

1 KILPATRICK TOWNSEND & STOCKTON LLP
David E. Sipiora (State Bar No. 124951)
2 dsipiora@kilpatricktownsend.com
Kristopher L. Reed (State Bar No. 235518)
3 kreed@kilpatricktownsend.com
Matthew C. Holohan (State Bar No. 239040)
4 mholohan@kilpatricktownsend.com
1400 Wewatta Street, Suite 600
5 Denver, CO 80202
Telephone: 303.571.4000
6 Facsimile: 303.571.4321

7 Robert J. Artuz (State Bar No. 227789)
rartuz@kilpatricktownsend.com
8 Eighth Floor, Two Embarcadero Center
San Francisco, CA 94111
9 Telephone: 415.273.4713
Facsimile: 415.576.0300

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11 Attorneys for Plaintiff Avago Technologies
General IP (Singapore) Pte. Ltd.
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14 **UNITED STATES DISTRICT COURT**
15 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**
16

17 AVAGO TECHNOLOGIES GENERAL IP
(SINGAPORE) PTE. LTD.,

18 Plaintiff,

19 v.
20

21 ACER INC. and ACER AMERICA CORP.,

22 Defendants.
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**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

1 Plaintiff AVAGO TECHNOLOGIES GENERAL IP (SINGAPORE) PTE. LTD (“Avago”)
2 files this Complaint for Patent Infringement relating to several U.S. patents as identified below
3 (collectively, the “Patents-in-Suit”) and alleges as follows:

4 **PARTIES**

5 1. Plaintiff Avago is a corporation with a tax registration number 2005-12430-D
6 formed under the laws of the country of Singapore with its principal places of business at 1320
7 Ridder Park Dr., San Jose, California 95131 and 1 Yishun Avenue 7, Singapore 768923.

8 2. Defendant Acer Inc. is a corporation formed under the laws of Taiwan R.O.C., with
9 its principal place of business at 8F., No. 88, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City
10 221, Taiwan, R.O.C.

11 3. Defendant Acer America Corp. (“AAC”) is a corporation formed under the laws of
12 the State of California, with its principal place of business at 333 West San Carlos Street, Suite
13 1500, San Jose, California 95110.

14 4. AAC is a subsidiary of Acer Inc. AAC and Acer Inc. (collectively, “Acer”) acted in
15 concert with regard to the allegations set forth in this Complaint and, therefore, the conduct
16 described herein is fairly attributable to either or both entities.

17 **JURISDICTION AND VENUE**

18 5. Avago brings this civil action for patent infringement pursuant to the Patent Laws of
19 the United States, 35 U.S.C. § 1 *et. seq.*, including 35 U.S.C. §§ 271, 281-285. This Court has
20 subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338.

21 6. Upon information and belief, Acer transacts and conducts business in this District
22 and the State of California, and is subject to the personal jurisdiction of this Court. Upon
23 information and belief, Acer has minimum contacts within the State of California and this District
24 and has purposefully availed itself of the privileges of conducting business in the State of California
25 and in this District by, *inter alia*, maintaining its regional headquarters in this District. Avago’s
26 causes of action arise directly from Acer’s business contacts and other activities in the State of
27 California and in this District.

28 7. Upon information and belief, Acer has committed acts of infringement, both directly

1 and indirectly, within this District and the State of California by, *inter alia*, selling, offering for sale,
2 importing, advertising, and/or promoting products that infringe one or more claims of the Patents-
3 in-Suit. More specifically, Acer, directly and/or through intermediaries, uses, sells, ships,
4 distributes, offers for sale, advertises and otherwise promotes its products in the United States, the
5 State of California, and this District.

6 8. Upon information and belief, Acer solicits customers in the State of California and
7 this District, and has many customers who are residents of the State of California and this District
8 and who use Acer's products in the State of California and in this District.

9 9. Venue is proper in this district under 28 U.S.C. §§ 1391 and 1400(b).

10 **THE PATENTS-IN-SUIT**

11 10. On February 9, 1999, the U.S. Patent and Trademark Office ("USPTO") duly and
12 legally issued U.S. Patent No. 5,870,087, titled "MPEG Decoder System and Method Having a
13 Unified Memory for Transport Decode and System Controller Functions," to Kwok Kit Chau (the
14 "'087 Patent"). A true and correct copy of the '087 Patent is attached as Exhibit A to this
15 Complaint.

16 11. On February 13, 2001, the USPTO duly and legally issued U.S. Patent No.
17 6,188,835, titled "Optical Disk System and Method for Storing Data Allowing Playback of Selected
18 Portions of Recorded Presentations," to Brett J. Grandbois (the "'835 Patent"). A true and correct
19 copy of the '835 Patent is attached as Exhibit B to this Complaint.

20 12. On August 6, 2002, the USPTO duly and legally issued U.S. Patent No. 6,430,148,
21 titled "Multidirectional Communication Systems," to Steven Richard Ring (the "'148 Patent"). A
22 true and correct copy of the '148 Patent is attached as Exhibit C to this Complaint.

23 13. On January 3, 2006, the USPTO duly and legally issued U.S. Patent No. 6,982,663,
24 titled "Method and System for Symbol Binarization," to Lowell Winger (the "'663 Patent"). A true
25 and correct copy of the '663 Patent is attached as Exhibit D to this Complaint.

26 14. On June 1, 2004, the USPTO duly and legally issued U.S. Patent No. 6,744,387,
27 titled "Method and System for Symbol Binarization," to Lowell Winger (the "'387 Patent"). A true
28 and correct copy of the '387 Patent is attached as Exhibit E to this Complaint.

1 operations; and the system controller is operable to access the memory to retrieve code and data
2 during system control functions.

3 19. Upon information and belief, Acer had actual knowledge of the '087 Patent at least
4 as early as January 9, 2014, and at least since that date has had actual knowledge that one or more
5 of its products infringes one or more claims of the '087 Patent.

6 20. On information and belief, Defendants have induced and will continue to induce the
7 infringement of at least one claim of the '087 patent, in violation of 35 U.S.C. § 271(b), by, among
8 other things, actively and knowingly aiding and abetting others (including Defendants' customers
9 and end users) through activities such as marketing Acer products, creating and/or distributing data
10 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
11 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
12 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
13 the '087 patent. On information and belief, Defendants know that the induced acts constitute
14 infringement of the '087 patent.

15 21. Upon information and belief, Acer's infringement has been, and continues to be,
16 willful and deliberate, and has caused substantial damage to Avago.

17 22. The infringement of the '087 Patent by Acer will continue unless enjoined by this
18 Court.

19 23. The infringing activities by Acer have caused and will continue to cause irreparable
20 injury to Avago for which there exists no adequate remedy at law.

21
22 **COUNT 2**
(Infringement of U.S. Patent No. 6,188,835)

23 24. Avago incorporates by reference each and every allegation in the preceding
24 paragraphs.

25 25. Acer is making, using, offering to sell, selling and/or importing into the United
26 States products, including but not limited to Acer Model No. E5-573-39K5, that infringe at least
27 Claim 8 of the '835 Patent. Acer Model No. E5-573-39K5 is a laptop with a DVD disk system.
28 DVDs are optical disks. Acer Model No. E5-573-39K5 contains a disk drive that retrieves from an

1 optical disk identification data (such as the disk title, which identifies the optical disk), encoded
2 video data (such as MPEG-2 encoded audio and video information, *i.e.*, a presentation such as a
3 movie or television program) and navigation data (such as timecodes and chapter starts). Acer
4 Model No. E5-573-39K5 includes a touchpad, which is an input device configured to produce an
5 output signal in response to user input. Acer Model No. E5-573-39K5 includes software that allows
6 a user to create bookmarks using the touchpad. Bookmarks indicate a beginning of a selected
7 portion of the presentation, namely, the portion of the presentation that occurs after the bookmark.
8 Acer Model No. E5-573-39K5 includes a hard disk, which is a non-volatile memory for storage of
9 identification data and navigation data. Acer Model No. E5-573-39K5 also includes a CPU (a
10 microprocessor) coupled to receive the identification data and the navigation data from the disk
11 drive. The CPU also receives the output signal from the input device. The CPU is coupled to the
12 hard disk. Acer Model No. E5-573-39K5 operates in a “save index mode” when a presentation is
13 being played by a user and a bookmark can be created at any instant using the input device. Acer
14 Model No. E5-573-39K5 operates in a “play index mode” when the bookmark viewer screen has
15 been accessed by the user, meaning that the user can double click on any previously created
16 bookmark and jump to the beginning of the portion of the presentation associated with that
17 bookmark. During playback of a movie, the user may use the touchpad to create a bookmark. In
18 doing so, the output signal of the touchpad indicates the beginning of the user selected portion of
19 the presentation currently being played, as the user selected portion is a portion of the presentation
20 subsequent to the bookmark. The CPU responds to the output signal by producing the current
21 timecode (navigation data), which identifies the beginning of the user selected portion of the
22 presentation currently being played, and storing the identification data and the current navigation
23 data in the hard disk. The identification data and the current navigation data exist concurrently in
24 the hard disk and are associated with each other.

25 26. Upon information and belief, Acer had actual knowledge of the ‘835 Patent at least
26 as early as November 17, 2008, and at least since that date has had actual knowledge that one or
27 more of its products infringes one or more claims of the ‘835 Patent.

28 27. On information and belief, Defendants have induced and will continue to induce the

1 infringement of at least one claim of the '835 patent, in violation of 35 U.S.C. § 271(b), by, among
2 other things, actively and knowingly aiding and abetting others (including Defendants' customers
3 and end users) through activities such as marketing Acer products, creating and/or distributing data
4 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
5 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
6 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
7 the '835 patent. On information and belief, Defendants know that the induced acts constitute
8 infringement of the '835 patent.

9 28. Upon information and belief, Acer's infringement has been, and continues to be,
10 willful and deliberate, and has caused substantial damage to Avago.

11 29. The infringement of the '835 Patent by Acer will continue unless enjoined by this
12 Court.

13 30. The infringing activities by Acer have caused and will continue to cause irreparable
14 injury to Avago for which there exists no adequate remedy at law.

15 **COUNT 3**
16 **(Infringement of U.S. Patent No. 6,430,148)**

17 31. Avago incorporates by reference each and every allegation in the preceding
18 paragraphs.

19 32. Acer is making, using, offering to sell, selling and/or importing into the United
20 States products, including but not limited to Acer Model No. SW5-271-64V2, that infringe at least
21 Claim 8 of the '148 Patent. On information and belief Acer Model No. SW5-271-64V2 is a laptop
22 that is compatible with at least versions b, g, n, and ac of the IEEE 802.11 Standard. As an 802.11-
23 compatible product, Acer Model No. SW5-271-64V2 is an apparatus for use in an OFDM
24 communication system. Acer Model No. SW5-271-64V2 comprises a first OFDM device for
25 communicating with a second OFDM device at a remote station. Acer Model No. SW5-271-64V2
26 is configured to add a pilot signal to a plurality of data signals, generate a plurality of sub-carrier
27 signals by modulating the pilot signals and data signals, and generate a plurality of sub-carrier
28 frequency signals by performing an inverse fast Fourier transformation on the sub-carrier signals for

1 transmission to the remote station.

2 33. Upon information and belief, Acer had actual knowledge of the '148 Patent at least
3 as early as November 24, 2015 based on letters sent by Plaintiff, and at least since that date has had
4 actual knowledge that one or more of its products infringes one or more claims of the '148 Patent.

5 34. On information and belief, Defendants have induced and will continue to induce the
6 infringement of at least one claim of the '148 patent, in violation of 35 U.S.C. § 271(b), by, among
7 other things, actively and knowingly aiding and abetting others (including Defendants' customers
8 and end users) through activities such as marketing Acer products, creating and/or distributing data
9 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
10 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
11 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
12 the '148 patent. On information and belief, Defendants know that the induced acts constitute
13 infringement of the '148 patent.

14 35. Upon information and belief, Acer's infringement has been, and continues to be,
15 willful and deliberate, and has caused substantial damage to Avago.

16 36. The infringement of the '148 Patent by Acer will continue unless enjoined by this
17 Court.

18 37. The infringing activities by Acer have caused and will continue to cause irreparable
19 injury to Avago for which there exists no adequate remedy at law.

20 **COUNT 4**

21 **(Infringement of U.S. Patent No. 6,982,663)**

22 38. Avago incorporates by reference each and every allegation in the preceding
23 paragraphs.

24 39. Acer is making, using, offering to sell, selling and/or importing into the United
25 States products, including but not limited to Acer Model No. VN7-592G-71ZL, that infringe at least
26 claim 11 of the '663 Patent. On information and belief, Acer Model No. VN7-592G-71ZL includes
27 an NVIDIA GeForce GTX 960M graphics processing unit that includes decoder circuitry that is
28 configured to generate and decode UEG(k) encoded syntax elements, or "codewords," as described

1 in the H.264 Standard. On information and belief, the VN7-592G-71ZL accomplishes this by
2 setting the index value to a threshold in response to a first portion of the decoder-generated
3 codeword having a first pattern; adding an offset to the index value based on a second pattern in a
4 second portion of the codeword following the first portion in response to the first portion having the
5 first pattern; and adding a value to the index value based on a third pattern in a third portion of the
6 codeword following the second portion in response to the first portion having the first pattern.

7 40. Upon information and belief, Acer had actual knowledge of the '663 Patent at least
8 as early as April 21, 2008, and at least since that date has had actual knowledge that one or more of
9 its products infringes one or more claims of the '663 Patent.

10 41. On information and belief, Defendants have induced and will continue to induce the
11 infringement of at least one claim of the '663 patent, in violation of 35 U.S.C. § 271(b), by, among
12 other things, actively and knowingly aiding and abetting others (including Defendants' customers
13 and end users) through activities such as marketing Acer products, creating and/or distributing data
14 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
15 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
16 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
17 the '663 patent. On information and belief, Defendants know that the induced acts constitute
18 infringement of the '663 patent.

19 42. Upon information and belief, Acer's infringement has been, and continues to be,
20 willful and deliberate, and has caused substantial damage to Avago.

21 43. The infringing activities by Acer have caused and will continue to cause irreparable
22 injury to Avago for which there exists no adequate remedy at law.

23 **COUNT 5**
24 **(Infringement of U.S. Patent No. 6,744,387)**

25 44. Avago incorporates by reference each and every allegation in the preceding
26 paragraphs.

27 45. Acer is making, using, offering to sell, selling and/or importing into the United
28 States products, including but not limited to Acer Model No. VN7-592G-71ZL, that infringe at least

1 claim 3 of the '387 Patent. On information and belief, Acer Model No. VN7-592G-71ZL includes
2 an NVIDIA GeForce GTX 960M graphics processing unit that includes an encoder that performs
3 UEG(k) encoding of syntax elements or "index values" as described in the H.264 Standard. On
4 information and belief, the VN7-592G-71ZL encoder accomplishes this by determining if a
5 particular index value is less than a threshold value and, if so, the decoder constructs a codeword
6 using a unary binarization; otherwise, the encoder constructs a codeword in a way that includes
7 using exp-Golomb binarization.

8 46. Upon information and belief, Acer had actual knowledge of the '387 Patent at least
9 as early as January 9, 2014, and at least since that date has had actual knowledge that one or more
10 of its products infringes one or more claims of the '387 Patent.

11 47. On information and belief, Defendants have induced and will continue to induce the
12 infringement of at least one claim of the '387 patent, in violation of 35 U.S.C. § 271(b), by, among
13 other things, actively and knowingly aiding and abetting others (including Defendants' customers
14 and end users) through activities such as marketing Acer products, creating and/or distributing data
15 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
16 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
17 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
18 the '387 patent. On information and belief, Defendants know that the induced acts constitute
19 infringement of the '387 patent.

20 48. Upon information and belief, Acer's infringement has been, and continues to be,
21 willful and deliberate, and has caused substantial damage to Avago.

22 49. The infringing activities by Acer have caused and will continue to cause irreparable
23 injury to Avago for which there exists no adequate remedy at law.

24 **COUNT 6**
25 **(Infringement of U.S. Patent No. 5,982,830)**

26 50. Avago incorporates by reference each and every allegation in the preceding
27 paragraphs.

28 51. Acer is making, using, offering to sell, selling and/or importing into the United

1 States products, including but not limited to Acer Model No. A3-A20-K1AY, that infringe at least
2 claim 1 of the '830 Patent. On information and belief, the Acer Model No. A3-A20-K1AY includes
3 a MediaTek MT8127 processor and/or software capable of or adapted to decode digital audio
4 datastreams (*e.g.*, MPEG audio, *etc.*), and is capable of or adapted to synchronize a data processing
5 unit to a bitstream having synchronization codes successively spaced by a predetermined interval
6 with data for processing disposed between the synchronization codes where said bitstream has a
7 data header comprising a bitrate and a sampling frequency. In addition, on information and belief,
8 the Acer Model No. A3-A20-K1AY includes a detector for detecting said synchronization codes, a
9 sensor for sensing intervals between successive synchronization codes, and a comparator for
10 comparing said intervals with said predetermined interval. On information and belief, the Acer
11 Model No. A3-A20-K1AY includes a controller to determine whether the system is synchronized to
12 the bitstream after the comparator has detected a first predetermined number of said intervals, and
13 whether the system is unsynchronized to the bitstream after the comparator has detected a second
14 predetermined number of said intervals. On information and belief, the Acer Model No. A3-A20-
15 K1AY includes a header sensor for sensing said data header and calculating said predetermined
16 interval from said information.

17 52. Upon information and belief, Acer had actual knowledge of the '830 Patent at least
18 as early as January 9, 2014, and at least since that date has had actual knowledge that one or more
19 of its products infringes one or more claims of the '830 Patent.

20 53. On information and belief, Defendants have induced and will continue to induce the
21 infringement of at least one claim of the '830 patent, in violation of 35 U.S.C. § 271(b), by, among
22 other things, actively and knowingly aiding and abetting others (including Defendants' customers
23 and end users) through activities such as marketing Acer products, creating and/or distributing data
24 sheets, application notes, and/or similar materials with instructions on using Acer products, with the
25 specific intent to induce others to directly make, use, offer for sale, sell, and/or import into the
26 United States, without license or authority from Plaintiff, Acer products that fall within the scope of
27 the '830 patent. On information and belief, Defendants know that the induced acts constitute
28 infringement of the '830 patent.

1 DATED: November 25, 2015

Respectfully submitted,

2 KILPATRICK TOWNSEND & STOCKTON LLP

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4 By: /s/ *David E. Sipiora*

David E. Sipiora (State Bar No. 124951)

5 dsipiora@kilpatricktownsend.com

Kristopher L. Reed (State Bar No. 235518)

6 kreed@kilpatricktownsend.com

Matthew C. Holohan (State Bar No. 239040)

7 mholohan@kilpatricktownsend.com

1400 Wewatta Street, Suite 600

8 Denver, CO 80202

Telephone: 303.571.4000

9 Facsimile: 303.571.4321

10 Robert J. Artuz (State Bar No. 227789)

rartuz@kilpatricktownsend.com

11 Eighth Floor, Two Embarcadero Center

San Francisco, CA 94111

12 Telephone: 415.273.4713

13 Facsimile: 415.576.0300

Attorneys for Plaintiff Avago Technologies

14 General IP (Singapore) Pte. Ltd

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