

**ORIGINAL**

1 KARL J. KRAMER (CA SBN 136433) KKramer@mofocom  
COLETTE R. VERKUIL (CA SBN 263630) CVerkuil@mofocom  
2 DIANA LUO (CA SBN 233712) DLuo@mofocom  
MORRISON & FOERSTER LLP  
3 755 Page Mill Road  
Palo Alto, California 94304-1018  
4 Telephone: 650.813.5600  
Facsimile: 650.494.0792

5 HECTOR G. GALLEGOS (CA SBN 175137) HGallegos@mofocom  
6 ALEX S. YAP (CA SBN 241400) AYap@mofocom  
MORRISON & FOERSTER LLP  
7 555 West Fifth Street  
Los Angeles, California 90013-1024  
8 Telephone: 213.892.5200  
Facsimile: 213.892.5454

9 ALISON M. TUCHER (CA SBN 171363) ATucher@mofocom  
10 RICHARD S.J. HUNG (CA SBN 197425) RHung@mofocom  
MORRISON & FOERSTER LLP  
11 425 Market Street  
San Francisco, California 94105-2482  
12 Telephone: 415.268.7000  
Facsimile: 415.268.7522

13 *Attorneys for Plaintiff*  
14 ALTERA CORPORATION

15  
16 UNITED STATES DISTRICT COURT  
17 NORTHERN DISTRICT OF CALIFORNIA

18  
19 ALTERA CORPORATION

20 Plaintiff,

21 v.

22 LSI CORPORATION AND AGERE  
23 SYSTEMS, INC.

24 Defendants.  
25  
26  
27  
28

**CV 11-03139**  
Case No.

**EDL**

**COMPLAINT FOR PATENT  
INFRINGEMENT AND FOR  
DECLARATORY JUDGMENT OF  
PATENT NONINFRINGEMENT AND  
INVALIDITY**

**DEMAND FOR JURY TRIAL**

**FILED**  
2011 JUN 24 P 1:05  
CLEVELAND COUNTY CLERK  
S30 # 12 Lee Fil

AMH

1 Plaintiff Altera Corporation (“Altera”), by and through its attorneys, alleges as follows:

2 **PARTIES**

3 1. Altera is a corporation organized under the laws of the State of Delaware with its  
4 principal place of business at 101 Innovation Drive, San Jose, California 95134. Altera regularly  
5 conducts business in the Northern District of California.

6 2. Upon information and belief, Defendant LSI Corporation (“LSI”) is a corporation  
7 organized under the laws of the State of California and Delaware with its principal place of  
8 business at 1621 Barber Lane, Milpitas, California 95035. LSI regularly conducts business in the  
9 Northern District of California.

10 3. Upon information and belief, Defendant Agere Systems, Inc. (“Agere,” and  
11 collectively with LSI as “Defendants”) is a corporation organized under the laws of the State of  
12 Delaware with its principal place of business at 1110 American Parkway, Allentown,  
13 Pennsylvania 18109. Agere is a wholly owned subsidiary of LSI, and regularly conducts business  
14 in the Northern District of California.

15 **JURISDICTION AND VENUE**

16 4. This is a patent infringement case arising under the patent laws of the United States,  
17 35 U.S.C. §§ 1 et seq., alleging that Defendants infringe U.S. Patent Nos. 5,752,032, 6,856,180,  
18 7,227,918, 6,798,302, 6,985,021, 5,822,553, 5,784,649, RE40,883, 5,834,849, 7,091,613,  
19 6,342,794, and 6,859,064 (collectively the “Altera patents-in-suit”). This is also an action under  
20 the Federal Declaratory Judgments Act, 28 U.S.C. §§ 2201 and 2202, against Defendants for a  
21 declaration that pursuant to the patent laws of the United States, 35 U.S.C. §§ 1 et seq., the  
22 disputed claims of U.S. Patent Nos. 5,222,030, 5,526,277, 5,801,958, 6,564,361, 6,640,333,  
23 6,118,177, 5,952,726, 6,313,683, 6,028,467, 6,157,215, 6,459,313, and 5,731,711 (collectively  
24 the “LSI patents-in-suit”) are not infringed by Plaintiff and are invalid. Jurisdiction as to these  
25 claims is conferred on this Court by 28 U.S.C. §§ 1331 and 1338(a).

26 5. Upon information and belief, this Court has personal jurisdiction over LSI because  
27 LSI has sufficient contacts with this judicial district and LSI regularly conducts business within  
28 this judicial district. Upon information and belief, LSI directly distributes, offers for sale or

1 license, sells or licenses, and advertises its products and services within the State of California  
2 and this judicial district.

3 6. Upon information and belief, this Court has personal jurisdiction over Agere because  
4 Agere has sufficient contacts with this judicial district and Agere regularly conducts business  
5 within this judicial district. Upon information and belief, Agere directly distributes, offers for  
6 sale or license, sells or licenses, and advertises its products and services within the State of  
7 California and this judicial district.

8 7. Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400(b). LSI  
9 and Agere are corporations that are subject to personal jurisdiction in this district.

#### 10 **INTRADISTRICT ASSIGNMENT**

11 8. This is an Intellectual Property Action to be assigned on a district-wide basis  
12 pursuant to Civil Local Rule 3-2(c).

#### 13 **ALTERA'S INFRINGEMENT CLAIMS**

14 9. Altera is a preeminent supplier of programmable logic solutions, offering Field  
15 Programmable Gate Arrays ("FPGAs"), Complex Programmable Logic Devices ("CPLDs"), and  
16 Application-Specific Integrated Circuits ("ASICs") in combination with software tools,  
17 intellectual property, and support to customers world-wide.

18 10. The pioneering work of Altera's scientists and engineers has been rewarded with  
19 many United States Patents, including the majority of the Altera patents-in-suit.

20 11. Each of the inventors or former assignees of the Altera-patents-in-suit have assigned  
21 the patents to Altera, so that Altera is the sole owner of all rights and titles to the Altera-patents-  
22 in-suit, including the right to recover damages for past and current infringement.

23 12. LSI develops, markets and sells custom and standard Integrated Circuits ("ICs"),  
24 adapters, systems and software for the storage and networking markets.

25 13. Agere is also a semiconductor company that became a wholly-owned subsidiary of  
26 LSI in 2007. Prior to being acquired by LSI, Agere was a subsidiary of Lucent Technologies and  
27 later spun off from Lucent.

28

**COUNT I**  
**(INFRINGEMENT OF U. S. PATENT NO. 5,752,032)**

14. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through 13 above and incorporates them by reference.

15. On May 12, 1998, the '032 Patent entitled "Adaptive device driver using controller hardware sub-element identifier" was duly and legally issued to Diamond Multimedia Systems, Inc. by the United States Patent and Trademark Office. Altera is the current owner of the entire right, title, and interest in and to the '032 Patent. A true and correct copy of the '032 Patent is attached as Exhibit 1 to this Complaint.

16. Altera has not licensed or otherwise authorized Defendants to make, use, offer for sale, sell, or import into the United States any products that embody the inventions of the '032 Patent.

17. Defendants have directly infringed and continue to directly infringe the '032 Patent by making, using, offering for sale or selling products including, but not limited to, LSIFC949X, LSI7104EP-LC, LSI7204EP-LC, LSI7404EP-LC, LSI7104XP-LC, LSI7204XP-LC, LSI7404XP-LC, LSI7102XP-LC, LSI7202XP-LC, LSI FW643E, FW321, FW322, FW323, FW420, FW430, FW533/533E, FW801A/BF, FW802B/BF/C, FW843, FireStorm™, FW643/FW533, FireSide™ FW643, ExpressCard™, 1394 PC OEM Card, LSI MegaRAID and 3ware Controllers.

18. Defendants have had actual knowledge of the '032 Patent since at least February 17, 2011.

19. Defendants have indirectly infringed and continue to indirectly infringe the '032 Patent by inducing end-users to infringe the '032 Patent by using products including, but not limited to, LSIFC949X, LSI7104EP-LC, LSI7204EP-LC, LSI7404EP-LC, LSI7104XP-LC, LSI7204XP-LC, LSI7404XP-LC, LSI7102XP-LC, LSI7202XP-LC, LSI FW643E, FW321, FW322, FW323, FW420, FW430, FW533/533E, FW801A/BF, FW802B/BF/C, FW843, FireStorm™, FW643/FW533, FireSide™ FW643, ExpressCard™, 1394 PC OEM Card, LSI MegaRAID and 3ware Controllers. Defendants intentionally took action that induced end-users to infringe the '032 Patent by marketing, selling, and supporting the infringing devices.

1 Defendants had awareness of the '032 Patent and knew or were willfully blind to the fact that  
2 their actions would cause direct infringement by end-users.

3 20. Defendants have indirectly infringed and continue to indirectly infringe the '032  
4 Patent by contributing to direct infringement by end-users who use products including, but not  
5 limited to, LSIFC949X, LSI7104EP-LC, LSI7204EP-LC, LSI7404EP-LC, LSI7104XP-LC,  
6 LSI7204XP-LC, LSI7404XP-LC, LSI7102XP-LC, LSI7202XP-LC, LSI FW643E, FW321,  
7 FW322, FW323, FW420, FW430, FW533/533E, FW801A/BF, FW802B/BF/C, FW843,  
8 FireStorm™, FW643/FW533, FireSide™ FW643, ExpressCard™, 1394 PC OEM Card, LSI  
9 MegaRAID and 3ware Controllers. Defendants supplied an important component of the  
10 infringing devices; the component is not a common component suitable for non-infringing use;  
11 and Defendants supplied the component with the knowledge of the '032 Patent and knowledge  
12 that the component was especially made or adapted for use in an infringing manner.

13 21. Upon information and belief, Defendants' infringement of Altera's '032 Patent has  
14 been and will continue to be willful, wanton and deliberate.

15 22. Altera is damaged and irreparably injured by Defendants' infringing activities and  
16 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
17 are enjoined by this Court.

18 23. Defendants are thus liable to Altera for infringement of the '032 Patent pursuant to  
19 35 U.S.C. § 271.

20 **COUNT II**  
21 **(INFRINGEMENT OF U. S. PATENT NO. 6,856,180)**

22 24. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
23 13 above and incorporates them by reference.

24 25. On February 15, 2005, the '180 Patent entitled "Programmable loop bandwidth in  
25 phase locked loop (PLL) circuit" was duly and legally issued to Altera by the United States Patent  
26 and Trademark Office. Altera is the owner of the entire right, title, and interest in and to the '180  
27 Patent. A true and correct copy of the '180 Patent is attached as Exhibit 2 to this Complaint.  
28

1           26. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
2 sale, sell, or import into the United States any products that embody the inventions of the '180  
3 Patent.

4           27. Defendants have directly infringed and continue to directly infringe the '180 Patent  
5 by making, using, offering for sale or selling products including, but not limited to, Gigablaze x1,  
6 LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36, LSISASX28, LSISASX12,  
7 LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-24i4e, MegaRAID SAS 9280-  
8 16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e, MegaRAID SAS 9280-4i4e,  
9 MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID SAS 9261-8i, MegaRAID  
10 SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i, MegaRAID SAS 9240-4i,  
11 MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID SAS 84016E, MegaRAID  
12 SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS 8704EM2, MegaRAID SAS  
13 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS 8204ELP, LSISAS9212-4i4e,  
14 LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i, LSISAS3442E-R, LSISAS3041E-R,  
15 LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R, LSISAS3041X-R, LSISAS3080X-R,  
16 LSISAS3801X and Custom ASIC Logic products with SAS Link.

17           28. Defendants have had actual knowledge of the '180 Patent since at least June 25,  
18 2009.

19           29. Defendants have indirectly infringed and continue to indirectly infringe the '180  
20 Patent by inducing end-users to infringe the '180 Patent by using products including, but not  
21 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
22 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
23 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
24 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
25 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
26 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
27 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
28 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS

1 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
2 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
3 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
4 Link. Defendants intentionally took action that induced end-users to infringe the '180 Patent by  
5 marketing, selling, and supporting the infringing devices. Defendants had awareness of the '180  
6 Patent and knew or were willfully blind to the fact that their actions would cause direct  
7 infringement by end-users.

8 30. Defendants have indirectly infringed and continue to indirectly infringe the '180  
9 Patent by contributing to direct infringement by end-users who use products including, but not  
10 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
11 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
12 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
13 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
14 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
15 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
16 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
17 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
18 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
19 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
20 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
21 Link. Defendants supplied an important component of the infringing devices; the component is  
22 not a common component suitable for non-infringing use; and Defendants supplied the  
23 component with the knowledge of the '180 Patent and knowledge that the component was  
24 especially made or adapted for use in an infringing manner.

25 31. Upon information and belief, Defendants' infringement of Altera's '180 Patent has  
26 been and will continue to be willful, wanton and deliberate.





1 LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R, LSISAS3041X-R, LSISAS3080X-R,  
2 LSISAS3801X and Custom ASIC Logic products with SAS Link.

3 38. Defendants have had actual knowledge of the '918 Patent since at least June 25,  
4 2009.

5 39. Defendants have indirectly infringed and continue to indirectly infringe the '918  
6 Patent by inducing end-users to infringe the '918 Patent by using products including, but not  
7 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
8 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
9 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
10 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
11 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
12 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
13 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
14 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
15 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
16 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
17 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
18 Link. Defendants intentionally took action that induced end-users to infringe the '918 Patent by  
19 marketing, selling, and supporting the infringing devices. Defendants had awareness of the '918  
20 Patent and knew or were willfully blind to the fact that their actions would cause direct  
21 infringement by end-users.

22 40. Defendants have indirectly infringed and continue to indirectly infringe the '918  
23 Patent by contributing to direct infringement by end-users who use products including, but not  
24 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
25 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
26 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
27 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
28 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,

1 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
2 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
3 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
4 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
5 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
6 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
7 Link. Defendants supplied an important component of the infringing devices; the component is  
8 not a common component suitable for non-infringing use; and Defendants supplied the  
9 component with the knowledge of the '918 Patent and knowledge that the component was  
10 especially made or adapted for use in an infringing manner.

11 41. Upon information and belief, Defendants' infringement of Altera's '918 Patent has  
12 been and will continue to be willful, wanton and deliberate.

13 42. Altera is damaged and irreparably injured by Defendants' infringing activities and  
14 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
15 are enjoined by this Court.

16 43. Defendants are thus liable to Altera for infringement of the '918 Patent pursuant to  
17 35 U.S.C. § 271.

18 **COUNT IV**  
19 **(INFRINGEMENT OF U. S. PATENT NO. 6,798,302)**

20 44. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
21 13 above and incorporates them by reference.

22 45. On September 28, 2004, the '302 Patent entitled "Analog implementation of spread  
23 spectrum frequency modulation in a programmable phase locked loop (PLL) system" was duly  
24 and legally issued to Altera by the United States Patent and Trademark Office. Altera is the  
25 owner of the entire right, title, and interest in and to the '302 Patent. A true and correct copy of  
26 the '302 Patent is attached as Exhibit 4 to this Complaint.

1           46. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
2 sale, sell, or import into the United States any products that embody the inventions of the '302  
3 Patent.

4           47. Defendants have directly infringed and continue to directly infringe the '302 Patent  
5 by making, using, offering for sale or selling products including, but not limited to, Gigablaze x1,  
6 LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36, LSISASX28, LSISASX12,  
7 LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-24i4e, MegaRAID SAS 9280-  
8 16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e, MegaRAID SAS 9280-4i4e,  
9 MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID SAS 9261-8i, MegaRAID  
10 SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i, MegaRAID SAS 9240-4i,  
11 MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID SAS 84016E, MegaRAID  
12 SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS 8704EM2, MegaRAID SAS  
13 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS 8204ELP, LSISAS9212-4i4e,  
14 LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i, LSISAS3442E-R, LSISAS3041E-R,  
15 LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R, LSISAS3041X-R, LSISAS3080X-R,  
16 LSISAS3801X and Custom ASIC Logic products with SAS Link.

17           48. Defendants have had actual knowledge of the '302 Patent since at least February 17,  
18 2011.

19           49. Defendants have indirectly infringed and continue to indirectly infringe the '302  
20 Patent by inducing end-users to infringe the '302 Patent by using products including, but not  
21 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
22 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
23 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
24 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
25 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
26 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
27 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
28 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS

1 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
2 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
3 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
4 Link. Defendants intentionally took action that induced end-users to infringe the '302 Patent by  
5 marketing, selling, and supporting the infringing devices. Defendants had awareness of the '302  
6 Patent and knew or were willfully blind to the fact that their actions would cause direct  
7 infringement by end-users.

8 50. Defendants have indirectly infringed and continue to indirectly infringe the '302  
9 Patent by contributing to direct infringement by end-users who use products including, but not  
10 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
11 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
12 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
13 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
14 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
15 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
16 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
17 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
18 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
19 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
20 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
21 Link. Defendants supplied an important component of the infringing devices; the component is  
22 not a common component suitable for non-infringing use; and Defendants supplied the  
23 component with the knowledge of the '302 Patent and knowledge that the component was  
24 especially made or adapted for use in an infringing manner.

25 51. Upon information and belief, Defendants' infringement of Altera's '302 Patent has  
26 been and will continue to be willful, wanton and deliberate.

1           52. Altera is damaged and irreparably injured by Defendants' infringing activities and  
2 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
3 are enjoined by this Court.

4           53. Defendants are thus liable to Altera for infringement of the '302 Patent pursuant to  
5 35 U.S.C. § 271.

6                                                           **COUNT V**  
7                                                           **(INFRINGEMENT OF U. S. PATENT NO. 6,985,021)**

8           54. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
9 13 above and incorporates them by reference.

10           55. On January 10, 2006, the '021 Patent entitled "Circuits and techniques for  
11 conditioning differential signals" was duly and legally issued to Altera by the United States  
12 Patent and Trademark Office. Altera is the owner of the entire right, title, and interest in and to  
13 the '021 Patent. A true and correct copy of the '021 Patent is attached as Exhibit 5 to this  
14 Complaint.

15           56. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
16 sale, sell, or import into the United States any products that embody the inventions of the '021  
17 Patent.

18           57. Defendants have directly infringed and continue to directly infringe the '021 Patent  
19 by making, using, offering for sale or selling products including, but not limited to, Gigablaze x1,  
20 LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36, LSISASX28, LSISASX12,  
21 LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-24i4e, MegaRAID SAS 9280-  
22 16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e, MegaRAID SAS 9280-4i4e,  
23 MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID SAS 9261-8i, MegaRAID  
24 SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i, MegaRAID SAS 9240-4i,  
25 MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID SAS 84016E, MegaRAID  
26 SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS 8704EM2, MegaRAID SAS  
27 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS 8204ELP, LSISAS9212-4i4e,  
28 LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i, LSISAS3442E-R, LSISAS3041E-R,

1 LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R, LSISAS3041X-R, LSISAS3080X-R,  
2 LSISAS3801X and Custom ASIC Logic products with SAS Link.

3 58. Defendants have had actual knowledge of the '021 Patent since at least February 17,  
4 2011.

5 59. Defendants have indirectly infringed and continue to indirectly infringe the '021  
6 Patent by inducing end-users to infringe the '021 Patent by using products including, but not  
7 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
8 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
9 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
10 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
11 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,  
12 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
13 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
14 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
15 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
16 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
17 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
18 Link. Defendants intentionally took action that induced end-users to infringe the '021 Patent by  
19 marketing, selling, and supporting the infringing devices. Defendants had awareness of the '021  
20 Patent and knew or were willfully blind to the fact that their actions would cause direct  
21 infringement by end-users.

22 60. Defendants have indirectly infringed and continue to indirectly infringe the '021  
23 Patent by contributing to direct infringement by end-users who use products including, but not  
24 limited to, Gigablaze x1, LSISAS1064, LSISAS1064E, LSISAS1068E, LSISASX36,  
25 LSISASX28, LSISASX12, LSISAS1078, LSISAS2008, LSISAS2108, MegaRAID SAS 9280-  
26 24i4e, MegaRAID SAS 9280-16i4e, MegaRAID SAS 9280-8e, MegaRAID SAS 9280DE-8e,  
27 MegaRAID SAS 9280-4i4e, MegaRAID SAS 9260-16i, MegaRAID SAS 9260-8i, MegaRAID  
28 SAS 9261-8i, MegaRAID SAS 9260DE-8i, MegaRAID SAS 9260-4i, MegaRAID SAS 9240-8i,

1 MegaRAID SAS 9240-4i, MegaRAID SAS 8888ELP, MegaRAID SAS 8880EM2, MegaRAID  
2 SAS 84016E, MegaRAID SAS 8708EM2, MegaRAID SAS 8708ELP, MegaRAID SAS  
3 8704EM2, MegaRAID SAS 8704ELP, MegaRAID SAS 8208ELP, and MegaRAID SAS  
4 8204ELP, LSISAS9212-4i4e, LSISAS9201-16i, LSISAS9211-8i, LSISAS9211-4i,  
5 LSISAS3442E-R, LSISAS3041E-R, LSISAS3081E-R, LSISAS3801E, LSISAS3442X-R,  
6 LSISAS3041X-R, LSISAS3080X-R, LSISAS3801X and Custom ASIC Logic products with SAS  
7 Link. Defendants supplied an important component of the infringing devices; the component is  
8 not a common component suitable for non-infringing use; and Defendants supplied the  
9 component with the knowledge of the '021 Patent and knowledge that the component was  
10 especially made or adapted for use in an infringing manner.

11 61. Upon information and belief, Defendants' infringement of Altera's '021 Patent has  
12 been and will continue to be willful, wanton and deliberate.

13 62. Altera is damaged and irreparably injured by Defendants' infringing activities and  
14 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
15 are enjoined by this Court.

16 63. Defendants are thus liable to Altera for infringement of the '021 Patent pursuant to  
17 35 U.S.C. § 271.

18 **COUNT VI**  
19 **(INFRINGEMENT OF U. S. PATENT NO. 5,822,553)**

20 64. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
21 13 above and incorporates them by reference.

22 65. On October 13, 1998, the '553 Patent entitled "Multiple parallel digital data stream  
23 channel controller architecture" was duly and legally issued to Diamond Multimedia Systems,  
24 Inc. by the United States Patent and Trademark Office. Altera is the current owner of the entire  
25 right, title, and interest in and to the '553 Patent. A true and correct copy of the '553 Patent is  
26 attached as Exhibit 6 to this Complaint.

1           66. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
2 sale, sell, or import into the United States any products that embody the inventions of the '553  
3 Patent.

4           67. Defendants have directly infringed and continue to directly infringe the '553 Patent  
5 by making, using, offering for sale or selling products including, but not limited to, StarPro 2603,  
6 2612 and 2704.

7           68. Defendants have had actual knowledge of the '553 Patent since at least June 25,  
8 2009.

9           69. Defendants have indirectly infringed and continue to indirectly infringe the '553  
10 Patent by inducing end-users to infringe the '553 Patent by using products including, but not  
11 limited to, StarPro 2603, 2612 and 2704. Defendants intentionally took action that induced end-  
12 users to infringe the '553 Patent by marketing, selling, and supporting the infringing devices.  
13 Defendants had awareness of the '553 Patent and knew or were willfully blind to the fact that  
14 their actions would cause direct infringement by end-users.

15           70. Defendants have indirectly infringed and continue to indirectly infringe the '553  
16 Patent by contributing to direct infringement by end-users who use products including, but not  
17 limited to, StarPro 2603, 2612 and 2704. Defendants supplied an important component of the  
18 infringing devices; the component is not a common component suitable for non-infringing use;  
19 and Defendants supplied the component with the knowledge of the '553 Patent and knowledge  
20 that the component was especially made or adapted for use in an infringing manner.

21           71. Upon information and belief, Defendants' infringement of Altera's '553 Patent has  
22 been and will continue to be willful, wanton and deliberate.

23           72. Altera is damaged and irreparably injured by Defendants' infringing activities and  
24 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
25 are enjoined by this Court.

26           73. Defendants are thus liable to Altera for infringement of the '553 Patent pursuant to  
27 35 U.S.C. § 271.

28



**COUNT VII  
(INFRINGEMENT OF U. S. PATENT NO. 5,784,649)**

1  
2  
3       74. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
4 13 above and incorporates them by reference.

5       75. On July 21, 1998, the '649 Patent entitled "Multi-threaded FIFO pool buffer and  
6 bus transfer control system" was duly and legally issued to Diamond Multimedia Systems, Inc. by  
7 the United States Patent and Trademark Office. Altera is the current owner of the entire right,  
8 title, and interest in and to the '649 Patent. A true and correct copy of the '649 Patent is attached  
9 as Exhibit 7 to this Complaint.

10       76. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
11 sale, sell, or import into the United States any products that embody the inventions of the '649  
12 Patent.

13       77. Defendants have directly infringed and continue to directly infringe the '649 Patent  
14 by making, using, offering for sale or selling products including, but not limited to, StarPro 2603,  
15 2612 and 2704.

16       78. Defendants have had actual knowledge of the '649 Patent since at least June 25,  
17 2009.

18       79. Defendants have indirectly infringed and continue to indirectly infringe the '649  
19 Patent by inducing end-users to infringe the '649 Patent by using products including, but not  
20 limited to, StarPro 2603, 2612 and 2704. Defendants intentionally took action that induced end-  
21 users to infringe the '649 Patent by marketing, selling, and supporting the infringing devices.  
22 Defendants had awareness of the '649 Patent and knew or were willfully blind to the fact that  
23 their actions would cause direct infringement by end-users.

24       80. Defendants have indirectly infringed and continue to indirectly infringe the '649  
25 Patent by contributing to direct infringement by end-users who use products including, but not  
26 limited to, StarPro 2603, 2612 and 2704. Defendants supplied an important component of the  
27 infringing devices; the component is not a common component suitable for non-infringing use;  
28

1 and Defendants supplied the component with the knowledge of the '649 Patent and knowledge  
2 that the component was especially made or adapted for use in an infringing manner.

3 81. Upon information and belief, Defendants' infringement of Altera's '649 Patent has  
4 been and will continue to be willful, wanton and deliberate.

5 82. Altera is damaged and irreparably injured by Defendants' infringing activities and  
6 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
7 are enjoined by this Court.

8 83. Defendants are thus liable to Altera for infringement of the '649 Patent pursuant to  
9 35 U.S.C. § 271.

10 **COUNT VIII**  
11 **(INFRINGEMENT OF U. S. PATENT NO. RE40,883)**

12 84. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
13 13 above and incorporates them by reference.

14 85. On August 25, 2009, the '883 Patent entitled "Methods and apparatus for dynamic  
15 instruction controlled reconfigurable register file with extended precision" was duly and legally  
16 issued to Altera by the United States Patent and Trademark Office. Altera is the owner of the  
17 entire right, title, and interest in and to the '883 Patent. A true and correct copy of the '883 Patent  
18 is attached as Exhibit 8 to this Complaint.

19 86. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
20 sale, sell, or import into the United States any products that embody the inventions of the '883  
21 Patent.

22 87. Defendants have directly infringed and continue to directly infringe the '883 Patent  
23 by making, using, offering for sale or selling products including, but not limited to, StarPro 2603,  
24 2612, 2704, and 2716.

25 88. Defendants have had actual knowledge of the '883 Patent since at least February 17,  
26 2011.

27 89. Defendants have indirectly infringed and continue to indirectly infringe the '883  
28 Patent by inducing end-users to infringe the '883 Patent by using products including, but not

1 limited to, StarPro 2603, 2612, 2704, and 2716. Defendants intentionally took action that induced  
2 end-users to infringe the '883 Patent by marketing, selling, and supporting the infringing devices.  
3 Defendants had awareness of the '883 Patent and knew or were willfully blind to the fact that  
4 their actions would cause direct infringement by end-users.

5 90. Defendants have indirectly infringed and continue to indirectly infringe the '883  
6 Patent by contributing to direct infringement by end-users who use products including, but not  
7 limited to, StarPro 2603, 2612, 2704, and 2716. Defendants supplied an important component of  
8 the infringing devices; the component is not a common component suitable for non-infringing  
9 use; and Defendants supplied the component with the knowledge of the '883 Patent and  
10 knowledge that the component was especially made or adapted for use in an infringing manner.

11 91. Upon information and belief, Defendants' infringement of Altera's '883 Patent has  
12 been and will continue to be willful, wanton and deliberate.

13 92. Altera is damaged and irreparably injured by Defendants' infringing activities and  
14 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
15 are enjoined by this Court.

16 93. Defendants are thus liable to Altera for infringement of the '883 Patent pursuant to  
17 35 U.S.C. § 271.

18 **COUNT IX**  
19 **(INFRINGEMENT OF U. S. PATENT NO. 5,834,849)**

20 94. Altera hereby restates and realleges the allegations set forth in paragraphs 1 through  
21 13 above and incorporates them by reference.

22 95. On November 10, 1998, the '849 Patent entitled "High density integrated circuit pad  
23 structures" was duly and legally issued to Altera by the United States Patent and Trademark  
24 Office. Altera is the owner of the entire right, title, and interest in and to the '849 Patent. A true  
25 and correct copy of the '849 Patent is attached as Exhibit 9 to this Complaint.

26 96. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
27 sale, sell, or import into the United States any products that embody the inventions of the '849  
28 Patent.

1           97. Defendants have directly infringed and continue to directly infringe the '849 Patent  
2 by making, using, offering for sale or selling products including, but not limited to, SAS 1078,  
3 SAS 2108, SAS 2008, B5502C20, and 3075.

4           98. Defendants have had actual knowledge of the '849 Patent since at least June 25,  
5 2009.

6           99. Defendants have indirectly infringed and continue to indirectly infringe the '849  
7 Patent by inducing end-users to infringe the '849 Patent by using products including, but not  
8 limited to, SAS 1078, SAS 2108, SAS 2008, B5502C20, and 3075. Defendants intentionally took  
9 action that induced end-users to infringe the '849 Patent by marketing, selling, and supporting the  
10 infringing devices. Defendants had awareness of the '849 Patent and knew or were willfully  
11 blind to the fact that their actions would cause direct infringement by end-users.

12           100. Defendants have indirectly infringed and continue to indirectly infringe the '849  
13 Patent by contributing to direct infringement by end-users who use products including, but not  
14 limited to, SAS 1078, SAS 2108, SAS 2008, B5502C20, and 3075. Defendants supplied an  
15 important component of the infringing devices; the component is not a common component  
16 suitable for non-infringing use; and Defendants supplied the component with the knowledge of  
17 the '849 Patent and knowledge that the component was especially made or adapted for use in an  
18 infringing manner.

19           101. Upon information and belief, Defendants' infringement of Altera's '849 Patent has  
20 been and will continue to be willful, wanton and deliberate.

21           102. Altera is damaged and irreparably injured by Defendants' infringing activities and  
22 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
23 are enjoined by this Court.

24           103. Defendants are thus liable to Altera for infringement of the '849 Patent pursuant to  
25 35 U.S.C. § 271.

26  
27  
28

**COUNT X**  
**(INFRINGEMENT OF U. S. PATENT NO. 7,091,613)**

1  
2  
3       104.   Altera hereby restates and realleges the allegations set forth in paragraphs 1  
4 through 13 above and incorporates them by reference.

5       105.   On August 15, 2006, the '613 Patent entitled "Elongated bonding pad for wire  
6 bonding and sort probing" was duly and legally issued to Altera by the United States Patent and  
7 Trademark Office. Altera is the owner of the entire right, title, and interest in and to the '613  
8 Patent. A true and correct copy of the '613 Patent is attached as Exhibit 10 to this Complaint.

9       106.   Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
10 sale, sell, or import into the United States any products that embody the inventions of the '613  
11 Patent.

12       107.   Defendants have directly infringed and continue to directly infringe the '613  
13 Patent by making, using, offering for sale or selling products including, but not limited to,  
14 B5502C20 and Muse B2B2 HDD SOC.

15       108.   Defendants have had actual knowledge of the '613 Patent since at least June 25,  
16 2009

17       109.   Defendants have indirectly infringed and continue to indirectly infringe the '613  
18 Patent by inducing end-users to infringe the '613 Patent by using products including, but not  
19 limited to, B5502C20 and Muse B2B2 HDD SOC. Defendants intentionally took action that  
20 induced end-users to infringe the '613 Patent by marketing, selling, and supporting the infringing  
21 devices. Defendants had awareness of the '613 Patent and knew or were willfully blind to the  
22 fact that their actions would cause direct infringement by end-users.

23       110.   Defendants have indirectly infringed and continue to indirectly infringe the '613  
24 Patent by contributing to direct infringement by end-users who use products including, but not  
25 limited to, B5502C20 and Muse B2B2 HDD SOC. Defendants supplied an important component  
26 of the infringing devices; the component is not a common component suitable for non-infringing  
27 use; and Defendants supplied the component with the knowledge of the '613 Patent and  
28 knowledge that the component was especially made or adapted for use in an infringing manner.

1 111. Upon information and belief, Defendants' infringement of Altera's '613 Patent has  
2 been and will continue to be willful, wanton and deliberate.

3 112. Altera is damaged and irreparably injured by Defendants' infringing activities and  
4 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
5 are enjoined by this Court.

6 113. Defendants are thus liable to Altera for infringement of the '613 Patent pursuant to  
7 35 U.S.C. § 271.

8 **COUNT XI**  
9 **(INFRINGEMENT OF U. S. PATENT NO. 6,342,794)**

10 114. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
11 through 13 above and incorporates them by reference.

12 115. On January 29, 2002, the '794 Patent entitled "Interface for low-voltage  
13 semiconductor devices" was duly and legally issued to Altera by the United States Patent and  
14 Trademark Office. Altera is the owner of the entire right, title, and interest in and to the '794  
15 Patent. A true and correct copy of the '794 Patent is attached as Exhibit 11 to this Complaint.

16 116. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
17 sale, sell, or import into the United States any products that embody the inventions of the '794  
18 Patent.

19 117. Defendants have directly infringed and continue to directly infringe the '794  
20 Patent by making, using, offering for sale or selling products including, but not limited to,  
21 ET1011.

22 118. Defendants have had actual knowledge of the '794 Patent since at least June 25,  
23 2009.

24 119. Defendants have indirectly infringed and continue to indirectly infringe the '794  
25 Patent by inducing end-users to infringe the '794 Patent by using products including, but not  
26 limited to, ET1011. Defendants intentionally took action that induced end-users to infringe the  
27 '794 Patent by marketing, selling, and supporting the above referenced part number. Defendants  
28

1 had awareness of the '794 Patent and knew or were willfully blind to the fact that their actions  
2 would cause direct infringement by end-users.

3 120. Defendants have indirectly infringed and continue to indirectly infringe the '794  
4 Patent by contributing to direct infringement by end-users who use products including, but not  
5 limited to, ET1011. Defendants supplied an important component of the infringing devices; the  
6 component is not a common component suitable for non-infringing use; and Defendants supplied  
7 the component with the knowledge of the '794 Patent and knowledge that the component was  
8 especially made or adapted for use in an infringing manner.

9 121. Upon information and belief, Defendants' infringement of Altera's '794 Patent has  
10 been and will continue to be willful, wanton and deliberate.

11 122. Altera is damaged and irreparably injured by Defendants' infringing activities and  
12 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
13 are enjoined by this Court.

14 123. Defendants are thus liable to Altera for infringement of the '794 Patent pursuant to  
15 35 U.S.C. § 271.

16 **COUNT XII**  
17 **(INFRINGEMENT OF U. S. PATENT NO. 6,859,064)**

18 124. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
19 through 13 above and incorporates them by reference.

20 125. On February 22, 2005, the '064 Patent entitled "Techniques for reducing leakage  
21 current in on-chip impedance termination circuits" was duly and legally issued to Altera by the  
22 United States Patent and Trademark Office. Altera is the owner of the entire right, title, and  
23 interest in and to the '064 Patent. A true and correct copy of the '064 Patent is attached as  
24 Exhibit 12 to this Complaint.

25 126. Altera has not licensed or otherwise authorized Defendants to make, use, offer for  
26 sale, sell, or import into the United States any products that embody the inventions of the '064  
27 Patent.

1           127. Defendants have directly infringed and continue to directly infringe the '064  
2 Patent by making, using, offering for sale or selling products including, but not limited to,  
3 ET1011.

4           128. Defendants have had actual knowledge of the '064 Patent since at least June 25,  
5 2009.

6           129. Defendants have indirectly infringed and continue to indirectly infringe the '064  
7 Patent by inducing end-users to infringe the '064 Patent by using products including, but not  
8 limited to, ET1011. Defendants intentionally took action that induced end-users to infringe the  
9 '064 Patent by marketing, selling, and supporting the above referenced part number. Defendants  
10 had awareness of the '064 Patent and knew or were willfully blind to the fact that their actions  
11 would cause direct infringement by end-users.

12           130. Defendants have indirectly infringed and continue to indirectly infringe the '064  
13 Patent by contributing to direct infringement by end-users who use products including, but not  
14 limited to, ET1011. Defendants supplied an important component of the infringing devices; the  
15 component is not a common component suitable for non-infringing use; and Defendants supplied  
16 the component with the knowledge of the '064 Patent and knowledge that the component was  
17 especially made or adapted for use in an infringing manner.

18           131. Upon information and belief, Defendants' infringement of Altera's '064 Patent has  
19 been and will continue to be willful, wanton and deliberate.

20           132. Altera is damaged and irreparably injured by Defendants' infringing activities and  
21 will continue to be so damaged and irreparably injured unless Defendants' infringing activities  
22 are enjoined by this Court.

23           133. Defendants are thus liable to Altera for infringement of the '064 Patent pursuant to  
24 35 U.S.C. § 271.

25           **DECLARATORY JUDGMENT OF NONINFRINGEMENT AND INVALIDITY**

26           134. Prior to the filing of this Complaint, LSI made express assertions to Altera that  
27 Altera's products, including at least Altera's Quartus II® software and Altera's Stratix®, Arria®,  
28 Cyclone®, MAX® and HardCopy® product families, allegedly infringe certain disputed claims



1 of U.S. Patent Nos. 5,222,030, 5,526,277, 5,801,958, 6,564,361, 6,640,333, 6,118,177, 5,952,726,  
2 6,313,683, 6,028,467, 6,157,215, 6,459,313, 5,731,711. LSI represents that it owns and has the  
3 right to enforce these LSI patents, either directly or through its wholly-owned subsidiary Agere.  
4 Altera has a reasonable apprehension that Altera may be sued on the basis of such claims.

5 135. By virtue of these acts, an actual and justiciable controversy exists between the  
6 parties concerning Altera's liability for the alleged infringement of the disputed claims of the  
7 patents-in-suit. Altera now seeks a declaratory judgment of noninfringement and invalidity of the  
8 disputed claims of the LSI patents-in-suit.

9 **COUNT XIII**  
10 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 5,222,030)**

11 136. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
12 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

13 137. As a result of Defendants' allegations of infringement against Altera, an actual  
14 controversy exists as to the infringement of the disputed claims of the '030 Patent entitled  
15 "Methodology for deriving executable low-level structural descriptions and valid physical  
16 implementations of circuits and systems from high-level semantic specifications and descriptions  
17 thereof." A true and correct copy of the '030 Patent is attached hereto as Exhibit 13.

18 138. Altera is not infringing and has not infringed, either directly or indirectly, any  
19 disputed claim of the '030 Patent.

20 139. As a result of Defendants' allegations of infringement against Altera, an actual  
21 controversy exists as to the validity of the disputed claims of '030 Patent.

22 140. The disputed claims of the '030 Patent are invalid for failure to meet one of more  
23 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
24 112, and 116.

25 **COUNT XIV**  
26 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 5,526,277)**

27 141. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
28 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

1 142. As a result of Defendants’ allegations of infringement against Altera, an actual  
2 controversy exists as to the infringement of the disputed claims of the ’277 Patent entitled  
3 “ECAD system for deriving executable low-level structural descriptions and valid physical  
4 implementations of circuits and systems from high-level semantic descriptions thereof.” A true  
5 and correct copy of the ’277 Patent is attached hereto as Exhibit 14.

6 143. Altera is not infringing and has not infringed, either directly or indirectly, any  
7 disputed claim of the ’277 Patent.

8 144. As a result of Defendants’ allegations of infringement against Altera, an actual  
9 controversy exists as to the validity of the disputed claims of ’277 Patent.

10 145. The disputed claims of the ’277 Patent are invalid for failure to meet one of more  
11 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
12 112, and 116.

13 **COUNT XV**  
14 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 5,801,958)**

15 146. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
16 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

17 147. As a result of Defendants’ allegations of infringement against Altera, an actual  
18 controversy exists as to the infringement of the disputed claims of the ’958 Patent entitled  
19 “Method and system for creating and validating low level description of electronic design from  
20 higher level, behavior-oriented description, including interactive system for hierarchical display  
21 of control and dataflow information.” A true and correct copy of the ’958 Patent is attached  
22 hereto as Exhibit 15.

23 148. Altera is not infringing and has not infringed, either directly or indirectly, any  
24 disputed claim of the ’958 Patent.

25 149. As a result of Defendants’ allegations of infringement against Altera, an actual  
26 controversy exists as to the validity of the disputed claims of ’958 Patent.

1           150. The disputed claims of the '958 Patent are invalid for failure to meet one of more  
2 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
3 112, and 116.

4                                         **COUNT XVI**  
5                                         **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,564,361)**

6           151. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
7 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

8           152. As a result of Defendants' allegations of infringement against Altera, an actual  
9 controversy exists as to the infringement of the disputed claims of the '361 Patent entitled  
10 "Method and apparatus for timing driven resynthesis." A true and correct copy of the '361 Patent  
11 is attached hereto as Exhibit 16.

12           153. Altera is not infringing and has not infringed, either directly or indirectly, any  
13 disputed claim of the '361 Patent.

14           154. As a result of Defendants' allegations of infringement against Altera, an actual  
15 controversy exists as to the validity of the disputed claims of '361 Patent.

16           155. The disputed claims of the '361 Patent are invalid for failure to meet one of more  
17 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
18 112, and 116.

19                                         **COUNT XVII**  
20                                         **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,640,333)**

21           156. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
22 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

23           157. As a result of Defendants' allegations of infringement against Altera, an actual  
24 controversy exists as to the infringement of the disputed claims of the '333 Patent entitled  
25 "Architecture for a sea of platforms." A true and correct copy of the '333 Patent is attached  
26 hereto as Exhibit 17.

27           158. Altera is not infringing and has not infringed, either directly or indirectly, any  
28 disputed claim of the '333 Patent.

1           159. As a result of Defendants' allegations of infringement against Altera, an actual  
2 controversy exists as to the validity of the disputed claims of '333 Patent.

3           160. The disputed claims of the '333 Patent are invalid for failure to meet one of more  
4 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
5 112, and 116.

6                                           **COUNT XVIII**  
7                                           **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,118,177)**

8           161. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
9 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

10          162. As a result of Defendants' allegations of infringement against Altera, an actual  
11 controversy exists as to the infringement of the disputed claims of the '177 Patent entitled  
12 "Heatspreader for a flip chip device, and method for connecting the heatspreader." A true and  
13 correct copy of the '177 Patent is attached hereto as Exhibit 18.

14          163. Altera is not infringing and has not infringed, either directly or indirectly, any  
15 disputed claim of the '177 Patent.

16          164. As a result of Defendants' allegations of infringement against Altera, an actual  
17 controversy exists as to the validity of the disputed claims of '177 Patent.

18          165. The disputed claims of the '177 Patent are invalid for failure to meet one of more  
19 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
20 112, and 116.

21                                           **COUNT XIX**  
22                                           **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 5,952,726)**

23          166. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
24 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

25          167. As a result of Defendants' allegations of infringement against Altera, an actual  
26 controversy exists as to the infringement of the disputed claims of the '726 Patent entitled "Flip  
27 chip bump distribution on die." A true and correct copy of the '726 Patent is attached hereto as  
28 Exhibit 19.

1 168. Altera is not infringing and has not infringed, either directly or indirectly, any  
2 disputed claim of the '726 Patent.

3 169. As a result of Defendants' allegations of infringement against Altera, an actual  
4 controversy exists as to the validity of the disputed claims of '726 Patent.

5 170. The disputed claims of the '726 Patent are invalid for failure to meet one of more  
6 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
7 112, and 116.

8 **COUNT XX**  
9 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,313,683)**

10 171. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
11 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

12 172. As a result of Defendants' allegations of infringement against Altera, an actual  
13 controversy exists as to the infringement of the disputed claims of the '683 Patent entitled  
14 "Method of providing clock signals to load circuits in an ASIC device." A true and correct copy  
15 of the '683 Patent is attached hereto as Exhibit 20.

16 173. Altera is not infringing and has not infringed, either directly or indirectly, any  
17 disputed claim of the '683 Patent.

18 174. As a result of Defendants' allegations of infringement against Altera, an actual  
19 controversy exists as to the validity of the disputed claims of '683 Patent.

20 175. The disputed claims of the '683 Patent are invalid for failure to meet one of more  
21 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
22 112, and 116.

23 **COUNT XXI**  
24 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,028,467)**

25 176. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
26 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

27 177. As a result of Defendants' allegations of infringement against Altera, an actual  
28 controversy exists as to the infringement of the disputed claims of the '467 Patent entitled

1 “Differential output circuit.” A true and correct copy of the ’467 Patent is attached hereto as  
2 Exhibit 21.

3 178. Altera is not infringing and has not infringed, either directly or indirectly, any  
4 disputed claim of the ’467 Patent.

5 179. As a result of Defendants’ allegations of infringement against Altera, an actual  
6 controversy exists as to the validity of the disputed claims of ’467 Patent.

7 180. The disputed claims of the ’467 Patent are invalid for failure to meet one of more  
8 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
9 112, and 116.

10 **COUNT XXII**  
11 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,157,215)**

12 181. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
13 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

14 182. As a result of Defendants’ allegations of infringement against Altera, an actual  
15 controversy exists as to the infringement of the disputed claims of the ’215 Patent entitled  
16 “Method and apparatus for controlling impedance.” A true and correct copy of the ’215 Patent is  
17 attached hereto as Exhibit 22.

18 183. Altera is not infringing and has not infringed, either directly or indirectly, any  
19 disputed claim of the ’215 Patent.

20 184. As a result of Defendants’ allegations of infringement against Altera, an actual  
21 controversy exists as to the validity of the disputed claims of ’215 Patent.

22 185. The disputed claims of the ’215 Patent are invalid for failure to meet one of more  
23 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
24 112, and 116.

25 **COUNT XXIII**  
26 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 6,459,313)**

27 186. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
28 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

1 187. As a result of Defendants' allegations of infringement against Altera, an actual  
2 controversy exists as to the infringement of the disputed claims of the '313 Patent entitled "IO  
3 power management: synchronously regulated output skew." A true and correct copy of the '313  
4 Patent is attached hereto as Exhibit 23.

5 188. Altera is not infringing and has not infringed, either directly or indirectly, any  
6 disputed claim of the '313 Patent.

7 189. As a result of Defendants' allegations of infringement against Altera, an actual  
8 controversy exists as to the validity of the disputed claims of '313 Patent.

9 190. The disputed claims of the '313 Patent are invalid for failure to meet one of more  
10 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
11 112, and 116.

12 **COUNT XXIV**  
13 **(NONINFRINGEMENT AND INVALIDITY OF U. S. PATENT NO. 5,731,711)**

14 191. Altera hereby restates and realleges the allegations set forth in paragraphs 1  
15 through 13 and paragraphs 134 through 135 above and incorporates them by reference.

16 192. As a result of Defendants' allegations of infringement against Altera, an actual  
17 controversy exists as to the infringement of the disputed claims of the '711 Patent entitled  
18 "Integrated circuit chip with adaptive input-output port." A true and correct copy of the '711  
19 Patent is attached hereto as Exhibit 24.

20 193. Altera is not infringing and has not infringed, either directly or indirectly, any  
21 disputed claim of the '711 Patent.

22 194. As a result of Defendants' allegations of infringement against Altera, an actual  
23 controversy exists as to the validity of the disputed claims of '711 Patent.

24 195. The disputed claims of the '711 Patent are invalid for failure to meet one of more  
25 requirements of Title 35 of the United States Code, including but not limited to, §§ 101, 102, 103,  
26 112, and 116.

27 **PRAYER FOR RELIEF**

28 WHEREFORE, Altera prays for judgment as follows:

- 1           A.     An entry of judgment holding Defendants liable for infringement of the Altera  
2 patents-in-suit;
- 3           B.     An order permanently enjoining Defendants, their officers, agents, servants,  
4 employees, attorneys and affiliated companies, their assigns and successors in interest, and those  
5 persons in active concert or participation with them, from continued acts of infringement of the  
6 Altera patents-in-suit;
- 7           C.     An order awarding Altera damages resulting from Defendants' infringement of the  
8 Altera patents-in-suit; together with prejudgment and post-judgment interest;
- 9           D.     Trebling of damages under 35 U.S.C. § 284 in view of the willful and deliberate  
10 nature of Defendants' infringement of the Altera patents-in-suit;
- 11          E.     A declaration that the disputed claims of the LSI patents-in-suit are not infringed  
12 by Altera;
- 13          F.     A declaration that the disputed claims of the LSI patents-in-suit are invalid;
- 14          G.     An order awarding Altera its costs and attorney's fees under 35 U.S.C. § 285; and
- 15          H.     Any and all other legal and equitable relief as may be available under law and  
16 which the court may deem proper.

17  
18 Dated: June 24, 2011

MORRISON & FOERSTER LLP

19  
20 By: 

KARL J. KRAMER

21  
22 Attorneys for Plaintiff  
ALTERA CORPORATION

23  
24  
25  
26  
27  
28



**DEMAND FOR A JURY TRIAL**

Plaintiff hereby demands a jury trial on all issues so triable under the laws as provide by Rule 38(b) of the Federal Rules of Civil Procedure.

Dated: June 24, 2011

MORRISON & FOERSTER LLP

By: 

KARL J. KRAMER

Attorneys for Plaintiff  
ALTERA CORPORATION

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28