

Exhibit B
Plaintiffs' Proposed Constructions and Identification of Evidence for Each Disputed Claim Term, Phrase, or Clause

***TPL v. Fujitsu et al.*, Civil Action No. 2:05-CV-494 (TJW)**

U.S. Patent No. 5,809,336

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
<p>"ring oscillator" (claims 1-5, 9)</p>	<p>an oscillator having a multiple, odd number of inversions arranged in a loop</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 22. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6. • Amendment D, mailed July 3, 1997, at 4-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Behzad Razavi, <u>Design of Analog CMOS Integrated Circuits</u> 484, 491 (2001). • S. K. Enam & Asad A. Abidi, <u>A 300-MHz CMOS Voltage-Controlled Ring Oscillator</u>, 25 IEEE J. of Solid-State Circuits 312 (1990). • Steve Long, <u>ECE145B/218B Communication Electronics Winter 2006 Lecture Notes: Oscillator Notes 3</u> (2004), http://xanadu.ece.ucsb.edu/~long/ece145b/Oscillators3_w04.pdf (last visited January 17, 2007). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "ring oscillator" to mean "an oscillator having a multiple, odd number of inversions arranged in a loop." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory

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	elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
"oscillator" (claims 6-9)	<p>a circuit that is capable of maintaining an alternating output using feedback</p> <p><u>Intrinsic Evidence Support:</u>¹</p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 22. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6. • Amendment D, mailed July 3, 1997, at 4-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 652 (4th ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "oscillator" to mean "a circuit that is capable of maintaining an alternating output using feedback." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors,

¹ Plaintiffs were informed that Defendants agreed to the proposed definition of "oscillator" set forth above. However, Defendants informed Plaintiffs that they disputed the definition of "oscillator" on February 16, 2007, shortly before the parties were to file their Joint Claim Construction and Pre-Hearing Statement. Therefore, the parties agree that Plaintiffs may rely on additional intrinsic and extrinsic evidence not cited herein to support Plaintiffs' construction for "oscillator," provided that such evidence is identified in their opening claim construction brief.

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	<p>clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>“variable speed” (claims 1-5, 10)</p>	<p>capable of operating at speeds that can change</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • <u>The New Webster Encyclopedic Dictionary of the English Language</u> 928 (1971). • <u>Webster's Ninth New Collegiate Dictionary</u> 1304 (1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "variable speed" to mean "capable of operating at speeds that can change." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>“system clock” (claims 1-5)</p> <p>“clock” (claim 10)</p>	<p>a circuit that generates the signal(s) used for timing the operation of the CPU</p> <p><u>Intrinsic Evidence Support:</u></p>

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	<ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 9, ll. 14-19. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 4-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 366 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "system clock" to mean "a circuit that generates the signal(s) used for timing the operation of the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>“an entire ring oscillator variable speed system clock in said single integrated circuit” (claims 1-2)</p>	<p>a ring oscillator that generates the signal(s) used for timing the operation of the CPU, capable of operating at speeds that can change, where the ring oscillator is located entirely on the same semiconductor substrate as the CPU</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7.

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	<ul style="list-style-type: none"> • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • See extrinsic evidence identified for "ring oscillator" and "system clock." • <u>Webster's New World Dictionary of Computer Terms</u> 190 (3d ed. 1988). • Microsoft Press, <u>Computer Dictionary</u> 190 (1991). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "an entire ring oscillator variable speed system clock in said single integrated circuit" to mean "a ring oscillator that generates the signal(s) used for timing the operation of the CPU, capable of operating at speeds that can change, where the ring oscillator is located entirely on the same semiconductor substrate as the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"an entire ring oscillator system clock constructed of electronic devices within the integrated circuit" (claims 3-4)</p>	<p>a ring oscillator that generates the signal(s) used for timing the operation of the CPU, where the ring oscillator is located entirely on the same semiconductor substrate as the microprocessor</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 8, l. 64 – col. 9, l. 13. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7, 9.

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • See extrinsic evidence identified for "ring oscillator" and "system clock." • <u>Webster's New World Dictionary of Computer Terms</u> 190 (3d ed. 1988). • Microsoft Press, <u>Computer Dictionary</u> 190 (1991). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "an entire ring oscillator system clock constructed of electronic devices within the integrated circuit" to mean "a ring oscillator that generates the signal(s) used for timing the operation of the CPU, where the ring oscillator is located entirely on the same semiconductor substrate as the microprocessor." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"an entire oscillator disposed upon said integrated circuit substrate and connected to said central processing unit, said oscillator clocking" (claims 6-9)</p>	<p>an oscillator that generates the signal(s) used for timing the operation of the CPU, where the oscillator is located entirely on the same semiconductor substrate as the CPU and is electrically coupled to the CPU</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5.

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	<ul style="list-style-type: none"> • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • See extrinsic evidence identified for "oscillator." • <u>Webster's New World Dictionary of Computer Terms</u> 190 (3d ed. 1988). • Microsoft Press, <u>Computer Dictionary</u> 190 (1991). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "an entire oscillator disposed upon said integrated circuit substrate and connected to said central processing unit, said oscillator clocking" to mean "an oscillator that generates the signal(s) used for timing the operation of the CPU, where the oscillator is located entirely on the same semiconductor substrate as the CPU and is electrically coupled to the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"an entire variable speed clock disposed upon said integrated circuit substrate" (claim 10)</p>	<p>a circuit that generates the signal(s) used for timing the operation of the CPU, capable of operating at speeds that can change, where the circuit is located entirely on the same semiconductor substrate as the CPU</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4.

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	<p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 366 (4th ed. 1989). • <u>Webster's New World Dictionary of Computer Terms</u> 190 (3d ed. 1988). • Microsoft Press, <u>Computer Dictionary</u> 190 (1991). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "an entire variable speed clock disposed upon said integrated circuit substrate" to mean "a circuit that generates the signal(s) used for timing the operation of the CPU, capable of operating at speeds that can change, where the circuit is located entirely on the same semiconductor substrate as the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"oscillator . . . clocking" (claims 6-9)</p>	<p>Plaintiffs do not believe that the term "oscillator . . . clocking" needs to be construed by the Court. To the extent that the Court determines that the term " oscillator . . . clocking" needs to be construed, it should be construed to mean:</p> <p>the oscillator generates the signal(s) used for timing the operation of the CPU</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4.

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	<p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 366 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "oscillator . . . clocking" to mean "the oscillator generates the signal(s) used for timing the operation of the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>“processing frequency capability” (claims 1-2)</p>	<p>the range of speeds at which the CPU can operate</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "processing frequency capability" to mean "the range of speeds at which the CPU can operate." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors,

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	clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"processing frequency" (claims 3-10)</p>	<p>the speed at which the CPU operates</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, ll. 9-16. • Col. 16, l. 43 – col. 17, l. 46. • Figs. 17-19. • Amendment B, mailed April 11, 1991, at 6-7. • Amendment D, mailed July 3, 1997, at 3-5. • Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "processing frequency" to mean "the speed at which the CPU operates." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"central processing unit" (claims 1-2, 6-10)</p>	<p>an electronic circuit that controls the interpretation and execution of programmed instructions</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 4, ll. 41-45. • Col. 6, ll. 17-63. • Col. 8, ll. 22-24.

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	<ul style="list-style-type: none"> • Col. 8, I. 56 – col. 9, I. 15. • Col. 10, I. 44. • Col. 11, II. 49-54. • Figs. 1-2, 17. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 161-162 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 137 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 318 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 59 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 45 (3d ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "central processing unit" to mean "an electronic circuit that controls the interpretation and execution of programmed instructions." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"microprocessor" (claims 1-10)</p>	<p>an electronic circuit that executes programmed instructions and is capable of interfacing with input/output circuitry and/or memory circuitry</p> <p><u>Intrinsic Evidence Support</u></p> <ul style="list-style-type: none"> • Col. 4, II. 41-45. • Col. 6, II. 17-63.

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	<ul style="list-style-type: none"> Col. 8, ll. 22-24. Col. 8, l. 56 – col. 9, l. 15. Col. 10, l. 44. Col. 11, ll. 49-54. Figs. 1-2, 17. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> See extrinsic evidence identified for "central processing unit." Microsoft Press, <u>Computer Dictionary</u> 228 (1991). <u>Webster's New World Dictionary of Computer Terms</u> 237 (3d ed. 1988). Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "microprocessor" to mean "an electronic circuit that executes programmed instructions and is capable of interfacing with input/output circuitry and/or memory circuitry." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"varying together" (claims 1-2)</p> <p>"vary together" (claim 3-5)</p> <p>"varying . . . in the same way" (claims 6-9)</p> <p>"varying in the same way" (claim 10)</p>	<p>both increase or both decrease</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> Col. 16, l. 43 – col. 17, l. 46. Amendment B, mailed April 11, 1991, at 6-7. Amendment D, mailed July 3, 1997, at 3-5. Amendment E, mailed February 6, 1998, at 3-4. <p><u>Extrinsic Evidence Support:</u></p>

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	<ul style="list-style-type: none"> Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "varying together," "vary together," "varying . . . in the same way," and "varying in the same way" to mean "both increase or both decrease." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"on-chip input/output interface" (claims 1-10)</p>	<p>a circuit having logic to generate coupling control signals and to determine addresses in conjunction with input/output communications, where the circuit is located on the same semiconductor substrate as the CPU [claims 1-2, 6-10] or the microprocessor [claims 3-5]</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> Col. 1, l. 65 – col. 2, l. 17. Col. 2, ll. 30-37. Col. 3, ll. 26-35. Col. 4, l. 44-54 and 57-66. Col. 5, ll. 3-6 and 9-10. Col. 5, l. 66 – col. 6, l. 3. Col. 6, ll. 17-21, 33-35, 40-41, 43-46, and 56-63. Col. 7, ll. 16-35. Col. 7, l. 48 – col. 8, l. 24. Col. 8, ll. 56-58 and 64-66. Col. 10, ll. 55-60. Col. 11, ll. 42-54. Col. 12, ll. 5-20.

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	<ul style="list-style-type: none"> • Col. 12, l. 66 – col. 14, l. 55. • Col. 15, ll. 17-47. • Col. 17, ll. 11-50. • Figs. 2-6, 9-12, 14-15, and 17. • Amendment B, mailed April 11, 1991, at 3, 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 374 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 188 (1991). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 967 (4th ed. 1989). • Rodnay Zaks & Alexander Wolfe, <u>From Chips to Systems: An Introduction to Microcomputers</u> 140, 143, 147-148, 180-187 (2d ed. 1987). • V. Carl Hamacher, Zvonko G. Vranesic & Safwat G. Zaky, <u>Computer Organization</u> 209, 211-215, 233, 238 (3d ed. 1990). • John F. Wakerly, <u>Microcomputer Architecture and Programming: The 68000 Family</u> 356-360, 362-364, 382, 406-408 (1989). • G. W. Gorsline, <u>Computer Organization: Hardware/Software</u> 217-219, 223, 228-230 (2d ed. 1986). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "on-chip input/output interface" to mean "a circuit having logic to generate coupling control signals and to determine addresses in conjunction with input/output communications, where the circuit is located on the same semiconductor substrate as the CPU [claims 1-2, 6-10] or the microprocessor [claims 3-5]." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

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<p>“second clock” (claims 1-5)</p>	<p>a clock not derived from the first clock</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 1, l. 65 – col. 2, l. 5. • Col. 2, ll. 30-37. • Col. 3, ll. 26-35. • Col. 4, ll. 41-43 and 63-67. • Col. 5, ll. 9-16. • Col. 5, l. 66 – col. 6, l. 3. • Col. 6, ll. 17-21 and 43-46. • Col. 8, ll. 1-19, 22-24, 41-45, 56-58, and 64-66. • Col. 9, ll. 14-19. • Col. 11, ll. 42-54. • Col. 12, ll. 5-20. • Col. 12, l. 66 – col. 14, l. 55. • Col. 15, ll. 17-47. • Col. 17, ll. 11-37 and 46-50. • Figs. 1, 11-12, and 17-19. • Amendment B, mailed April 11, 1991, at 9. • Amendment D, mailed July 3, 1997, at 2-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "second clock" to mean "a clock not derived from the first clock." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and

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	microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>“external clock, independent of said oscillator” (claims 6-9)</p> <p>"external clock" (claim 10)</p>	<p>a clock not derived from the first clock, and which is not originated on the same semiconductor substrate upon which the entire oscillator [claims 6-9] or the entire variable speed clock [claim 10] is located</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 1, I. 65 – col. 2, I. 5. • Col. 2, II. 30-37. • Col. 3, II. 26-35. • Col. 4, II. 41-43 and 63-67. • Col. 5, II. 9-16. • Col. 5, I. 66 – col. 6, I. 3. • Col. 6, II. 17-21 and 43-46. • Col. 8, II. 1-19, 22-24, 41-45, 56-58, and 64-66. • Col. 9, II. 14-19. • Col. 11, II. 42-54. • Col. 12, II. 5-20. • Col. 12, I. 66 – col. 14, I. 55. • Col. 15, II. 17-47. • Col. 17, II. 11-37 and 46-50. • Figs. 1, 11-12, and 17-19. • Amendment B, mailed April 11, 1991, at 9. • Amendment D, mailed July 3, 1997, at 2-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<p>regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "external clock, independent of said oscillator" and "external clock" to mean "a clock not derived from the first clock, and which is not originated on the same semiconductor substrate upon which the entire oscillator [claims 6-9] or the entire variable speed clock [claim 10] is located." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>“second clock independent of said ring oscillator . . . system clock” (claims 1-2)</p> <p>“second clock independent of the ring oscillator system clock” (claims 3-5)</p>	<p>a change in the frequency of the ring oscillator does not affect the frequency of the second clock</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 1, l. 65 – col. 2, l. 5. • Col. 2, ll. 30-37. • Col. 3, ll. 26-35. • Col. 4, ll. 41-43 and 63-67. • Col. 5, ll. 9-16. • Col. 5, l. 66 – col. 6, l. 3. • Col. 6, ll. 17-21 and 43-46. • Col. 8, ll. 1-19, 22-24, 41-45, 56-58, and 64-66. • Col. 9, ll. 14-19. • Col. 11, ll. 42-54. • Col. 12, ll. 5-20. • Col. 12, l. 66 – col. 14, l. 55. • Col. 15, ll. 17-47. • Col. 17, ll. 11-37 and 46-50. • Figs. 1, 11-12, and 17-19.

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Amendment B, mailed April 11, 1991, at 9. • Amendment D, mailed July 3, 1997, at 2-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • <u>Webster's Ninth New Collegiate Dictionary</u> 612 (1988). • See extrinsic evidence identified for "ring oscillator." • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "second clock independent of said ring oscillator . . . system clock" and "second clock independent of the ring oscillator system clock" to mean "a change in the frequency of the ring oscillator does not affect the frequency of the second clock." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"external clock is operative at a frequency independent of a clock frequency of said oscillator" (claims 6-10)</p>	<p>a change in the frequency of the oscillator [claims 6-9] or the variable speed clock [claim 10] does not affect the frequency of the external clock</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 1, l. 65 – col. 2, l. 5. • Col. 2, ll. 30-37. • Col. 3, ll. 26-35. • Col. 4, ll. 41-43 and 63-67. • Col. 5, ll. 9-16. • Col. 5, l. 66 – col. 6, l. 3. • Col. 6, ll. 17-21 and 43-46. • Col. 8, ll. 1-19, 22-24, 41-45, 56-58, and 64-66.

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Col. 9, ll. 14-19. • Col. 11, ll. 42-54. • Col. 12, ll. 5-20. • Col. 12, l. 66 – col. 14, l. 55. • Col. 15, ll. 17-47. • Col. 17, ll. 11-37 and 46-50. • Figs. 1, 11-12, and 17-19. • Amendment B, mailed April 11, 1991, at 9. • Amendment D, mailed July 3, 1997, at 2-4. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • See extrinsic evidence identified for "oscillator." • <u>Webster's Ninth New Collegiate Dictionary</u> 612 (1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "external clock is operative at a frequency independent of a clock frequency of said oscillator" to mean "a change in the frequency of the oscillator [claims 6-9] or the variable speed clock [claim 10] does not affect the frequency of the external clock." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"fixed frequency" (claims 2, 4, 8)</p>	<p>Plaintiffs do not believe that the term "fixed frequency" needs to be construed by the Court. To the extent that the Court determines that the term "fixed frequency" needs to be construed, it should be construed to mean:</p> <p>a non-variable frequency</p>

Claim Language	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<p data-bbox="605 291 927 317"><u>Intrinsic Evidence Support:</u></p> <ul data-bbox="605 348 1219 632" style="list-style-type: none"> <li data-bbox="605 348 829 373">• Col. 5, ll. 9-16. <li data-bbox="605 411 987 436">• Col. 16, l. 43 – col. 17, l. 37. <li data-bbox="605 474 797 499">• Figs. 17-19. <li data-bbox="605 537 1162 562">• Amendment D, mailed July 3, 1997, at 3-5. <li data-bbox="605 600 1219 625">• Amendment E, mailed February 6, 1998, at 3-4. <p data-bbox="605 663 935 688"><u>Extrinsic Evidence Support:</u></p> <ul data-bbox="605 726 1425 1115" style="list-style-type: none"> <li data-bbox="605 726 1425 1115">• Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '336 patent, the level of ordinary skill in the art pertaining to the '336 patent, and a showing that one of ordinary skill in the art would construe "fixed frequency" to mean "a non-variable frequency." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

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Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
<p>"processing unit" (claims 4, 7, 8, 10)</p>	<p>an electronic circuit that controls the interpretation and execution of programmed instructions</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 24-29. • Col. 4, ll. 1-47. • Col. 6, ll. 7-9 and 41-67. • Col 8, l. 29. • Col. 9, l. 36-41. • Figs. 1-2, 17. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 161-162 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 137 (4th ed. 1988). • Microsoft Press, <u>Computer Dictionary</u> 59 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 45 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 318 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "processing unit" to mean "an electronic circuit that controls the interpretation and execution of programmed instructions." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
<p>"memory" (claims 4, 7, 8, 10)</p>	<p>all of the storage elements on the substrate and the control circuitry configured to access the storage elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 11-16 and 27-60. • Col. 3, ll. 1-6. • Col. 3, l. 48 - col. 4, l. 61. • Col. 5, l. 1 - col. 7, l. 16. • Col. 7, ll. 34-44. • Col. 7, l. 60 - col. 10, l. 15. • Col. 10, l. 54 - col. 13, l. 57. • Col. 14, l. 1 - col. 14, l. 25. • Col. 15, ll. 10-30. • Col. 15, l. 55 - col. 16, l. 36. • Col. 16, ll. 43-58. • Col. 17, ll. 1-41. • Col. 18, ll. 24-32. • Col. 18 l. 40 - col. 19, l. 27. • Col. 19, ll. 45-67. • Col. 22, ll. 11-39. • Col. 25, l. 51 - col. 28, l. 60. • Col. 30, ll. 54-65. • Figs. 2-16, 20-23. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Microsoft Press, <u>Computer Dictionary</u> 225 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 194, 225, 231 (3d ed. 1988).

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 1171 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "memory" to mean "all of the storage elements on the substrate and the control circuitry configured to access the storage elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"a memory" (claims 4, 7, 8, 10)</p>	<p>Plaintiffs do not believe that the term "a memory" needs to be construed by the Court. To the extent that the Court determines to construe "a memory," it should be construed to mean:</p> <p>all of the storage elements on the substrate and the control circuitry configured to access the storage elements</p> <p><u>Intrinsic Evidence Support</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 11-16 and 27-60. • Col. 3, ll. 1-6. • Col. 3, l. 48 - col. 4, l. 61. • Col. 5, l. 1 - col. 7, l. 16. • Col. 7, ll. 34-44. • Col. 7, l. 60 - col. 10, l. 15. • Col. 10, l. 54 - col. 13, l. 57. • Col. 14, l. 1 - col. 14, l. 25. • Col. 15, ll. 10-30. • Col. 15, l. 55 - col. 16, l. 36.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<ul style="list-style-type: none"> • Col. 16, ll. 43-58. • Col. 17, ll. 1-41. • Col. 18, ll. 24-32. • Col. 18 l. 40 - col. 19, l. 27. • Col. 19, ll. 45-67. • Col. 22, ll. 11-39. • Col. 25, l. 51 - col. 28, l. 60. • Col. 30, ll. 54-65. • Figs. 2-16, 20-23. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Microsoft Press, <u>Computer Dictionary</u> 225 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 194, 225, 231 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 1171 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "a memory" to mean "all of the storage elements on the substrate and the control circuitry configured to access the storage elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>“total area of said single substrate” (claim 4, 7)</p>	<p>the total surface of the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<ul style="list-style-type: none"> Col. 6, l. 41 - col. 11, l. 16. Fig. 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 101 (1988). <u>Webster's Third New International Dictionary of the English Language Unabridged</u> 115 (1993). Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d ed. 1988). McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "total area of said single substrate" to mean "the total surface of the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"total area of said substrate" (claim 8, 10)</p>	<p>the total surface of the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> Col. 2, ll. 41-43. Col. 6, l. 41 - col. 11, l. 16. Fig. 9. <p><u>Extrinsic Evidence Support:</u></p>

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<ul style="list-style-type: none"> • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 101 (1988). • <u>Webster's Third New International Dictionary of the English Language Unabridged</u> 115 (1993). • Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "total area of said substrate" to mean "the total surface of the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"area of said single substrate" (claims 4, 7)</p>	<p>the surface of the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43. • Col. 6, l. 41 - col. 11, l. 16. • Fig. 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 101 (1988). • <u>Webster's Third New International Dictionary of the English Language Unabridged</u> 115 (1993). • Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p>ed. 1988).</p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "area of said single substrate" to mean "the surface of the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"area of said substrate" (claims 8, 10)</p>	<p>the surface of the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43. • Col. 6, l. 41 - col. 11, l. 16. • Fig. 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 101 (1988). • <u>Webster's Third New International Dictionary of the English Language Unabridged</u> 115 (1993). • Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p>regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "area of said substrate" to mean "the surface of the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>"area of said integrated circuit substrate" (claims 4, 7)</p>	<p>the surface of the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43. • Col. 6, l. 41 - col. 11, l. 16. • Fig. 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 101 (1988). • <u>Webster's Third New International Dictionary of the English Language Unabridged</u> 115 (1993). • Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "area of said integrated circuit substrate" to mean "the surface of the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits,

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p>fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>"integrated circuit substrate" (claims 4, 7, 8, 10)</p>	<p>Plaintiffs do not believe that the term "integrated circuit substrate" needs to be construed by the Court. To the extent that the Court determines to construe "integrated circuit substrate," it should be construed to mean:</p> <p>the supporting material upon or within which is formed an interconnected array of circuit elements</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43. • Col. 6, l. 49 - col. 7, l. 16. • Col. 7, ll. 34-67. • Col. 8, l. 48 - col. 9, l. 58. • Col. 10, l. 54-59. • Col. 14, l. 42-60. • Col. 15, ll. 21-33. • Fig. 9. • Amendment B, mailed April 29, 2002, at 6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Microsoft Press, <u>Computer Dictionary</u> 190, 332 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 190, 366 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 973, 1850 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p>patent, and a showing that one of ordinary skill in the art would construe "integrated circuit substrate" to mean "the supporting material upon or within which is formed an interconnected array of circuit elements." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>"variable" (claims 4, 7, 8, 10)</p>	<p>capable of changing</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 61-67. • Col. 14, l. 26 - col. 15, l. 29. • Figs. 17-19. • Amendment B, mailed April 29, 2002, at 6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • <u>The New Webster Encyclopedic Dictionary of the English Language</u> 928 (1971). • <u>Webster's Ninth New Collegiate Dictionary</u> 1304 (1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "variable" to mean "capable of changing." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
<p>"system clock" (claims 4, 7, 8, 10)</p>	<p>a circuit that generates the signal(s) used for timing the operation of the CPU</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 61-67. • Col. 6, l. 66 - col. 7, l. 4. • Col. 14, l. 26 -- col. 15, l. 29. • Figs. 17-19. • Amendment B, mailed April 29, 2002, at 6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 366 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "system clock" to mean "a circuit that generates the signal(s) used for timing the operation of the CPU." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"ring oscillator" (claims 4, 7, 8, 10)</p>	<p>an oscillator having a multiple, odd number of inversions arranged in a loop</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 61-67. • Col. 14, ll. 26 - col. 15, l. 5. • Figs. 17-19. • Amendment B, mailed April 29, 2002, at 6.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> Behzad Razavi, <u>Design of Analog CMOS Integrated Circuits</u> 484, 491 (2001). S. K. Enam & Asad A. Abidi, <u>A 300-MHz CMOS Voltage-Controlled Ring Oscillator</u>, 25 IEEE J. of Solid-State Circuits 312 (1990). Steve Long, <u>ECE145B/218B Communication Electronics Winter 2006 Lecture Notes: Oscillator Notes 3</u> (2004), http://xanadu.ece.ucsb.edu/~long/ece145b/Oscillators3_w04.pdf (last visited January 17, 2007). The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 652 (4th ed. 1988). <p>Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "ring oscillator" to mean "an oscillator having a multiple, odd number of inversions arranged in a loop." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.</p>
<p>"a ring oscillator having a variable output frequency" (claims 4, 7, 8, 10)</p>	<p>Plaintiffs do not believe that the term "a ring oscillator having a variable output frequency" needs to be construed by the Court. To the extent that the Court determines to construe "a ring oscillator having a variable output frequency," it should be construed to mean:</p> <p>a circuit having a multiple, odd number of inversions arranged in a loop that generates an output having a frequency that can change</p> <p><u>Intrinsic Evidence Support</u></p> <ul style="list-style-type: none"> Col. 2, ll. 61-67. Col. 14, l. 26 - col. 15, l. 29. Figs. 17-19.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<ul style="list-style-type: none"> • Amendment B, mailed April 29, 2002, at 6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Behzad Razavi, <u>Design of Analog CMOS Integrated Circuits</u> 484, 491 (2001). • S. K. Enam & Asad A. Abidi, <u>A 300-MHz CMOS Voltage-Controlled Ring Oscillator</u>, 25 IEEE J. of Solid-State Circuits 312 (1990). • Professor Steve Long, <u>ECE145B/218B Communication Electronics Winter 2006 Lecture Notes: Oscillator Notes 3</u> (2004), http://xanadu.ece.ucsb.edu/~long/ece145b/Oscillators3_w04.pdf (last visited January 17, 2007). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 652 (4th ed. 1988). • <u>The New Webster Encyclopedic Dictionary of the English Language</u> 928 (1971). • <u>Webster's Ninth New Collegiate Dictionary</u> 1304 (1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "a ring oscillator having a variable output frequency" to mean "a circuit having a multiple, odd number of inversions arranged in a loop that generates an output having a frequency that can change." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.
<p>"the [ring oscillator] disposed on said integrated circuit substrate" (claims 4, 7)</p> <p>"the [ring oscillator] disposed on said substrate" (claims 8, 10)</p>	<p>Plaintiffs do not believe that the terms "the [ring oscillator] disposed on said integrated circuit substrate" or "the [ring oscillator] disposed on said substrate" needs to be construed by the Court. To the extent that the Court determines to construe these terms, they should be construed to mean:</p> <p>a circuit having a multiple, odd number of inversions arranged in a loop, where the circuit is located on the integrated circuit substrate</p>

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
	<p>[claims 4, 7] or the single substrate [claims 8, 10]</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 61-67. • Col. 14, l. 26 - col. 15, l. 29. • Figs. 17-19. • Amendment B, mailed April 29, 2002, at 6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Behzad Razavi, <u>Design of Analog CMOS Integrated Circuits</u> 484, 491 (2001). • S. K. Enam & Asad A. Abidi, <u>A 300-MHz CMOS Voltage-Controlled Ring Oscillator</u>, 25 IEEE J. of Solid-State Circuits 312 (1990). • Professor Steve Long, <u>ECE145B/218B Communication Electronics Winter 2006 Lecture Notes: Oscillator Notes 3</u> (2004), http://xanadu.ece.ucsb.edu/~long/ece145b/Oscillators3_w04.pdf (last visited January 17, 2007). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 652 (4th ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "the [ring oscillator] disposed on said integrated circuit substrate" and "the [ring oscillator] disposed on said substrate" to mean "a circuit having a multiple, odd number of inversions arranged in a loop, where the circuit is located on the integrated circuit substrate [claims 4, 7] or the single substrate [claims 8, 10]." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

Claim Language	Plaintiffs' Proposed Claim Construction and Extrinsic Evidence
<p>"interface ports for interprocessor communication" (claims 8, 10)</p>	<p>Plaintiffs do not believe that the term "interface ports for interprocessor communication" needs to be construed by the Court. To the extent that the Court determines to construe "interface ports for interprocessor communication," it should be construed to mean:</p> <p>channels through which data can be transferred between two separate processing units</p> <p><u>Intrinsic Evidence Support</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 41-43. • Col. 7, l. 5-44. • Col. 9, l. 50 - col. 10, l. 15. • Col. 10, l. 54 - col. 11, l. 16. • Fig. 9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Microsoft Press, <u>Computer Dictionary</u> 188, 192, 272 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 187, 193, 196, 288 (3d ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 977, 1468 (4th ed. 1989). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '148 patent, the level of ordinary skill in the art pertaining to the '148 patent, and a showing that one of ordinary skill in the art would construe "interface ports for interprocessor communication" to mean "channels through which data can be transferred between two separate processing units." The substance of such testimony may include information on integrated circuits, fabrication of integrated circuits, CPUs and microprocessors, clocking mechanisms for CPUs and microprocessors, memory elements and devices, inter- and intra-processor communications, I/O communications and interfaces, and clocking mechanisms for I/O communications and interfaces.

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Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
"microprocessor"	<i>This term should be construed identically to its construction in U.S. Patent No. 5,809,336 (q.v.).</i>
"central processing unit"	<p>an electronic circuit that controls the interpretation and execution of programmed instructions</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 63-67. • Col. 4, ll. 40–col. 5, l. 19. • Col. 5, ll. 12-14. • Col. 6, ll. 46-48. • Col. 7, ll. 13–col. 7, l. 39. • col. 9, l. 1. • Col. 10, ll. 6-11. • Figs. 1-2, 17. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 161-162 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 137 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 318 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 59 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 45 (3d ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe "central processing unit" to mean "an electronic circuit that controls the interpretation and execution of programmed instructions." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
"instruction register"	<p>the register that temporarily stores the instruction group whose instructions are currently being decoded by the control unit of the computer</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 25-40. • Col. 4, l. 51–col. 5, l. 2 and Fig. 2. • Col. 5, l. 60–col. 6, l. 24 and Fig. 4. • Col. 9, ll. 51-59. • Col. 16, ll. 6-23 and Fig. 20. • Col. 19, ll. 37-59. • Amendment C, mailed April 8, 1996, at 8, 13. • Amendment D, mailed June 12, 1997, at 7, 8, 10. • Amendment E, mailed November 21, 1997, at 6-7. • Supplemental Amendment F, mailed February 5, 1998, at 5-6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 970 (4th ed. 1989). • <u>Webster's New World Dictionary of Computer Terms</u> 189 (3d ed. 1988). • Rodney Zaks & Alexander Wolfe, <u>From Chips to Systems: An Introduction to Microcomputers</u> 65-67 (2d ed. 1987). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe "instruction register" to mean "the register that temporarily stores the instruction group whose instructions are currently being decoded by the control unit of the computer." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.
"instruction groups"	<p>sets of from 1 to a maximum number of sequential instructions, each set being provided to the instruction register as a unit and having a boundary</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 9-17, 28-34, 44-50.

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Col. 7, ll. 13-15. • Col. 14, ll. 19-24 and Fig. 16. • Col. 19, ll. 12-59. • Col. 23, ll. 3-14. • Col. 24, ll. 1-16. • Col. 25, l. 65–col. 26, l.1. • Amendment C, mailed April 8, 1996, at 8, 10, 13. • Amendment D, mailed June 12, 1997, at 7-10. • Amendment E, mailed November 21, 1997, at 6-7. • Supplemental Amendment F, mailed February 5, 1998, at 5-6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe "instruction group" to mean "sets of from 1 to a maximum number of sequential instructions, each set being provided to the instruction register as a unit and having a boundary." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.
"operand"	<p>an input to an operation specified by an instruction that is encoded as part of the instruction</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 2, ll. 20-24 and 37-40. • Col. 10, ll. 53-56. • Col. 11, ll. 6-23. • Col. 16, ll. 8-18 and Fig. 20. • Col. 20, l. 54–col. 21, l. 28. • Col. 26, ll. 12-16. • Col. 26, l. 66–col. 27, l. 14. • Col. 28, l. 61–col. 29, l. 24.

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Col. 29, ll. 26-31. • Amendment C, mailed April 8, 1996, at 8, 11-13. • Amendment D, mailed June 12, 1997, at 7, 8, 12-13. • Amendment E, mailed November 21, 1997, at 6-9. • Supplemental Amendment F, mailed February 5, 1998, at 5-6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 496 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 643 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 1322 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 246 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 262 (3d ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe "operand" to mean "an input to an operation specified by an instruction that is encoded as part of the instruction." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.
<p>"said instruction groups include at least one instruction that, when executed, causes an access to an operand or instruction or both"</p>	<p>the instruction being executed causes the CPU to use an immediate operand or execute a second instruction which is not the next sequential instruction</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 10, l. 53–col. 11, l. 5. • Col. 11, ll. 6-22. • Col. 14, ll. 3-29, 40-64 and Figs. 2, 16. • Col. 16, ll. 11-24 and Fig. 20. • Col. 20, ll. 25-37. • Col. 20, l. 40–col. 22, l. 40. • Col. 23, ll. 3-14.

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Col. 24, ll. 1-38. • Col. 26, l. 66–col. 27, l. 14. • Col. 28, l. 62–col. 29, l. 24. • Amendment C, mailed April 8, 1996, at 8, 13. • Amendment D, mailed June 12, 1997, at 7-10, 12-13. • Amendment E, mailed November 21, 1997, at 6-10. • Supplemental Amendment F, mailed February 5, 1998, at 5-6. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 496 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 643 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 1322 (4th ed. 1989). • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 1342 (1988). • Microsoft Press, <u>Computer Dictionary</u> 246 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 262 (3d ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe the clause "said instruction groups include at least one instruction that, when executed, causes an access to an operand or instruction or both" as "the instruction being executed causes the CPU to use an immediate operand or execute a second instruction which is not the next sequential instruction." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.
<p>"said operand or instruction being located at a predetermined position from a boundary of said instruction groups"</p>	<p>the immediate operand or the instruction that is accessed has a position, relative to the beginning or end of the instruction group that includes the operand or instruction being accessed, that is determined based on a portion of an accessing instruction that identifies an operation to be performed and without reference to operand or address bits in the accessing instruction</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 10, l. 53–col. 11, l. 5.

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<ul style="list-style-type: none"> • Col. 11, ll. 6-22. • Col. 14, ll. 3-29, 41-57 and Figs. 2, 16. • Col. 16, ll. 13-22 and Fig. 20. • Col. 20, ll. 35-36. • Col. 21, ll. 31-48. • Col. 26, l. 66–col. 27, l. 14. • Amendment C, mailed April 8, 1996, at 8, 13. • Amendment D, mailed June 12, 1997, at 7-10, 12-13. • Amendment E, mailed November 21, 1997, at 6-10. • Supplemental Amendment F, mailed February 5, 1998, at 5-8. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 364, 496 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 477, 643 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 970, 1322 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 189, 246 (1991). • <u>Webster's New World Dictionary of Computer Terms</u> 189, 262 (3d ed. 1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe the phrase "said operand or instruction being located at a predetermined position from a boundary of said instruction groups" to mean "the immediate operand or the instruction that is accessed has a position, relative to the beginning or end of the instruction group that includes the operand or instruction being accessed, that is determined based on a portion of an accessing instruction that identifies an operation to be performed and without reference to operand or address bits in the accessing instruction." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.

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<p>"decoding said at least one instruction to determine said predetermined position"</p>	<p>interpreting an instruction, in particular the portion thereof that signifies the operation to be performed, in order to identify a position relative to the beginning or end of the instruction group that includes the operand or instruction being accessed, without reference to operand or address bits in the instruction being interpreted</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 5, l. 65–col. 6, l. 4 and Fig. 4. • Col. 16, ll. 19-24 and Fig. 20. • Col. 18, ll. 54-65. • Col. 19, ll. 37-59. • Col. 21, ll. 16-21. • Col. 25, ll. 26-34. • Col. 29, ll. 1-20. • Amendment C, mailed April 8, 1996, at 8, 13. • Amendment D, mailed June 12, 1997, at 7. • Amendment E, mailed November 21, 1997, at 6-7. • Supplemental Amendment F, mailed February 5, 1998, at 5-8. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Alan Freedman, <u>The Computer Glossary</u> 364 (4th ed. 1989). • The Institute of Electrical and Electronics Engineers, <u>IEEE Standard Dictionary of Electrical and Electronics Terms</u> 477 (4th ed. 1988). • McGraw-Hill, <u>Dictionary of Scientific and Technical Terms</u> 970 (4th ed. 1989). • Microsoft Press, <u>Computer Dictionary</u> 189 (1991). • Webster's New World Dictionary of Computer Terms 189 (3d ed. 1988). • Rodney Zaks & Alexander Wolfe, <u>From Chips to Systems: An Introduction to Microcomputers</u> 65-67 (2d ed. 1987). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe the phrase "decoding said at least one instruction to determine said predetermined position" to mean "interpreting an instruction, in particular the portion thereof that signifies the operation to be performed, in order to identify a position relative to the beginning or end of the instruction group that includes the operand or instruction being accessed, without reference to operand or address bits in the instruction being interpreted." The

Claim Language (claim 29)	Plaintiffs' Proposed Claim Construction and Supporting Evidence
	<p>substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.</p>
<p>"locating said predetermined position"</p>	<p>establishing operand or instruction supply within the instruction group that includes the operand or instruction being accessed at the predetermined position</p> <p><u>Intrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Col. 11, ll. 6-15. • Col. 14, ll. 24-29, 51-57 and Figs. 2, 16. • Col. 16, ll. 13-24 and Fig. 20. • Col. 21, ll. 16-21, 37-49. • Col. 26, ll. 12-18. • Col. 26, l. 66-col. 27, l. 14. • Amendment C, mailed April 8, 1996, at 8, 13. • Amendment D, mailed June 12, 1997, at 7-9. • Amendment E, mailed November 21, 1997, at 6. • Supplemental Amendment F, mailed February 5, 1998, at 5-9. <p><u>Extrinsic Evidence Support:</u></p> <ul style="list-style-type: none"> • Merriam-Webster, <u>Ninth New Collegiate Dictionary</u> 701 (1988). • Plaintiffs may submit expert witness testimony in the form of an expert declaration of Professor Vernon Thomas Rhyne (Ret.), Professor Emeritus Alvin M. Despain, and/or Charles H. Moore regarding the background of the technology described in the '584 patent, the level of ordinary skill in the art pertaining to the '584 patent, and a showing that one of ordinary skill in the art would construe the phrase "locating said predetermined position" to mean "establishing operand or instruction supply within the instruction group that includes the operand or instruction being accessed at the predetermined position." The substance of such testimony may include information on CPUs and microprocessors, instruction sets, instructions and operands, and supplying of instructions to CPUs including fetching of instructions, instruction registers, decoding of instructions, and execution of instructions.