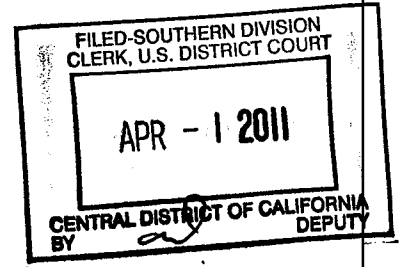


1 John J. Edmonds (State Bar No. 274200)
2 jedmonds@cepiplaw.com
3 COLLINS, EDMONDS & POGORZELSKI, PLLC
4 1851 East First Street, Suite 900
5 Santa Ana, California 92705
6 Telephone: (951) 708-1237
7 Facsimile: (951) 824-7901



8 Attorney for Plaintiff,

9 **DRAM MEMORY TECHNOLOGIES LLC**

10 UNITED STATES DISTRICT COURT
11 CENTRAL DISTRICT OF CALIFORNIA

12 DRAM MEMORY TECHNOLOGIES
13 LLC,

14 Plaintiff,

15 vs.

16 ELITE SEMICONDUCTOR MEMORY
17 TECHNOLOGY INC.;
18 ETRON TECHNOLOGY AMERICA,
19 INC.; ETRON TECHNOLOGY, INC.;
20 INTEGRATED SILICON SOLUTION,
21 INC.; HYNIX SEMICONDUCTOR
22 AMERICA INC.; HYNIX
23 SEMICONDUCTOR
24 MANUFACTURING AMERICA INC.;
25 HYNIX SEMICONDUCTOR INC.;

26 Defendants.

Case No.: 8:11-cv-00332-DOC -SS

[Honorable David O. Carter]

**FIRST AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

JURY TRIAL DEMANDED

Filing Date: TBD

Trial Date: TBD

Discovery Cut-off: TBD

Motion Cut-off: TBD

27 This is an action for patent infringement in which DRAM Memory
28 Technologies LLC submits this First Amended Complaint against Elite
Semiconductor Memory Technology Inc.; Etron Technology America, Inc.; Etron

BY FAX

1 Technology, Inc.; Integrated Silicon Solution, Inc.; Hynix Semiconductor America
2 Inc.; Hynix Semiconductor Manufacturing America Inc.; Hynix Semiconductor Inc.
3
4 (collectively “Defendants”).

5 **PARTIES**

6
7 1. DRAM Memory Technologies LLC (“DRAM MEMTECH” or
8 “Plaintiff”) is a California limited liability company with a place of business at 500
9 Newport Center Drive, Suite 700, Newport Beach, CA 92660.

10
11 2. On information and belief, Elite Semiconductor Memory Technology
12 Inc. (“ESMT”) is an entity organized under the laws of Taiwan with a place of
13 business at No. 23, Industry E. Road IV Science-Based Industrial Park, Hsinchu 300,
14 Taiwan.

15
16 3. On information and belief, Etron Technology America, Inc. (“Etron
17 America”) is a California corporation with a place of business at 3375 Scott Blvd.
18 Suite 128, Santa Clara, California 95054.

19
20 4. On information and belief, Etron Technology, Inc. (“Etron Taiwan”) is
21 an entity organized under the laws of Taiwan with a place of business at No. 6
22 Technology Rd. 5, Science-Based Industrial Park, Hsinchu, 30078, Taiwan. Etron
23 America and Etron Taiwan are referred to collectively as “Etron.”
24
25
26
27
28

1 forum, including at least a portion of the infringements alleged herein. On
2 information and belief, within this district Defendants, directly and/or through
3 intermediaries, have advertised (including through websites), offered to sell, sold
4 and/or distributed infringing products, and/or have induced the sale and use of
5 infringing products. Further, on information and belief, Defendants are subject to the
6 Court's general jurisdiction, including from regularly doing or soliciting business,
7 engaging in other persistent courses of conduct, and/or deriving substantial revenue
8 from goods and services provided to individuals in California.

12 14. Venue is proper in this district under 28 U.S.C. §§ 1391(b), 1391(c) and
13 1400(b). On information and belief, from and within this Judicial District each
14 Defendant has committed at least a portion of the infringements at issue in this case.
15 Without limitation, on information and belief, within this district Defendants, directly
16 and/or through intermediaries, have advertised (including through websites), offered
17 to sell, sold and/or distributed infringing products, and/or have induced the sale and
18 use of infringing products.

21 **COUNT I**

22 **INFRINGEMENT OF U.S. PATENT NO. 6,765,838**

23 15. United States Patent No. 6,765,838 ("the '838 patent"), entitled "Refresh
24 Control Circuitry for Refreshing Storage Data," issued on July 20, 2004.
25
26
27
28

1 16. DRAM MEMTECH is the present assignee of the entire right, title and
2 interest in and to the '838 patent, including all rights to sue for past and present
3 infringement. Accordingly, DRAM MEMTECH has standing to bring this lawsuit for
4 infringement of the '838 patent.
5

6 17. The various claims of the '838 patent cover, inter alia, semiconductor
7 memory devices, namely dynamic random access memory (hereinafter "DRAM")
8 chips, comprising refresh address generating circuitry for generating a multi-bit
9 refresh address designating a memory cell to be refreshed, and refresh activating
10 circuitry for generating a refresh array activating signal for activating a refresh
11 operation in accordance with a specific address bit of the refresh address and a refresh
12 request.
13
14
15

16 18. On information and belief, ESMT has been and now is infringing the
17 '838 patent by actions comprising making, using, selling, offering for sale and/or
18 importing synchronous semiconductor memory devices, namely DRAM chips,
19 comprising refresh address generating circuitry for generating a multi-bit refresh
20 address designating a memory cell to be refreshed, and refresh activating circuitry for
21 generating a refresh array activating signal for activating a refresh operation in
22 accordance with a specific address bit of the refresh address and a refresh request,
23 including, but not limited to, ESMT's M53D128168A Mobile DDR SDRAM.
24
25
26
27
28

1 19. On information and belief, at least since receiving notice of the '838
2 patent, including at a minimum from this lawsuit, ESMT is and/or has been inducing
3 others, including without limitation manufacturers of apparatuses incorporating said
4 DRAM chips and/or resellers of said DRAM chips, to infringe the '838 patent,
5 including without limitation by selling, offering for sale and/or importing said DRAM
6 chips; and further ESMT is and/or has been inducing users to use said chips.
7

8
9 20. On information and belief, at least since receiving notice of the '838
10 patent, including at a minimum from this lawsuit, ESMT is and/or has been
11 contributing to the infringement of others, including without limitation said
12 manufacturers, resellers and/or users, including by selling, offering to sell and/or
13 importing said DRAM chips, at a minimum knowing the same to be especially made
14 or especially adapted for use in an infringement of the '838 patent, and not a staple
15 article or commodity of commerce suitable for substantial noninfringing use.
16
17

18
19 21. Accordingly, on information and belief ESMT is liable for infringement
20 of the '838 patent.
21

22 22. On information and belief, Etron has been and now is infringing the '838
23 patent by actions comprising making, using, selling, offering for sale and/or importing
24 synchronous semiconductor memory devices, namely DRAM chips, comprising
25 refresh address generating circuitry for generating a multi-bit refresh address
26 designating a memory cell to be refreshed, and refresh activating circuitry for
27
28

1 generating a refresh array activating signal for activating a refresh operation in
2 accordance with a specific address bit of the refresh address and a refresh request,
3 including but not limited to Etron's EM68916CWQA DDRII SDRAM.
4

5 23. On information and belief, at least since receiving notice of the '838
6 patent, including at a minimum from this lawsuit, Etron is and/or has been inducing
7 others, including without limitation manufacturers of apparatuses incorporating said
8 DRAM chips and/or resellers of said DRAM chips, to infringe the '838 patent,
9 including without limitation by selling, offering for sale and/or importing said DRAM
10 chips; and further Etron is and/or has been inducing users to use said chips.
11
12

13 24. On information and belief, at least since receiving notice of the '838
14 patent, including at a minimum from this lawsuit, Etron is and/or has been
15 contributing to the infringement of others, including without limitation said
16 manufacturers, resellers and/or users, including by selling, offering to sell and/or
17 importing said DRAM chips, at a minimum knowing the same to be especially made
18 or especially adapted for use in an infringement of the '838 patent, and not a staple
19 article or commodity of commerce suitable for substantial noninfringing use.
20
21
22

23 25. Accordingly, on information and belief Etron is liable for infringement of
24 the '838 patent.
25

26 26. On information and belief, ISSI has been and now is infringing the '838
27 patent by actions comprising making, using, selling, offering for sale and/or importing
28

1 synchronous semiconductor memory devices, namely DRAM chips, comprising
2 refresh address generating circuitry for generating a multi-bit refresh address
3
4 designating a memory cell to be refreshed, and refresh activating circuitry for
5 generating a refresh array activating signal for activating a refresh operation in
6 accordance with a specific address bit of the refresh address and a refresh request,
7
8 including but not limited to, ISSI's IS43DR83200A, IS43/46DR16160A, and
9 IS43DR32160A DDR2 SDRAMs.

10
11 27. On information and belief, at least since receiving notice of the '838
12 patent, including at a minimum from this lawsuit, ISSI is and/or has been inducing
13 others, including without limitation manufacturers of apparatuses incorporating said
14 DRAM chips and/or resellers of said DRAM chips, to infringe the '838 patent,
15 including without limitation by selling, offering for sale and/or importing said DRAM
16 chips; and further ISSI is and/or has been inducing users to use said chips.
17
18

19 28. On information and belief, at least since receiving notice of the '838
20 patent, including at a minimum from this lawsuit, ISSI is and/or has been contributing
21 to the infringement of others, including without limitation said manufacturers,
22 resellers and/or users, including by selling, offering to sell and/or importing said
23 DRAM chips, at a minimum knowing the same to be especially made or especially
24 adapted for use in an infringement of the '838 patent, and not a staple article or
25 commodity of commerce suitable for substantial noninfringing use.
26
27
28

1 29. Accordingly, on information and belief ISSI is liable for infringement of
2 the '838 patent.

3
4 30. On information and belief, Hynix has been and now is infringing the
5 '838 patent by actions comprising making, using, selling, offering for sale and/or
6 importing synchronous semiconductor memory devices, namely DRAM chips,
7 comprising refresh address generating circuitry for generating a multi-bit refresh
8 address designating a memory cell to be refreshed, and refresh activating circuitry for
9 generating a refresh array activating signal for activating a refresh operation in
10 accordance with a specific address bit of the refresh address and a refresh request,
11 including but not limited to, Hynix's H5TQ1G83BFR DDR3 SDRAMs.

12
13
14 31. On information and belief, at least since receiving notice of the '838
15 patent, including at a minimum from this lawsuit, Hynix is and/or has been inducing
16 others, including without limitation manufacturers of apparatuses incorporating said
17 DRAM chips and/or resellers of said DRAM chips, to infringe the '838 patent,
18 including without limitation by selling, offering for sale and/or importing said DRAM
19 chips; and further Hynix is and/or has been inducing users to use said chips.

20
21
22 32. On information and belief, at least since receiving notice of the '838
23 patent, including at a minimum from this lawsuit, Hynix is and/or has been
24 contributing to the infringement of others, including without limitation said
25 manufacturers, resellers and/or users, including by selling, offering to sell and/or
26
27
28

1 importing said DRAM chips, at a minimum knowing the same to be especially made
2 or especially adapted for use in an infringement of the '838 patent, and not a staple
3 article or commodity of commerce suitable for substantial noninfringing use.
4

5 33. Accordingly, on information and belief Hynix is liable for infringement
6 of the '838 patent.
7

8 34.- 37. Not used.
9

10 COUNT II

11 INFRINGEMENT OF U.S. PATENT NO. 5,703,831

12 38. United States Patent No. 5,703,831 ("the '831 patent"), entitled
13 "Synchronous Semiconductor Memory Device Having Internal Circuitry Enabled
14 Only When Commands Are Applied In Normal Sequence," issued on December 30,
15 1997.
16

17 39. DRAM MEMTECH is the present assignee of the entire right, title and
18 interest in and to the '831 patent, including all rights to sue for past and present
19 infringement. Accordingly, DRAM MEMTECH has standing to bring this lawsuit for
20 infringement of the '831 patent.
21

22 40. The various claims of the '831 patent cover, inter alia, DRAM chips
23 operating in synchronization with an externally applied clock signal, comprising a
24 first command decoder generating an activating signal activating a predetermined first
25 internal operation, and a second command decoder enabled in response to the
26
27
28

1 activating signal from said first command decoder to activate a second internal
2 operation.

3
4 41. On information and belief, ESMT has been and now is infringing the
5 '831 patent by actions comprising making, using, selling, offering for sale and/or
6 importing synchronous semiconductor memory devices, namely DRAM chips
7 operating in synchronization with an externally applied clock signal, comprising a
8 first command decoder generating an activating signal activating a predetermined first
9 internal operation, and a second command decoder enabled in response to the
10 activating signal from said first command decoder to activate a second internal
11 operation, including but not limited to ESMT's M14D5121632A DDR II SDRAM
12 and M13S256328A DDR SDRAM.
13
14
15

16 42. On information and belief, at least since receiving notice of the '831
17 patent, including at a minimum from this lawsuit, ESMT is and/or has been inducing
18 others, including without limitation manufacturers of apparatuses incorporating said
19 DRAM chips and/or resellers of said DRAM chips, to infringe the '831 patent,
20 including without limitation by selling, offering for sale and/or importing said DRAM
21 chips; and further ESMT is and/or has been inducing users to use said chips.
22
23

24 43. On information and belief, at least since receiving notice of the '831
25 patent, including at a minimum from this lawsuit, ESMT is and/or has been
26 contributing to the infringement of others, including without limitation said
27
28

1 manufacturers, resellers and/or users, including by selling, offering to sell and/or
2 importing said DRAM chips, at a minimum knowing the same to be especially made
3 or especially adapted for use in an infringement of the '831 patent, and not a staple
4 article or commodity of commerce suitable for substantial noninfringing use.
5

6 44. Accordingly, on information and belief ESMT is liable for infringement
7 of the '831 patent.
8

9 45. On information and belief, Etron has been and now is infringing the '831
10 patent by actions comprising making, using, selling, offering for sale and/or importing
11 synchronous semiconductor memory devices, namely DRAM chips operating in
12 synchronization with an externally applied clock signal, comprising a first command
13 decoder generating an activating signal activating a predetermined first internal
14 operation, and a second command decoder enabled in response to the activating signal
15 from said first command decoder to activate a second internal operation, including but
16 not limited to, Etron's EM68916CWQA DDR II SDRAM and EM6AB160TSA DDR
17 SDRAM.
18
19
20
21

22 46. On information and belief, at least since receiving notice of the '831
23 patent, including at a minimum from this lawsuit, Etron is and/or has been inducing
24 others, including without limitation manufacturers of apparatuses incorporating said
25 DRAM chips and/or resellers of said DRAM chips, to infringe the '831 patent,
26
27
28

1 including without limitation by selling, offering for sale and/or importing said DRAM
2 chips; and further Etron is and/or has been inducing users to use said chips.
3

4 47. On information and belief, at least since receiving notice of the '831
5 patent, including at a minimum from this lawsuit, Etron is and/or has been
6 contributing to the infringement of others, including without limitation said
7 manufacturers, resellers and/or users, including by selling, offering to sell and/or
8 importing said DRAM chips, at a minimum knowing the same to be especially made
9 or especially adapted for use in an infringement of the '831 patent, and not a staple
10 article or commodity of commerce suitable for substantial noninfringing use.
11
12

13 48. Accordingly, on information and belief Etron is liable for infringement of
14 the '831 patent.
15

16 49. On information and belief, ISSI has been and now is infringing the '831
17 patent by actions comprising making, using, selling, offering for sale and/or importing
18 synchronous semiconductor memory devices, namely ISSI chips operating in
19 synchronization with an externally applied clock signal, comprising a first command
20 decoder generating an activating signal activating a predetermined first internal
21 operation, and a second command decoder enabled in response to the activating signal
22 from said first command decoder to activate a second internal operation, including
23 without limitation, ISSI's IS43DR86400B DDR2 SDRAM and IS43/46LR16800E
24 Mobile DDR SDRAM.
25
26
27
28

1 50. On information and belief, at least since receiving notice of the '831
2 patent, including at a minimum from this lawsuit, ISSI is and/or has been inducing
3 others, including without limitation manufacturers of apparatuses incorporating said
4 DRAM chips and/or resellers of said DRAM chips, to infringe the '831 patent,
5 including without limitation by selling, offering for sale and/or importing said DRAM
6 chips; and further ISSI is and/or has been inducing users to use said chips.
7
8

9 51. On information and belief, at least since receiving notice of the '831
10 patent, including at a minimum from this lawsuit, ISSI is and/or has been contributing
11 to the infringement of others, including without limitation said manufacturers,
12 resellers and/or users, including by selling, offering to sell and/or importing said
13 DRAM chips, at a minimum knowing the same to be especially made or especially
14 adapted for use in an infringement of the '831 patent, and not a staple article or
15 commodity of commerce suitable for substantial noninfringing use.
16
17
18

19 52. Accordingly, on information and belief ISSI is liable for infringement of
20 the '831 patent.
21

22 53. On information and belief, Hynix has been and now is infringing the
23 '831 patent by actions comprising making, using, selling, offering for sale and/or
24 importing synchronous semiconductor memory devices, namely Hynix chips
25 operating in synchronization with an externally applied clock signal, comprising a
26 first command decoder generating an activating signal activating a predetermined first
27
28

1 internal operation, and a second command decoder enabled in response to the
2 activating signal from said first command decoder to activate a second internal
3 operation, including without limitation, Hynix's H5TQ1G83BFR DDR3 SDRAMs.
4

5 54. On information and belief, at least since receiving notice of the '831
6 patent, including at a minimum from this lawsuit, Hynix is and/or has been inducing
7 others, including without limitation manufacturers of apparatuses incorporating said
8 DRAM chips and/or resellers of said DRAM chips, to infringe the '831 patent,
9 including without limitation by selling, offering for sale and/or importing said DRAM
10 chips; and further Hynix is and/or has been inducing users to use said chips.
11
12

13 55. On information and belief, at least since receiving notice of the '831
14 patent, including at a minimum from this lawsuit, Hynix is and/or has been
15 contributing to the infringement of others, including without limitation said
16 manufacturers, resellers and/or users, including by selling, offering to sell and/or
17 importing said DRAM chips, at a minimum knowing the same to be especially made
18 or especially adapted for use in an infringement of the '831 patent, and not a staple
19 article or commodity of commerce suitable for substantial noninfringing use.
20
21
22

23 56. Accordingly, on information and belief Hynix is liable for infringement
24 of the '831 patent.
25

26 57.-60. Not used.
27
28

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 6,396,747

1
2
3
4 61. United States Patent No. 6,396,747 (“the ‘747 patent”), entitled
5 “Semiconductor Memory Device Capable of High Speed Input/Output of Wide
6 Bandwidth Data By Improving Usage Efficiency of External Data Bus,” issued on
7
8 May 28, 2002.

9
10 62. DRAM MEMTECH is the present assignee of the entire right, title and
11 interest in and to the ‘747 patent, including all rights to sue for past and present
12 infringement. Accordingly, DRAM MEMTECH has standing to bring this lawsuit for
13 infringement of the ‘747 patent.
14

15 63. The various claims of the ‘747 patent cover, inter alia, DRAM chips
16 capable of inputting/outputting data signals transmitted as a data train in time series
17 by an external data bus in each of one read access operation and one write access
18 operation.
19

20 64. On information and belief, ESMT has been and now is infringing the
21 ‘747 patent by actions comprising making, using, selling, offering for sale and/or
22 importing synchronous semiconductor memory devices, namely DRAM chips capable
23 of inputting/outputting data signals transmitted as a data train in time series by an
24 external data bus in each of one read access operation and one write access operation,
25
26
27
28

1 including without limitation, ESMT's M14D5121632A DDR II SDRAM and
2 M13S256328A DDR SDRAM.

3
4 65. On information and belief, at least since receiving notice of the '747
5 patent, including at a minimum from this lawsuit, ESMT is and/or has been inducing
6 others, including without limitation manufacturers of apparatuses incorporating said
7 DRAM chips and/or resellers of said DRAM chips, to infringe the '747 patent,
8 including without limitation by selling, offering for sale and/or importing said DRAM
9 chips; and further ESMT is and/or has been inducing users to use said chips.
10
11

12 66. On information and belief, at least since receiving notice of the '747
13 patent, including at a minimum from this lawsuit, ESMT is and/or has been
14 contributing to the infringement of others, including without limitation said
15 manufacturers, resellers and/or users, including by selling, offering to sell and/or
16 importing said DRAM chips, at a minimum knowing the same to be especially made
17 or especially adapted for use in an infringement of the '747 patent, and not a staple
18 article or commodity of commerce suitable for substantial noninfringing use.
19
20
21

22 67. Accordingly, on information and belief ESMT is liable for infringement
23 of the '747 patent.

24 68. On information and belief, Etron has been and now is infringing the '747
25 patent by actions comprising making, using, selling, offering for sale and/or importing
26 synchronous semiconductor memory devices, namely DRAM chips capable of
27
28

1 inputting/outputting data signals transmitted as a data train in time series by an
2 external data bus in each of one read access operation and one write access operation,
3 including, without limitation, Etron's EM68916CWQA DDR II SDRAM and
4 EM6AB160TSA DDR SDRAM.
5

6 69. On information and belief, at least since receiving notice of the '747
7 patent, including at a minimum from this lawsuit, Etron is and/or has been inducing
8 others, including without limitation manufacturers of apparatuses incorporating said
9 DRAM chips and/or resellers of said DRAM chips, to infringe the '747 patent,
10 including without limitation by selling, offering for sale and/or importing said DRAM
11 chips; and further Etron is and/or has been inducing users to use said chips.
12
13

14 70. On information and belief, at least since receiving notice of the '747
15 patent, including at a minimum from this lawsuit, Etron is and/or has been
16 contributing to the infringement of others, including without limitation said
17 manufacturers, resellers and/or users, including by selling, offering to sell and/or
18 importing said DRAM chips, at a minimum knowing the same to be especially made
19 or especially adapted for use in an infringement of the '747 patent, and not a staple
20 article or commodity of commerce suitable for substantial noninfringing use.
21
22
23

24 71. Accordingly, on information and belief Etron is liable for infringement of
25 the '747 patent.
26
27
28

1 72. On information and belief, ISSI has been and now is infringing the '747
2 patent by actions comprising making, using, selling, offering for sale and/or importing
3 synchronous semiconductor memory devices, namely DRAM chips capable of
4 inputting/outputting data signals transmitted as a data train in time series by an
5 external data bus in each of one read access operation and one write access operation,
6 including without limitation, ISSI's IS43DR86400B DDR2 SDRAM and
7
8 including without limitation, ISSI's IS43DR86400B DDR2 SDRAM and
9 IS43/46LR16800E Mobile DDR SDRAM.
10

11 73. On information and belief, at least since receiving notice of the '747
12 patent, including at a minimum from this lawsuit, ISSI is and/or has been inducing
13 others, including without limitation manufacturers of apparatuses incorporating said
14 DRAM chips and/or resellers of said DRAM chips, to infringe the '747 patent,
15 including without limitation by selling, offering for sale and/or importing said DRAM
16 chips; and further ISSI is and/or has been inducing users to use said chips.
17
18

19 74. On information and belief, at least since receiving notice of the '747
20 patent, including at a minimum from this lawsuit, ISSI is and/or has been contributing
21 to the infringement of others, including without limitation said manufacturers,
22 resellers and/or users, including by selling, offering to sell and/or importing said
23 DRAM chips, at a minimum knowing the same to be especially made or especially
24 adapted for use in an infringement of the '747 patent, and not a staple article or
25 commodity of commerce suitable for substantial noninfringing use.
26
27
28

1 75. Accordingly, on information and belief ISSI is liable for infringement of
2 the '747 patent.

3
4 76. On information and belief, Hynix has been and now is infringing the
5 '747 patent by actions comprising making, using, selling, offering for sale and/or
6 importing synchronous semiconductor memory devices, namely DRAM chips capable
7 of inputting/outputting data signals transmitted as a data train in time series by an
8 external data bus in each of one read access operation and one write access operation,
9 including without limitation, Hynix's H5TQ1G83BFR DDR3 SDRAMs.

10
11
12 77. On information and belief, at least since receiving notice of the '747
13 patent, including at a minimum from this lawsuit, Hynix is and/or has been inducing
14 others, including without limitation manufacturers of apparatuses incorporating said
15 DRAM chips and/or resellers of said DRAM chips, to infringe the '747 patent,
16 including without limitation by selling, offering for sale and/or importing said DRAM
17 chips; and further Hynix is and/or has been inducing users to use said chips.
18
19

20 78. On information and belief, at least since receiving notice of the '747
21 patent, including at a minimum from this lawsuit, Hynix is and/or has been
22 contributing to the infringement of others, including without limitation said
23 manufacturers, resellers and/or users, including by selling, offering to sell and/or
24 importing said DRAM chips, at a minimum knowing the same to be especially made
25
26
27
28

1 or especially adapted for use in an infringement of the '747 patent, and not a staple
2 article or commodity of commerce suitable for substantial noninfringing use.

3
4 79. Accordingly, on information and belief Hynix is liable for infringement
5 of the '747 patent.

6 80.-83. Not used.

7
8 **COUNT IV**

9 **INFRINGEMENT OF U.S. PATENT NO.6,351,423**

10
11 84. United States Patent No. 6,351,423 ("the '423 patent"), entitled
12 "Semiconductor Memory Device Including Sense Amplifier Circuit Differing in
13 Drivability Between Data Write Mode and Data Read Mode," issued on February 26,
14 2002.

15
16 85. DRAM MEMTECH is the present assignee of the entire right, title and
17 interest in and to the '423 patent, including all rights to sue for past and present
18 infringement. Accordingly, DRAM MEMTECH has standing to bring this lawsuit for
19 infringement of the '423 patent.

20
21
22 86. The various claims of the '423 patent cover, inter alia, DRAM chips
23 comprising internal data write circuitry including a data mask circuit for inhibiting
24 data writing into at least one memory cell in accordance with a data mask designating
25 signal designating the memory cell to be masked of data writing.
26
27
28

1 87. On information and belief, ESMT has been and now is infringing the
2 '423 patent by actions comprising making, using, selling, offering for sale and/or
3 importing synchronous semiconductor memory devices, namely DRAM chips
4 comprising internal data write circuitry including a data mask circuit for inhibiting
5 data writing into at least one memory cell in accordance with a data mask designating
6 signal designating the memory cell to be masked of data writing, including without
7 limitation, ESMT's M14D5121632A DDR II SDRAM and M13S256328A DDR
8 SDRAM.
9
10
11

12 88. On information and belief, at least since receiving notice of the '423
13 patent, including at a minimum from this lawsuit, ESMT is and/or has been inducing
14 others, including without limitation manufacturers of apparatuses incorporating said
15 DRAM chips and/or resellers of said DRAM chips, to infringe the '423 patent,
16 including without limitation by selling, offering for sale and/or importing said DRAM
17 chips; and further ESMT is and/or has been inducing users to use said chips.
18
19

20 89. On information and belief, at least since receiving notice of the '423
21 patent, including at a minimum from this lawsuit, ESMT is and/or has been
22 contributing to the infringement of others, including without limitation said
23 manufacturers, resellers and/or users, including by selling, offering to sell and/or
24 importing said DRAM chips, at a minimum knowing the same to be especially made
25
26
27
28

1 or especially adapted for use in an infringement of the '423 patent, and not a staple
2 article or commodity of commerce suitable for substantial noninfringing use.

3
4 90. Accordingly, on information and belief ESMT is liable for infringement
5 of the '423 patent.

6
7 91. On information and belief, Etron has been and now is infringing the '423
8 patent by actions comprising making, using, selling, offering for sale and/or importing
9 synchronous semiconductor memory devices, namely DRAM chips comprising
10 internal data write circuitry including a data mask circuit for inhibiting data writing
11 into at least one memory cell in accordance with a data mask designating signal
12 designating the memory cell to be masked of data writing, including without
13 limitation, Etron's EM68916CWQA DDR II SDRAM and EM6AB160TSA DDR
14 SDRAM.
15 SDRAM.
16

17
18 92. On information and belief, at least since receiving notice of the '423
19 patent, including at a minimum from this lawsuit, Etron is and/or has been inducing
20 others, including without limitation manufacturers of apparatuses incorporating said
21 DRAM chips and/or resellers of said DRAM chips, to infringe the '423 patent,
22 including without limitation by selling, offering for sale and/or importing said DRAM
23 chips; and further Etron is and/or has been inducing users to use said chips.
24
25

26 93. On information and belief, at least since receiving notice of the '423
27 patent, including at a minimum from this lawsuit, Etron is and/or has been
28

1 contributing to the infringement of others, including without limitation said
2 manufacturers, resellers and/or users, including by selling, offering to sell and/or
3 importing said DRAM chips, at a minimum knowing the same to be especially made
4 or especially adapted for use in an infringement of the '423 patent, and not a staple
5 article or commodity of commerce suitable for substantial noninfringing use.
6

7
8 94. Accordingly, on information and belief Etron is liable for infringement of
9 the '423 patent.

10
11 95. On information and belief, ISSI has been and now is infringing the '423
12 patent by actions comprising making, using, selling, offering for sale and/or importing
13 synchronous semiconductor memory devices, namely DRAM chips comprising
14 internal data write circuitry including a data mask circuit for inhibiting data writing
15 into at least one memory cell in accordance with a data mask designating signal
16 designating the memory cell to be masked of data writing, including, without
17 limitation, ISSI's IS43DR86400B DDR2 SDRAM and IS43/46LR16800E Mobile
18 DDR SDRAM.
19
20

21
22 96. On information and belief, at least since receiving notice of the '423
23 patent, including at a minimum from this lawsuit, ISSI is and/or has been inducing
24 others, including without limitation manufacturers of apparatuses incorporating said
25 DRAM chips and/or resellers of said DRAM chips, to infringe the '423 patent,
26
27
28

1 including without limitation by selling, offering for sale and/or importing said DRAM
2 chips; and further ISSI is and/or has been inducing users to use said chips.

3
4 97. On information and belief, at least since receiving notice of the '423
5 patent, including at a minimum from this lawsuit, ISSI is and/or has been contributing
6 to the infringement of others, including without limitation said manufacturers,
7 resellers and/or users, including by selling, offering to sell and/or importing said
8 DRAM chips, at a minimum knowing the same to be especially made or especially
9 adapted for use in an infringement of the '423 patent, and not a staple article or
10 commodity of commerce suitable for substantial noninfringing use.
11
12

13 98. Accordingly, on information and belief ISSI is liable for infringement of
14 the '423 patent.
15

16 99. On information and belief, Hynix has been and now is infringing the
17 '423 patent by actions comprising making, using, selling, offering for sale and/or
18 importing synchronous semiconductor memory devices, namely DRAM chips
19 comprising internal data write circuitry including a data mask circuit for inhibiting
20 data writing into at least one memory cell in accordance with a data mask designating
21 signal designating the memory cell to be masked of data writing, including, without
22 limitation, Hynix's H5TQ1G83BFR DDR3 SDRAMs.
23
24
25

26 100. On information and belief, at least since receiving notice of the '423
27 patent, including at a minimum from this lawsuit, Hynix is and/or has been inducing
28

1 others, including without limitation manufacturers of apparatuses incorporating said
2 DRAM chips and/or resellers of said DRAM chips, to infringe the '423 patent,
3 including without limitation by selling, offering for sale and/or importing said DRAM
4 chips; and further Hynix is and/or has been inducing users to use said chips.
5

6 101. On information and belief, at least since receiving notice of the '423
7 patent, including at a minimum from this lawsuit, Hynix is and/or has been
8 contributing to the infringement of others, including without limitation said
9 manufacturers, resellers and/or users, including by selling, offering to sell and/or
10 importing said DRAM chips, at a minimum knowing the same to be especially made
11 or especially adapted for use in an infringement of the '423 patent, and not a staple
12 article or commodity of commerce suitable for substantial noninfringing use.
13
14
15

16 102. Accordingly, on information and belief Hynix is liable for infringement
17 of the '423 patent.
18

19 103.-106. Not used.
20

21 **COUNT V**

22 **INFRINGEMENT OF U.S. PATENT NO. 6,028,805**

23 107. United States Patent No. 6,028,805 ("the '805 patent"), entitled "Volatile
24 Memory and Embedded Dynamic Random Access Memory," issued on February 22,
25 2000.
26
27
28

1 108. DRAM MEMTECH is the present assignee of the entire right, title and
2 interest in and to the '805 patent, including all rights to sue for past and present
3 infringement. Accordingly, DRAM MEMTECH has standing to bring this lawsuit for
4 infringement of the '805 patent.
5

6 109. The various claims of the '805 patent cover, inter alia, a volatile memory
7 comprising a means for generating a refresh control signal specifying first and second
8 regions of a memory array in a self refresh mode, and a refresh control means for
9 performing self-refresh for said first region and performing no self-refresh for said
10 second region on the basis of the self refresh control signal in a self-refresh mode.
11

12 110. On information and belief, ESMT has been and now is infringing the
13 '805 patent by actions comprising making, using, selling, offering for sale and/or
14 importing synchronous semiconductor memory devices, namely volatile memory
15 comprising a means for generating a refresh control signal specifying first and second
16 regions of a memory array in a self refresh mode, and a refresh control means for
17 performing self-refresh for said first region and performing no self-refresh for said
18 second region on the basis of the self refresh control signal in a self-refresh mode,
19 including without limitation, ESMT's M53D128168A Mobile DDR SDRAM and
20 M52S128168 Mobile SDRAM.
21

22 111. On information and belief, at least since receiving notice of the '805
23 patent, including at a minimum from this lawsuit, ESMT is and/or has been inducing
24
25
26
27
28

1 others, including without limitation manufacturers of apparatuses incorporating said
2 volatile memory and/or resellers of said volatile memory, to infringe the '805 patent,
3 including without limitation by selling, offering for sale and/or importing said volatile
4 memory; and further ESMT is and/or has been inducing users to use said chips.
5

6 112. On information and belief, at least since receiving notice of the '805
7 patent, including at a minimum from this lawsuit, ESMT is and/or has been
8 contributing to the infringement of others, including without limitation said
9 manufacturers, resellers and/or users, including by selling, offering to sell and/or
10 importing said volatile memory, at a minimum knowing the same to be especially
11 made or especially adapted for use in an infringement of the '805 patent, and not a
12 staple article or commodity of commerce suitable for substantial noninfringing use.
13
14
15

16 113. Accordingly, on information and belief ESMT is liable for infringement
17 of the '805 patent.
18

19 114. On information and belief, Etron has been and now is infringing the '805
20 patent by actions comprising making, using, selling, offering for sale and/or importing
21 synchronous semiconductor memory devices, namely volatile memory comprising a
22 means for generating a refresh control signal specifying first and second regions of a
23 memory array in a self refresh mode, and a refresh control means for performing self-
24 refresh for said first region and performing no self-refresh for said second region on
25
26
27
28

1 the basis of the self refresh control signal in a self-refresh mode, including without
2 limitation, Etron's EM68916CWQA DDR II SDRAM.

3
4 115. On information and belief, at least since receiving notice of the '805
5 patent, including at a minimum from this lawsuit, Etron is and/or has been inducing
6 others, including without limitation manufacturers of apparatuses incorporating said
7 volatile memory and/or resellers of said volatile memory, to infringe the '805 patent,
8 including without limitation by selling, offering for sale and/or importing said volatile
9 memory; and further Etron is and/or has been inducing users to use said chips.
10
11

12 116. On information and belief, at least since receiving notice of the '805
13 patent, including at a minimum from this lawsuit, Etron is and/or has been
14 contributing to the infringement of others, including without limitation said
15 manufacturers, resellers and/or users, including by selling, offering to sell and/or
16 importing said volatile memory, at a minimum knowing the same to be especially
17 made or especially adapted for use in an infringement of the '805 patent, and not a
18 staple article or commodity of commerce suitable for substantial noninfringing use.
19
20
21

22 117. Accordingly, on information and belief Etron is liable for infringement of
23 the '805 patent.

24 118. On information and belief, ISSI has been and now is infringing the '805
25 patent by actions comprising making, using, selling, offering for sale and/or importing
26 synchronous semiconductor memory devices, namely volatile memory comprising a
27
28

1 means for generating a refresh control signal specifying first and second regions of a
2 memory array in a self refresh mode, and a refresh control means for performing self-
3 refresh for said first region and performing no self-refresh for said second region on
4 the basis of the self refresh control signal in a self-refresh mode, including without
5 limitation, ISSI's IS43DR86400B DDR2 SDRAM.
6
7

8 119. On information and belief, at least since receiving notice of the '805
9 patent, including at a minimum from this lawsuit, ISSI is and/or has been inducing
10 others, including without limitation manufacturers of apparatuses incorporating said
11 volatile memory and/or resellers of said volatile memory, to infringe the '805 patent,
12 including without limitation by selling, offering for sale and/or importing said volatile
13 memory; and further ISSI is and/or has been inducing users to use said chips.
14
15

16 120. On information and belief, at least since receiving notice of the '805
17 patent, including at a minimum from this lawsuit, ISSI is and/or has been contributing
18 to the infringement of others, including without limitation said manufacturers,
19 resellers and/or users, including by selling, offering to sell and/or importing said
20 volatile memory, at a minimum knowing the same to be especially made or especially
21 adapted for use in an infringement of the '805 patent, and not a staple article or
22 commodity of commerce suitable for substantial noninfringing use.
23
24
25

26 121. Accordingly, on information and belief ISSI is liable for infringement of
27 the '805 patent.
28

1 122. On information and belief, Hynix has been and now is infringing the
2 '805 patent by actions comprising making, using, selling, offering for sale and/or
3
4 importing synchronous semiconductor memory devices, namely volatile memory
5 comprising a means for generating a refresh control signal specifying first and second
6 regions of a memory array in a self refresh mode, and a refresh control means for
7 performing self-refresh for said first region and performing no self-refresh for said
8 second region on the basis of the self refresh control signal in a self-refresh mode,
9 including without limitation, Hynix's H5TQ1G83BFR DDR3 SDRAMs.
10
11

12 123. On information and belief, at least since receiving notice of the '805
13 patent, including at a minimum from this lawsuit, Hynix is and/or has been inducing
14 others, including without limitation manufacturers of apparatuses incorporating said
15 volatile memory and/or resellers of said volatile memory, to infringe the '805 patent,
16 including without limitation by selling, offering for sale and/or importing said volatile
17 memory; and further Hynix is and/or has been inducing users to use said chips.
18
19

20 124. On information and belief, at least since receiving notice of the '805
21 patent, including at a minimum from this lawsuit, Hynix is and/or has been
22 contributing to the infringement of others, including without limitation said
23 manufacturers, resellers and/or users, including by selling, offering to sell and/or
24 importing said volatile memory, at a minimum knowing the same to be especially
25
26
27
28

1 made or especially adapted for use in an infringement of the '805 patent, and not a
2 staple article or commodity of commerce suitable for substantial noninfringing use.

3
4 125. Accordingly, on information and belief Hynix is liable for infringement
5 of the '805 patent.

6 126.-129. Not used.

7
8 130. As a result of Defendants' infringing conduct, Defendants have damaged
9 DRAM MEMTECH. Defendants are liable to DRAM MEMTECH in an amount that
10 adequately compensates DRAM MEMTECH for their infringement, which, by law,
11 can be no less than a reasonable royalty.
12

13 131. DRAM MEMTECH intends to seek discovery on the issue of
14 willfulness, and it reserves the right to seek a willfulness finding relative to pre-suit
15 infringement. Further, to the extent that any Defendant who was previously unaware
16 of the '838, '831, '747, '423 or '805 patents continues to infringe during the pendency
17 of this suit, such infringement would necessarily be objectively reckless, and thus
18 willful.
19
20

21
22 132. On information and belief, all Defendants have at least had constructive
23 notice of the '838, '831, '747, '423 and '805 patents by operation of law, and DRAM
24 MEMTECH and any predecessors-in-interest have complied with any marking
25 requirements of 35 U.S.C. § 287 to the extent required by law.
26
27
28

1 interest for their respective infringements of the '838, '831, '747, '423 and '805
2 patents, as provided under 35 U.S.C. § 284.

3
4 5. A judgment and order finding that this is an exceptional case within the
5 meaning of 35 U.S.C. § 285 and awarding to DRAM MEMTECH its reasonable
6 attorneys' fees.

7
8 6. Any and all other relief to which DRAM MEMTECH may show itself to
9 be entitled.

10 **DEMAND FOR JURY TRIAL**

11
12 Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial
13 by jury of any issues so triable by right.

14
15
16
17 Dated: April 1, 2011

18 Respectfully submitted,

19 COLLINS, EDMONDS &
20 POGORZELSKI, PLLC

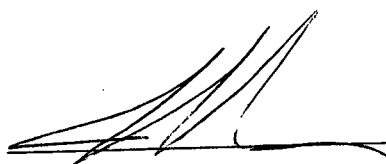
21 
22 John J. Edmonds

23 Attorney for Plaintiff
24 DRAM MEMORY TECHNOLOGIES
25 LLC
26
27
28

CERTIFICATE OF SERVICE

1
2 The undersigned hereby certifies that all counsel of record who are deemed to
3 have consented to electronic service are being served on March 31, 2011, with a copy
4 of this document via the Court's CM/ECF system. The undersigned further certifies
5 that all defendants for whom counsel of record has not yet appeared are being served
6 with this document in accordance with the Federal Rules of Civil Procedure.
7
8

9
10
11 April 1, 2011



12 John Edmonds
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28