

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**RING TECHNOLOGY ENTERPRISES OF  
TEXAS, LLC**

**Plaintiff,**

**v.**

- (1) A-DATA TECHNOLOGY (U.S.A.) CO., LTD.,**
- (2) ELPIDA MEMORY (USA) INC.,**
- (3) HEWLETT-PACKARD COMPANY,**
- (4) HEWLETT-PACKARD INTER-AMERICAS,**
- (5) HITACHI GLOBAL STORAGE TECHNOLOGIES, INC.,**
- (6) HITACHI COMPUTER PRODUCTS (AMERICA), INC.,**
- (7) HITACHI ELECTRONIC DEVICES (USA), INC.,**
- (8) MICRON TECHNOLOGY, INC.,**
- (9) MICRON SEMICONDUCTOR PRODUCTS, INC.,**
- (10) MICRON TECHNOLOGY SERVICES, INC.,**
- (11) NAN YA TECHNOLOGY CORPORATION,**
- (12) SAMSUNG SEMICONDUCTOR, INC.,**
- (13) SAMSUNG AMERICA, INC.,**
- (14) SAMSUNG INTERNATIONAL, INC.,**
- (15) SMART MODULAR TECHNOLOGIES, INC.,**
- (16) SMART MODULAR TECHNOLOGIES (DE), INC.,**
- (17) SANMINA-SCI CORPORATION**
- (18) DELL INC.,**
- (19) INTERNATIONAL BUSINESS MACHINES CORPORATION,**
- (20) SUN MICROSYSTEMS, INC.,**
- (21) SUN MICROSYSTEMS OF CALIFORNIA, INC.,**
- (22) SUN MICROSYSTEMS INTERNATIONAL, INC.,**
- (23) SUN MICROSYSTEMS FEDERAL,**

**Civil Action No. \_\_\_\_\_**

**JURY TRIAL DEMANDED**

- INC.,**  
**(24) KINGSTON TECHNOLOGY CORPORATION,**  
**(25) KINGSTON TECHNOLOGY COMPANY, INC. (DELAWARE),**  
**(26) ELPIDA MEMORY, INC.,**  
**(27) A-DATA TECHNOLOGY CO., LTD.**  
**(28) NANYA TECHNOLOGY CORPORATION,**  
**(29) SAMSUNG ELECTRONICS CO., LTD.;**  
**and**  
**(30) HITACHI, LTD.**

**Defendants.**

**COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement in which Plaintiff, RING TECHNOLOGY ENTERPRISES OF TEXAS, LLC, makes the following allegations against defendants, A-DATA TECHNOLOGY (U.S.A.) CO., LTD., ELPIDA MEMORY (USA) INC., HEWLETT-PACKARD COMPANY, HEWLETT-PACKARD INTER-AMERICAS, HITACHI GLOBAL STORAGE TECHNOLOGIES, INC., HITACHI COMPUTER PRODUCTS (AMERICA), INC., HITACHI ELECTRONIC DEVICES (USA), INC., MICRON TECHNOLOGY, INC., MICRON SEMICONDUCTOR PRODUCTS, INC., MICRON TECHNOLOGY SERVICES, INC., NAN YA TECHNOLOGY CORPORATION, SAMSUNG SEMICONDUCTOR, INC., SAMSUNG AMERICA, INC., SAMSUNG INTERNATIONAL, INC., SMART MODULAR TECHNOLOGIES, INC., SMART MODULAR TECHNOLOGIES (DE), INC., SANMINA-SCI CORPORATION, DELL INC., INTERNATIONAL BUSINESS MACHINES CORPORATION, SUN MICROSYSTEMS, INC., SUN MICROSYSTEMS OF CALIFORNIA, INC., SUN MICROSYSTEMS INTERNATIONAL, INC., SUN MICROSYSTEMS FEDERAL, INC., KINGSTON TECHNOLOGY CORPORATION, KINGSTON TECHNOLOGY COMPANY, INC. (DELAWARE), ELPIDA MEMORY, INC., A-DATA TECHNOLOGY CO., LTD., NANYA TECHNOLOGY CORPORATION, SAMSUNG ELECTRONICS CO., LTD.; and HITACHI, LTD. (collectively the “Defendants”).

**PARTIES**

1. Plaintiff Ring Technology Enterprises of Texas, LLC (“Ring”) is a Texas limited liability company having a principal place of business at 719 West Front Street, Suite 274, Tyler, Texas 75702.
2. On information and belief, Defendant A-DATA Technology (U.S.A.) Co., Ltd.

("A-DATA") is a California corporation with its principal place of business at 17101 Gale Ave., Hacienda Heights, CA 91745. A-DATA\_has appointed Chia Zone Wu, 17101 Gale Ave., Hacienda Heights, CA 91745, as its agent for service of process.

3. On information and belief, Defendant Elpida Memory (USA) Inc. ("Elpida") is a Delaware corporation with its principal place of business at 1175 Sonora Ct., Sunnyvale, CA 94086. Elpida-USA has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

4. On information and belief, Defendant Hewlett-Packard Company ("HP") is a Delaware corporation with its principal place of business at 3000 Hanover Street, Palo Alto, California, 94304. HP has appointed The Corporation Trust Company, Corporation Trust Center 1209 Orange Street, Wilmington, DE 19801, as its agent for service of process.

5. On information and belief, Defendant Hewlett-Packard Inter-Americas ("HPIA") is a California corporation with its principal place of business at 3000 Hanover Street, Palo Alto, California, 94304. HPIA has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

6. On information and belief, Defendant Hitachi Global Storage Technologies, Inc. ("Hitachi") is a Delaware corporation with its principal place of business at 3403 Yerba Buena Rd., San Jose, Ca 95135. Hitachi has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

7. On information and belief, Defendant Hitachi Computer Products (America), Inc. ("Hitachi Computer") is a Delaware corporation with its principal place of business at 1800 East Imhoff Rd., Norman, Ok 73071-1202. Hitachi Computer has appointed Corporation Service Company, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of

process.

8. On information and belief, Defendant Hitachi Electronic Devices (USA), Inc. (“Hitachi Electronics”) is a Delaware corporation with its principal place of business at P.O. Box 2203, Greenville, SC 29602. Hitachi Electronics has appointed Corporation Service Company, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of process.

9. On information and belief, Defendant Micron Technology, Inc. (“Micron”) is a Delaware corporation with its principal place of business at 8000 S. Federal Way, Boise, Idaho, 83716-9632. Micron has appointed Corporation Service Company, 2711 Centerville Road Suite 400, Wilmington, DE 19808, as its agent for service of process.

10. On information and belief, Defendant Micron Semiconductor Products, Inc. (“Micron Semiconductor”) is an Idaho corporation with its principal place of business at 8000 S. Federal Way, Boise, Idaho, 83716-9632. Micron Semiconductor has appointed CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of process.

11. On information and belief, Defendant Micron Technology Services, Inc. (“Micron Services”) is an Idaho corporation with its principal place of business at 8000 S. Federal Way, Boise, Idaho 83716-9632. Micron Services has appointed CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr. Ste. 100, Sacramento, CA 95833, as its agent for service of process.

12. On information and belief, Defendant Nan Ya Technology Corporation, U.S.A. (“Nanya”) is a California corporation with its principal place of business at 5104 Old Ironsides Dr. Ste. 113, Santa Clara, CA 95054. Nanya has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

13. On information and belief, Defendant Samsung Semiconductor, Inc. (“Samsung”)

is a California corporation with its principal place of business at 3655 N. 1st Street, San Jose, CA 95134-1713. Samsung has appointed National Registered Agents, Inc., 2875 Michelle Dr. Ste. 100, Irvine, CA 92606, as its agent for service of process.

14. On information and belief, Defendant Samsung America, Inc. (“Samsung America”) is a New York corporation with its principal place of business at 105 Challenger Rd., Ridgefield Park, New Jersey, 07660. Samsung America has appointed Corporation Service Company, 80 State Street, Albany, New York, 12207-2543, as its agent for service of process.

15. On information and belief, Defendant Samsung International, Inc. (“Samsung International”) is a New Jersey corporation with its principal place of business at 10220 Sorrento Valley Rd Ste 100, San Diego, Ca 92121. Samsung International has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

16. On information and belief, Defendant Smart Modular Technologies, Inc. (“Smart”) is a Delaware corporation with its principal place of business at 39870 Eureka Drive, Newark, CA 94560. Smart has appointed Ann T. Nguyen, 39870 Eureka Drive, Newark, CA 94560, as its agent for service of process.

17. On information and belief, Defendant Smart Modular Technologies (DE), Inc. (“Smart-Delaware”) is a Delaware corporation with its principal place of business at 39870 Eureka Drive, Newark, CA 94560. Smart-Delaware has appointed Ann T. Nguyen, 39870 Eureka Drive, Newark, CA 94560, as its agent for service of process.

18. On information and belief, Defendant Sanmina-SCI Corporation (“Sanmina”) is a Delaware corporation with its principal place of business at 30 E. Plumeria Ave., San Jose, CA 95134. Sanmina has appointed CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr. Ste. 100, Sacramento, CA 95833, as its agent for service of process.

19. On information and belief, Defendant Dell Inc. (“Dell”) is a Delaware corporation with its principal place of business at One Dell Way, Round Rock, Texas 78682. Dell has appointed Corporation Service Company, 2711 Centerville Road Suite 400, Wilmington, DE 19808, as its agent for service of process.

20. On information and belief, Defendant International Business Machines Corporation (“IBM”) is a New York corporation with its principal place of business at New Orchard Road, Armonk, New York 10504. IBM has appointed C T Corporation System, 818 West Seventh St., Los Angeles, CA 90017, as its agent for service of process.

21. On information and belief, Defendant Sun Microsystems, Inc. (“Sun”) is a Delaware corporation with its principal place of business at 4150 Network Circle, Santa Clara, CA 95054. Sun has appointed Corporation Service Company, 2711 Centerville Road Suite 400, Wilmington, DE 19808, as its agent for service of process.

22. On information and belief, Defendant Sun Microsystems of California, Inc. (“Sun California”) is an Idaho corporation with its principal place of business at 10 Network Circle, M/S: UMPK10-147, Menlo Park, CA 94025. Sun California has appointed CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of process.

23. On information and belief, Defendant Sun Microsystems International, Inc. (“Sun International”) is an Idaho corporation with its principal place of business at 4150 Network Circle, Santa Clara, CA 95054. Sun International has appointed CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of process.

24. On information and belief, Defendant Sun Microsystems Federal, Inc. (“Sun

Federal”) is an Idaho corporation with its principal place of business at 4150 Network Circle, Santa Clara, CA 95054. Sun Federal has appointed Corporation Service Company which will do business in California as CSC-Lawyers Incorporating Service, 2730 Gateway Oaks Dr., Ste 100, Sacramento, CA 95833, as its agent for service of process.

25. On information and belief, Defendant Kingston Technology Corporation (“Kingston”) is a California corporation with its principal place of business at 17600 Newhope Street, Fountain Valley, CA 92708. Kingston has appointed Robert E Rich, Stradling, Yocca, Carlson, and Rauth, 660 New Port Center Drive, Newport Beach, CA 92660, as its agent for service of process.

26. On information and belief, Defendant Kingston Technology Company, Inc. (Delaware) (“Kingston Delaware”) is a Delaware corporation with its principal place of business at 17600 Newhope Street, Fountain Valley, CA 92708. Kingston Delaware has appointed Robert E Rich, Stradling, Yocca, Carlson, and Rauth, 660 New Port Center Drive, Newport Beach, CA 92660, as its agent for service of process.

27. On information and belief, Defendant Elpida Memory, Inc. (“Elpida Japan”) is a Japanese corporation with its principal place of business located at 2-1, Yaesu 2-Chome Chue-Ku, Tokyo 104-0, Japan. On information and belief, Elpida Japan may be served at 2-1, Yaesu 2-Chome Chue-Ku, Tokyo 104-0, Japan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

28. On information and belief, Defendant A-DATA Technology Co., Ltd. (“A-DATA Taiwan”) is a Taiwanese corporation with its principal place of business located at 18F, No. 258 Lian Cheng Road Taipei County, Chung Ho, Taiwan. On information and belief, A-DATA Taiwan may be served at 18F, No. 258 Lian Cheng Road Taipei County, Chung Ho, Taiwan, via



an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

29. On information and belief, Defendant Nanya Technology Corporation (“Nanya Taiwan”) is a Taiwanese corporation with its principal place of business located at Hwa Ya Technology Park, 669, Fu Hsing 3<sup>rd</sup>., Kueishan, Taoyuan, Taiwan. On information and belief, Nanya Taiwan may be served at Hwa Ya Technology Park, 669, Fu Hsing 3<sup>rd</sup>., Kueishan, Taoyuan, Taiwan, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

30. On information and belief, Defendant Samsung Electronics Co., Ltd. (“Samsung Korea”) is a Korean corporation with its principal place of business located at 250 2 Ka Taepyung Ro Chung Ku, Seoul, Korea, M5 100742 8227277020. On information and belief, Samsung Korea may be served at 250 2 Ka Taepyung Ro Chung Ku, Seoul, Korea, M5 100742 8227277020, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

31. On information and belief, Defendant Hitachi, Ltd. (“Hitachi Japan”) is a Japanese corporation with its principal place of business located at 6-6, Marunouchi 1-Chome Chiyoda-Ku, Tokyo, Japan M0 100-8280 813-3258-1111. On information and belief, Hitachi Japan may be served at 6-6, Marunouchi 1-Chome Chiyoda-Ku, Tokyo, Japan M0 100-8280 813-3258-1111, via an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process.

### **JURISDICTION AND VENUE**

32. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331

and 1338(a).

33. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). On information and belief, each of the Defendants has transacted business in this district, and has committed and/or induced acts of patent infringement in this district.

34. On information and belief, each of the Defendants is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,879,526**

35. Plaintiff Ring is the owner by assignment of United States Patent No. 6,879,526 (the "'526 patent") entitled METHODS AND APPARATUS FOR IMPROVED MEMORY ACCESS. The '526 patent issued on April 12, 2005. A true and correct copy of the '526 patent is included as Exhibit A.

36. Upon information and belief, Defendant A-Data has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced

Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, A-Data has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

37. Upon information and belief, Defendant Elpida has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Elpida has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

38. Upon information and belief, Defendant HP has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of

example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, HP has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

39. Upon information and belief, Defendant HPIA has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, HPIA has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

40. Upon information and belief, Defendant Hitachi has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next

in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hitachi has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

41. Upon information and belief, Defendant Hitachi Computer has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hitachi Computer has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

42. Upon information and belief, Defendant Hitachi Electronics has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing,

offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hitachi Electronics has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

43. Upon information and belief, Defendant Micron has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Micron, has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

44. Upon information and belief, Defendant Micron Semiconductor has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly

infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Micron Semiconductor has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

45. Upon information and belief, Defendant Micron Services has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Micron Services has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C.

§271.

46. Upon information and belief, Defendant Nanya has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Nanya has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

47. Upon information and belief, Defendant Samsung has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that



are covered by one or more claims of the '526 patent, Samsung has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

48. Upon information and belief, Defendant Samsung America has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Samsung America has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

49. Upon information and belief, Defendant Samsung International has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device

employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Samsung International has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

50. Upon information and belief, Defendant Samsung International has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Samsung International has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

51. Upon information and belief, Defendant Smart has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers

interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Smart has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

52. Upon information and belief, Defendant Smart Delaware has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Smart Delaware has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

53. Upon information and belief, Defendant Sanmina has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district,

and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Sanmina has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

54. Upon information and belief, Defendant Dell has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Dell has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

55. Upon information and belief, Defendant IBM has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or

contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, IBM has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

56. Upon information and belief, Defendant Sun has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Sun has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

57. Upon information and belief, Defendant Sun California has been and now is

directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Sun California has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

58. Upon information and belief, Defendant Sun International has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Sun International has injured

Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

59. Upon information and belief, Defendant Sun Federal has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Sun Federal has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

60. Upon information and belief, Defendant Kingston has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing,

offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Kingston has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

61. Upon information and belief, Defendant Kingston Delaware has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Kingston Delaware has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

62. Upon information and belief, Defendant Elpida Japan has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by



way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Elpida Japan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

63. Upon information and belief, Defendant A-Data Taiwan has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, A-Data Taiwan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

64. Upon information and belief, Defendant Nanya Taiwan has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing,

offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Nanya Taiwan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

65. Upon information and belief, Defendant Samsung Korea has been and now is directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Samsung Korea has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

66. Upon information and belief, Defendant Hitachi Japan has been and now is

directly infringing, and indirectly infringing by way of inducing infringement, jointly infringing and/or contributing to the infringement of the '526 patent in the State of Texas, in this judicial district, and elsewhere in the United States, by, among other things, making, using, importing, offering for sale, and/or selling one or more devices having a memory device and a set of shift registers interconnected in series that shift data from the memory device from one shift register to the next in the set according to a shift frequency received from a clock signal, including, by way of example and without limitation, a random access memory device employing an Advanced Memory Buffer covered by one or more claims of the '526 patent. By making, using, importing, offering for sale, and/or selling such apparatuses, and all like products and related services that are covered by one or more claims of the '526 patent, Hitachi Japan has injured Plaintiff and is thus liable to Plaintiff for infringement of the '526 patent pursuant to 35 U.S.C. §271.

67. On information and belief, to the extent any marking was required by 35 U.S.C. § 287, all predecessors in interest to the '526 patent have complied any with such requirements.

68. To the extent that facts learned in discovery show that any one of the Defendants' infringement of the '526 patent is or has been willful, Plaintiff Ring reserves the right to request such a finding at time of trial.

69. As a result of these Defendants' infringement of the '526 patent, Plaintiff Ring has suffered monetary damages in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court, and Plaintiff Ring will continue to suffer damages in the future unless Defendants' infringing activities are enjoined by this Court.

70. Unless a permanent injunction is issued enjoining these Defendants and their agents, servants, employees, representatives, affiliates, and all others acting or in active concert therewith from infringing the '526 patent, Plaintiff Ring will be greatly and irreparably harmed.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Ring respectfully requests that this Court enter:

1. A judgment in favor of Plaintiff Ring that Defendants have infringed, directly and/or indirectly, by way of inducing and/or contributing to the infringement of the '526 patent, and that such infringement was willful;

2. A permanent injunction enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement, inducing the infringement of, or contributing to the infringement of the '526 patent;

3. A judgment and order requiring Defendants to pay Plaintiff Ring its damages, costs, expenses, and prejudgment and post-judgment interest for Defendants' infringement of the '526 patent as provided under 35 U.S.C. § 284;

4. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff Ring its reasonable attorneys' fees; and

5. Any and all other relief to which Plaintiff Ring may show itself to be entitled.

**DEMAND FOR JURY TRIAL**

Plaintiff Ring, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Respectfully submitted,

**RING TECHNOLOGY ENTERPRISES OF  
TEXAS, LLC**

Dated: December 11, 2009

By: /s/ Andrew W. Spangler

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