and development as a result of the conduct alleged in the Complaint. Palmer 11/20/98 Tr. 97, 122. He further testified that the microprocessor industry is replete with innovations (*id.* at 122), that the industry is characterized by substantial innovation (*id.* at 130), and that microprocessor innovation is continuing unabated, with the only limitation being “the cost of sustaining ongoing research” (*id.*).

This view is acknowledged by Complaint Counsel’s economic expert Dr. Scherer. Dr. Scherer “agree[d] that the pace of product introductions had accelerated,” Scherer Tr. 644, and that “[i]t is unthinkable that a company could stand still in this kind of industry under any circumstances.” *Id.* at 98. This view is also echoed by the testimony of senior executives of Intel’s major competitors. For example, three **REDACTED** executives testified that the pace of microprocessor innovation has accelerated since the time of the events alleged in the Complaint. **REDACTED**

REDACTED Similarly, a senior executive of **REDACTED** **REDACTED** testified that new microprocessors are being introduced into the market at a faster pace than in previous years. **REDACTED**

The Complaint’s allegation that the “natural and probable effect” of Intel’s conduct has been to harm innovation may reflect the hopes and surmise of Complaint Counsel, but it does not reflect the evidence. The evidence overwhelmingly demonstrates that the *actual effect* of the conduct has not been to diminish innovation. Indeed, in response to Intel’s subpoena specifi-

cation asking every microprocessor company for all documents relating to any adverse impact of Intel's intellectual property disputes with Digital, Intergraph, or Compaq on R&D activities, not one such document has been produced by any subpoena recipient. This lack of documentary evidence of harm to R&D is confirmed by attestations under oath that the conduct alleged in the Complaint did not affect R&D efforts. Such testimony or declarations have thus far come from IBM, Compaq/Digital, Motorola, Hewlett-Packard, Sun Microsystems, **REDACTED**, National Semiconductor/Cyrix, **REDACTED**, and IDT. In addition, Complaint Counsel and their expert have admitted that they have no evidence that anyone else's R&D efforts have been affected.

1. *IBM:* In the past two years, IBM has introduced very significant innovations, including the use of copper metalization and silicon on insulator technology. **REDACTED**

REDACTED Dr. Scherer regards the commercialization of copper metalization technology as "a very important advance." Scherer Tr. 224. The conduct alleged in the Complaint had no effect on IBM's research and development activities. **REDACTED** Dr. Scherer acknowledges that there is no evidence that IBM's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-45.

2. *Compaq/Digital:* As noted earlier, Digital's Chairman Robert Palmer testified that Intel's conduct had no effect on Digital's microprocessor research and development activities. Palmer 11/20/98 Tr. 94-97, 122. Indeed, **REDACTED** the settlement between Digital and Intel ensured the survival of the Alpha microprocessor **REDACTED** accelerated the opportunity to have Alpha processors produced on an advanced 0.18 micron process by as much as two years **REDACTED**, and reduced Digital's cost of obtaining

Alpha processors **REDACTED** Similarly, William Strecker, Compaq's Senior Vice President, Technology and Corporate Development, attested as follows:

I do not believe and I am not aware of anyone at Compaq who believes that our incentives to develop the Alpha Chip and/or products incorporating that chip have been adversely impacted by any conduct of Intel to refuse, or to threaten to refuse, to provide Compaq, Digital, or Intergraph with technical information about Intel products or with Intel product prototypes, nor am I aware of any research and development directed at developing the Alpha Chip that has been canceled, curtailed, delayed, deferred, scaled back, reduced, or otherwise limited by Intel's conduct referenced above.

RX 551, ¶ 6. Since the time of events alleged in the Complaint, Compaq has announced that "it had achieved 'record-setting performance results' with the new Alpha 21264 processor." *Id.* ¶ 7)(a). It has since announced its plans for the Alpha 21364 microprocessor, which according to Dr. Strecker "will be the fastest and most capable Alpha ever." *Id.* ¶ 7(d).

3. *Motorola:*

REDACTED

REDACTED the conduct alleged in the Complaint has had no adverse impact on Motorola's microprocessor innovation efforts. **REDACTED** In the time since the events alleged in the Complaint, Motorola has announced its successful commercialization of copper interconnect technology, an advance acknowledged by Dr. Scherer to be a significant achievement. Scherer Tr. 224. Dr. Scherer acknowledges that there is no evidence that Motorola's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-45.

4. *Hewlett-Packard:* Donovan Nickel, Research and Development Manager of Hewlett-Packard's Fort Collins Microprocessor Laboratory in charge of research and development for HP's PA-RISC family of microprocessors, attested under oath that "HP's own microprocessor

research and development efforts have not been curtailed, slowed, altered or otherwise adversely affected by any Intel conduct" alleged in the Complaint. RX 576, ¶ 4. In December 1998, Hewlett-Packard introduced the PA-RISC 8500 processor, which is currently the fastest available RISC microprocessor. *Id.* ¶ 5. Dr. Scherer testified that he found Mr. Nickel's statement to be "not surpris[ing]." Scherer Tr. 261-62.

5. *Sun Microsystems:* Sun did not alter any of its microprocessor innovation efforts as a result of the conduct alleged in the Complaint. **REDACTED** . In the time since the events alleged in the Complaint, Sun has announced plans to introduce a 1,000 MHz UltraSPARC microprocessor in the first quarter of 2000 and a 1,500 MHz version by 2002. Dr. Scherer acknowledges that there is no evidence that Sun's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-45.

6. *AMD:*

REDACTED

In 1998, AMD introduced new extensions to the x86-compatible instructions set used in its microprocessors, which it calls 3DNow!. **REDACTED** these extensions represent a major innovation. **REDACTED**

REDACTED development of the K7 microprocessor technology is a major innovation. **REDACTED** Dr. Scherer acknowledges that there is no evidence that AMD's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-45.

7. *National Semiconductor/Cyrix:* National/Cyrix did not alter any of its microprocessor innovation efforts as a result of the conduct alleged in the Complaint. **REDACTED**

REDACTED National/Cyrix, which has been a leader in developing a highly-integrated "computer on a

chip" design,

REDACTED

REDACTED

Dr. Scherer acknowledges that there is

no evidence that National/Cyrix's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-45.

8. *STMicroelectronics/Metaflow*: STMicroelectronics

REDACTED

REDACTED

The company's Metaflow subsidiary is expected to introduce a new microprocessor that is compatible with the Intel Architecture during 1999. Brookwood Expert Rep. ¶ 21. Dr. Scherer acknowledges that there is no evidence that STMicroelectronics' innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 319.

9. *IDT/Centaur*: IDT/Centaur did not alter any of its microprocessor innovation efforts as a result of the conduct alleged in the Complaint. RX 545; REDACTED IDT entered the x86-compatible microprocessor market segment with its "Winchip" microprocessors in 1998, after the time of the events alleged in the Complaint. Dr. Scherer acknowledges that there is no evidence that IDT/Centaur's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 544-46.

10. *Samsung*: Samsung has entered the microprocessor business after the time of the events alleged in the Complaint. In 1998, Samsung formed a subsidiary, Alpha Processor Inc., to manufacture and market the Alpha microprocessor. In April 1998, Samsung REDACTED REDACTED for a license to REDACTED Alpha processors. REDACTED Dr. Scherer acknowledges that there is no evidence that Samsung's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 298-99.

11. *NEC*: NEC competes in the market for general-purpose microprocessors with various microprocessor designs. Brookwood Expert Rep., Tables A, B. Dr. Scherer acknowledges that there is no evidence that NEC's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 297-98.

12. *Hitachi*: Hitachi competes in the high end of the market for general-purpose microprocessors. Brookwood Expert Rep., Table B. Dr. Scherer acknowledges that there is no evidence that NEC's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 322-23.

13. *Silicon Graphics*: Silicon Graphics is the parent company of MIPS Technologies, a company that designs, develops, and sells general-purpose microprocessors. Dr. Scherer acknowledges that there is no evidence that SGI's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 454-55.

14. *Rise Technology*: Rise Technology has entered the general-purpose microprocessor market within the past year with a microprocessor that supports the Intel Architecture instruction set. Brookwood Expert Rep. ¶ 21. Dr. Scherer acknowledges that there is no evidence that Rise's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 545-46.

15. *Transmeta*: Transmeta is a microprocessor design firm that is expected to enter the market in 1999. Brookwood Expert Rep. ¶ 21. **REDACTED**

REDACTED

REDACTED Dr. Scherer acknowledges that there is no evidence that Transmeta's innovation efforts have been impaired as a result of the conduct alleged in the Complaint. Scherer Tr. 545-46.

III. INTEL'S CONDUCT IS LAWFUL

A. Intel Does Not Possess Monopoly Power

No monopolization or attempted monopolization claim may be established unless Intel has unlawfully attained or maintained a monopoly or is dangerously threatening to attain one. *Spectrum Sports, Inc., v. McQuillan*, 506 U.S. 447, 459 (1993).³ Monopoly power is "the power to control prices or exclude competition" within a relevant market. *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956). The relevant market in this case is the market for general-purpose microprocessors.⁴ As developed definitively through discovery in this case, Intel has no ability to control prices or to actually exclude competition or competitors from this market and has no prospects for doing so in the future.

1. Competitors in The Relevant Market

The general-purpose microprocessor market is characterized by intense and increasing technological and price competition. At least the following companies actively compete in that market: AMD, Compaq/Digital, National/Cyrix, Hewlett-Packard, Hitachi, IBM, IDT, NEC, Samsung, STMicroelectronics, Silicon Graphics, Sun Microsystems, Texas Instruments, and Toshiba. *See, e.g.*, Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's Fourth Set of Irogs., No. 1(a); Complaint Counsel's Second Supp. Resp. to Respondent's First Set of

³ As the Commission itself has recognized, the standards under Section 2 of the Sherman Act should not "be changed when a case is brought under Section 5" of the Federal Trade Commission Act. *In re General Foods Corp.*, 103 F.T.C. 204, 355 (1984). *See also Official Airline Guides, Inc. v. FTC*, 630 F.2d 920, 925-27 (2d Cir. 1980), *cert. denied*, 450 U.S. 917 (1981).

⁴ Complaint Counsel repeatedly have confirmed that the market for general-purpose microprocessors is the relevant market – and the only relevant market – implicated in this action. *See, e.g.*, Second Supp. Resp. to Respondent's Fourth Set of Irogs., No. 1 (Dec. 18, 1998).

RFAs Nos. 1(a), 2(a), 3(a), 4(a), 5(a), 6(a), 7(a), 8(a), 9(a), 10(a), 11(a). The number of competitors in this market is growing. As Complaint Counsel admit, Rise “has very recently introduced a microprocessor product” and **REDACTED**

REDACTED Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's First Set of RFAs, Nos. 13(a), 14(a). In fact, Rise has entered the market and **REDACTED**

REDACTED

2. *Increasing Price, Product, and Innovation Competition*

Any reader of personal computer ads today can readily see that Intel faces intense competition. Leading PC makers, such as Compaq, IBM, Digital, Hitachi, Hewlett-Packard, NEC, Packard-Bell, and Acer, are all selling systems that incorporate microprocessors from Intel's competitors and heavily promote these microprocessors in their advertising. *E.g.*, RX 952; RX 1712. PC ads featuring the logos for AMD's K6-2 processor or Cyrix's MII processor are commonplace and growing in number as AMD and Cyrix extend their gains in the market. *E.g.*, RX 952; RX 1712. Indeed, Compaq today offers its customers the choice of processors from four different vendors – Intel, AMD, National/Cyrix and Compaq/Digital (the Alpha). Scherer Tr. 123-24, 178, 220-21, 617. The increased market clout of competitors is also reflected in their market shares. AMD, for example, has dramatically expanded its market share during 1998, and demand for its K6-2 microprocessors exceeded manufacturing capacity. **REDACTED**

REDACTED

RX 940.

Intel's lack of monopoly power is also reflected in Intel's acceleration of the pace of its price reductions and innovation efforts. Intel's prices for new processors have always been cut repeatedly following their introduction, but they have never declined as rapidly as they have

since the beginning of 1997. Gilbert Expert Rep., ¶¶ 79-80 and Attachment 7. Just a few years ago, a new Intel processor-took four years to decline to a third of its original price, but today it takes less than a year to decline to that level. Indeed, some processors may not even exist in Intel's product line for an entire year before being supplanted by faster microprocessors. Performance is migrating from the higher market segments to the lowest more rapidly than ever before. Brookwood Expert Rep. ¶¶ 63, 67, 69.

The increase in competition is also reflected in the fact that the number of microprocessor competitors keeps increasing. In the past year, both IDT and Rise entered the market with microprocessors that are compatible with those of Intel. Other new competitors, including Transmeta and Metaflow, are poised to enter the market soon. This entry is inconsistent with the notion that Intel is somehow stifling effective innovation and competition.

The range of competitive offerings today is extensive. National/Cyrix is seeking to offer both computer-on-a-chip solution and standalone microprocessors. AMD is now shipping a wide range of K6-2 microprocessors aimed at various segments of the market that contain its 3DNow! extensions to the x86 instruction set, for which Microsoft is offering operating system support.

REDACTED Other companies have announced plans to use these AMD extensions in their processors, showing that AMD now has sufficient market support to drive its own instruction set into the marketplace.

Market introductions of AMD's fastest processors now lag only a few months behind the introductions of similar processors from Intel, keeping intense pressure on Intel to innovate to maintain its leadership. AMD has introduced this week a new higher performance processor, the K6-III, which is positioned to compete with Intel's new Pentium® III processor. RX 1771.

AMD also has announced plans to introduce in 1999 a next generation K7 processor, which is designed to compete head-on with Intel's top-performing CPUs in market segments in which AMD has not actively participated in the past. Similarly, IBM keeps introducing ever-faster versions of the PowerPC microprocessor. In September, IBM also introduced the first PowerPC processors that use copper instead of aluminum wiring as the interconnect medium, an innovation that speeds up processor performance. **REDACTED**

In the server and workstation segments, Intel is a challenger that seeks to compete against more established competitors, such as Sun, IBM, Hewlett Packard, Silicon Graphics, and Digital. Intel has sought to differentiate its products against these traditional market leaders by offering a higher level of performance for any given price level.

Intel must strive to keep pace with competitors that are accelerating the pace of innovation. In the past year, IBM alone has announced the commercialization of several very important innovations, including copper wiring, silicon germanium technology, and silicon-on-insulator technology. **REDACTED** Motorola is also in advanced stages of commercializing copper technology, and has announced that it has licensed that technology to AMD. According to AMD, the use of Motorola's technology will enable it to reach microprocessor speeds of 1,000 MHz by the year 2000. Several other companies have announced programs to reach 1,000 MHz performance by the year 2000, including Sun, IBM, and Compaq's Digital subsidiary.⁵

⁵ Companies that lack internal microprocessor manufacturing capabilities can contract for the manufacturing of microprocessors with firms that have microprocessor fabrication facilities. Several developers of microprocessors, including Sun, Cyrix (prior to its acquisition by National) and Compaq/Digital, have used this "fabless" semiconductor strategy by having an independent fabricator produce chips under license. IBM, Texas Instruments, and many other semiconductor manufacturers have served as foundries for fabless semiconductor companies.

While improvements in microprocessor design and manufacturing technologies have always played a role in reducing microprocessor prices, the downward trend in prices has accelerated sharply in response to the onslaught of new products and technologies introduced by both Intel and its competitors.

3. *Intel Lacks Power to Control Prices or Exclude Competition in the Relevant Market*

Monopoly power is "the power to control prices or exclude competition." *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391-92 (1956). See *United States v. Paramount Pictures, Inc.* 334 U.S. 131, 174 (1948); *United States v. Griffith*, 334 U.S. 100, 105 (1948). Intel possesses neither the ability to control prices nor the ability to exclude competition.⁶ Its microprocessor prices have declined rapidly, and the rate of decline has accelerated in spite of increasing demand for microprocessors. Evidence of falling prices during a period of rising demand is inconsistent with any notion of monopoly power. See *Omega Envtl., Inc. v. Gilbarco, Inc.*, 127 F.3d 1157, 1164-65 (9th Cir. 1997), *cert. denied*, 119 S. Ct. 46 (1998).

Intel also lacks the ability to exclude competition. Over the past year, both IDT and Rise have entered the market with microprocessors that are compatible with Intel's, and at least two more competitors (**REDACTED** and Metaflow) are poised to enter within the next year. Today,

⁶ Intel does not have the high market share level attributed to it in the Complaint. In any event, high market share does not imply monopoly power in a market where entry or other conditions preclude a defendant from controlling price or excluding competitors. *E.g., Oahu Gas Serv. v. Pacific Resources, Inc.*, 838 F.2d 360, 366 (9th Cir.), *cert. denied*, 488 U.S. 870 (1988). Moreover, to support a monopolization claim, the power to exclude competition and control price must be durable, not short-term or temporary. *E.g., Colorado Interstate Gas v. Natural Gas Pipeline Co.*, 885 F. 2d 683, 695 n.21 (10th Cir. 1989), *cert. denied*, 498 U.S. 972 (1990); *United States v. Syufy Enter.*, 903 F.2d 659, 665 (9th Cir. 1990).

more of Intel's major accounts than ever before sell systems based on competing microprocessors. Two years ago, none of the top ten computer OEMs used the microprocessors of Intel's competitors in personal computer systems. Today, nine of the top ten do so. **REDACTED**

REDACTED The ranks of these companies include Compaq, IBM, Hewlett-Packard, Gateway, Toshiba, NEC, and Packard-Bell. This is hardly a story of exclusion.

Significantly, Intel's continued leadership in the marketplace is wholly dependent on the company's continued commitment to and success in research and development. Intel must continue to invest in R&D to maintain its leadership position in the desktop and mobile segments, in which that leadership is dependent on maintaining a performance lead over competitors. And it must do so to be a credible competitor in the server and workstation segments, where it is the challenger. If Intel slackened in its innovation efforts, its market leadership would dissipate very rapidly. Scherer Tr. 605-07. As Dr. Scherer noted, this industry is characterized by "rapid innovation" and "you have to keep running in an industry like this or you're going to get shoved off the treadmill." *Id.* at 254-55. That is hardly the portrait of monopoly power.

B. Intel's Conduct Did Not Harm Competition

1. The Evidence Refutes Any Harm to Competition

The *only* harm to competition articulated by the Complaint is the purported chill to innovation activity that was supposedly caused by Intel's exercise of its right to withhold its intellectual property from companies that made intellectual property claims against it. As shown in Part II of this Memorandum, this claim has no factual support. After more than 18 months of a pre-complaint investigation and pre-trial discovery in which they obtained over 1,000 boxes of documents, Complaint Counsel are still unable to identify any harm to competition. This failure of

proof is decisive. Even if Complaint Counsel could prove that Intel's conduct meets the requirements of exclusionary conduct under monopolization law and lacks any business justification, which they cannot, the absence of impact forecloses any finding of violation of law.

The offense of monopolization consists of two elements: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 481 (1992) (quoting *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966)); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 596 n.19 (1985). The related offense of attempted monopolization requires proof "(1) that the defendant has engaged in predatory or anti-competitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power." *Spectrum Sports*, 506 U.S. at 456.

The Complaint alleges that Intel has maintained a monopoly in the market for general-purpose microprocessors by its assertion of its intellectual property rights against companies that accused it of infringement. Intel's conduct vis-à-vis Intergraph and Compaq could have no effect on competition in the market for general-purpose microprocessors, as neither of those companies made microprocessors or was developing microprocessors at the time of their respective disputes with Intel. Indeed, Complaint Counsel's own economic expert dismisses out of hand the notion that Intel's conduct could have affected the microprocessor innovation efforts of these two companies. Scherer Tr. 352, 402-03. The evidence discussed earlier also shows that Digital was not deterred from forging ahead with its microprocessor innovation by Intel's conduct. Indeed, the

evidence shows (and the Commission has concurred)⁷ that the outcome of Digital's dispute with Intel was a settlement that made the Alpha processor *more competitive* than it had been prior to Digital's initiation of the dispute.

Complaint Counsel argue that Intel intended to and did "signal" to the marketplace that it is futile to undertake to develop new microprocessor innovations in competition with Intel. This was a signal that no one other than Complaint Counsel heard. Complaint Counsel's own economic expert was forced to admit under oath that Intel did not engage in any signaling with regard to the conduct alleged in the Complaint. Dr. Scherer "readily concede[d]" that "there is no evidence of publicity, and little - very little evidence of diffusion of knowledge" regarding Intel's actions in connection with the Compaq dispute. Scherer Tr. 682. In fact, Dr. Scherer testified, it was the FTC that first disclosed Intel's withholding of intellectual property from Compaq to third parties. *Id.* at 463. With respect to the Digital and Intergraph disputes, Dr. Scherer admitted that it was Intel's litigation adversaries, and not Intel, that had publicized Intel's withholding of its intellectual property. *Id.* at 514, 684.

Nor could the nonexistent signal have an adverse effect on anyone's microprocessor innovation even if it had been received. Dr. Scherer testified that slowing down microprocessor R&D is not an option for anyone, as "[i]t is unthinkable that a company could stand still in this kind of industry under any circumstances." Scherer Tr. 98. This is because if a firm participating in the microprocessor industry stopped innovating, it could expect a rather precipitous

⁷ See *Federal Trade Commission, Digital Equipment Corporation, File No. 981-0040, Analysis To Aid Public Comment* (April 23, 1998), at 4 (noting "positive implications" of the settlement for the future of Alpha systems).

decline in its market position irrespective of its market share. Scherer Tr. 605-07. This simple fact explains why Complaint Counsel cannot identify any harm to R&D resulting from Intel's conduct. It explains why not one recipient of Intel's subpoenas (which included all companies in the microprocessor business) produced even a single piece of paper referring, however obliquely, to an adverse impact on R&D resulting from Intel's conduct or to the alleged signal. And it explains why executives of every major microprocessor innovator, including **REDACTED**, Compaq/Digital, Motorola, Hewlett-Packard, Sun Microsystems, **REDACTED**, National Semiconductor/Cyrix, **REDACTED**, and IDT, have attested under oath to the fact that their R&D activities were not adversely affected by reason of the conduct alleged in the Complaint.⁸

The evidence amassed by Intel showing that innovation was not "chilled" by the challenged conduct fully confirms what economic theory would predict. It is impossible to show that Intel's conduct either has harmed or is likely to harm competition in microprocessor innovation based on the "signaling" theory constructed by Complaint Counsel. This theory incorrectly presupposes that CPU suppliers are (a) Intel customers, for otherwise they are not receiving disclosures of Intel intellectual property and thus could not suffer even theoretical harm from the termination of such disclosures, and (b) not cross-licensed with Intel, for otherwise they have al-

⁸ Complaint Counsel's signaling theory conspicuously omits any reference to the one "signal" that has been widely acknowledged within the industry – that Digital's settlement with Intel represented a tremendous success to Digital, which ensured the viability of the Alpha processor. See Brookwood Expert Rep. ¶ 46; **REDACTED** It also disregards the fact

REDACTED

's willingness to make this kind of investment to enter the microprocessor business is flatly at odds with Complaint Counsel's signaling theory.

ready made an independent determination to license their patents to Intel in return for a patent license from Intel.

There is no CPU supplier that meets these two important conditions. Many competitors, such as Sun, Motorola, AMD, National/Cyrix, Integrated Device Technology, and Rise do not buy microprocessors from Intel and therefore do not receive the intellectual property that Intel withheld from the companies named in the Complaint. They are not even theoretically vulnerable to the withholding of Intel's intellectual property from them. See, e.g., **REDACTED** Competitors that do buy from Intel, such as IBM, have a cross-license with Intel under which both parties are licensed to each other's patents. With these cross-licenses in place, these companies cannot assert infringement claims against Intel.

Under the joint Justice Department-Federal Trade Commission *Intellectual Property Guidelines*, the existence of four innovation market competitors to Intel forecloses any basis for concerns about harm to innovation even outside the monopolization context. Department of Justice and Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property*, 6 Trade Reg. Rep. (CCH) ¶ 13,132, Example 4 (Apr. 6, 1995) (hereinafter "*Intellectual Property Guidelines*"). The number of competitors in any microprocessor innovation market is much higher than this safe harbor level. Indeed, Dr. Scherer admitted that more than a dozen competitors engaged in microprocessor innovation efforts have not altered their innovation efforts as a result of the conduct alleged in the case. Scherer Tr. 230. According to Dr. Scherer, the rate of innovation taking place in the microprocessor industry is so rapid as to be "one of the fastest treadmills I've seen." Scherer Tr. 605. This is hardly the competitive impact of which monopolization cases are made.

Given the absence of any evidence of harm to innovation, Complaint Counsel are reduced to arguing that such harm will occur eventually. Their economic expert claims that the consequences of Intel's conduct are likely to "unravel over a period of probably ten or so years, and it's just too early to assess those consequences." Scherer Tr. 491-92. But Dr. Scherer admitted that even his crystal ball is too cloudy to predict such long-term effects reliably. "The farther we look into the future, the more uncertain it becomes," Dr. Scherer admitted. *Id.* at 627. Dr. Scherer further admitted that such long term effects "are necessarily speculative." *Id.* at 603. And he confirmed that the short-term effects, which show that microprocessor innovation is thriving, are the best predictor of long-term effects:

Q: And if you're going to predict a medium- to long-term result, isn't it important to look at the short-term factual evidence in informing your conjecture as to where the likely effects are going to be?

A: Indeed, it is.

Scherer Tr. 381. In short, Complaint Counsel's attempt to escape the consequences of the overwhelming evidence that Intel's conduct has not adversely affected innovation is based on conjecture and speculation. That is not a basis for imposing antitrust liability.

2. *Complaint Counsel's "Harm to Differentiation" Theory Is Contrary to the Evidence.*

Complaint Counsel's attempt to inject the AMD-inspired "harm to differentiation" theory violates numerous representations by Complaint Counsel as to the nature and scope of the harm alleged in this case. As set forth in more detail in Intel's Motion to Exclude Evidence dated January 12, 1999, Intel has served a number of interrogatories in which it asked for the identity of each market in which Complaint Counsel were claiming harm to competition, including harm to innovation, and on each occasion Complaint Counsel identified solely the market for general-

purpose microprocessors. In their Responses and Objections to Respondent's Fourth Set of Interrogatories (served November 6, 1998), their Supplemental Responses and Objections (served November 25, 1998), and their Second Supplemental Responses and Objections (served on December 18, 1998), Complaint Counsel, under oath, identified only the market for "general-purpose microprocessors" in response to the request (No. 1(a)) for identification of markets in which they contended that the alleged conduct caused anticompetitive effects. Complaint Counsel have never supplemented these responses as required by Rule 3.31(e)(2).

In addition, Complaint Counsel represented in a letter served on Intel's counsel on August 25, 1998, that they "will not undertake in this case to prove or offer any evidence of the existence of any adverse competitive effects in any market for graphic controllers or chipset devices, *or on the development of graphics controller or chipset technology.*" (emphasis added). Based on these representation, Intel refrained from seeking discovery regarding any alleged impact of its conduct on non-microprocessor markets. In spite of their representations, Complaint Counsel now claim as a competitive effect that OEMs' inability to innovate in the chipset areas has constrained their ability to differentiate their products.

Yet even if Complaint Counsel are permitted to abrogate their written commitments and present charges with respect to which Intel has not had the opportunity to take discovery, the evidence overwhelmingly refutes the differentiation theory.⁹ The theory, articulated by Intel's

⁹ At a hearing on February 2, 1999, Complaint Counsel represented that this differentiation theory "is a Compaq issue" and that Complaint Counsel "don't intend" to offer evidence of harm to differentiation by any other OEM. Tr. of Feb. 2, 1999, Hearing at 21. At the very least, Complaint Counsel should be held to this latest representation and be precluded from offering evidence regarding any OEM other than Compaq.

microprocessor rival Advanced Micro Devices (in its 1997 Form 10-K) supposes that Intel's actions have prevented computer OEMs from innovating and differentiating their products and that the OEMs are consequently less able to buy microprocessors from Intel's competitors. The claim makes no theoretical sense, and the evidence refutes every aspect of it.

The AMD-manufactured claim makes no sense even as a theory because suppliers such as Intel benefit from competition and innovation among customers that use its microprocessors in their systems. As Professor Shapiro observes, economic theory predicts that "a company selling product A will seek to encourage competition in the sale of complementary product B." Shapiro Rebuttal Rep. 4. See *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977). Intel thus "benefits from innovations and improvements in complementary products." Gilbert Rebuttal Rep. ¶ 25.¹⁰

Moreover, Complaint Counsel's own economic expert Dr. Scherer admits that two critical predicates for AMD's differentiation theory are contrary to the evidence. Dr. Scherer states that the "pace of technological advance in personal computers has been so rapid in recent years that model life cycles are short." Scherer Expert Rep. ¶ 34. He also states that the "OEM market is competitive on both technical and price dimensions." *Id.* Thus, by Dr. Scherer's admission, technological competition – another word for innovation – is thriving in the OEM business. Dr.

¹⁰ Under one strand of this theory, Intel has prevented Compaq from differentiating its products by forcing Compaq to agree to a cross-license with Intel. But, according to the testimony of a

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be an innovation leader in the computer industry.

Compaq has continued to

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Scherer also admits that OEMs have the ability to differentiate their systems along numerous dimensions. Scherer Tr. 504, 516. According to Dr. Scherer, "you can differentiate your product in a lot of ways. You can do it through service. You can do it by quick, made to order. You can change the color of the box, et cetera and et cetera." Scherer 671.¹¹

The differentiation claim also makes no sense because there is also no correlation between OEMs' innovation efforts and their propensity to use microprocessors supplied by competing manufacturers. *Id.* ¶ 41. The claim fares no better when examined against the evidence of competitive effects. The differentiation theory alleges that Intel's conduct has made it harder for its competitors to sell microprocessors to OEMs. But the evidence shows that the penetration of Intel's competitors into the ranks of the top OEMs is at an all-time high. Two years ago, before the withholding of Intel intellectual property from Digital and Intergraph occurred, none of the top ten OEMs used AMD microprocessors. Today, nine out of the top ten OEMs buy from AMD. *See* Brookwood Rebuttal Rep. Table 5; **REDACTED**.¹² Similarly, whereas none of the top ten OEMs used Cyrix microprocessors two years ago, today five of them do so. Brookwood Rebuttal Rep. Table 5. Moreover, AMD has sold every microprocessor it was able

11 **REDACTED**, a deponent subpoenaed by Complaint Counsel, confirmed this fact, explaining the numerous ways in which OEMs may differentiate themselves from their competitors, including providing direct-to-customer sales, industry and customer-type segmentation of its sales force; providing build-to-order systems with the most current technologies, and doing so faster than one's competitors; leading transitions to new technologies; maintaining a low cost structure, including efficient inventory and manufacturing processes; providing consistently award-winning service and support; and providing special value-added services to customers, such as factory integration of proprietary software, hardware, or peripheral that a customer requires for its business. **REDACTED**

¹² The Brookwood Rep. refers to eight of the top ten competitors. Since then, Gateway Computers has announced its use AMD processors in its systems. *E.g.*, RX 1772.

to manufacture in **REDACTED**, a fact wholly at odds with its claim that Intel's actions somehow prevented it from selling more microprocessors. See **REDACTED**

REDACTED; RX 940.

Finally, Dr. Scherer conceded that he could not identify any OEMs or makers of other microprocessor complementary products (except possibly for Compaq) that have been deterred from innovating because of Intel's challenged conduct. Scherer Tr. 530-31. Nor could he identify even a single lost microprocessor sale by an Intel competitor attributable to the alleged chill on OEM differentiation purportedly resulting from Intel's challenged conduct. Scherer Tr. 665-70.

In short, the evidence overwhelmingly refutes every aspect of the AMD-created "harm to differentiation" theory, from its factual predicates to the alleged competitive impact that its proponents claim.

3. *There Is No Legal Basis for Requiring Intel to License Its Intellectual Property*

Complaint Counsel's legal theory has meandered throughout discovery, as their asserted bases for attacking Intel were swept away by contradictory undisputed facts showing that competition has not been harmed or dangerously threatened by the actions of Intel. Yet no matter how Complaint Counsel reinvent their theory, at bottom it rests upon a mandatory dealing requirement that would deprive Intel of the right to obtain value for its intellectual property. Complaint Counsel seek to prevent Intel from using its intellectual property to barter in value-for-value commercial exchanges and instead seek to compel Intel to give away its intellectual property. The law does not support such a requirement.

(a). *Mandatory Dealing*

Antitrust cases mandating dealing with rivals, much less non-competitor customers, are quite rare, and they uniformly require a showing that the assets with respect to which dealing is mandated are essential to competition. "Compulsory access," as Professor Areeda observed, "if it exists at all, is and should be very exceptional." Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 Antitrust L.J. 841, 852 (1990). The antitrust laws generally do not compel a company to do business with anyone. *United States v. Colgate & Co.*, 250 U.S. 300, 307 (1919). This principle applies to all competitors, large and small, and even a monopolist has no general duty to help others compete. See, e.g., *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 600-01 (1985); *California Computer Prods., Inc. v. International Bus. Machs. Corp.*, 613 F.2d 727, 744 (9th Cir. 1979); *Trans Sport, Inc. v. Starter Sportswear, Inc.*, 964 F.2d 186, 189 (2d Cir. 1992).

Robust, even aggressive and tough, competition between rivals in the marketplace advances the consumer interests that the Sherman Act and FTC Acts were designed to protect. Competitors, large or small, are not required to pull their competitive punches. See, e.g., *Olympia Equipment Leasing Co. v. Western Union Tel. Co.*, 797 F.2d 370, 375 (7th Cir. 1986), *cert. denied*, 480 U.S. 934 (1987). All marketplace participants – including purported monopolists – may strive aggressively for more business and "bargain hard" to that end. *Ball Mem'l Hosp. v. Mutual Hosp. Ins., Inc.*, 784 F.2d 1325, 1338-39 (7th Cir. 1986). A thriving marketplace, in which competitors seek to take business away from other competitors, is not a gentle place. "Competition is a ruthless process." *Id.* at 1338.

Not surprisingly, courts have mandated access to competitive assets only within the context of horizontal relationships, where access by one competitor to the facilities of another competitor is essential for competition between them. They have refused to require such access where the defendant does not compete with the plaintiff in a market in which access to the allegedly essential facility is required. See *Ferguson v. Greater Pocatello Chamber of Commerce*, 848 F.2d 976, 983 (9th Cir. 1988); *Interface Group, Inc. v. Massachusetts Port Auth.*, 816 F.2d 9, 12 (1st Cir. 1987); *Official Airline Guide, Inc. v. FTC*, 630 F.2d 920, 925-26 (2d Cir. 1980), *cert. denied*, 450 U.S. 917 (1981). Only Digital among the companies named in the Complaint competed with Intel in the general-purpose microprocessor market, and neither Digital nor the other two companies used Intel's intellectual property disclosures to compete with Intel in that market. This fact is dispositive of a duty-to-deal claim.

Even in the context of horizontal rivalry, it is insufficient to show that obtaining access to another company's competitive assets would be cheaper or more convenient than having to compete to secure those assets. The plaintiff must show that *competition* could not exist without a requirement that the defendant deal with its rival. See *City of Anaheim v. Southern Cal. Edison Co.*, 955 F.2d 1373 (9th Cir. 1992) (plaintiffs not entitled to access to a utility's high-power electrical transmission lines because they could obtain transmission from other sources, albeit at a higher cost); *Alaska Airline v. United Airlines*, 948 F.2d 536, 544-46 (9th Cir. 1991) (fact that facility is "more economical" does not establish essentiality), *cert. denied*, 503 U.S. 977 (1992).¹³

¹³ See also *City of Chanute v. Williams Natural Gas Co.*, 955 F.2d 641, 648-49 (10th Cir. 1992) ("inconvenience or economic loss" insufficient to justify requiring a defendant to make its facilities available). [Footnote continued on next page]

As the evidence recounted above demonstrates, access to the intellectual property withheld by Intel from the three companies named in the Complaint is far from essential. The evidence shows that the lack of access to the information had no impact on Digital and Compaq and at most a "negligible" impact on Intergraph, according to the FTC's own economic expert. Thus the claim that Intel had an obligation to provide its intellectual property for no compensation to the three companies named in the Complaint fails on other counts. The intellectual property was not even used to compete with Intel and so was not essential for competing with Intel (nor essential for competing in some other market).

(b). Competitive Conditions

It has been suggested by the Bureau of Competition that the Supreme Court's decision in *Aspen Skiing* mandates that Intel indefinitely license its intellectual property for no compensation to companies that have changed the status quo by asserting infringement claims against Intel. This argument is wrong as a matter of law and cannot be supported factually even under an aggressive reading of *Aspen*.

[Footnote continued from previous page]

ties available to competitors), *overruled on other grounds by Systemcare, Inc. v. Wang Lab. Corp.* 117 F.3d 1137 (10th Cir. 1997); *Laurel Sand & Gravel, Inc. v. CSX Transp., Inc.*, 924 F.2d 539, 544-45 (4th Cir.) (no right to buy from competitor where same product is available at a higher cost), *cert. denied*, 502 U.S. 1814 (1991); *Twin Lab., Inc. v. Weider Health & Fitness*, 900 F.2d 566, 570 (2d Cir. 1990) ("[a]s the word 'essential' indicates, a plaintiff must show more than inconvenience, or even some economic loss"); *Monarch Entertainment Bureau, Inc. v. N.J. Highway Auth.*, 715 F. Supp. 1290, 1300 (D.N.J.) ("[a]n 'essential facility' is one which is not merely helpful but vital to the claimant's competitive viability") (*citing Phillip Areeda & Donald Turner, Antitrust Law* ¶ 736.2b at 680-81 (Supp. 1988)), *aff'd*, 893 F.2d 1331 (3d Cir. 1989)).

As an initial matter, *Aspen* did not establish a separate “refusal to deal” doctrine that is untethered from an inquiry into the essentiality to competition of the facility to which a plaintiff is demanding access. *Aspen* involved the only two ski facility competitors in the Aspen market. To effectively compete in this market, multi-day ski passes were necessary. In *Aspen*, the dominant competitor suspended an agreement with the only other ski facility to offer joint multi-day ski passes. Because the defendant owned several mountains in the Aspen area while the plaintiff owned only one, the plaintiff was dependent on access to the defendants’ facilities in order to sell multi-day passes. It obviously could not replicate the essential facility – a mountain. Although the Court avoided using the essential facilities label, it sustained the requirement that the defendant continue its dealings with the plaintiff based on the indispensability to effective competition (in the market in which plaintiff and defendant were the only competitors) of the plaintiff’s access to defendant’s mountains that the plaintiff could not duplicate.

The Court specifically found that “[t]he development of a new distribution system for providing the experience that skiers had learned to expect in Aspen proved to be prohibitively expensive.” 472 U.S. at 608. In other words, the Court concluded that consumers could only receive the goods and services that they valued through the continuation of the cooperation between the two ski companies.¹⁴ In contrast, there is no evidence that consumers – as opposed to the three companies named in the Complaint – have lost anything as a result of Intel’s withhold-

¹⁴ As Judge Posner observed in *Olympia Equipment Leasing Co. v. Western Union Tel. Co.*, 797 F.2d 370, 377 (7th Cir. 1986), *cert. denied*, 480 U.S. 934 (1987), *Aspen* “is like the essential-facility cases in that the plaintiff could not compete with the defendant without being able to offer its customers access to the defendant’s larger facilities.” See also *Servicetrends, Inc. v. Siemens Med. Sys., Inc.*, 870 F. Supp. 1042, 1053 (N.D. Ga. 1994) (“essential facilities’ doctrine underlay” *Aspen* case).

ing of rights to its intellectual property. Indeed, the evidence indicates that the impact on the companies themselves was de minimis.

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REDACTED ; Scherer Tr. 355 (Intergraph). *Aspen*, in any event, makes it clear that whether a defendant's conduct "may properly be characterized as exclusionary cannot be answered by simply considering its effect on [a competitor]. In addition, *it is relevant to consider its impact on consumers and whether it has impaired competition in an unnecessarily restrictive way.*" 472 U.S. at 605 (emphasis added). In *Aspen*, the Court found that the defendant had effectively eliminated a product that was important to consumers and made "an important change in the character of the market." *Id.* at 604. In this case, there is no effect on consumers, and the only impairment of competition posited by the Complaint – harm to innovation – is clearly refuted by the evidence.¹⁵

The notion that a company that has commenced a course of dealings is bound to continue it indefinitely is contrary to the case law and makes no economic sense. A rule under which a

¹⁵ Although Complaint Counsel's factual and legal theories are moving targets, in the face of plummeting chip prices, robust competition, and thriving innovation in the general-purpose microprocessor market, Complaint Counsel have signaled their readiness to dispense with facts and argue that they need not show any actual harm to competition; rather, that Your Honor should infer harm now and in the future based on what Complaint Counsel and its expert would expect to see in response to Intel's actions. This position turns common sense and established antitrust law on their heads and is directly at odds with *Aspen*. In assessing whether the defendant's actions in *Aspen* were improperly exclusionary under § 2, the *Aspen* Court explicitly focused on competitive effects. *Aspen* emphasized the fact that the defendant's actions – unlike Intel's conduct alleged in the Complaint – both injured its competitor and reduced competition, adversely affected consumers, and caused a major change in the character of the relevant market. 472 U.S. at 604-08; *see also Rural Tel. Serv. Co. v. Feist Publications, Inc.*, 957 F.2d 765, 768-69 (10th Cir.) (in § 2 refusal-to-deal monopolization cases, failing to establish that the refusal to deal had anticompetitive effects in the relevant market is a "fatal failure of proof"), *cert. denied*, 506 U.S. 984 (1992).

company that chooses to deal with another firm must “undertak[e] a journey from which there could be no turning back – a journey it could not even interrupt momentarily –” will lead companies to conclude that it is “foolish to have embarked.” *Olympia Equip. Leasing*, 797 F.2d at 378. See also *Areeda, supra*, at 850 (*Aspen* should not be read “as an antiodivorce statute”).

The *Aspen* Court’s focus on the question of exclusionary conduct should not be misread as holding that antitrust claimants are excused from the need to demonstrate that a refusal to deal will enable the facility owner to achieve or maintain a monopoly in a relevant market. As the Supreme Court subsequently made clear in *Spectrum Sports, Inc., v. McQuillan*, 506 U.S. 447 (1993), Section 2 makes the conduct of a single firm unlawful only when it actually monopolizes or dangerously threatens to do so. The Court rejected view that Section 2 of the Sherman Act may be violated by “‘unfair’ or ‘predatory’ tactics” without regard to market impact. *Id.* at 459.¹⁶ The same year, the Court held in *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 225 (1993), that “[e]ven an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws; those laws do not create a federal law of unfair competition” See also *Nynex Corp. v. Discon, Inc.*, 119 S. Ct. at 499.

Intel’s conduct was fundamentally fair. But no matter how the conduct itself is viewed, Complaint Counsel do not have evidence that the conduct preserved an existing monopoly in a relevant market, as the Complaint alleges. This failing is fatal.

¹⁶ The Court specifically held that liability cannot be established “by inquiring only whether the defendant has engaged in ‘unfair’ or ‘predatory’ tactics.” *Spectrum Sports*, 506 U.S. at 459.

C. Intel Has Legitimate Business Justifications for Its Conduct

Even leaving aside Complaint Counsel's inability to prove harm to competition, Intel is also entitled to prevail because Complaint Counsel cannot support their allegations (Compl. ¶¶ 20, 30, 36) that Intel's challenged conduct lacks any legitimate business justification.¹⁷ Because Intel's conduct advances Intel's legitimate and pro-competitive interests, Complaint Counsel cannot prove that Intel has engaged in attempted or actual monopolization. *See, e.g., Oahu Gas Serv. v. Pacific Resources, Inc.*, 838 F.2d 360, 369 (9th Cir. 1988) ("the desire to maintain market power – even a monopolist's market power – cannot create antitrust liability if there was a legitimate business justification" for the challenged conduct).

Contrary to Complaint Counsel's unsubstantiated allegations, Intel's withholding of intellectual property from Compaq, Digital, and Intergraph in response to those companies' withholding of intellectual property from Intel rests upon several legitimate business justifications. First, Intel's conduct represents a legitimate response to the threat to microprocessor innovation posed by the existing "minefield" of microprocessor patents.¹⁸ As explained by Professor Shapiro, the

¹⁷ Complaint Counsel bear the burden of proving a lack of business justification for Intel's challenged conduct. *See* III Areeda and Hovenkamp, *Antitrust Law*, ¶ 658f at 122-23 (rev. ed. 1996) (even a "monopolist's unilateral refusal to deal is not ordinarily a suspect act, and is generally legal, whether or not it is 'justified.' As a result, the burden of proving that a proffered business justification is invalid or pretextual is placed on the plaintiff in a § 2 case"); *accord, e.g., High Tech. Careers v. San Jose Mercury News*, 996 F.2d 987, 990 (9th Cir. 1993); *Universal Analytics, Inc. v. MacNeal-Schwendler Corp.*, 914 F.2d 1256, 1259 (9th Cir. 1990); *Bi-Rite Oil Co. v. Indiana Farm Bureau Coop. Ass'n, Inc.*, 908 F.2d 200, 204 (7th Cir. 1990); *Metrix Warehouse, Inc. v. Daimler-Benz Aktiengesellschaft*, 828 F.2d 1033, 1042 n.17 (4th Cir. 1987), *cert. denied*, 486 U.S. 1017 (1988).

¹⁸ As Dr. Scherer has testified in the Federal Trade Commission's November 29, 1995 hearing on Global Innovation-Based Competition (Tr. 10): "Smaller firms, and even some rather large firms trying to develop a new product, are essentially finding themselves in a situation just like walking through a mine field: There are lots of unexploded patents out there, and you might just [Footnote continued on next page]

existence of large numbers of microprocessor patents, many of which are arguably infringed by virtually any attempt to produce a microprocessor, creates a substantial risk that major producers like Intel will be “held up” by extortionate patent licensing demands from OEMs that possess microprocessor patents, even though those patents offer little or nothing of technological value to Intel. *See* Shapiro Expert Rep. 14-16, 48-49. Intel’s ability to defend itself from such “hold ups” by withdrawing access to its own intellectual property in response to such attempts is therefore both legitimate and procompetitive, because it provides Intel with the ability to avoid the harm to innovation and the increased costs to consumers that would inevitably result if such “hold ups” were to succeed. *Id.*

Second, Intel’s challenged conduct is justified by its legitimate interest in promoting the cross-licensing of technology, a procompetitive solution to the barriers to innovation that would otherwise result from the overabundance of microprocessor patents. Intel’s policy of exchanging technological “value for value” through cross-licenses without running royalties provides clear benefits for consumers by ensuring that both Intel and OEMs have greater design freedom and lower costs. *See, e.g.,* Shapiro Expert Rep. 16-18, 49-50; Expert Rep. of Richard J. Gilbert

¶¶ 105-24.¹⁹

[Footnote continued from previous page]

step on one and have your corporate leg blown off. . . . I find it a rather scary situation, to be honest.” www.ftc.gov/opp/global/GC112995.htm.

¹⁹ As Professor Shapiro explains, “[o]ne of the most significant pro-competitive benefits of cross-licenses is that they allow both companies *design freedom, i.e.,* the freedom to design the best products without fear of infringing on each other’s patents.” Shapiro Expert Rep. 17. Similarly, Professor Gilbert notes that “[c]ross-licenses are beneficial for” a number of reasons, including the following: They “help sellers provide consumers with better products and services at lower prices”; they “economize on information costs” by obviating the need to value patents [Footnote continued on next page]

Third, Intel's withholding of intellectual property from companies that take the same approach toward Intel is justified by Intel's interest in maximizing the efficient use of its finite engineering resources and in obtaining the greatest return on its exchanges of intellectual property with OEMs. Intel's disclosures of intellectual property are costly to Intel. They entail a substantial investment of the engineering resources necessary to implement and manage the exchange of technical information and evaluate the resulting feedback from OEMs regarding Intel's designs and products. Intel has a legitimate interest in ensuring that it directs those limited engineering resources toward exchanges of information with those OEMs that are most likely to provide valuable and accurate feedback.

Not surprisingly, OEMs that are withholding their intellectual property from Intel and are suing Intel for infringement are reasonably viewed as less likely to provide complete, timely, and high-quality feedback than are OEMs with whom Intel enjoys "patent peace." Indeed, since the initiation of patent infringement litigation by OEMs against Intel naturally results in a loss of trust and injured relations between the parties, the exchange of technical information typically becomes increasingly difficult, if not impossible, in such circumstances. The disclosure of Intel trade secrets to customers often entails a significant amount of personal interaction between Intel

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on an individual basis; and they "reduce the 'royalty stacking' that occurs when independent firms license complementary technologies," a phenomenon that tends (absent cross-licensing) to increase total per-unit royalty payments over what would be required if a single firm owned all of the relevant technology. Gilbert Expert Rep. ¶ 110. Accordingly, as Professor Gilbert concludes, "[t]he withholding of the right to use Intel's intellectual property tends to make the bargaining arrangement more symmetric by imposing some risk on the party that is bringing the infringement action. . . . [T]his symmetry is pro-competitive because it makes the negotiation of an efficient cross-license a more likely outcome." *Id.* at ¶ 123.

personnel and those of its customers, but that personal interaction is at best difficult when one party has sued the other over the very products as to which it wants the other to make disclosures of trade secrets. In fact, employees of two of the companies named in the Complaint subjected Intel employees to a hostile environment after suing Intel and engaged in conduct that was designed to secure evidence for the lawsuits rather than to facilitate the transfer of technical information. This is not the atmosphere in which the disclosing party obtains a sufficient benefit for its disclosure to justify the costs.

Accordingly, Intel quite reasonably chooses to shift engineering resources away from OEMs who have brought lawsuits against Intel and toward other OEMs who are more likely to provide the high-quality feedback that Intel needs in order to continue to improve its chip designs and products. *See generally* Shapiro Expert Rep. 50-54. As Professor Shapiro concludes in this regard, "Intel is simply attempting to avoid wasting or misallocating its engineering resources. Such attempts to reduce costs are central to competition on the merits." *Id.* at 53.

Finally, Intel's withholding of intellectual property is justified by Intel's legitimate concern for preventing the unauthorized use of its confidential information by hostile OEMs. For example, an OEM that is already suing Intel might use additional disclosures of intellectual property from Intel as a basis for amending pending patent applications to block new Intel products currently under development, thereby providing it with additional grounds for suit (or with additional bargaining chips to be used in extorting a "hold-up" settlement from Intel). Indeed, during the pendency of the Digital-Intel dispute, Digital had pending patent applications that overlap with the subject matter of Intel's confidential disclosures relating to the forthcoming Merced processor. *See* Smith Expert Rep., *passim*; Shapiro Expert Rep. 55; Manbeck Expert

Rep. ¶ 18. It is clear that Intel's policies have long been motivated by such concerns; in fact, **REDACTED**

REDACTED Intel raised precisely such concerns in connection with a
1995 dispute between Intel and Compaq. **REDACTED**

Intel's withholding of intellectual property from litigation opponents is also justified by a reasonable desire to prevent such opponents from misusing Intel's confidential information to aid their litigation and settlement strategies. Judicial discovery in patent litigation is limited to information about existing products and is generally subject to strict protective orders, and thus OEMs suing Intel for infringement are not able to obtain through discovery any information regarding new Intel products in the design stages. See Manbeck Expert Rep. ¶¶ 25-31. If Intel continued to supply confidential information about future products to such litigation opponents, however, they might have been able to use such information to inform their settlement demands, modify their litigation strategy, and otherwise injure Intel in ways that would be harmful to consumers' interests in a continuing supply of high-quality, low-cost Intel microprocessors. See Shapiro Expert Rep. 55-56. As Digital Chairman Palmer testified, Digital's action was "a direct frontal attack on the future prospects of their company Intel and product set." Palmer 11/20/98 Tr. 146. Continuation of Intel's intellectual property disclosures would have provided an extra-judicial form of discovery into Intel's technology.

Intel also has compelling reasons to be concerned that hostile OEMs might be less careful than others about complying with their obligations to protect Intel's intellectual property in accordance with applicable non-disclosure agreements ("NDAs"). **REDACTED**

REDACTED released information that was given to it by Intel under an NDA to an Intel competitor in violation of the NDA. **REDACTED** Plainly, Intel has a

legitimate interest in making rational assessments about disclosure risks and in withholding intellectual property from some OEMs on that basis.

Thus, for a whole host of legitimate reasons, Intel's business interests are advanced by withholding confidential intellectual property from litigation opponents. The law is clear that Intel's concerns about potential misuse of its intellectual property provide ample and legitimate business justification for the withholding of such information from companies who choose to open hostilities by bringing legal action against Intel. Indeed, a substantial body of case law holds that the initiation of a lawsuit by a customer against a manufacturer justifies the manufacturer's *complete* refusal to deal with the customer, an action more severe than any taken by Intel in this case.²⁰ As the Second Circuit explained, "[t]his when considered, is not astonishing, for the relationship between a manufacturer and his customer should be reasonably harmonious; and the bringing of a lawsuit by the customer may provide a sound business reason for the manufacturer to terminate their relations." *House of Materials, Inc. v. Simplicity Pattern Co.*, 298

²⁰ Intel continued to supply Digital, Compaq, and Intergraph with microprocessors and other semiconductor products that were being sold to customers in the marketplace. It refused only to supply intellectual property relating to future semiconductor products in various stages of development. That refusal was well within Intel's rights: There is no legal duty to pre-disclose technical information to other companies. See, e.g., *California Computer Prods., Inc. v. Int'l Bus. Machs. Corp.*, 613 F.2d 727, 744 (9th Cir. 1979) (IBM "was under no duty to help [plaintiff] or other peripheral equipment manufacturers survive or expand"). See also *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 282 (2nd Cir. 1979) (requiring pre-disclosure of designs would discourage innovation), *cert. denied*, 444 U.S. 1093 (1980); *ILC Peripherals Leasing Corp. v. International Bus. Machs. Corp.*, 458 F. Supp. 423, 437 (N.D. Cal. 1978) (no duty to pre-disclose design changes), *aff'd sub nom. Memorex Corp. v. IBM Corp.*, 636 F.2d 1188 (9th Cir. 1980).

F.2d 867, 871 (2d Cir. 1962).²¹ Even if “the sole motivation for Simplicity’s refusal to deal with the plaintiffs below was its desire to retaliate for the treble damage action brought against it,” *id.* at 869, the court held that “appellant had done nothing except exercise its right to terminate the contract in accordance with its terms.” *Id.* at 870. See also *H.L. Hayden v. Siemens Med. Sys.*, 879 F.2d 1005, 1022 (2d Cir. 1989) (manufacturer’s termination of distributor that had sued it was “its right”).

The Ninth Circuit explicitly adopted this reasoning in *Zoslaw v. MCA Distrib. Corp.*, 693 F.2d 870, 889-90 (9th Cir. 1982), *cert. denied*, 460 U.S. 1085 (1983). Other courts have reached similar conclusions. See, e.g., *High Tech Communications, Inc. v. Panasonic Co.*, 1995-1 Trade Cas. (CCH) ¶ 70,977, at 74,497 (E.D. La. 1995); cf. *Thayer Plymouth Ctr., Inc. v. Chrysler Motor Corp.*, 63 Cal. Rptr. 148, 151 (Cal. App. 1967) (accepting validity of manufacturer’s objections to continuing to deal with a distributor “with whom a relationship of confidence and cooperation has been rendered impossible by reason of the pendency of [a] lawsuit” brought by the distributor against the manufacturer).

The conduct at issue here falls far short of the complete refusal to deal upheld by the case law. Instead, it involves only a refusal to disclose intellectual property to parties that have asserted patent infringement claims against Intel. Plainly, that limited refusal to provide aid and assistance to Intel’s litigation opponents is valid and legitimate, and cannot be proscribed by the antitrust laws. Indeed, Digital’s own conduct confirms that terminations of business

²¹ Although *Simplicity Pattern* was not a Section 2 case, the court made it clear that a Section 2 theory would not have changed the outcome, as the manufacturer’s termination of a customer “necessarily created an added market for its competitors.” 298 F.2d at 871.

relationships with customers that sue distributors are commonplace. A few months before it sued Intel, Digital had been sued by Strobe Data, Inc., one of its customers. Digital promptly responded by "terminat[ing] all agreements currently in effect between Digital and Strobe, including all agreements related to intellectual property rights." RX 33. Intel, in contrast, continued to supply microprocessors to the companies that had sued it and merely held back disclosures of intellectual property relating to some future products.

For all the foregoing reasons, therefore, Intel's measured response to the hostile actions of its litigation opponents is amply supported by legitimate business justifications. Intel has no obligation to reveal its highly confidential trade secrets and other intellectual property to companies that have sued it, except to the limited extent that disclosures may be required through the discovery process. It also has no obligation to help companies that sue it to frame future patents to capture Intel products under development. Requiring Intel to make disclosures to companies that have sued it for alleged infringement would undermine its legitimate interest in vindicating its legal position and would threaten to raise consumers' costs and stifle Intel's ability to innovate. Although Intel is obligated to comply with discovery obligations prescribed by the Federal Rules of Civil Procedure, it has no obligation to give its legal adversaries access to documents and information to which they would not be entitled under those rules.

D. Intel's Right to Refuse to License Its Intellectual Property Establishes Another Legitimate Business Justification for Withholding the Right to Use Its Intellectual Property

The conduct challenged by the Complaint is the withholding of the right to use Intel's intellectual property. Intel's samples of future CPUs and chipsets are protected by hundreds of patents, and microcode contained within the CPUs is protected by copyright as well. Intel's so-

called "color books" are protected by copyright and their contents by trade secret law.²² As an intellectual property owner, Intel has a right to refuse to sell its patented goods or license its copyrighted works and trade secrets to anyone. Given the lawfulness of a refusal to supply the patented goods altogether, Intel's selection of a lesser alternative – namely, continuing to supply the patented goods but discontinuing advance disclosures regarding those goods – is necessarily lawful, and a legitimate business action.

1. *Intel's Intellectual Property Is Protected by Law From Mandatory Licensing*

Patent law expressly authorizes patent owners to exclude all other persons from making, using, or selling patented inventions during the life of the patent. 35 U.S.C. §§ 154, 271(a) (1994). Congress has expressly provided that "[n]o patent owner ... shall be ... deemed guilty of misuse or illegal extension of the patent right by reason of having ... refused to license or use any rights to the patent." 35 U.S.C. § 271(d)(4).²³ The Supreme Court has recognized repeatedly

²² These documents are protected by copyright because a copyright is created as soon as an "original work of authorship" is "fixed in any tangible medium of expression," 17 U.S.C. § 102, *i.e.*, as soon as the information was committed to paper. *See* 17 U.S.C. § 101 ("A work is 'fixed' in a tangible medium of expression when its embodiment in a copy . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration"). It is not necessary for Intel to have registered its copyrights with the Copyright Office in order to obtain the benefits of the Copyright Act because registration "is not a condition of copyright protection." 17 U.S.C. § 408(a).

²³ When Section 271 was amended in 1952 to cover "illegal extension[s]" of patent rights, it was recognized that the effect of the new language "might be to carve out an area in which the antitrust laws would not operate. . . . Proponents of the bill indicated that such a result [was] contemplated in the language of [what became Section 271]." *Hearings Before Subcommittee No. 3 of the House Committee on the Judiciary*, 82d Cong., 1st Sess. on H.R. 3760, June 13, 14, and 15, 1951, Serial No. 9 at 207. When Section 271 was amended again in 1988 to make clear that refusal to license a patented invention was not an illegal extension of the patent right, Representative Kastenmeier cited cases holding that such a refusal to license did not violate the antitrust laws and stated that "codification of the 'refusal to use or license' as not constituting [Footnote continued on next page]

that the patent owner has a "right to refuse to sell ... [its] patented products." *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 457 (1940). The Court has said that "the right to exclude others from profiting by the patented invention" is "the essence" of the patent grant. *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 215 (1980); *Zenith Radio Corp. v. Hazeltine Research Inc.*, 395 U.S. 100, 135 (1969) (right to exclude others from using invention is at "[t]he heart" of the patent grant).²⁴

The Copyright Act similarly grants to Intel the exclusive right to reproduce its copyrighted works, make derivative works, and distribute copies of its works. 17 U.S.C. §§ 106(1)-(3). The possession of this right entitles Intel to *refuse* to provide to others its copyrighted works, which include both its microprocessors (which contain copyrighted microcode) and its trade secrets regarding its semiconductor products. As the Supreme Court has stated, "nothing in the copyright statutes would prevent an author from hoarding all of his works during the term of the copyright. In fact, the Court has held that a copyright owner has the capacity arbitrarily to

[Footnote continued from previous page]

patent misuse is consistent with the current caselaw and makes sense as a matter of public policy." 134 Cong. Rec. H10646, H10648 (Oct. 20, 1988). Because Section 271 was amended to codify existing case law, no negative inference can be drawn from the fact that Congress has thus far seen no need to similarly amend the copyright statutes.

²⁴ The patent law confers upon the patentee the exclusive right to use the patented good. The patent statute explicitly provides that "whoever without authority makes, *uses*, offers to sell, or sells any patented invention, within the United States . . . during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a) (emphasis added). The Supreme Court has held that "[a]ny use beyond the valid terms of a license is, of course, an infringement of a patent. . . ." *General Talking Pictures Corp. v. Western Elec. Co.*, 305 U.S. 124, 126 (1938). This is a bed-rock principle of patent law. Indeed, a patent owner may even impose restrictions on the use of its patented product by a valid purchaser. *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992).

refuse to license one who seeks to exploit the work.” *Stewart v. Abend*, 495 U.S. 207, 228-29 (1990). See also *Fox Film Corp. v. Doyal*, 286 U.S. 123, 127 (1932) (“The owner of the copyright, if he pleases, may refrain from vending or licensing”). See also *LucasArts Entertainment Co. v. Humongous Entertainment Co.*, 870 F. Supp. 285, 290 (N.D. Cal. 1993) (because the “essence of a copyright interest” is to “exclude use of the copyrighted work,” the copyright laws are “in *pari materia* with the antitrust laws and modify them *pro tanto*”).

Similar considerations exist with respect to trade secrets. As the Supreme Court has recognized, trade secret law is founded on the “encouragement of invention.” *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 481 (1974). Although trade secret law does not offer protection against independent development of technology or information, investment in research and development leading to creation of trade secrets does create discoveries that the law seeks to protect. *Id.*²⁵ Intel withheld trade secrets from the companies named in the Complaint during the development stage of its semiconductor products, before these products were available for purchase by imitators that reverse engineer Intel’s products. The Supreme Court has emphasized the particular importance of trade secret protection “at the developmental stage, before a product has been marketed and the threat of reverse engineering becomes real.” *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161 (1989). As the Court explained, “[d]uring this period, patentability will often be an uncertain prospect, and to a certain extent, the protection

²⁵ The joint DOJ/FTC *Intellectual Property Guidelines* recognize that trade secrets are to be evaluated under the same principles as patents and copyright. They state that “[a]lthough there are clear and important differences in the purpose, extent, and duration of protection provided under the intellectual property regimes of patent, copyright, and trade secret, the governing antitrust principles are the same.” *Intellectual Property Guidelines*, 6 Trade Reg. Rep. (CCH) ¶ 13,132 at § 2.1.

offered by trade secret law may 'dovetail' with the incentives created by the federal patent monopoly." *Id.* Because of the important role that trade secret protection plays in encouraging innovation, the theft of trade secrets is a crime under federal law. See 18 U.S.C. § 1832.

Based on the Supreme Court's uniform holdings, the lower courts have repeatedly rejected antitrust claims based on an intellectual property owner's refusal to sell its patented goods or license its patents or copyrighted works. For example, in *Miller Insituform, Inc. v. Insituform of North America, Inc.*, 830 F.2d 606, 609 (6th Cir. 1987), *cert. denied*, 484 U.S. 1064 (1988), the court held that a lawful patent owner "cannot be held liable under Section 2 . . . by refusing to license the patent to others" because "the holder of a patent retains the power to exclude others from manufacturing, using, and selling his inventions without running afoul of the antitrust laws." Similarly, in *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195 (2d Cir. 1981), *cert. denied*, 455 U.S. 1016 (1982), the court held that "[w]here a patent holder . . . merely exercises his 'right to exclude others from making, using, or selling the invention,' by refusing unilaterally to license his patent for its seventeen-year term, such conduct is expressly permitted by the patent laws. . . ." *Id.* at 1204 (citations omitted). See also *United States v. Westinghouse Elec. Corp.*, 648 F.2d 642, 647 (9th Cir. 1981).²⁶ See *Intellectual Property Guidelines* § 2.2 (even market power con-

²⁶ See also *Genentech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 949 (Fed. Cir. 1993), *cert. denied sub nom. Regents of the Univ. of Cal. v. Genentech*, 510 U.S. 1140 (1994); *Service & Training, Inc. v. Data Gen. Corp.*, 963 F.2d 680, 686 (4th Cir. 1992); *Beal Corp. Liquidating Trust v. Valleylab, Inc.*, 927 F. Supp. 1350, 1362 (D. Colo. 1996); *Tricom, Inc. v. Electronic Data Sys. Corp.*, 902 F. Supp. 741, 743 (E.D. Mich. 1995); *Servicetrends Inc. v. Siemens Med. Sys., Inc.*, 870 F. Supp. 1042, 1056 (N.D. Ga. 1994); *Advanced Computer Servs. v. MAI Sys. Corp.*, 845 F. Supp. 356, 368-69 (E.D. Va. 1994); *United States v. Telectronics Proprietary, Ltd.*, 607 F. Supp. 753, 755 (D. Colo. 1983); *Chisholm-Ryder Co., Inc. v. Mecca Bros., Inc.*, 217 U.S.P.Q. (BNA) 1322, 1338 (W.D.N.Y. 1983), *aff'd*, 746 F.2d 1489 (Fed. Cir. 1984); *GAF Corp. v. Eastman Kodak Co.*, 519 F. Supp. 1203, 1233 (S.D.N.Y. 1981).

veyed by intellectual property does not “impose on the intellectual property owner an obligation to license the use of that property to others”).

The Supreme Court has emphasized that a patent owner “may grant a license ‘upon any condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure.’” *General Talking Pictures Corp. v. Western Elec. Corp.*, 305 U.S. 124, 127 (1938) (quoting *United States v. General Elec. Co.*, 272 U.S. 476, 489 (1926)). Intel’s right to compensation for its patents is indisputably a reward that Intel “‘by the grant of the patent is entitled to secure.’” *General Talking Pictures*, 305 U.S. at 127. The Second Circuit’s holding in *SCM v. Xerox* that “where a patent has been lawfully acquired, subsequent conduct permissible under the patent laws cannot trigger any liability under the antitrust laws,” 645 F.2d at 1206, also underscores Intel’s absolute right to refuse to license its intellectual property.

As a matter of statutory right, Intel may refuse to sell its patented goods to anyone for any reason. Intel adopted a significantly less restrictive approach of withholding access to disclosures of copyrighted matter and trade secrets relating to its patented products, as well as advance samples of these patented goods. It continued to sell its microprocessors (which are protected by both patents and copyrights) and its patented chipsets to the companies named in the Complaint. Given the lawfulness of denying access to patented goods, the less restrictive approach of withholding nonpublic *information* about or advance samples of these components is equally lawful.

2. *Intel’s Actions Are Justified as a Matter of Intellectual Property Law*

As the foregoing discussion demonstrates, an intellectual property owner need not offer a justification for a refusal to license because the justification is inherent in the exercise of rights

granted by the intellectual property laws. Supreme Court precedent makes it clear that Intel's motive in withholding access to its intellectual property is irrelevant. *See generally Professional Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 64 (1993) ("to condition a copyright upon a demonstrated lack of anticompetitive intent would upset the notion of copyright as a 'limited grant' of 'monopoly privileges' intended simultaneously 'to motivate the creative activity of authors' and 'to give the public appropriate access to their work product'") (citation omitted); *Stewart v. Abend*, 495 U.S. 207, 229 (1990) (copyright holder may "arbitrarily" refuse to provide its copyrighted works to others); *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 429 (1908) (patent owner may refuse to license "without question of motive").²⁷

Intel recognizes that two recent cases have disregarded the long-established principle that intellectual property owners have a right to refuse to license their property. In the first of these, *Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1216 (9th Cir. 1997), *cert. denied*, 118 S. Ct. 1560 (1998), the Ninth Circuit panel explicitly acknowledged that it could "find no reported case in which a court has imposed antitrust liability for a unilateral refusal to sell or license a patent or copyright." The court nevertheless held that the existence of intellectual property rights created only a "presumptively valid" justification for an owner's refusal to sell or license its patented goods or copyrighted works. *Id.* at 1218. Significantly, however, the

²⁷ *See also Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147, 1188-89 (1st Cir. 1994) (upholding refusal to provide copyrighted materials against monopolization challenge and criticizing any "search for an overriding 'antisocial' motivation" as "unilluminating"); *W.L. Gore & Assocs., Inc. v. Carlisle Corp.*, 529 F.2d 614, 623 (3d Cir. 1976) (intellectual property owner's motive is "irrelevant").

court acknowledged that an intellectual property owner's desire to exclude others from using its property is a valid business justification.

In a departure from precedent, the *Kodak* court permitted the plaintiffs to rebut the presumption with "evidence of pretext," where "the proffered business justification played no part in the decision to act." *Id.* at 1219. Because the Kodak employee responsible for the refusal to deal with the plaintiffs testified that Kodak's patents "did not cross his mind," and because Kodak refused to sell all parts for its equipment, even though only a small fraction of them were patented, the court concluded that Kodak's intellectual property justification was pretextual. *Id.*

Kodak is also readily distinguishable because, in stark contrast to the facts cited by the Ninth Circuit panel, the Intel executives responsible for Intel's policy were motivated by the desire to protect Intel's intellectual property. Indeed, this was acknowledged by **REDACTED**

REDACTED That is sufficient to establish a valid business justification under *Kodak*.²⁸

More recently, *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d 1255 (N.D. Ala. 1998), a federal district court in Alabama issued a preliminary injunction requiring Intel to supply patented goods and copyrighted yellow books to Intergraph. The Alabama decision, by its own

²⁸ In holding that an intellectual property owner's mere refusal to license its property could violate the antitrust laws, *Kodak* ignored numerous cases that had held the contrary. See *In re Independent Serv. Org. Antitrust Litig.*, 989 F. Supp. 1131 (D. Kan. 1997) (rejecting *Kodak* as inconsistent with precedent). As the *Kodak* opinion acknowledged, there was no precedent for holding an intellectual property owner liable for merely refusing to license its intellectual property. The *Kodak* court's conclusion that state of mind is relevant to the lawfulness of the intellectual property owner's exercise of the legal right to exclude is flatly inconsistent with Supreme Court precedent that holds that the motive for the exclusion is irrelevant. See, e.g., *Professional Real Estate Investors*, 508 U.S. at 64.

terms, was based on "facts" that "may prove illusory after a full trial on the merits of the parties' contentions." *Id.* at 1259, n.4. The decision relies on the fact of the Commission's investigation of Intel as *evidence* of anticompetitive behavior on Intel's part, which was wrong in that forum but would be even more grievously wrong in this one. On the subject of Intel's intellectual property rights, the *Intergraph* decision does no more than quote *Kodak* in a conclusory manner, without even attempting to analyze whether the *Kodak* "pretext" test has been satisfied. *Id.* at 1279. As noted above, Intel's conduct is lawful under the *Kodak* standard, as Intel executives were motivated by the desire to protect the company's intellectual property.

E. Intel's Demands for the Return of Intellectual Property Are Immune From Antitrust Challenge Under the *Noerr* Doctrine

Intel has an absolute right under the *Noerr* doctrine to enforce its legal rights. *See Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961); *United Mine Workers v. Pennington*, 381 U.S. 657 (1965). The immunity granted by this doctrine protects any invocation of legal rights by Intel that is not objectively baseless. *See Professional Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 62-63 (1993) (assertion of legal right protected if claimant has a "reasonable belief that there is a chance that a claim may be held valid"). Intel's initiation of legal proceedings against Digital and Intergraph to secure the return of its intellectual property simply cannot violate the antitrust laws. The immunity governs Intel's conduct because Intel's suit to enforce explicit contractual terms

allowing it to demand return of its intellectual property cannot possibly be characterized as objectively meritless.²⁹

Intel's demands that Digital and Intergraph return Intel's intellectual property are similarly immunized from antitrust scrutiny by *Noerr-Pennington*:

[I]t would be absurd to hold that [Noerr-Pennington] does not protect those acts reasonably and normally attendant upon effective litigation. The litigator should not be protected only when he strikes without warning. If litigation is in good faith, a token of that sincerity is a warning that it will be commenced and a possible effort to compromise the dispute.

Coastal States Marketing, Inc. v. Hunt, 694 F.2d 1358, 1367 (5th Cir. 1983). See also *CVD, Inc. v. Raytheon Co.*, 769 F.2d 842 (1st Cir. 1985), cert. denied, 475 U.S. 1016 (1986); *Barq's, Inc. v. Barq's Beverages, Inc.*, 677 F. Supp. 449 (E.D. La. 1987). Intel's demands for the return of its intellectual property disclosures represented an effort to avoid litigation to enforce the company's unambiguous contractual rights. This conduct is plainly shielded from antitrust liability.

IV. CONCLUSION

As the foregoing memorandum demonstrates, Intel's withholding of the right to use its intellectual property from companies that had done the same to Intel was an appropriate and perfectly normal response to the actions of Digital, Intergraph, and Compaq. The withholding of the right to use Intel's intellectual property is also lawful and legitimate under the intellectual prop-

²⁹ Because Digital returned certain Intel copyrighted material after Intel moved for summary judgment, Intel's claims cannot as a matter of law be deemed objectively meritless. See *Professional Real Estate Investors*, 508 U.S. at 63 (successful claim can never be deemed sham litigation or serve as the basis for antitrust liability). In any event, given the express contractual provision permitting Intel to demand return of its confidential information, *Noerr-Pennington* immunity must apply because "[a] court could reasonably conclude that [the] action was an objectively plausible effort to enforce rights." *Id.* at 65. Intel was not able to proceed with its action against Intergraph because the Alabama court barred it from pursuing that separate action.

erty laws. The simple fact is that Intel's challenged conduct was in response to legal claims, not to competition. Its conduct had no adverse effect on competition. Price, product and innovation competition have accelerated, and microprocessor innovation and R&D has increased, not abated. Scherer Tr. 100, 133, 544-45; **REDACTED**

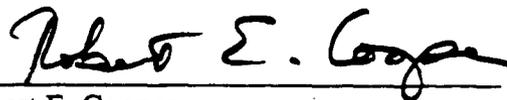
REDACTED . Not one single microprocessor sale by a competitor has been lost because of Intel's alleged conduct impeding microprocessor or complementary technology innovation or OEM differentiation. Scherer Tr. 667, 669.

In spite of the Complaint's speculation about the "natural and probable effect" of Intel's conduct on innovation, the evidence overwhelmingly shows that there was no *actual* effect. As Complaint Counsel and their economic expert are forced to concede, no one canceled an R&D project, no one scaled back an R&D project, and no one delayed one as a result of the conduct alleged in the Complaint. Microprocessor innovation has and continues to flourish. That is what matters, not speculation about what the long-term "probable" effect of the conduct might be.

In spite of the absence of any evidence supporting the claims of harm to innovation and the substantial evidence to the contrary, Complaint Counsel propose that Intel be forced to submit to mandatory licensing of its intellectual property. Acceptance of Complaint Counsel's position threatens every significant technology firm that has undertaken any kind of cooperative activity with customers or other third parties. The clear message of Complaint Counsel's position is that no provision that limits the duration or scope of a licensor's license of intellectual

property is worth the paper on which it is written. And if every disclosure of trade secrets must be made with the understanding that it may create a perpetual obligation to make similar disclosures, technology companies will disclose less. Acceptance of Complaint Counsel's position thus will chill the very cooperative, pro-competitive activity and innovation it purportedly seeks to encourage.

Respectfully submitted,



Robert E. Cooper
Michael L. Denger
Joseph Kattan
Joel S. Sanders
Daniel S. Floyd
Thomas G. Hungar
Jeffrey T. Gilleran
D. Jarrett Arp

GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5303
(202) 955-8500

February 25, 1999

Counsel for Intel Corporation

APPENDIX A: Explanation of Sources Cited

This appendix explains the various references to testimony and documents in Intel's Trial Brief.

Brookwood Expert Report: The report of Nathan A. Brookwood, proprietor of Insight 64, a computer industry consulting firm, and formerly with Dataquest, dated January 4, 1999.

Brookwood Rebuttal Report: The January 20, 1999 rebuttal report of Nathan A. Brookwood.

Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's First Set of Requests for Admission: Complaint Counsel's Second Supplemental Responses and Objections to Respondents First Set of Requests for Admission, dated December 18, 1998.

Complaint Counsel's Second Supp. Resp. and Obj. to Respondent's Fourth Set of Irogs.: Complaint Counsel's Second Supplemental Responses and Objections to Respondents Fourth Set of Interrogatories, dated December 18, 1998.

Frame Tr.: The official transcript from the November 19, 1998 deposition of Robert Frame, formerly Director of Engineering, Mobile Business Unit, at Digital Equipment Corporation.

Geipel Tr.: The transcript of the deposition of Henry J. Geipel, Vice President of Advanced Standard Products, IBM Microelectronics Division, IBM. Mr. Geipel was designated by IBM pursuant to Commission Rule of Practice Rule 3.33(c) to testify regarding IBM's

research, development or innovation relating to microprocessors from January 1, 1994 to the present, including but not limited to any decisions to invest, or not to invest, in such research, development or innovation, any factors considered in making any such decisions, and any market for any such microprocessors.

Gilbert Expert Report: The report of Dr. Richard J. Gilbert, Professor of Economics and Business Administration at the University of California at Berkeley, dated January 6, 1999.

Gilbert Rebuttal Report: The January 22, 1999 rebuttal report of Dr. Gilbert.

Herb Tr.: The December 17, 1998 deposition transcript of Rob Herb, Senior Vice President and Co-Chief Marketing Executive of AMD.

Luecke Tr.: The transcript of the February 11, 1999 deposition of R. Alan Luecke, Strategic Commodity Senior Manager for Dell Computer Corporation.

McDonough Tr.: The transcript of the November 16, 1998 deposition of Kevin C. McDonough, Senior Vice President and Co-General Manager of Cyrix Corporation. Mr. McDonough was designated by Cyrix pursuant to Commission Rule of Practice Rule 3.33(c) to testify regarding Cyrix's research, development or innovation relating to microprocessors from January 1, 1994 to the present, including but not limited to any decisions to invest, or not to invest, in such research, development or innovation, any factors considered in making any such decisions, and any market for any such microprocessors.

Menache Tr.: The transcript of the deposition of Jack Menache, Vice President, General Counsel, and Secretary of Integrated Device Technology, Inc. (IDT). Mr. Menache was

designated by IDT pursuant to Commission Rule of Practice Rule 3.33(c) to testify regarding the following matters: (1) the effect, if any, of any of Intel Corporation's dispute with Digital, Intergraph, or Compaq on research and development plans or activities for IDT's general-purpose microprocessors; (2) the reasons for IDT's decision to develop and market an x86-compatible microprocessor; and (3) IDT's understanding of the role of cross-licenses and other licensing arrangements in the microprocessor industry.

Milgrim Expert Report: The report of Roger M. Milgrim, partner in the New York office of Paul, Hastings, Janofsky & Walker LLP, and the author of the trade secrets treatise MILGRIM ON TRADE SECRETS, dated December 21, 1998.

Mothersole Tr.: The transcript of the deposition of David S. Mothersole, Director of System Architecture for the Wireless Subscriber System Group of Motorola, Inc. Mr. Mothersole was designated by Motorola pursuant to Commission Rule of Practice Rule 3.33(c) to testify regarding Motorola's research, development or innovation relating to microprocessors from January 1, 1994 to the present, including but not limited to any decisions to invest, or not to invest, in such research, development or innovation, any factors considered in making any such decisions, and any market for any such microprocessors.

Palmer 11/20/98 Tr.: The transcript of the November 20, 1998 deposition of Robert B. Palmer, President and/or Chief Executive Officer of Digital Equipment Corporation during the period October 1, 1992 through July 1, 1998.

Palmer Dec.: The Declaration of Robert Palmer, former Chairman of the Board and Chief Executive Officer of Digital Equipment Corporation, executed on April 4, 1998.

Paschal Tr.: The transcript of the January 21, 1999 deposition of James Paschal, former Vice-President of Desktop and Corporate Engineering at Compaq Computer Corporation.

Phillips Tr.: The transcript of the November 19-20, 1998 deposition of Stephen Phillips, Executive Vice-President and General Counsel of Intergraph.

Raza Tr.: The transcript from the deposition of Atiq Raza, Executive Vice-President and co-Chief Operating Officer of AMD, conducted on February 9 & 19, 1999.

RX References. "RX ___" refers to Respondent's Exhibits, which Intel may offer as trial exhibits.

Sanders Tr.: The transcript of the January 28, 1999 deposition Walter J. Sanders, III, Chairman of AMD.

Scherer Expert Report: The Preliminary Expert Report of Frederic M. Scherer, the Aetna Professor of Public Policy and Corporate Management at the John F. Kennedy School of Government, Harvard University, dated January 6, 1998.

Scherer Tr.: The transcript of the February 4-6, 1999 deposition of Frederic M. Scherer, Complaint Counsel's economic expert.

Shapiro Expert Report: The report of Dr. Carl Shapiro, the Transamerica Professor of Business Strategy and Professor of Business and Economics at the Haas School of Business and the Department of Economics, University of California at Berkeley, dated January 5, 1999.

Shapiro Rebuttal Report: The January 21, 1999 report prepared by Dr. Carl Shapiro in response to the analysis presented in the Preliminary Expert Report of Frederic M. Scherer.

Splain Tr.: The transcript of the December 2, 1998 deposition of Michael E. Splain, Vice President of Microelectronics of Sun Microsystems, Inc. Mr. Splain was designated by Sun pursuant to Commission Rule of Practice Rule 3.33(c) to testify regarding Sun's research, development or innovation relating to microprocessors from January 1, 1994 to the present, including but not limited to any decisions to invest, or not to invest, in such research, development or innovation, any factors considered in making any such decisions, and any market for any such microprocessors.

Strecker Dec.: The November 16, 1998 declaration of Dr. William Strecker, Senior Vice President, Technology and Corporate Development, of Compaq Computer Corporation and, prior to the acquisition of Digital by Compaq, Senior Vice-President and Chief Technology Officer at Digital.

WA990510.007/36+

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 25th day of February, 1999, I caused a copy or copies of INTEL CORPORATION'S TRIAL BRIEF to be served by hand upon the following:

Hon. James P. Timony (two copies)
Chief Administrative Law Judge
FEDERAL TRADE COMMISSION
6th and Pennsylvania Ave., N.W.
Washington, D.C. 20580

Donald S. Clark, Secretary (ten copies)
FEDERAL TRADE COMMISSION
6th and Pennsylvania Ave., N.W.
Washington, D.C. 20580

Michael Antalics, Esq.
Assistant Director
FEDERAL TRADE COMMISSION
601 Pennsylvania Ave., N.W.
Washington, D.C. 20580

John O. Horsley, Esq.
Bureau of Competition
FEDERAL TRADE COMMISSION
601 Pennsylvania Ave., N.W.
Washington, D.C. 20580


Michael L. Denger