1 2 3 4 5 6 7 8	MATTHEW D. POWERS (Bar No. 104795) EDWARD R. REINES (Bar No. 104795) BAO NGUYEN (Bar No. 198023) JOELLE LUEDTKE (Bar No. 219198) MATTHEW SARBORARIA (Bar No. 211600) DAVID POLLOCK (BAR No. 217546) WEIL, GOTSHAL & MANGES LLP Silicon Valley Office 201 Redwood Shores Parkway Redwood Shores, CA 94065 Telephone: (650) 802-3000 Facsimile: (650) 802-3100 Attorneys for Plaintiff BROADCOM CORPORATION	
10	UNITED STATES D	ISTRICT COURT
11	NORTHERN DISTRIC	T OF CALIFORNIA
12	BROADCOM CORPORATION,	Case No. C 03-02197 CRB
13 14	Plaintiff, v.	FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT AND FOR DECLARATORY JUDGMENT OF
15	AGERE SYSTEMS, INC.,	PATENT INVALIDITY AND NON- INFRINGEMENT
16	Defendant.	DEMAND FOR JURY TRIAL
17		
18	Plaintiff Broadcom Corporation ('Broadcom"), for its first amended complaint
19	against Agere Systems, Inc. ("Agere") states as fol	llows:
20	INTRODU	CTION
21	1. This is an action for infring	gement by Agere of certain Broadcom patents
22	and for a declaratory judgment that Broadcom	does not infringe any valid claims of certain
23	patents allegedly owned by Agere. This action for	arther seeks a declaration that the claims of the
24	asserted Agere patents are invalid.	
25	THE PAI	
26		poration organized under the laws of the State
27	of California with regular and established places	·
28	California, 94086 and 3151 Zanker Road, San Jose	e California, 95134.
	AMENDED COMPLAINT FOR PATENT INFRINGEMENT	

1	3. Upon information and belief, defendant Agere is a corporation organized
2	under the laws of the State of Delaware with a regular and established place of business at 4995
3	Patrick Henry Drive, Santa Clara California, 95054.
4	JURISDICTION AND VENUE
5	4. Upon information and belief, Agere has sufficient contacts with this
6	District to subject it to the personal jurisdiction of this Court for this Complaint. Broadcom is
7	informed and believes and thereupon alleges that Agere has committed infringing acts in this
8	District. Broadcom also maintains business offices in this District from which it regularly and
9	systematically conducts its business.
10	5. This is an action for patent infringement arising under the laws of the
11	United States including 35 U.S.C. Sections 271 and 281.
12	6. This is also an action for declaratory judgment that the claims of certain
13	Agere patents are invalid and not infringed. This action is thus further brought under the patent
14	laws of the United States, 35 U.S.C. §§ 101 et seq. and the Federal Declaratory Judgment Act, 28
15	U.S.C. §§ 2201 et seq. Specifically, Agere explicitly asserted that Broadcom infringed U.S.
16	Patent Nos. 5,396,195, 5,512,817, 4,477,782, 5,828,696, 5,983,254, 5,056,117, and 4,990,802 and
17	threatened to sue Broadcom for that alleged infringement. Based on this, Broadcom has a
18	reasonable apprehension of imminent suit for patent infringement based on these patents.
19	7. This Court has subject matter jurisdiction over this Complaint, which arises
20	under the patent laws of the United States, pursuant to 28 U.S.C. §§ 1331 and 1338(a).
21	8. Venue in this District is proper under 28 U.S.C. Sections 1391(b) and
22	1400(b) because Agere is a corporation subject to personal jurisdiction in this District, because
23	Agere has committed acts of infringement in this District, and because Agere maintains business
24	offices in this District from which it regularly and systematically conducts its business.
25	FIRST CLAIM FOR RELIEF – AGERE'S INFRINGEMENT OF BROADCOM'S '771
26	<u>PATENT</u>
27	9. Broadcom is the owner of all right, title and interest in United States Patent
28	No. 5,940,771, duly and legally issued on August 17, 1999 (attached hereto as Exhibit A).

systems. Agere manufactures and sells semiconductor devices and/or systems in competition

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with Broadcom.

The '771 patent relates to apparatus in semiconductor devices and/or

Agere has been for a time past and is currently infringing the '771 patent in

5	violation of 35 U.S.C. § 271 directly, contributorily, and by inducement by, without limitation,
6	making, using, marketing, selling, and offering for sale semiconductor devices and/or systems
7	which are covered by the '771 patent.
8	12. Agere has had actual and constructive knowledge of the '771 patent, and
9	Agere's infringement of the '771 patent has been and is willful, and will continue unless enjoined
10	by this Court. Pursuant to 35 U.S.C. § 284, Broadcom is entitled to damages for infringement
11	and treble damages.
12	13. Pursuant to 35 U.S.C. § 283, Broadcom is entitled to a permanent
13	injunction against further infringement.
14	SECOND CLAIM FOR RELIEF – AGERE'S INFRINGEMENT OF BROADCOM'S '366
15	<u>PATENT</u>
16	14. Broadcom is the owner of all right, title and interest in United States Patent
17	No. 5,740,366, duly and legally issued on April 14, 1998 (attached hereto as Exhibit B).
18	15. The '366 patent relates to apparatus in semiconductor devices and/or
19	systems. Agere manufactures and sells semiconductor devices and/or systems in competition
20	with Broadcom.
21	16. Agere has been for a time past and is currently infringing the '366 patent in
22	violation of 35 U.S.C. § 271 directly, contributorily, and by inducement by, without limitation,
23	making, using, marketing, selling, and offering for sale semiconductor devices and/or systems
24	which are covered by the '366 patent.
25	17. Agere has had actual and constructive knowledge of the '366 patent, and
26	Agere's infringement of the '366 patent has been and is willful, and will continue unless enjoined
27	by this Court. Pursuant to 35 U.S.C. § 284, Broadcom is entitled to damages for infringement
28	and treble damages.
	AMENDED COMPLAINT FOR PATENT INFRINGEMENT AND FOR DECLARATORY JUDGMENT OF PATENT CASE NO. C 03-02197 CRB

1	18. Pursuant to 35 U.S.C. § 283, Broadcom is entitled to a permanent
2	injunction against further infringement.
3	THIRD CLAIM FOR RELIEF – AGERE'S INFRINGEMENT OF BROADCOM'S '194
4	<u>PATENT</u>
5	19. Broadcom is the owner of all right, title and interest in United States Patent
6	No. 6,424,194 duly and legally issued on July 23, 2002 (attached hereto as Exhibit C).
7	20. The '194 Patent relates to methods and apparatus in semiconductor
8	devices. Agere manufactures and sells semiconductor devices in competition with Broadcom.
9	21. Agere has been for a time past and is currently infringing the '194 patent in
10	violation of 35 U.S.C. § 271 directly, contributorily, and by inducement by, without limitation,
11	making, using, marketing, selling, and offering for sale semiconductor devices which are covered
12	by the '194 patent.
13	22. Agere has had actual and constructive knowledge of the '194 patent, and
14	Agere's infringement of the '194 patent has been and is willful, and will continue unless enjoined
15	by this Court. Pursuant to 35 U.S.C. §284, Broadcom is entitled to damages for infringement
16	and treble damages.
17	23. Pursuant to 35 U.S.C. § 283, Broadcom is entitled to a permanent
18	injunction against further infringement.
19	FOURTH CLAIM FOR RELIEF – AGERE'S INFRINGEMENT OF BROADCOM'S '705
20	<u>PATENT</u>
21	24. Broadcom is the owner of all right, title and interest in United States Patent
22	No. 6,014,705, duly and legally issued on January 11, 2000 (attached hereto as Exhibit D).
23	25. The '705 patent relates to methods in semiconductor devices and/or
24	systems. Agere manufactures and sells semiconductor devices and/or systems in competition
25	with Broadcom.
26	26. Agere has been for a time past and is currently infringing the '705 patent in
27	violation of 35 U.S.C. § 271 directly, contributorily, and by inducement by, without limitation,
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	AMENDED COMPLANTE FOR PATTENT NUERBUCENTINE

making, using, marketing, selling, and offering for sale semiconductor devices and/or systems

Agere has had actual and constructive knowledge of the '705 patent, and

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which are covered by the '705 patent.

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and in U.S. Patent No. 4,633,195. The withholding of this material prior art with the intent to deceive the U.S. Patent and Trademark Office constitutes inequitable conduct.

34. The continued assertion of the '195 patent against Broadcom, despite the non-infringement, invalidity and unenforceability of the claims of the '195 patent, makes this an exceptional case under 35 U.S.C. § 285.

SIXTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT, INVALIDITY AND UNENFORCEABILITY OF AGERE'S '817 PATENT

- 35. Agere claims it is the owner of all right and title and interest in United States Patent No. 5,512,817 entitled "Bandgap Voltage Reference Generator," issued on April 30, 1996 (attached hereto as Exhibit F).
- 36. An actual controversy exists between Broadcom and Agere as to whether the '817 patent is invalid, unenforceable, and not infringed by Broadcom.
- 37. Broadcom has not infringed, induced infringement of, or contributed to the infringement of, any valid claim of the '817 patent.
- 38. The claims of the '817 patent are invalid for failure to comply with the conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and 112.
- 39. The '817 patent is unenforceable due to inequitable conduct. On information and belief, the named inventor, Krishnaswamy Nagaraj, and/or others substantively involved in the prosecution of the application leading to the '817 patent, were aware of information material to the patentability of the claims of the '817 patent, but withheld that information from the U.S. Patent and Trademark Office with the intent to deceive the U.S. Patent and Trademark Office. The concealed material information includes Gray and Meyer, *Analysis and Design of Analog Integrated Circuits*, 1st Ed. (1977), 2d Ed. (1984) and 3d Ed. (1993) (in particular, chapters A4.3.2 and 8.7); U.S. Pat. No. 4,249,122; U.S. Pat. No. 4,588,941; Widlar, "New Developments in IC Voltage Regulators," *IEEE J. Solid-State Circuits*, Feb. 1971; and Kuijk, "A Precision Reference Voltage Source," *IEEE J. Solid-State Circuits*, Jun. 1973. The

withholding of this material prior art with the intent to deceive the U.S. Patent and Trademark Office constitutes inequitable conduct.

40. The continued assertion of the '817 patent against Broadcom, despite the non-infringement, invalidity and unenforceability of the claims of the '817 patent, makes this an exceptional case under 35 U.S.C. § 285.

SEVENTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT, INVALIDITY AND UNENFORCEABILITY OF AGERE'S '782 PATENT

- 41. Agere claims it is the owner of all right and title and interest in United States Patent No. 4,477,782 entitled "Compound Current Mirror," issued on October 16, 1984 (attached hereto as Exhibit G).
- 42. An actual controversy exists between Broadcom and Agere as to whether the '782 patent is invalid, unenforceable, and not infringed by Broadcom.
- 43. Broadcom has not infringed, induced infringement of, or contributed to the infringement of, any valid claim of the '782 patent.
- 44. The claims of the '782 patent are invalid for failure to comply with the conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and 112.
- 45. The '782 patent is unenforceable due to inequitable conduct. On information and belief, the named inventor, Eric J. Swanson, and/or others substantively involved in the prosecution of the applications leading to the '782 patent were aware of information material to the patentability of the claims of the '782 patent, but withheld that information from the U.S. Patent and Trademark Office with the intent to deceive the U.S. Patent and Trademark Office. The concealed material information includes prior art current mirror circuits, including the so-called Gray-Meyer cascode, as taught in Paul R. Gray and Robert G. Meyer, *Analysis And Design Of Analog Integrated Circuits*, 1st Ed. (1977) and 2d Ed. (1984), and further described for example in U.S. Patent No. 4,550,284 (Figure 2 and related text), in Choi et al., *Switched-Capacitor Filters for Communications Application*, IEEE J. Solid-State Circuits, Dec. 1983 (Figure 16 and related text), and in Castello and Gray, *A High-Performance Micropower*

Switched-Capacitor Filter, IEEE J. Solid State Circuits, Dec. 1985 (Figure 7 and related text).

2	The withholding of this material prior art with the intent to deceive the U.S. Patent and
3	Trademark Office constitutes inequitable conduct.
4	46. The continued assertion of the '782 patent against Broadcom, despite the
5	non-infringement, invalidity, and unenforceability of the claims of the '782 patent, makes this an
6	exceptional case under 35 U.S.C. § 285.
7	EIGHTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT, INVALIDITY AND UNENFORCEABILITY OF AGERE'S '696 PATENT
8	INVALIDITY AND CHENT ORCEADILITY OF MICERE 5 COUNTERN
9	47. Agere claims it is the owner of all right and title and interest in United
10	States Patent No. 5,828,696 entitled "Timing Recovery In A Network-Synchronized Modem,"
11	issued on October 27, 1998 (attached hereto as Exhibit H).
12	48. An actual controversy exists between Broadcom and Agere as to whether
13	the '696 patent is invalid, unenforceable, and not infringed by Broadcom.
14	49. Broadcom has not infringed, induced infringement of, or contributed to the
15	infringement of, any valid claim of the '696 patent.
16	50. The claims of the '696 patent are invalid for failure to comply with the
17	conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and
18	112.
19	51. The '696 patent is unenforceable due to inequitable conduct. On
20	information and belief, the named inventors, Ehud A. Gelblum and James E. Mazo, and/or others
21	substantively involved in the prosecution of the applications leading to the '696 patent, were
22	aware of information material to the patentability of the claims of the '696 patent, but withheld
23	that information from the U.S. Patent and Trademark Office with the intent to deceive the U.S.
24	Patent and Trademark Office. The concealed material information includes the American
25	National Standards Institute (ANSI) draft ADSL T1E1.4/93 standard, including the November 15,
26	1993 Asymmetric Digital Subscriber Line (ADSL) Working Draft Standard T1E1.4/93-007,
27	prepared by the ANSI's T1E1.4 Working Group. The withholding of this material prior art with
28	the intent to deceive the U.S. Patent and Trademark Office constitutes inequitable conduct.

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52. The continued assertion of the '696 patent against Broadcom, despite the non-infringement, invalidity, and unenforceability of the claims of the '696 patent, makes this an exceptional case under 35 U.S.C. § 285.

NINTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT, INVALIDITY AND UNENFORCEABILITY OF AGERE'S '254 PATENT

- 53. Agere claims it is the owner of all right and title and interest in United States Patent No. 5,983,254 entitled "Zero-latency Pipeline Architecture For Digital Filters," issued on November 9, 1999 (attached hereto as Exhibit I).
- 54. An actual controversy exists between Broadcom and Agere as to whether the '254 patent is invalid, unenforceable, and not infringed by Broadcom.
- 55. Broadcom has not infringed, induced infringement of, or contributed to the infringement of, any valid claim of the '254 patent.
- 56. The claims of the '254 patent are invalid for failure to comply with the conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and 112.
- 57. The '254 patent is unenforceable due to inequitable conduct. On information and belief, the named inventor, Kameran Azadet, and/or others substantively involved in the prosecution of the applications leading to the '254 patent were aware of information material to the patentability of the claims of the '254 patent, but withheld that information from the U.S. Patent and Trademark Office with an intent to deceive the U.S. Patent and Trademark Office. The concealed material information includes the work of K.Z. Pekmestzi and C.G. Caraiscos, including K.Z. Pekmestzi and C.G. Caraiscos, "Implementation of Systolic Multipliers and Digital Filters via Signal Flow-Graph Transformations," in *Proceedings of the 7th Mediterranean Electrotechnical Conference*, Vol. 1, pp. 105-108 (1994). The withholding of this material prior art with the intent to deceive the U.S. Patent and Trademark Office constitutes inequitable conduct.

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58. The continued assertion of the '254 patent against Broadcom, despite the non-infringement, invalidity and unenforcability of the claims of the '254 patent, makes this an exceptional case under 35 U.S.C. § 285.

TENTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT, INVALIDITY AND UNENFORCEABILITY OF AGERE'S '117 PATENT

- 59. Agere claim it is the owner of all right and title and interest in United States Patent No. 5,065,117 entitled "Decision Feedback Equalization With Trellis Coding," issued on October 8, 1991 (attached hereto as Exhibit J).
- 60. An actual controversy exists between Broadcom and Agere as to whether the '117 patent is invalid, unenforceable, and not infringed by Broadcom.
- 61. Broadcom has not infringed, induced infringement of, or contributed to the infringement of, any valid claim of the '117 patent.
- 62. The claims of the '117 patent are invalid for failure to comply with the conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and 112.
- 63. The '117 patent is unenforceable due to inequitable conduct. On information and belief, the named inventors, Richard D. Gitlin and Nicholas A. Zervos, and/or others substantively involved in the prosecution of the applications leading to the '117 Patent, were aware of information material to the patentability of the claims of the '117 Patent, but withheld that information from the U.S. Patent and Trademark Office with an intent to deceive the U.S. Patent and Trademark Office. The concealed material information includes the following: P. R. Chevillat & E. Eleftherious, "Decoding of Trellis-Encoded Signals In The Presence Of Intersymbol Interference And Noise," in *Proceedings of the 1988 IEEE International Conference on Communications* (the "ICC 1988" Conference), pp. 696-699, June 1988; European Patent Application No. 0133480; UK Patent Application No. GB 2225199; and U.S. Patent No. 4,995,057. The withholding of this material prior art with the intent to deceive the U.S. Patent and Trademark Office constitutes inequitable conduct.

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1	64. The continued assertion of the '117 patent against Broadcom, despite the
2	non-infringement, invalidity and unenforceability of the claims of the '117 patent, makes this an
3	exceptional case under 35 U.S.C. § 285.
4	ELEVENTH CLAIM FOR RELIEF – DECLARATION OF NON-INFRINGEMENT AND
5	INVALIDITY OF AGERE'S '802 PATENT
6	65. Agere claims it is the owner of all right and title and interest in United
7	States Patent No. 4,990,802 entitled "ESD Protection For Output Buffers" issued on February 5,
8	1991 (attached hereto as Exhibit K).
9	66. An actual controversy exists between Broadcom and Agere as to whether
10	the '802 patent is invalid, unenforceable, and not infringed by Broadcom.
11	67. Broadcom has not infringed, induced infringement of, or contributed to the
12	infringement of, any valid claim of the '802 patent.
13	68. The claims of the '802 patent are invalid for failure to comply with the
14	conditions and requirements set forth in the patent statute, including 35 U.S.C. §§ 102, 103 and
15	112.
16	69. The continued assertion of the '802 patent against Broadcom, despite the
17	non-infringement and invalidity of the claims of the '802 patent, makes this an exceptional case
18	under 35 U.S.C. § 285.
19	PRAYER FOR RELIEF
20	WHEREFORE, Broadcom Corporation respectfully prays:
21	A. That Agere be adjudged to have infringed U.S. Patent Nos. 5,940,771,
22	5,740,366, 6,424,194, and 6,014,705 (collectively "the Broadcom patents");
23	B. That Agere, its officers, agents, servants, employees, attorneys, and those
24	persons in active concert or participation with them who receive actual notice of the order by
25	personal service or otherwise, be permanently restrained and enjoined from directly or indirectly
26	infringing the Broadcom patents;
27	C. An accounting for damages by virtue of Agere's infringement of the
28	Broadcom patents;
	AMENDED COMPLAINT FOR PATENT INFRINGEMENT

1	D. An award of damages to compensate Broadcom for Agere's infringement,
2	pursuant to 35 U.S.C. § 284, said damages to be trebled because of Agere's willful infringement;
3	E. An assessment of pre-judgment and post-judgment interest and costs
4	against Agere, together with an award of such interest and costs, in accordance with 35 U.S.C.
5	§ 284;
6	F. This Court adjudge, declare and decree that United States Patent Nos.
7	5,396,195, 5,512,817, 4,477,782, 5,828,696, 5,983,254, 5,065,117, and 4,990,802 (collectively
8	"the Agere patents") are invalid;
9	G. This Court adjudge, declare and decree that United States Patent Nos.
10	5,396,195, 5,512,817, 4,477,782, 5,828,696, 5,983,254, and 5,065,117 are unenforceable;
11	H. This Court adjudge, declare and decree that no valid and enforceable claim
12	of any Agere patent is infringed by Broadcom;
13	I. That Agere be directed to pay Broadcom's attorneys' fees incurred herein;
14	and
15	J. That Broadcom have such other and further relief as this Court may deem
16	just and proper.
17	JURY DEMAND
18	Plaintiff Broadcom Corporation hereby demands trial by jury for all issues so
19	triable.
20	CERTIFICATION OF INTERESTED ENTITIES AND PERSONS
21	Pursuant to Civil L.R. 3-16, the undersigned certifies that the following listed
22	persons, associations of persons, firms, partnerships, corporations (including parent corporations)
23	or other entities (i) have a financial interest in the subject matter in controversy or in a party to the
24	proceeding, or (ii) have a non-financial interest in that subject matter or in a party that could be
25	substantially affected by the outcome of this proceeding: Altima Communications, Inc.
26	(subsidiary of Broadcom Corporation); Alto Acquisition Corporation (subsidiary of Broadcom
27	Corporation); AltoCom, Inc. (subsidiary of Broadcom Corporation); Armedia, Inc. (subsidiary of

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Broadcom Corporation); Broadcom International Ltd. (subsidiary of Broadcom Corporation);

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	Broadcom Israel Ltd. (subsidiary of Broadcom Corporation), Broadcom Netherlands B.V.
)	(subsidiary of Broadcom Corporation); Broadcom U.K. Ltd. (subsidiary of Broadcom
;	Corporation); Mavnet Acquisition Corporation (subsidiary of Broadcom Corporation),
Ļ	ServerWorks Corporation (subsidiary of Broadcom Corporation); Broadcom Taiwan Corporation
,	(subsidiary of Altima Communications, Inc.); Broadcom India Private Ltd. (subsidiary of
)	Armedia, Inc.); Broadcom Singapore Pte. Ltd. (subsidiary of Broadcom International Ltd.); HH
,	Acquisition ULC (subsidiary of Broadcom International Ltd.); HH Acquisition Inc. (subsidiary of
3	Broadcom International Ltd.); Broadcom Canada Ltd. (subsidiary of HH Acquisition Inc.);
)	HotHaus Inc. (subsidiary of Broadcom Corporation and Broadcom Canada Ltd.); Element 14 Ltd.
)	(subsidiary of Broadcom U.K. Ltd.); Reliance Sales Corporation (subsidiary of ServerWorks
	Corporation); R2 International, C.V. (subsidiary of Reliance Sales Corporation and ServerWorks
)	Corporation); ServerWorks International Ltd. (subsidiary of ServerWorks Corporation);
;	ServerWorks Singapore Pte. Ltd. (subsidiary of R2 International C.V.); Broadcom Asia
_	Distribution Pte. Ltd. (subsidiary of Broadcom Singapore Pte. Ltd.); Broadcom International YK
i	(subsidiary of Broadcom Singapore Pte. Ltd.); Broadcom Japan K.K. (subsidiary of Broadcom
,	Asia Distribution Pte. Ltd.); Broadcom Communications Korea, Ltd. (subsidiary of Broadcom
,	Asia Distribution Pte. Ltd.).
3	Dated: July 3, 2003 Respectfully submitted,
)	WEIL, GOTSHAL & MANGES LLP
)	
	By: /s/ Edward R. Reines
)	EDWARD R. REINES Attorneys for Plaintiff
;	BROADCOM CORPORATION
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