



Freescale's RCP project. These employees are described on Freescale's website as RCP "Innovators," and one, Marc Mangrum, the Freescale employee who dealt most closely with EPIC, is described as the RCP "Concept Originator."

2. In July 2006, Freescale made its first public statements concerning RCP. At that time, Freescale's CEO lauded RCP as "a truly revolutionary packaging technology"; predicted that RCP would become the "dominant" technology for semiconductor packaging; indicated that Freescale expects to produce 200-300 million RCP units in 2008; and announced plans to license RCP to other companies, "making it an industrywide standard." Yet, contrary to its repeated assurances to EPIC, Freescale has never taken a license itself to EPIC's packaging technology and intellectual property. Accordingly, Freescale is infringing at least one of EPIC's United States patents and is in breach of its oral and written agreements dating back to 2001 that it would only exploit EPIC's confidential information and patented technology pursuant to terms mutually agreed upon by the parties. By this complaint EPIC seeks damages and injunctive relief to enjoin the continued misappropriation of its intellectual property.

3. EPIC was founded in Massachusetts in 1994, by James Kohl ("Kohl"), Charles Eichelberger ("Eichelberger"), and Keith Phillips ("Phillips"). Prior to forming EPIC, Kohl and Eichelberger had held senior positions at General Electric Company, Kohl as manager of all corporate level research and development in semiconductor packaging, and Eichelberger as a senior engineer. Kohl and Eichelberger have been directly involved in the semiconductor field since before 1980. Kohl, a physicist and a semiconductor packaging design expert, is CEO of EPIC. Eichelberger, an expert in the field of semiconductor packaging, is Vice President of Technology at EPIC and has been granted over one hundred and twenty United States patents, including more than sixty patents for his work in the semiconductor field.

4. By 1996, EPIC had developed a new and innovative “chips first” technology (hereinafter “ChipsFirst”) for packaging semiconductors. EPIC’s ChipsFirst technology takes up much less space than conventional semiconductor packaging technologies and is capable of working with both single and multiple integrated circuit chips. Moreover, EPIC’s new technology is simple and can be manufactured at relatively low cost, yet provides excellent electrical and thermal performance for semiconductor packaging. On November 24, 1998, the United States Patent and Trademark Office granted EPIC a patent, U.S. Patent No. 5,841,193 (the “193 Patent”), entitled “Single Chip Modules, Repairable Multichip Modules, And Methods Of Fabrication Thereof”, for this new and innovative ChipsFirst technology. A true and correct copy of the ‘193 Patent is attached hereto as Exhibit A.

5. Beginning in February 2001, EPIC began what were to become long-term discussions with Motorola, Inc. (“Motorola”), and later its successor-in-interest Freescale Semiconductor, Inc. (“Freescale”) (collectively referred to herein for ease of reference as “Freescale”), concerning Freescale’s interest in acquiring or licensing EPIC’s ChipsFirst technology and intellectual property. Over the next six years, EPIC and Freescale developed and maintained a relationship of trust and confidence through which EPIC shared highly sensitive and proprietary information with Freescale. At all times the parties mutually understood that all information shared by EPIC was confidential and could not be used by Freescale for any purposes other than evaluation absent an acceptable license or other agreement.

6. Consistent with their relationship of trust and confidence, the parties entered into five written confidentiality agreements:

- Confidentiality Agreement dated April 9, 2001 (hereinafter the “Tempe NDA”);
- Non-Disclosure Agreement dated April 13, 2001 (hereinafter the “Austin NDA”);

- Mutual Non-Disclosure Agreement dated October 22, 2004 (hereinafter the “Freescale NDA”);
- “Technology Evaluation and Design Development Agreement” dated March 21, 2005 (hereinafter the “Technology Evaluation Agreement”); and
- Non-Disclosure Agreement dated May 15, 2007 (hereinafter the “Woburn NDA”).

(Copies of these agreements are attached hereto as Exhibits B-F, respectively).

7. Throughout this time, Freescale acknowledged, orally and in writing, that EPIC’s technology was technology that Freescale “do[es] not currently possess” and reassured EPIC that it would only exploit EPIC’s confidential information and patented technology pursuant to terms mutually agreed upon by the parties. Moreover, Freescale continually induced EPIC to disclose additional confidential information, including trade secrets, relating to EPIC’s improvements to the technology.

8. Based on Freescale’s continued oral and written assurances, including assurances that EPIC’s “technology and expertise in this area is of long term interest to Freescale” and that Freescale was “focused on building the business case that will enable Freescale to license or acquire EPIC technologies as a key component of our future packaging technology roadmap,” EPIC continued to disclose to Freescale additional trade secrets, know-how, and improvements that it developed. Moreover, throughout this time EPIC and Freescale engaged in negotiations concerning the terms under which Freescale would be permitted to exploit EPIC’s technology and intellectual property. Notwithstanding that these negotiations have not produced a mutually acceptable agreement, in breach of its oral and written agreements with EPIC, Freescale has adopted and used EPIC’s patented technology and intellectual property as its own and has paid EPIC nothing.

## **THE PARTIES**

9. Plaintiff EPIC is a corporation organized and existing under the laws of the Commonwealth of Massachusetts with its principal place of business at 500 West Cummings Park, Suite 6950, Woburn, Massachusetts. EPIC is a semiconductor company that discovers, develops, manufactures, and sells unique high performance technology for packaging semiconductor chips.

10. Defendant Freescale is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 6501 William Cannon Drive West, Austin, Texas. Freescale's business was formerly the semiconductor division of Motorola. Freescale was incorporated as a subsidiary of Motorola in December 2003 and became an independent publicly traded company in July 2004. In its previous form as a division of Motorola and in its current form as an independent company, Freescale has long been one of the largest semiconductor companies in the world. In December 2006, Freescale was acquired by a consortium of private equity funds for \$17.6 billion.

#### **JURISDICTION AND VENUE**

11. This action arises under the patent laws of the United States, Title 35 of the United States Code, and Massachusetts state law. This Court has subject matter jurisdiction over EPIC's patent infringement claim pursuant to 28 U.S.C. §§ 1331 and 1338(a) and (b). This Court has supplemental jurisdiction over EPIC's remaining claims pursuant to 28 U.S.C. § 1367(a).

12. This Court also has subject matter jurisdiction pursuant to 28 U.S.C. § 1332 by virtue of complete diversity of citizenship and because the amount in controversy exceeds Seventy-Five Thousand Dollars (\$75,000), exclusive of interest and costs.

13. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400 (b). Freescale is subject to personal jurisdiction in this district by virtue of doing business in this

district through agents and representatives, and otherwise having substantial contact with this district. Freescale's contacts include, but are not limited to, attending numerous meetings with EPIC and touring EPIC's facility, entering into several agreements with EPIC, and receiving trade secrets and confidential information from EPIC in Massachusetts. Freescale is also registered to do business in the Commonwealth of Massachusetts, and upon information and belief has an office in this state.

## **STATEMENT OF FACTS**

### **EPIC's Pioneering Technology And Intellectual Property**

14. This dispute involves patent infringement, breach of confidentiality agreements, and misappropriation of confidential information and trade secrets relating to a unique technology developed by EPIC in the field of electronic packaging and interconnect (i.e., electrical connectivity) of high performance semiconductors.

15. Semiconductors are the basic building blocks used to create electronic products and systems. Electronics packaging, also known as assembly, is the processing of bare semiconductor chips into finished semiconductor packages, serving to protect the semiconductors and facilitate electrical connections and heat dissipation. Electronics packaging is a major discipline within the field of electronic engineering and includes a wide variety of technologies applied both to end products and to components.

16. Integrated circuits ("IC") are miniaturized electronic circuits that consist mainly of multiple semiconductor devices. In recent years, the increasing complexity of IC design, and the constantly-rising demand for reduced size and increased performance from IC chip packages, have fueled fierce competition among manufacturers to develop finer geometries for packaging and interconnect of IC chips while providing maximum performance.

17. One approach has been the MultiChip Module (“MCM”). There are presently two main classes of MCM, called “chips last” MCM and “chips first” MCM.

18. In a “chips last” MCM, the packaging material is fabricated first and then the bare IC chips are attached and interconnected to the packaging material. The method of interconnect is usually wire bond (thin wires) or solder bump (small solder dots deposited on each of the pads of the IC chip). In a “chips first” MCM, the chips are placed first relative to each other and the packaging material is then built around the chips. The interconnect is formed to the IC chips as an integral part of the processing of the packaging material. The structures at issue in this case are in the category of “chips first” MCMs.

19. EPIC has developed unique ChipsFirst technology that enables EPIC to offer packaging services for high speed applications with improved performance and smaller size. EPIC’s ChipsFirst technology has enabled a marked improvement in manufacturability and cost over prior "chips first" approaches. EPIC’s technology is protected by, *inter alia*, the ’193 patent.

**Freescale Learns of EPIC’s ChipsFirst Technology**

20. In February 2001, Kohl, EPIC’s CEO, and Phillips, EPIC’s Vice President of Sales and Marketing, met with representatives of Freescale at Freescale’s Tempe, Arizona, facility. Kohl and Phillips made a preliminary presentation of EPIC’s ChipsFirst packaging technology and materials to a group of Freescale managers and engineers, including Beth Keser (“Keser”).

21. Two months later in April 2001, Kohl traveled to Austin, Texas, to meet with Marc Mangrum (“Mangrum”), Director of Advanced Packaging and Test Technologies in

Freescale's Wireless Subscriber Systems Group. At that meeting, Kohl gave Mangrum a second high-level presentation of EPIC's technology.

22. Freescale was immediately interested in EPIC's technology. Over the course of the next several years, EPIC and Freescale developed a relationship based on trust and confidence, wherein EPIC provided Freescale with detailed information concerning EPIC's patented ChipsFirst technology, trade secrets, know-how, and improvements. In return, Freescale consistently assured EPIC, both orally and in writing, that Freescale was interested in exploiting EPIC's ChipsFirst technology. Freescale promised EPIC that all of EPIC's technical and other confidential information would be kept confidential and would be used solely for the purpose of evaluating EPIC's ChipsFirst technology, and that Freescale would not use EPIC's technology and confidential information for any other purpose absent mutually agreeable terms.

**EPIC and Freescale Enter Into A Series Of Confidentiality Agreements**

23. Over the course of their discussions, EPIC and Freescale executed a series of written agreements codifying these understandings. Although these agreements evidence the parties' mutual contractual obligations, at all times it was agreed that the information provided by EPIC would remain EPIC's sole and exclusive property. Moreover, the parties understood and agreed that Freescale would not attempt to develop or commercialize EPIC's technology and proprietary information absent mutually agreeable terms. Freescale repeatedly reassured EPIC of this fact through its actions and express representations.

24. The first of these agreements was a non-disclosure agreement ("NDA"), the "Tempe NDA," which became effective on April 9, 2001, shortly after EPIC's initial meeting with Freescale in Tempe, Arizona. The Tempe NDA required that the parties maintain all confidential information disclosed pursuant to that agreement secret for a period of five (5) years



from the date of disclosure. See Ex. B, ¶5. Moreover, the Tempe NDA expressly provided that “Recipient shall . . . (2) restrict dissemination of Confidential Information to only those employees who must be directly involved with Confidential Information and . . . (4) use Confidential Information only for the purpose of evaluation of a possible business relationship between the parties.” See Ex. B, ¶6.

25. A second NDA, the “Austin NDA,” became effective just four days later, on April 13, 2001. Under the Austin NDA, any “Proprietary Information may be disseminated within the Receiving Party’s own organization only to the extent reasonably required for, and shall be used by the Receiving Party only for, the purpose of evaluating a possible business relationship between the parties.” See Ex. C, ¶1. Moreover, the parties acknowledged that any breach of the Austin NDA would cause irreparable harm to the non-breaching party, entitling the non-breaching party to an injunction:

Each party acknowledges that the other party shall not have an adequate remedy in the event it or any of its representatives breaches the Agreement and that the other party will suffer irreparable damage and injury in such event, and it agrees that the other party, in addition to any other available rights and remedies, shall be entitled to an injunction restricting it and its representatives from committing or continuing any violation of this Agreement.

See Ex. C, ¶6. Finally, the Austin NDA provided that the obligation not to disclose Proprietary Information under the Agreement “shall survive any termination or expiration of this Agreement.” See Ex. C, ¶7. Mangrum executed the Austin NDA on behalf of Freescale.

26. As EPIC and Motorola continued their on-going discussions regarding EPIC’s ChipsFirst technology, they entered into two additional NDAs, one in October 2004 and another in May 2007. Both the third NDA, the “Freescale NDA” (Ex. D), and fourth NDA, the “Woburn

NDA” (Ex. F), provide for many of the same terms as the previous NDAs entered into between the parties. In particular, the Freescale NDA provides as follows:

CONFIDENTIAL INFORMATION IS DISCLOSED FOR EVALUATION ONLY. The purpose of this Agreement is to allow the transfer and disclosure of . . . Epic Technologies Packaging information necessary to enable the design of a Radio-in-Package solution utilizing Epic’s packaging technology . . . . This design activity will be instrumental in determining a possible business relationship between the parties. (the “Purpose”).

. . . .

During the term of this Agreement and for a period of 5 year(s) from the expiration or termination of this Agreement, Recipient will . . . (ii) restrict disclosure of Confidential Information to only those employees (including, but not limited to, employees of any wholly owned subsidiary, a parent company, any other wholly owned subsidiaries of the same parent company) agents or consultants who must be directly involved in the Confidential Information for the evaluation Purpose and who are bound by confidentiality terms substantially similar to those in this Agreement; . . . and (vi) only use the Confidential Information for evaluation in connection with the Purpose.

*See* Ex. D at §4.

27. In addition to NDAs, in March 2005 EPIC and Freescale also entered into the Technology Evaluation Agreement. The purpose of the Technology Evaluation Agreement was “to establish the terms and conditions that would apply to any services to be performed for Freescale by EPIC . . . for the purpose of developing and licensing to Freescale a design that [would] enable Freescale to evaluate EPIC’s proprietary semiconductor packaging for possible use in future Freescale products.” *See* Ex. D, §1(A). The Technology Evaluation Agreement was effective for a period of one (1) year from March 21, 2005, and would automatically renew for successive one (1) year periods unless either party provided written notice to the other party of its election not to renew. *Id.* at §2.

28. The Technology Evaluation Agreement reaffirmed the parties' confidential relationship and expressly provided that any Deliverables (as that term is defined in the Technology Evaluation Agreement) provided by a party for purposes of the agreement would be considered "Confidential Information." Id. at §8. Furthermore, Freescale agreed (a) to keep Confidential Information in confidence for ten years from receipt of the information, and (b) not to use Confidential Information for any purpose other than meeting its obligations under the Technology Evaluation Agreement. Id. at § 8(B).

29. Moreover, all intellectual property developed prior to or during the term of the Technology Evaluation Agreement remained the property of EPIC. Specifically, the Technology Evaluation Agreement provided that:

All Background Intellectual Property, Foreground Intellectual Property, and EPIC Confidential Information shall be and remain the sole and exclusive property of EPIC, and, except for the license expressly granted to Freescale by EPIC in this Section 9(B), Freescale shall have no right, title, license or interest in or to any Background Intellectual Property, Foreground Intellectual Property, and EPIC Confidential Information.

Id. at §9(B). Under Section 9(B), EPIC granted Freescale a limited "Evaluation License" "to use the Deliverables (including both Foreground Intellectual Property and Background Intellectual Property) for the sole purpose of performing internal evaluation of EPIC's Intellectual Property."

Id. at § 9(B)(i).

#### **EPIC's Confidential Disclosures To Freescale**

30. Over the course of its relationship with EPIC, Freescale continually assured EPIC, both orally and in writing, that it would keep EPIC's confidential information in confidence, that it would use such information only for evaluation purposes, and that it wanted to acquire or license EPIC's technology and intellectual property. In reliance on Freescale's assurances, EPIC provided Freescale with detailed information concerning EPIC's ChipsFirst technology,

including EPIC's trade secrets, know-how, improvements and other proprietary information. In particular, EPIC responded to questions from Freescale engineers and provided Freescale with copies of EPIC's confidential Design Rules, Manufacturing Models and Equipment Lists, as well as flowcharts detailing the Manufacturing Process and Reliability Testing Results. In addition, on several occasions, including in June 2001, April 2004, and August 2006, EPIC allowed representatives of Freescale, including Mangrum, to tour EPIC's facilities in Woburn and examine the equipment used in EPIC's process. At all times, EPIC provided this information under the parties' mutual relationship of trust and confidence and with the additional assurance that such information was protected under the parties' confidentiality agreements.

31. In the spring of 2001, at Freescale's request, EPIC designed and built a number of samples using its ChipsFirst technology and incorporating components supplied by Freescale. For example in May 2001, EPIC designed and fabricated samples incorporating a Freescale "Whitecap" wireless baseband processor and a "4-M sRAM" memory. Again, in June 2001, EPIC designed and built a second sample, this time utilizing the Freescale "Neptune" first pass silicon die and a Micron supplied "FLASH" memory.

32. In the fall of 2001, EPIC disclosed to Freescale its idea of a ChipsFirst "system-in-a-package" innovation, and in particular the idea of a ChipsFirst "cell-phone-in-a-package" application. The ChipsFirst "system-in-a-package" innovation was developed exclusively by EPIC and involved placing all of the components necessary for an operational electronic device into a single package using EPIC's ChipsFirst technology. EPIC's "system-in-a-package" was intended to demonstrate the capability of EPIC's ChipsFirst technology, which could then be applied to a broad range of applications.

33. On January 9, 2003, Kohl sent Mangrum an email attaching charts that illustrated EPIC's "Ultra Thin ChipsFirst Stackable Package". The email detailed that the ChipsFirst packaging technology could be applied to both the "Processor/Memory System-In-A-Package" and the "Cell-Phone-In-A-Package" projects.

34. Moreover, on February 6, 2003, Kohl sent to Glen Raskin ("Raskin") of Freescale a detailed presentation including graphic and written descriptions of EPIC's proprietary ChipsFirst "Cell-Phone-In-A-Package." The ChipsFirst "cell-phone-in-a-package" idea was one application of EPIC's ChipsFirst "system-in-a-package" innovation, incorporating all of the ICs necessary for an operational cell phone into a single postage-stamp-sized package. Throughout the month of February, Kohl and Eichelberger had several additional telephone conversations with representatives of Freescale to further explain the detailed operation of EPIC's ChipsFirst technology.

35. In September 2003, Freescale requested that EPIC prepare a non-functional mock up of its ChipsFirst "cell-phone-in-a-package" technology. By early October 2003, EPIC had completed its mock up and delivered a sample to Freescale.

36. In July 2004, Freescale asked EPIC to perform a study to show how EPIC's ChipsFirst technology would improve signal integrity for a specific Freescale product. Within weeks, EPIC had completed that study and sent a detailed description of its proprietary design concepts to Freescale for review.

37. Satisfied that EPIC's ChipsFirst technology was functional, on March 24, 2005, Freescale requested that EPIC design a detailed operational "cell-phone-in-a-package" system. The "cell-phone-in-a-package" system required combining a complete operational cell phone, including memory, power management, baseband, transceiver, and RF front end modules, into

one package using EPIC's ChipsFirst packaging technology. The design and implementation of the "cell-phone-in-a-package" was extremely complex and required a substantial amount of time and effort by EPIC. By December 2005, however, EPIC delivered a detailed design addressing all known operational issues to Freescale.

38. After EPIC provided a detailed "cell-phone-in-a-package" design to Freescale, the parties entered into what was to become their final technical evaluation period. Freescale submitted numerous detailed questions concerning the scalability, manufacturability and design of the technology to EPIC. In response, EPIC provided detailed information including detailed cost models setting forth the expected cost of manufacturing packages in accordance with EPIC's technology. EPIC entrusted Freescale with this information based upon the parties' written agreements and oral understandings.

**Freescale Repeatedly Acknowledged the Significance of EPIC's Intellectual Property, and Reassured EPIC That It Wished To Do Business With EPIC**

39. From the very beginning, the relationship between EPIC and Freescale was built on a firm mutual understanding of trust and confidence. The relationship was fostered by frequent assurances from Freescale of its continued interest in EPIC's ChipsFirst technology. Moreover, Freescale repeatedly reassured EPIC that Freescale would not exploit EPIC's patented technology and proprietary information absent mutually acceptable terms.

40. For example, on May 4, 2001, Mangrum sent a letter to EPIC with the subject heading "Motorola's Evaluation of EPIC Technology – Letter of Intent." The first paragraph of the Letter of Intent acknowledged EPIC's ownership of the packaging technology and expressed Freescale's excitement about entering into a long-term business plan with EPIC:

[Freescale] is truly excited about the packaging interconnect technology your company has developed and disclosed to us. The feedback from my team has been positive. We welcome the

opportunity to initiate the evaluation and subsequent development of this technology for use with [Freescale] products.

The Letter of Intent formalized an “immediate evaluation phase to discover the value and manufacturability of the EPIC process.” Shortly after sending the Letter of Intent, Motorola requested additional detailed information concerning EPIC’s packaging technology.

41. On August 13, 2001, Kohl received an email from Mangrum attaching a presentation Mangrum had sent to Matthew Grouney of Motorola Ventures, the strategic investment arm of Motorola. The presentation set forth the “Current Status” of Freescale’s evaluation of EPIC’s technology and provided a brief “Technology Overview” of the proprietary EPIC process. The “Technology Overview” listed many advantages of the EPIC ChipsFirst technology that Mangrum perceived over conventional packaging technology. In particular, the “Technology Overview” detailed the following advantages of EPIC’s ChipsFirst technology:

- “Cost savings”
- “Fast development and deployment capability”
- “Reliability data indicates equivalent to superior performance to traditional substrate”
- “Dielectric constant of the material used . . . shows virtually zero signal degradation over frequency. Power dissipation properties are equally impressive with capability of integrating power plans and varying the size of widths of the traces – so integrating devices of differing performance into a common package is a do-able target: ‘cell phone in a package’”
- “Capability to easily integrate discrete components”
- “Excellent thermal performance”
- “High performance . . . transmission lines”

Moreover, the presentation included graphics provided by EPIC detailing EPIC’s proprietary packaging structure and a section entitled “Advantages of Process Panel” that listed additional

advantages of the EPIC process. One of the advantages listed was EPIC's idea of a ChipsFirst "System-In-A-Package Innovation."

42. Through Mangrum's presentation, EPIC was reassured that Freescale saw significant advantages in EPIC's ChipsFirst technology over conventional packaging techniques and that Freescale was interested in investing in EPIC's ChipsFirst technology.

43. In early January 2003, in a conference call between representatives from EPIC and Freescale, Raskin acknowledged that EPIC's ChipsFirst technology is "the platform of the future" and requested that EPIC provide additional detailed information concerning its technology.

44. Two months later on March 5, 2003, Kohl was blind-copied on an email sent from Mangrum to Pete Shinyeda, then head of Freescale's wireless division. Mangrum's March 5 email touted the advantages of EPIC's ChipsFirst technology and attached a copy of a presentation, taken directly from an earlier EPIC presentation, that he and Raskin had recently presented at an internal Freescale seminar. In the attached presentation, Mangrum and Raskin set forth the "Motorola/EPIC Strategy" to "Expediently combine EPIC's ChipsFirst technology and Motorola's Optimized Chip technologies to offer cell phone in a package products in 2004." The "Summary" page went on to list the "Salient Advantages of EPIC Technology" as:

- "Solves the processor backend test problem while maintaining a thin form factor"
- "Ideally suited for Cell Phone In A Package"
- "Reduces costs versus conventional packaging."

Moreover, the presentation provided Mangrum's and Raskin's views as to the "Strategic Advantage to Motorola" for partnering with EPIC, including that "Motorola can positively impact sales by being the only company to offer a product which combines processor, memory, transceiver and PA in 2004."



45. In his email to Shinyeda, however, Mangrum admitted that there was one problem with his proposal -- EPIC, not Freescale, owned the technology:

**The down side to this proposal is that it requires an investment in technology that we do not currently possess.** It is available and we have been working with [it] through background activities. You may recall a technology I have termed EPIC. In 2001 we build [sic] some prototypes using Whitecap and a 4M sRAM which we had put in KRAMER phones in Europe. We were successful and live calls were made. We also build [sic] samples with Neptune using 16M FLASH and have done some initial reliability studies. Unfortunately, due to the availability of funding, not much has been done since.

(Emphasis added).

46. EPIC was greatly encouraged by this presentation in which Freescale acknowledged both the value of ChipsFirst technology, as well as EPIC's ownership of the intellectual property. Over the course of the next couple of months, Mangrum met internally with division heads within Freescale to explain the advantages of EPIC's ChipsFirst technology and promote his and Raskin's "Motorola/EPIC Strategy."

47. Despite a number of upper-level management changes at Freescale, interest in EPIC's ChipsFirst technology remained high. On September 26, 2003, Kohl received an email from Mangrum requesting that EPIC prepare a mock up of its ChipsFirst technology.

Specifically, Mangrum's September 26 email asked:

How much to build a "chips first" mock up? I don't want to get your hopes up too much, BUT some folks are getting VERY excited about my (our) proposal AND Frans [sic] [Fink] may announce this in OCT and we would need a mock up. IF well received, you will be put on the spot to build it. Can do????

Pursuant to Mangrum's request, EPIC built a mock up of a ChipsFirst "cell phone in a package," and delivered it to Freescale in a matter of days. Franz Fink, general manager of Freescale's

wireless and mobile systems group, used the mock up in a presentation that he made at an industry trade show in October 2003.

48. Thereafter, the parties continued their on-going discussions towards an arrangement under which Freescale would be allowed to exploit EPIC's ChipsFirst technology. In October 2004, EPIC and Freescale executed a third confidentiality agreement (the Freescale NDA), and in March 2005 they entered into the Technology Evaluation Agreement. With each agreement entered into between the parties, EPIC became more and more confident in their relationship.

49. By January 2006, following EPIC's delivery of a detailed ChipsFirst cell-phone-in-a-package design, Freescale contacted EPIC to discuss a potential technology buy-out of the company. As a result, the parties arranged for a meeting to occur on March 21, 2006.

50. Immediately following the March 21, 2006, meeting, Valerie Hase ("Hase"), Director of Corporate Business Development & Licensing at Freescale, sent an email to Kohl. Hase's email indicated that Freescale remained interested in EPIC's ChipsFirst technology and that Freescale wished to conduct yet another "technical evaluation" of EPIC in order to build the case for Freescale to license or acquire EPIC's technologies. Specifically, Hase wrote as follows:

Business and technical teams at Freescale continue the development of our business and manufacturing case for implementing RCP technology in production. **We believe that your technology and expertise in this area is of long term interest to Freescale.** In order to complete the business case and present the proposal for approval to our CEO and senior management team, we need to perform some technical due diligence with EPIC to validate the performance and manufacturability of your technology.

....

We estimate that this evaluation will take 60-90 days although our intent is to complete the task as quickly as possible. . . . **We are focused on building the business case that will enable Freescale to license or acquire EPIC technologies as a key component of our future packaging technology roadmap.**

Freescale believes that the non-disclosure agreement in place between Freescale and EPIC provides the necessary protection for both parties to begin the evaluation. We hope that you can support this request.

(Emphasis added).

51. Over the next several months, the parties continued to conduct discussions regarding a potential relationship between Freescale and EPIC by telephone and through several in-person meetings, but the parties were unable to agree upon mutually acceptable terms.

**Freescale's Announcements Concerning "Its" RCP Technology**

52. In July 2006, Freescale made its first public announcements concerning its RCP technology, in connection with the company's "Technology Forum" held in Orlando, Florida. On July 25, 2006, Freescale issued a press release entitled "Breakthrough Technology from Freescale Redefines State of the Art for Advanced Semiconductor Packaging." The July 25 press release "unveiled" RCP as a "breakthrough technology" purportedly developed by Freescale. Upon information and belief, Freescale's RCP technology infringes EPIC's '193 Patent. Moreover, upon further information and belief, Freescale has used information and sample products confidentially provided by EPIC in connection with its development of RCP.

53. On that same date, Freescale's then-Chairman and CEO Michael Mayer ("Mayer") gave the keynote address at Freescale's Technology Forum. In his address, Mayer said as follows:

But I want to focus your attention on a truly revolutionary packaging technology we have developed. We believe it will deliver dramatic reductions in the size, power consumption and cost of future integrated circuits. We call it redistributed chip

packaging . . . . We see RCP as eventually pervading a broad range of wireless, consumer, industrial, transportation and networking devices that can benefit from the consolidation of electronic components into a single miniaturized system. In fact, Freescale believes RCP could replace ball-grid-array and flip-chip as the dominant packaging technology for creating highly integrated and miniaturized semiconductor devices.

54. Upon information and belief, in a presentation at the July 2006 Technology Forum, Freescale used a photograph of an EPIC ChipsFirst product sample to depict Freescale's RCP technology. The photograph used in the July 2006 presentation was of the Whitecap sample designed and built by EPIC in 2001.

55. An article published at [www.eetimes.com](http://www.eetimes.com) on July 31, 2006, quoted Mayer as saying that “[f]ull-scale manufacturing [of RCP] is expected in 2008.” The article stated that “[a]t that time, Freescale expects to produce 200 million to 300 million RCP chips using internal manufacturing lines.” The article further quoted Mayer as saying that “Freescale plans to license the technology to packaging companies and other semiconductor vendors, making it an industrywide standard.”

56. In or about September 2006, Mangrum prepared a PowerPoint presentation entitled “Freescale's ‘Packaging Technologies for Mobile Platforms.’” The presentation included a graphic of a mock up Freescale made using EPIC's ChipsFirst cell-phone-in-a-package ideas. The graphic in the Freescale presentation was made by pasting a photograph of the Freescale mock up over a graphic created by EPIC showing the mock up designed and built by EPIC.

57. In November 2006, EPIC became aware of graphics on Freescale's website showing the structure of Freescale's RCP technology. The structures disclosed on Freescale's website of Freescale's RCP technology closely mirrored EPIC's proprietary ChipsFirst technology. Moreover, many of the same individuals to whom EPIC had previously disclosed its

proprietary technology – and who were bound under the terms of the EPIC/Freescale confidentiality agreements – were listed as RCP “Innovators”: Beth Keser, identified as “Technology Development Team Leader”; Owen Fay; George Leal; Robert Wenzel; and Marc Mangrum, identified as the RCP “concept originator” – these were the very same individuals who received, reviewed, and/or had access to EPIC’s technology and proprietary trade secrets, know-how, and improvements under the confidentiality agreements.

58. On March 5, 2007, Freescale issued a press release to announce that it was “setting up a pilot production line at its facility in Tempe, Ariz. for its recently announced Redistributed Chip Packaging (RCP) technology in preparation for volume manufacturing.” In the press release, Sumit Sadana, Freescale’s Chief Technology Officer, described RCP as “breakthrough packaging technology.”

59. Less than a month later, on April 1, 2007, an article by Keser was published in *Semiconductor International* magazine. In her article, Keser touted the benefits and advantages of RCP, including that “RCP offers unmatched integration density because it reduces footprint and thickness by up to 30% vs. the traditional PBGA package styles.” The article indicated that Keser – who had met with EPIC on a number of occasions, and sent detailed technical questions to EPIC in 2006 – had “been leading the development of the [sic] RCP for over four years.”

60. Through 2007, Freescale continued to express interest in taking an exclusive license to EPIC’s technology and intellectual property. Notwithstanding its predictions that RCP would become the “dominant” semiconductor packaging technology and that it would license RCP technology to make the technology “an industrywide standard,” Freescale has failed to take a license from EPIC and is proceeding with RCP without such a license.

## **STATEMENT OF CLAIMS**

### **Count I Infringement of the '193 Patent**

61. Paragraphs 1 through 60 of this Complaint are incorporated by reference as if fully stated herein.

62. On November 24, 1998, the United States Patent and Trademark Office duly and legally issued the '193 Patent, entitled "Single Chip Modules, Repairable Multichip Modules, And Methods Of Fabrication Thereof." EPIC is the owner by assignment of the entire right, title and interest of the '193 Patent.

63. Upon information and belief, Freescale has infringed and is still infringing the '193 Patent by manufacturing, promoting, using, selling, or offering for sale single and/or multi-chip modules incorporating EPIC's patented ChipsFirst technology, including Freescale's RCP technology.

64. Freescale's infringing activities have caused and will continue to cause EPIC irreparable harm for which it has no adequate remedy at law, unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283.

65. Upon information and belief, Freescale has willfully infringed the '193 Patent, entitling EPIC to damages and treble damages pursuant to 35 U.S.C. § 284.

### **Count II Breach of Contracts**

66. Paragraphs 1 through 65 above are hereby incorporated by reference as if fully set forth herein.

67. In connection with EPIC's disclosures of its ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, EPIC and Freescale have entered into a series of written confidentiality agreements,

including the Tempe NDA, Austin NDA, Freescale NDA, and Technology Evaluation Agreement, as well as oral confidentiality agreements.

68. Under the written and oral confidentiality agreements, Freescale was required to maintain all confidential information, including trade secrets, know-how, improvements and other proprietary information, shared by EPIC in secret. Freescale was required to restrict dissemination of EPIC's confidential information, including trade secrets, know-how, improvements and other proprietary information, to only those employees who were required to be directly involved in evaluating a possible business relationship between Freescale and EPIC. Moreover, Freescale was allowed to use EPIC's confidential information, including trade secrets, know-how, improvements and other proprietary information, only for the purpose of evaluating a possible business relationship between Freescale and EPIC.

69. Freescale has breached the oral and written confidentiality agreements, including the Tempe NDA, Austin NDA, Freescale NDA, and Technology Evaluation Agreement, by, among other things:

- (a) attempting to expropriate, commandeer or seize for itself without justification all economic benefits of EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, that were disclosed to Freescale in confidence;
- (b) falsely claiming EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, to be its own;

(c) making, marketing, and selling RCP technology embodying EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information; and

(d) relying on EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, to assist and accelerate Freescale's own research and development without credit or compensation to EPIC.

70. As a direct and proximate result of Freescale's breaches, EPIC has suffered damages.

71. Accordingly, EPIC is entitled to injunctive and monetary relief in an amount to be determined at trial.

**Count III  
Promissory Estoppel**

72. Paragraphs 1 through 71 above are hereby incorporated by reference as if fully set forth herein.

73. Over the course of EPIC's interactions with Freescale, Freescale acknowledged that EPIC's ChipsFirst technology was technology that Freescale did not own or possess, and made several promises to EPIC that it would keep EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, secret and only use EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, for the purpose of evaluating a possible business relationship between Freescale and EPIC. Moreover, Freescale made these acknowledgments and promises reasonably expecting to induce EPIC to disclose confidential information, including trade secrets, know-how, improvements and other proprietary



information. EPIC reasonably relied on said acknowledgments and promises in disclosing such confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, to Freescale.

74. Having made such acknowledgments and promises to EPIC, Freescale is now estopped from denying EPIC's ownership of the property, that it would maintain EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, secret and that it would only use EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, for the purpose of evaluating a possible business relationship between Freescale and EPIC.

75. As a direct and proximate result of Freescale's wrongdoing, EPIC has suffered harm. Moreover, further injustice can only be avoided by enforcing Freescale's promise to maintain EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, secret and only use EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, for the purpose of evaluating a possible business relationship between Freescale and EPIC.

**Count IV**  
**Unjust Enrichment**

76. Paragraphs 1 through 75 above are hereby incorporated by reference as if fully set forth herein.

77. Upon information and belief, Freescale improperly used EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, in connection with Freescale's development, marketing, and use of the RCP technology. In addition, Freescale has improperly held its employees out to others as

concept-originators and held itself out to others as owner of the technology covered by EPIC's confidential information, including trade secrets, know-how, improvements and other proprietary information.

78. Freescale was aware of, and had knowledge of, the benefits conferred on it by its use of EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information.

79. As a direct and proximate result of Freescale's wrongful acts, Freescale has been unjustly enriched having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market, to the detriment of EPIC.

80. Under these circumstances, Freescale's receipt and retention of any benefits conferred upon it for the use of EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, would be unjust.

81. EPIC has no adequate remedy at law and is entitled to injunctive and monetary relief including disgorgement and restitution of all economic benefits which Freescale derived for the use of EPIC's ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information.

**Count V**  
**Trade Secret Misappropriation/Violation of G.L. c. 93 §42**

82. Paragraphs 1 through 81 above are hereby incorporated by reference as if fully set forth herein.

83. EPIC's ChipsFirst technology and confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, are subject to

protection under Massachusetts General Laws c. 93 §42, common-law, and relevant precedents and standards established thereunder.

84. EPIC originated the ChipsFirst technology and developed confidential information, including trade secrets, know-how, improvements and other proprietary information. EPIC's ChipsFirst technology and confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, includes a compilation of research and scientific data that derives independent economic value by not being accessible, through proper means, to competitors, who can profit from its explicit and/or implicit and/or intentional and/or inevitable use or disclosure. EPIC developed and owns confidential information, including trade secrets, know-how, improvements and other proprietary information, protecting, among other things:

- the structure of the ChipsFirst cell-phone-in-a-package product concept and other EPIC ChipsFirst modules;
- the manufacturing process and methods of manufacturing EPIC's ChipsFirst cell-phone-in-a-package product concept and other ChipsFirst modules;
- the materials used and the sources of materials used in manufacturing EPIC's ChipsFirst cell-phone-in-a-package product concept and other ChipsFirst modules;
- the information concerning the costs involved in manufacturing EPIC's ChipsFirst cell-phone-in-a-package product concept and other ChipsFirst modules; and
- the equipment used to manufacture EPIC's ChipsFirst cell-phone-in-a-package product concept and other ChipsFirst modules.

85. EPIC has taken all reasonable steps to protect its confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information. All

of EPIC's disclosures to Freescale were made pursuant to a long-term relationship of trust and confidence commonly understood by the parties. Moreover, EPIC has entered into written confidentiality agreements with Freescale, including the Tempe NDA, Austin NDA, Freescale NDA, and Technology Evaluation Agreement, as well as oral confidentiality agreements. EPIC presented its ChipsFirst technology and confidential information, including trade secrets, know-how, improvements and other proprietary information, to Freescale only upon Freescale's oral and written agreement that it would keep such confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, secret and would only exploit such confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, pursuant to a license or other agreement with EPIC.

86. Freescale has misappropriated EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, by using for its own advantage, without authorization, EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, to the harm of EPIC.

87. As a direct and proximate result of Freescale's misappropriation of EPIC's confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, EPIC has suffered damages. In addition, Freescale has been unjustly enriched by its wrongful actions having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market.

**Count VI**  
**False Description and False Designation of Origin under**  
**15 U.S.C. §§1125(a)(1)(A) and 1125(a)(1)(B).**

88. Paragraphs 1 through 87 above are hereby incorporated by reference as if fully set forth herein.

89. Freescale has misrepresented the nature, characteristics and qualities of its RCP technology through, among other things, representations made in:

- Freescale's July 25, 2006, Press Release entitled "Breakthrough Technology from Freescale Redefines State of the Art for Advanced Semiconductor Packaging";
- Freescale's July 2006 presentation in which Freescale displayed a photo of EPIC's ChipsFirst technology sample to depict the development of Freescale's RCP technology;
- Freescale's PowerPoint presentation developed by Mangrum in or about September 2006, entitled "Freescale's "Packaging Technologies for Mobile Platforms" including graphics created by EPIC concerning a mock-up of its proprietary ChipsFirst technology; and
- Graphics and information displayed on Freescale's website depicting the structure of EPIC's ChipsFirst technology.

90. Moreover, Freescale's representations are likely to cause confusion or mistake, or to deceive, actual and prospective consumers as to the origin or sponsorship of Freescale's RCP technology, thereby constituting a false designation of origin.

91. The actions of Freescale were willful, knowing, and/or in bad faith.

92. As a direct and proximate result of the unfair and deceptive actions of Freescale, as set forth above, EPIC has suffered damages. In addition, Freescale has been unjustly enriched by its wrongful actions having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market.

**Count VII**  
**Conversion**

93. Paragraphs 1 through 92 above are hereby incorporated by reference as if fully set forth herein.

94. EPIC is, and was at all relevant times, the true and correct owner of confidential information, including trade secrets, know-how, improvements and other proprietary information, relating to EPIC's ChipsFirst technology, including its ChipsFirst cell-phone-in-a-package product concept. EPIC's confidential information, including trade secrets, know-how, improvements and other proprietary information, constitutes EPIC's property to which, at all times, EPIC was and is entitled to use and possess.

95. Freescale has destroyed or damaged EPIC's exclusive right to use and possess this property by intentionally and wrongfully converting EPIC's property for its own use by exercising over it acts of ownership, control or dominion, without right, that are inconsistent with EPIC's exclusive rights.

96. The actions of Freescale were willful, knowing, and/or in bad faith.

97. As a direct and proximate result of the unfair and deceptive actions of Freescale, as set forth above, EPIC has suffered damages. In addition, Freescale has been unjustly enriched by its wrongful actions having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market.

**Count VIII**  
**Breach Of Implied Covenant Of Good Faith And Fair Dealing**

98. Paragraphs 1 through 97 above are hereby incorporated by reference as if fully set forth herein.

99. Freescale violated its duty of good faith and fair dealing when it breached the Tempe NDA, Austin NDA, Freescale NDA, and Technology Evaluation Agreement, as well as its oral confidentiality agreements, by, among other things, attempting to expropriate, commandeer, or seize for itself without justification all economic benefits of EPIC's ChipsFirst technology and confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information, that were disclosed to Freescale in confidence, including by developing, marketing, and using the RCP technology.

100. Freescale's breaches of the oral and written confidentiality agreements were in violation of its duty of good faith and fair dealing and were intended to cause and are causing harm to EPIC within the Commonwealth of Massachusetts.

101. As a direct and proximate result of the unfair and deceptive actions of Freescale, as set forth above, EPIC has suffered damages. In addition, Freescale has been unjustly enriched by its wrongful actions having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market.

**Count IX**  
**Unfair Trade Practices/Violation of G.L. c.93A**

102. Paragraphs 1 through 101 above are hereby incorporated by reference as if fully set forth herein.

103. At all times relevant hereto, EPIC and Freescale have been engaged in the conduct of trade or commerce within the meaning of G.L. c. 93A, § 11.

104. Freescale has engaged in unfair or deceptive acts or practices as set forth in detail above.

105. Freescale's unfair or deceptive acts or practices occurred primarily and substantially within the Commonwealth of Massachusetts, constitute unfair or deceptive acts or practices in violation of G.L. c. 93A, § 11, and were intended to cause and are causing harm to EPIC.

106. The actions of Freescale, as set forth above, were willful, knowing, and/or in bad faith.

107. As a direct and proximate result of the unfair and deceptive actions of Freescale, as set forth above, EPIC has suffered damages. In addition, Freescale has been unjustly enriched by its wrongful actions having received the benefit of such contributions without compensation to EPIC and has gained an unfair competitive advantage in the market.



**WHEREFORE**, EPIC prays that this Court grant the following relief:

(A) A judgment that Freescale has infringed or induced infringement of U.S. Patent No. 5,841,193;

(B) An injunction enjoining and restraining Freescale and its officers, directors, agents, servants, employees, attorneys, and all others acting under, by or through them, directly or indirectly, from infringing or inducing infringement of U.S. Patent No. 5,841,193;

(C) An injunction enjoining and restraining Freescale and its officers, directors, agents, servants, employees, attorneys, and all others acting under, by or through them, directly or indirectly, from disclosing or using EPIC confidential information, including EPIC's trade secrets, know-how, improvements and other proprietary information;

(D) A judgment requiring Freescale to pay damages under 35 U.S.C. § 284, including treble damages, with prejudgment interest;

(E) A judgment requiring Freescale to pay the costs of this action and attorneys' fees as provided by 35 U.S.C. § 285, with prejudgment interest;

(F) An accounting of any monetary or other benefits received by Freescale on all activities related to Freescale's reliance on and/or use of EPIC's ChipsFirst technology and confidential information disclosed to Freescale;

(G) Judgment in favor of EPIC on each claim for relief; and

(H) Any and all such additional and further relief as this Court may deem just and equitable.

**JURY DEMAND**

EPIC demands a trial by jury as to all issues in the above matter.

Respectfully submitted,

EPIC Technologies, Inc.,

By their attorneys,

/s/ Michael R. Gottfried

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