

conduct or at least by December 18, 2008, when ON was formally placed on notice of its infringement.

96. Upon information and belief, Xilinx has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '853 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '853 patent, including, but not limited to, the XC5LX50T-FFG665C FPGA and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Xilinx that contain semiconductor devices that include all of the limitations of one or more claims of the '853 patent. Upon information and belief, the Virtex-5 LX, Virtex-5 LXT, Virtex-5 SXT, Virtex-5 FXT, Virtex-5 TXT, Virtex-4 LX, Virtex-4 SX, Virtex-4 FX, Virtex-II Pro, Virtex-II, Virtex-E EM, Virtex-E, Virtex may also infringe the '853 patent.

97. Upon information and belief, Xilinx has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '853 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '853 patent, including, but not limited to, the XC5LX50T-FFG665C FPGA and other similar

semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Xilinx that contain semiconductor devices that include all of the limitations of one or more claims of the '853 patent. Upon information and belief, the Virtex-5 LX, Virtex-5 LXT, Virtex-5 SXT, Virtex-5 FXT, Virtex-5 TXT, Virtex-4 LX, Virtex-4 SX, Virtex-4 FX, Virtex-II Pro, Virtex-II, Virtex-E EM, Virtex-E, Virtex may also infringe the '853 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '853 patent in substantially the same way to achieve the same result.

98. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Xilinx had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '853 patent throughout the entire period of its infringing conduct or at least by January 15, 2009, when Xilinx was formally placed on notice of its infringement.

99. Upon information and belief, Zoran has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '853 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '853 patent, including, but not limited to, the ZR36762PQC Processor and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Zoran that contain semiconductor devices that

include all of the limitations of one or more claims of the '853 patent. Upon information and belief, the ZR36778HQCG may also infringe the '853 patent.

100. Upon information and belief, Zoran has been directly and equivalently under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '853 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '853 patent, including, but not limited to, the ZR36762PQC Processor and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Zoran that contain semiconductor devices that include all of the limitations of one or more claims of the '853 patent. Upon information and belief, the ZR36778HQCG may also infringe the '853 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '853 patent in substantially the same way to achieve the same result.

101. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Zoran had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '853 patent throughout the entire period of its infringing conduct or at least by January 12, 2009, when Zoran was formally placed on notice of its infringement.

102. Upon information and belief, Fujitsu, Qualcomm, Elpida, Hynix, Marvell, Micron, Nvidia, Freescale, ProMOS, SanDisk, Sony, STMicro, Toshiba, Cirrus, ON, Xilinx, and Zoran's acts of infringement of the '853 patent have been willful and intentional.

103. As a direct and proximate result of these acts of patent infringement, Fujitsu, Qualcomm, Elpida, Hynix, Marvell, Micron, Nvidia, Freescale, ProMOS, SanDisk, Sony, STMicro, Toshiba, Cirrus, ON, Xilinx, and Zoran have encroached on the exclusive rights of Plaintiffs and their licensees to practice the '853 patent, for which Plaintiffs are entitled to at least a reasonable royalty.

## **COUNT II**

### **Patent Infringement of U.S. Patent No. 5,391,949**

104. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-103 as though fully set forth herein.

105. The '949 patent is valid and enforceable.

106. Fujitsu, AMD, Qualcomm, Hynix, Micron, Nvidia, Freescale, SanDisk, Toshiba, and Xilinx have at no time, either expressly or impliedly, been licensed under the '949 patent.

107. Upon information and belief, to the extent any marking or notice was required by 35 U.S.C. § 287, Plaintiffs have complied with the requirements of that statute by providing actual or constructive notice to Fujitsu, AMD, Qualcomm, Hynix, Micron, Nvidia, Freescale, SanDisk, Toshiba, and Xilinx of their alleged infringement. Upon information and belief, Plaintiffs surmise that any express licensees of the '949 patent have complied with the marking requirements of 35 U.S.C. § 287 by placing a notice of the '949 patent on all goods made, offered for sale, and/or sold within, and/or imported into, the United States that embody one or more claims of that patent.

108. Upon information and belief, Fujitsu has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the 71PL193H808AW10 and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the Notebook LifeBook A3210, Notebook Lifebook Q2010, Notebook S2210, Notebook LifeBook T4215 Convertible, Server Primergy Econel 230R, Server Primergy RX220, Server Primergy RX330, and other similar products.

109. Upon information and belief, Fujitsu has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the 71PL193H808AW10 and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the

'949 patent, including, but not limited to, the Notebook LifeBook A3210, Notebook Lifebook Q2010, Notebook S2210, Notebook LifeBook T4215 Convertible, Server Primergy Econel 230R, Server Primergy RX220, Server Primergy RX330, and other similar products. The products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

110. Upon information and belief, the products containing these semiconductor devices have no substantial non-infringing uses, and Fujitsu had knowledge of the non-staple nature of the products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by March 10, 2008, when Fujitsu was formally placed on notice of its infringement.

111. Upon information and belief, AMD has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the ADA5600IAA6CZ and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the 7-Series, 64 Embedded Processors, 64 Processors for Telecommunications 690 Series, 480X Crossfire, 580X Crossfire, AM186ER, AM188ER, MB Chipsets for AMD Processors, MB

Chipsets for Intel Processors, Server Graphics, Embedded Display Graphics, Handheld Processors, Athlon, Athlon 654FX, Athlon X2, Athlon 64 X2, Athlon 64 X2 5600, ADO4400IAA5DD, Geode Processor Family, M690 Series, Opteron (Second Generation), Opteron (Third Generation), Opteron for Servers, Opteron for Storage Systems, Opteron for Workstations, Phenom, Phenom X3, Phenom X4, Sempron, Sempron (Mobile), Turion 64 X2, and Xilleon may also infringe the '949 patent.

112. Upon information and belief, AMD has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the ADA5600IAA6CZ and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the 7-Series, 64 Embedded Processors, 64 Processors for Telecommunications 690 Series, 480X Crossfire, 580X Crossfire, AM186ER, AM188ER, MB Chipsets for AMD Processors, MB Chipsets for Intel Processors, Server Graphics, Embedded Display Graphics, Handheld Processors, Athlon, Athlon 654FX, Athlon X2, Athlon 64 X2, Athlon 64 X2 5600, ADO4400IAA5DD, Geode Processor Family, M690 Series, Opteron (Second Generation), Opteron (Third Generation), Opteron for Servers, Opteron for Storage Systems, Opteron for Workstations, Phenom, Phenom X3, Phenom X4, Sempron, Sempron

(Mobile), Turion 64 X2, and Xilleon may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

113. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and AMD had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by April 22, 2008, when AMD was formally placed on notice of its infringement.

114. Upon information and belief, Qualcomm has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MSM6280 Baseband Processor, MSM6300 Baseband Processor, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Qualcomm that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the MSM6000, MSM6025, MSM6050, MSM6100, MSM6125, MSM6245, MSM6250, MSM6260, MSM6275, MSM6281, MSM6290, MSM6500, MSM6550, MSM6800, MSM7200, MSM7200A, MSM7201, MSM7201A,



MSM7500, MSM7600, QSC6065, QSC6055, QSC6030, QSC6020, QSC6010, QSC1100, QSD8250, QSD8650, QST1000, QST1100, QST1105, and Snapdragon may also infringe the '949 patent.

115. Upon information and belief, Qualcomm has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MSM6280 Baseband Processor, MSM6300 Baseband Processor, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Qualcomm that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the MSM6000, MSM6025, MSM6050, MSM6100, MSM6125, MSM6245, MSM6250, MSM6260, MSM6275, MSM6281, MSM6290, MSM6500, MSM6550, MSM6800, MSM7200, MSM7200A, MSM7201, MSM7201A, MSM7500, MSM7600, QSC6065, QSC6055, QSC6030, QSC6020, QSC6010, QSC1100, QSD8250, QSD8650, QST1000, QST1100, QST1105, and Snapdragon may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

116. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Qualcomm had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by March 26, 2008, when Qualcomm was formally placed on notice of its infringement.

117. Upon information and belief, Hynix has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the HY5DU12822CTP DDR SDRAM, HY5PS1G831CFP-Y5 DDR2 SDRAM, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Hynix that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the HY5DU28422BT, HY5DU28422DT, HY5DU28422ET, HY5DU281622DT, HY5DU281622ET, HY5DU56422AT, HY5DU56422BF, HY5DU56422BLF, HY5DU56422BLT, HY5DU56422BT, HY5DU56422DF, HY5DU56422DFP, HY5DU56422DLF, HY5DU56422DLFP, HY5DU56422DT, HY5DU56422DTP, HY5DU56822ETP, HY5DU561622DT, HY5DU561622EFP, HY5DU12422ALT, HY5DU12422AT, HY5DU12422BFP, HY5DU12422CFP, HY5DU121622BT, HY5DU121622BTP,

HY5DU28822BT, HY5DU28822DT, HY5DU28822ET, HY5DU56822AF, HY5DU56822AT,  
 HY5DU56822BF, HY5DU56822BLF, HY5DU56822BLT, HY5DU56822BT,  
 HY5DU56822DF, HY5DU56822DFP, HY5DU56822DLF, HY5DU56822DLFP,  
 HY5DU56822DT, HY5DU56822DTP, HY5DU56822EFP, HY5DU561622AF,  
 HY5DU561622AT, HY5DU561622DF, HY5DU561622DFP, HY5DU561622DLF,  
 HY5DU561622DLFP, HY5DU561622DTP, HY5DU12822ALT, HY5DU12822AT,  
 HY5DU12822BF, HY5DU12822BFP, HY5DU12822BLF, HY5DU12822BLFP,  
 HY5DU12822BLT, HY5DU12822BLTP, HY5DU12822BT, HY5DU12822BTP,  
 HY5DU121622ALT, HY5DU121622AT, HY5DU121622BF, HY5DU121622BFP,  
 HY5DU121622BLF, HY5DU121622BLFP, HY5DU121622BLT, HY5DU121622BLTP,  
 H5PS5142FFP, HY5PS12421CFP, H5PS5182FFP, HY5PS12821CFP, HY5PS121621CFP,  
 H5PS1G43EFR, HY5PG1G431CFP, HY5PS1G431CFP, H5PS1G83EFR, HY5PG1G831CFP,  
 HY5PS1G831CFP, H5PS1G63EFR, HY5PS1G1631CFP, H5PS2G43MFP, HY5PS2G431CMP,  
 H5PS2G83MFP, HY5PS2G831CMP, H5PS4G43MMP, H5PS4G83MMP, HY5PS56821F,  
 HY5PS561621AFP, HY5PS561621F, HY5PS12821F, HY5PS12821FP, HY5PS121621AF,  
 HY5PS121621AFP, HY5PS121621BFP, HY5PS121621F, HY5PS121621FP,  
 HY5PS561621BFP, HY5DU323222Q, HY5DU323222QP, HY5DU281622ET,  
 HY5DV281622DT, HY5DS283222BF, HY5DU283222AF, HY5DU283222BF,  
 HY5DU283222F, HY5DU283222Q, HY5DW283222AF, HY5DW283222BF,  
 HY5DU561622CT, HY5DS573222F, HY5DU573222AFM, HY5DU573222F,  
 HY5DW573222F, HY5DU121622CTP, HY5DS113222FM(P), HY5DU113222FM,  
 HY5DW113222FM, HY5MS5B6ALF(P), HY5MS5B2LF(P), HY5MS7B6LF(P),  
 HY5MS7B2LF(P), HY5DU56822CT-D43, HY5DV6411622AT-4, HY5DU283222,

HY5DU281622ET-H, HY5DU12822CTP-D43, HY5DU283222Q4, HY5DU283222AQ, HY5DU283222BFP-33DR, HY5DU12822AT-D43, HY5PS56821, HY5PS12821, HY5PS12821A, HY5PS1242CFP-Y5, HY5PS12821CFP-Y5, HY5PS1G431CFP-S6, HY5PS12821CFP-S5, HY5PS1G831CFP-S5, HY5PS12821BFP-S5, HY5PS12821F-CF, HY5PS561621A, HY5PS121621B, HY5DU383222, HY5DU281622ETP, and HY5PS12821F-C4 may also infringe the '949 patent.

118. Upon information and belief, Hynix has been directly and equivalently under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the HY5DU12822CTP DDR SDRAM, HY5PS1G831CFP-Y5 DDR2 SDRAM, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Hynix that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the HY5DU28422BT, HY5DU28422DT, HY5DU28422ET, HY5DU281622DT, HY5DU281622ET, HY5DU56422AT, HY5DU56422BF, HY5DU56422BLF, HY5DU56422BLT, HY5DU56422BT, HY5DU56422DF, HY5DU56422DFP, HY5DU56422DLF, HY5DU56422DLFP, HY5DU56422DT, HY5DU56422DTP, HY5DU56822ETP, HY5DU561622DT, HY5DU561622EFP, HY5DU12422ALT, HY5DU12422AT, HY5DU12422BFP, HY5DU12422CFP, HY5DU121622BT, HY5DU121622BTP,

HY5DU28822BT, HY5DU28822DT, HY5DU28822ET, HY5DU56822AF, HY5DU56822AT,  
 HY5DU56822BF, HY5DU56822BLF, HY5DU56822BLT, HY5DU56822BT,  
 HY5DU56822DF, HY5DU56822DFP, HY5DU56822DLF, HY5DU56822DLFP,  
 HY5DU56822DT, HY5DU56822DTP, HY5DU56822EFP, HY5DU561622AF,  
 HY5DU561622AT, HY5DU561622DF, HY5DU561622DFP, HY5DU561622DLF,  
 HY5DU561622DLFP, HY5DU561622DTP, HY5DU12822ALT, HY5DU12822AT,  
 HY5DU12822BF, HY5DU12822BFP, HY5DU12822BLF, HY5DU12822BLFP,  
 HY5DU12822BLT, HY5DU12822BLTP, HY5DU12822BT, HY5DU12822BTP,  
 HY5DU121622ALT, HY5DU121622AT, HY5DU121622BF, HY5DU121622BFP,  
 HY5DU121622BLF, HY5DU121622BLFP, HY5DU121622BLT, HY5DU121622BLTP,  
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 H5PS1G43EFR, HY5PG1G431CFP, HY5PS1G431CFP, H5PS1G83EFR, HY5PG1G831CFP,  
 HY5PS1G831CFP, H5PS1G63EFR, HY5PS1G1631CFP, H5PS2G43MFP, HY5PS2G431CMP,  
 H5PS2G83MFP, HY5PS2G831CMP, H5PS4G43MMP, H5PS4G83MMP, HY5PS56821F,  
 HY5PS561621AFP, HY5PS561621F, HY5PS12821F, HY5PS12821FP, HY5PS121621AF,  
 HY5PS121621AFP, HY5PS121621BFP, HY5PS121621F, HY5PS121621FP,  
 HY5PS561621BFP, HY5DU323222Q, HY5DU323222QP, HY5DU281622ET,  
 HY5DV281622DT, HY5DS283222BF, HY5DU283222AF, HY5DU283222BF,  
 HY5DU283222F, HY5DU283222Q, HY5DW283222AF, HY5DW283222BF,  
 HY5DU561622CT, HY5DS573222F, HY5DU573222AFM, HY5DU573222F,  
 HY5DW573222F, HY5DU121622CTP, HY5DS113222FM(P), HY5DU113222FM,  
 HY5DW113222FM, HY5MS5B6ALF(P), HY5MS5B2LF(P), HY5MS7B6LF(P),  
 HY5MS7B2LF(P), HY5DU56822CT-D43, HY5DV6411622AT-4, HY5DU283222,

HY5DU281622ET-H, HY5DU12822CTP-D43, HY5DU283222Q4, HY5DU283222AQ, HY5DU283222BFP-33DR, HY5DU12822AT-D43, HY5PS56821, HY5PS12821, HY5PS12821A, HY5PS1242CFP-Y5, HY5PS12821CFP-Y5, HY5PS1G431CFP-S6, HY5PS12821CFP-S5, HY5PS1G831CFP-S5, HY5PS12821BFP-S5, HY5PS12821F-CF, HY5PS561621A, HY5PS121621B, HY5DU383222, HY5DU281622ETP, and HY5PS12821F-C4 may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

119. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Hynix had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by September 9, 2008, when Hynix was formally placed on notice of its infringement.

120. Upon information and belief, Micron has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MT9T012 Image Sensor and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Micron that contain semiconductor devices that

include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the MT9D111 may also infringe the '949 patent.

121. Upon information and belief, Micron has been directly and equivalently infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MT9T012 Image Sensor and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Micron that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the MT9D111 may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

122. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Micron had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by April 18, 2008, when Micron was formally placed on notice of its infringement.

123. Upon information and belief, Nvidia has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the 7600GS Graphics Card, FX 5900 Ultra Graphics Card, NX8500GT-TD256E Graphics Card, TI 4200 Graphics Card, FX 5600 Ultra DT Graphics Card, and other similar products.

124. Upon information and belief, Nvidia has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the 7600GS Graphics Card, FX 5900 Ultra Graphics Card, NX8500GT-TD256E Graphics Card, TI 4200 Graphics Card, FX 5600 Ultra DT Graphics Card, and other similar products. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.



125. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Nvidia had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by October 7, 2008, when Nvidia was formally placed on notice of its infringement.

126. Upon information and belief, Freescale has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MMM6000 RF Transceiver and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Freescale that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the S08SG, S08SL, S08QD, S08EL, S08D, S08AW, HC08AB Family, HC08AS Family, HC08AZ Family, HC08EY Family, HC08GR Family, HC08GZ Family, HC08QB Family, HC08QC Family, HC08QL Family, HC08QY Family, HC08KX Family, HC08RF Family, RS08KA, S08AC, S08GB, S08GT, S08JM, S08LC, S08QA, S08QE, S08QG, S08R, S08SH, 68HC08AB16A, 68HC908AB32, 68HC908AP16, 68HC908AP16A, 68HC908AP32, 68HC908AP32A, 68HC908AP64, 68HC908AP64A, 68HC908AP8, 68HC908AP8A, 68HC08AS32, 68HC08AS32A, 68HC08AZ32A, 68HC08AZ60A,

68HC908AS32A, 68HC908AS60, 68HC908AS60A, 68HC908AZ32A, 68HC908AZ60A,  
68HC08BD24, 68HC908BD48, 68HC908EY16, 68HC908EY16A, 68HC908EY8,  
68HC908EY8A, 68HC08GP16A, 68HC08GP32A, 68HC08GR16A, 68HC08GR32A,  
68HC08GT16, 68HC908GP32, 68HC908GR16, 68HC908GR16A, 68HC908GR32A,  
68HC908GR4, 68HC908GR48A, 68HC908GR60A, 68HC908GR8, 68HC908GR8A,  
68HC908GT16, 68HC908GT8, 68HC08GZ32, 68HC908GZ16, 68HC908GZ32,  
68HC908GZ48, 68HC908GZ60, 68HC908GZ8, 68HC08JB1, 68HC08JB8, 68HC08JT8,  
68HC908JB12, 68HC908JB16, 68HC908JB8, 68HC908JW32, 68HC08JK3E, 68HC08JK8,  
68HC08JL3E, 68HC08JL8, 68HC908JK1E, 68HC908JK3E, 68HC908JK8, 68HC908JL16,  
68HC908JL3E, 68HC908JL8, 68HLC908JK1E, 68HLC908JK3E, 68HLC908JL3E,  
68HC08KH12, 68HC908KX2, 68HC908KX8, 68HC908LD60, 68HC908LD64, 68HC908LJ12,  
68HC908LJ24, 68HC908LK24, 68HC908LV8, 68HC908MR16, 68HC908MR32,  
68HC908MR8, MC3PHAC, 68HC908QF4, 68HC908QT1, 68HLC908QT1, 68HC908QT2,  
68HLC908QT2, 68HC908QT4, 68HLC908QT4, 68HC908QY1, 68HLC908QY1,  
68HC908QY2, 68HLC908QY2, 68HC908QY4, 68HLC908QY4, 68HC908QT2A,  
68HC908QT4A, 68HC908QC16, 68HC908QC8, 68HC908QL4, 68HC908QT1A,  
68HC908QY1A, 68HC908QY2A, 68HC908QY4A, MC908QB4, MC908QB8, MC908QY8,  
68HC908RF2, 68HC908SR12, MM908E621, MM908E622, MM908E624, MM908E625,  
MM908E626, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P,  
S12Q, 68HC12BC32, 68HC12BE32, 68HC12D60, 68HC912B32, 68HC912BC32,  
68HC912D60A, 68HC912D60C, 68HC912D60P, 68HC912DG128A, 68HC912DG128C,  
68HC912DG128P, 68HC912DT128A, 68HC912DT128C, 68HC912DT128P, 68HC16R1,  
68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, 568XX Family, 56F8XX Family, 56F8XXX

Family, S12XA, S12UF, S12NE, S12GC, S12XD, S12E, S12XHZ, S12C, S12A, S12HZ, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q, DSP56852, DSP56853, DSP56854, DSP56855, DSP56857, DSP56858, DSP56F801, DSP56F802, DSP56F803, DSP56F805, DSP56F807, DSP56F826, DSP56F827, 56F801X, 56F802X, 56F803X, 56F832X-812X, 56F8335-8135, 56F834X-814X, 56F835X-815X, 56F836X-816X, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, MCF540X, MCF5445X, MCF547X, MCF548X, MCF530X, MCF532X, MCF537X, MCF5206, MCF5206E, MCF520X, MCF5227X, MCF523X, MCF524X, MCF525X, MCF527X, SCF5250, MCF521X, MCF521XX, MCF5221X, MCF5222X, MCF5223X, MCF528X, MCF51AC, MCF51JM, MCF51QE, MC68302, MC68306, MC68331, MC68332, MC68336, MC68340, MC68360, MC68376, MC68F375, MC68000, MC68020, MC68030, MC68040, MC68060, MC68SZ328, MC68VZ328, RFX300-30, RFX300 20, RFX275-30, RFX275-20, RFX250-20, MSC8144, MXC300-30, and MXC275-30 may also infringe the '949 patent.

127. Upon information and belief, Freescale has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the MMM6000 RF Transceiver and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Freescale that contain semiconductor devices that include all of the limitations of one or more

claims of the '949 patent. Upon information and belief, the S08SG, S08SL, S08QD, S08EL, S08D, S08AW, HC08AB Family, HC08AS Family, HC08AZ Family, HC08EY Family, HC08GR Family, HC08GZ Family, HC08QB Family, HC08QC Family, HC08QL Family, HC08QY Family, HC08KX Family, HC08RF Family, RS08KA, S08AC, S08GB, S08GT, S08JM, S08LC, S08QA, S08QE, S08QG, S08R, S08SH, 68HC08AB16A, 68HC908AB32, 68HC908AP16, 68HC908AP16A, 68HC908AP32, 68HC908AP32A, 68HC908AP64, 68HC908AP64A, 68HC908AP8, 68HC908AP8A, 68HC08AS32, 68HC08AS32A, 68HC08AZ32A, 68HC08AZ60A, 68HC908AS32A, 68HC908AS60, 68HC908AS60A, 68HC908AZ32A, 68HC908AZ60A, 68HC08BD24, 68HC908BD48, 68HC908EY16, 68HC908EY16A, 68HC908EY8, 68HC908EY8A, 68HC08GP16A, 68HC08GP32A, 68HC08GR16A, 68HC08GR32A, 68HC08GT16, 68HC908GP32, 68HC908GR16, 68HC908GR16A, 68HC908GR32A, 68HC908GR4, 68HC908GR48A, 68HC908GR60A, 68HC908GR8, 68HC908GR8A, 68HC908GT16, 68HC908GT8, 68HC08GZ32, 68HC908GZ16, 68HC908GZ32, 68HC908GZ48, 68HC908GZ60, 68HC908GZ8, 68HC08JB1, 68HC08JB8, 68HC08JT8, 68HC908JB12, 68HC908JB16, 68HC908JB8, 68HC908JW32, 68HC08JK3E, 68HC08JK8, 68HC08JL3E, 68HC08JL8, 68HC908JK1E, 68HC908JK3E, 68HC908JK8, 68HC908JL16, 68HC908JL3E, 68HC908JL8, 68HLC908JK1E, 68HLC908JK3E, 68HLC908JL3E, 68HC08KH12, 68HC908KX2, 68HC908KX8, 68HC908LD60, 68HC908LD64, 68HC908LJ12, 68HC908LJ24, 68HC908LK24, 68HC908LV8, 68HC908MR16, 68HC908MR32, 68HC908MR8, MC3PHAC, 68HC908QF4, 68HC908QT1, 68HLC908QT1, 68HC908QT2, 68HLC908QT2, 68HC908QT4, 68HLC908QT4, 68HC908QY1, 68HLC908QY1, 68HC908QY2, 68HLC908QY2, 68HC908QY4, 68HLC908QY4, 68HC908QT2A, 68HC908QT4A, 68HC908QC16, 68HC908QC8,

68HC908QL4, 68HC908QT1A, 68HC908QY1A, 68HC908QY2A, 68HC908QY4A, MC908QB4, MC908QB8, MC908QY8, 68HC908RF2, 68HC908SR12, MM908E621, MM908E622, MM908E624, MM908E625, MM908E626, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q, 68HC12BC32, 68HC12BE32, 68HC12D60, 68HC912B32, 68HC912BC32, 68HC912D60A, 68HC912D60C, 68HC912D60P, 68HC912DG128A, 68HC912DG128C, 68HC912DG128P, 68HC912DT128A, 68HC912DT128C, 68HC912DT128P, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, 568XX Family, 56F8XX Family, 56F8XXX Family, S12XA, S12UF, S12NE, S12GC, S12XD, S12E, S12XHZ, S12C, S12A, S12HZ, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q, DSP56852, DSP56853, DSP56854, DSP56855, DSP56857, DSP56858, DSP56F801, DSP56F802, DSP56F803, DSP56F805, DSP56F807, DSP56F826, DSP56F827, 56F801X, 56F802X, 56F803X, 56F832X-812X, 56F8335-8135, 56F834X-814X, 56F835X-815X, 56F836X-816X, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, MCF540X, MCF5445X, MCF547X, MCF548X, MCF530X, MCF532X, MCF537X, MCF5206, MCF5206E, MCF520X, MCF5227X, MCF523X, MCF524X, MCF525X, MCF527X, SCF5250, MCF521X, MCF521XX, MCF5221X, MCF5222X, MCF5223X, MCF528X, MCF51AC, MCF51JM, MCF51QE, MC68302, MC68306, MC68331, MC68332, MC68336, MC68340, MC68360, MC68376, MC68F375, MC68000, MC68020, MC68030, MC68040, MC68060, MC68SZ328, MC68VZ328, RFX300-30, RFX300 20, RFX275-30, RFX275-20, RFX250-20, MSC8144, MXC300-30, and MXC275-30 may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function

as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

128. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Freescale had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by August 19, 2008, when Freescale was formally placed on notice of its infringement.

129. Upon information and belief, SanDisk has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the SDCE DLI Controller and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by SanDisk that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the Memory Card 128 MB Secure Digital SD Card – SDSDB-128-A10 and other similar products. Upon information and belief, the Extreme III SD and SDHC Cards, Ultra II SD and SDHC Cards, Ultra II SD and SDHC Plus Cards, and SD Memory Card Family may also contain semiconductor devices that infringe the '949 patent.

130. Upon information and belief, SanDisk has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the SDCE DLI Controller and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by SanDisk that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the Memory Card 128 MB Secure Digital SD Card – SDSDB-128-A10 and other similar products. Upon information and belief, the Extreme III SD and SDHC Cards, Ultra II SD and SDHC Cards, Ultra II SD and SDHC Plus Cards, and SD Memory Card Family may also contain semiconductor devices that infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

131. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and SanDisk had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by August 20, 2008, when SanDisk was formally placed on notice of its infringement.

132. Upon information and belief, Toshiba has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the TMP19A43FDXBG 32-Bit RISC MCU and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Toshiba that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the Mobile Phone 904T, Mobile Phone A5501T, Mobile Phone Protégé 910, Notebook Satellite A200, Notebook Satellite A210, Notebook Satellite A300, Notebook Satellite P300, and other similar products. Upon information and belief, the Satellite Notebook Family may also contain semiconductor devices that infringe the '949 patent.

133. Upon information and belief, Toshiba has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the TMP19A43FDXBG 32-Bit RISC MCU and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or



imported by Toshiba that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the Mobile Phone 904T, Mobile Phone A5501T, Mobile Phone Protégé 910, Notebook Satellite A200, Notebook Satellite A210, Notebook Satellite A300, Notebook Satellite P300, and other similar products. Upon information and belief, the Satellite Notebook Family may also contain semiconductor devices that infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

134. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Toshiba had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by December 7, 2009, when Toshiba was formally placed on notice of its infringement.

135. Upon information and belief, Xilinx has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the XC5LX50T-FFG665C FPGA and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Xilinx that contain semiconductor

devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the Virtex-5 LX, Virtex-5 LXT, Virtex-5 SXT, Virtex-5 FXT, Virtex-5 TXT, Virtex-4 LX, Virtex-4 SX, Virtex-4 FX, Virtex-II Pro, Virtex-II, Virtex-E EM, Virtex-E, Virtex may also infringe the '853 patent.

136. Upon information and belief, Xilinx has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '949 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '949 patent, including, but not limited to, the XC5LX50T-FFG665C FPGA and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Xilinx that contain semiconductor devices that include all of the limitations of one or more claims of the '949 patent. Upon information and belief, the Virtex-5 LX, Virtex-5 LXT, Virtex-5 SXT, Virtex-5 FXT, Virtex-5 TXT, Virtex-4 LX, Virtex-4 SX, Virtex-4 FX, Virtex-II Pro, Virtex-II, Virtex-E EM, Virtex-E, Virtex may also infringe the '853 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '949 patent in substantially the same way to achieve the same result.

137. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Xilinx had knowledge of the non-staple nature of these semiconductor devices and/or products containing

these semiconductor devices and the '949 patent throughout the entire period of its infringing conduct or at least by January 15, 2009, when Xilinx was formally placed on notice of its infringement.

138. Upon information and belief, Fujitsu, AMD, Qualcomm, Hynix, Micron, Nvidia, Freescale, SanDisk, Toshiba, and Xilinx's acts of infringement of the '949 patent have been willful and intentional.

139. As a direct and proximate result of these acts of patent infringement, Fujitsu, AMD, Qualcomm, Hynix, Micron, Nvidia, Freescale, SanDisk, Toshiba, and Xilinx have encroached on the exclusive rights of Plaintiffs and their licensees to practice the '949 patent, for which Plaintiffs are entitled to at least a reasonable royalty.

### **COUNT III**

#### **Patent Infringement of U.S. Patent No. 5,247,212**

140. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-139 as though fully set forth herein.

141. The '212 patent is valid and enforceable.

142. Fujitsu, AMD, Freescale, Sony, and Toshiba have at no time, either expressly or impliedly, been licensed under the '212 patent.

143. Upon information and belief, to the extent any marking or notice was required by 35 U.S.C. § 287, Plaintiffs have complied with the requirements of that statute by providing actual or constructive notice to Fujitsu, AMD, Freescale, Sony, and Toshiba of their alleged infringement. Upon information and belief, Plaintiffs surmise that any express licensees of the '212 patent have complied with the marking requirements of 35 U.S.C. § 287 by placing a notice

of the '212 patent on all goods made, offered for sale, and/or sold within, and/or imported into, the United States that embody one or more claims of that patent.

144. Upon information and belief, Fujitsu has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the AM29LV160DT and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Fujitsu that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the Notebook Lifebook P1620, Notebook Hard Drive MAV2036RC, and other similar products. Upon information and belief, the MBM29LV160BE, MBM29LV160T, MBM29LV160TE, MBM29LV400BC, MBM29PL160BD, MBM29F033C, MBM29LV004TC, MBM29LV651UE, MBM29F040, MBM29F040C, MBM29F040C-70BD, MBM29F040C-70PD, MBM29F080A, MBM29F160BE, MBM29F160TE, MBM29F016, MBM29F200BC, MBM29F400BC, MBM29F400TC, MBM29LV800BC, MBM29F800BA, MBM29F800TA, MBM29LV160B, MBM29F016A, MBM29F400BC-70PFTN, MBM29LV800TA, MBM29LV800BA, MBM29LV800BE, MBM29LV002TC, MBM29F002TC, MBM29F080A-90PFTN, MBM29SL800BE, MBM29F040C-90PD, MBM29LV200BC, MBM29F040C-70PFTN, and MBM29LV400TC may infringe the '212 patent. Upon information and belief, the

Notebook Lifebook A3210, Notebook S2210, Server Primergy Econel 230R, Server Primergy RX330 may contain semiconductor devices that infringe the '212 patent.

145. Upon information and belief, Fujitsu has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the AM29LV160DT and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Fujitsu that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the Notebook Lifebook P1620, Notebook Hard Drive MAV2036RC, and other similar products. Upon information and belief, the MBM29LV160BE, MBM29LV160T, MBM29LV160TE, MBM29LV400BC, MBM29PL160BD, MBM29F033C, MBM29LV004TC, MBM29LV651UE, MBM29F040, MBM29F040C, MBM29F040C-70BD, MBM29F040C-70PD, MBM29F080A, MBM29F160BE, MBM29F160TE, MBM29F016, MBM29F200BC, MBM29F400BC, MBM29F400TC, MBM29LV800BC, MBM29F800BA, MBM29F800TA, MBM29LV160B, MBM29F016A, MBM29F400BC-70PFTN, MBM29LV800TA, MBM29LV800BA, MBM29LV800BE, MBM29LV002TC, MBM29F002TC, MBM29F080A-90PFTN, MBM29SL800BE, MBM29F040C-90PD, MBM29LV200BC, MBM29F040C-70PFTN, and MBM29LV400TC may also infringe the '949 patent. Upon information and belief, the Notebook Lifebook A3210, Notebook S2210, Server

Primergy Econel 230R, Server Primergy RX330 may contain semiconductor devices that infringe the '212 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '212 patent in substantially the same way to achieve the same result.

146. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Fujitsu had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '212 patent throughout the entire period of its infringing conduct or at least by August 13, 2008, when Fujitsu was formally placed on notice of its infringement.

147. Upon information and belief, AMD has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the AM29LV160DT Flash Memory, ADO4400IAA5DD Dual-Core Processor, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent. Upon information and belief, the AM29LV040B, AM29LV641D, AM29LV641DH, AM29LV641DL, AM29LV160DB, AM29LV320DB, AM29LV033C, AM29SL800, AM29F080B, AM29F016D, AM29DL32xD, AM29F040B,

AM29LV320MT, AM29F010, AM29F010A, AM29F010B, AM29DL640D, AM29F032B, AM29LV800, AM29LV800B, AM29LV800BB, AM29LV800BT, AM29F002, AM29F002T, AM29F002BT, AM29F002NBB, AM29BL802CB, AM29F800B, AM29F800BB, AM29F800BT, AM29F800B-70EC, AM29F800B-90EC, AM29F400BB, AM29LV116DB, AM29LV128ML, AM29LV081B, AM29LV002BB, AM29BDD160GB64C, AM29LV400BB, AM29F200BB, AM29LV200, AM29LV200BB, AM29F016B, AM29F016BB, AM29N323D, AM29F002NBB-90EC, AM29BDS640G, AM29LV640DU, AM29LV160D, AM29LV400BT, AM29F400BT, AM29LV160B, AM29LV160BT, AM29DL16xD, AM29F400B-70EC, AM29F002NBT, AM29LV002BT, AM186ER, AM188ER, MB Chipsets for AMD Processors, MB Chipsets for Intel Processors, Server Graphics, Embedded Display Graphics, Handheld Processors, Athlon, Athlon 654FX, Athlon X2, Athlon 64 X2 Dual Core, Geode Processor Family, Opteron, Opteron (Second Generation), Opteron (Third Generation), Phenom, Phenom X3, Phenom X4, Sempron, Sempron (Mobile), Turion 64 X2, and Xilleon may also infringe the '949 patent.

148. Upon information and belief, AMD has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the AM29LV160DT Flash Memory, ADO4400IAA5DD Dual-Core Processor, and other similar semiconductor devices, and/or other products made,

used, sold, offered for sale, or imported by AMD that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent. Upon information and belief, the AM29LV040B, AM29LV641D, AM29LV641DH, AM29LV641DL, AM29LV160DB, AM29LV320DB, AM29LV033C, AM29SL800, AM29F080B, AM29F016D, AM29DL32xD, AM29F040B, AM29LV320MT, AM29F010, AM29F010A, AM29F010B, AM29DL640D, AM29F032B, AM29LV800, AM29LV800B, AM29LV800BB, AM29LV800BT, AM29F002, AM29F002T, AM29F002BT, AM29F002NBB, AM29BL802CB, AM29F800B, AM29F800BB, AM29F800BT, AM29F800B-70EC, AM29F800B-90EC, AM29F400BB, AM29LV116DB, AM29LV128ML, AM29LV081B, AM29LV002BB, AM29BDD160GB64C, AM29LV400BB, AM29F200BB, AM29LV200, AM29LV200BB, AM29F016B, AM29F016BB, AM29N323D, AM29F002NBB-90EC, AM29BDS640G, AM29LV640DU, AM29LV160D, AM29LV400BT, AM29F400BT, AM29LV160B, AM29LV160BT, AM29DL16xD, AM29F400B-70EC, AM29F002NBT, AM29LV002BT, AM186ER, AM188ER, MB Chipsets for AMD Processors, MB Chipsets for Intel Processors, Server Graphics, Embedded Display Graphics, Handheld Processors, Athlon, Athlon 654FX, Athlon X2, Athlon 64 X2 Dual Core, Geode Processor Family, Opteron, Opteron (Second Generation), Opteron (Third Generation), Phenom, Phenom X3, Phenom X4, Sempron, Sempron (Mobile), Turion 64 X2, and Xilleon may also infringe the '949 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '212 patent in substantially the same way to achieve the same result.

149. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and AMD had knowledge of the non-staple nature of these semiconductor devices and/or products containing



these semiconductor devices and the '212 patent throughout the entire period of its infringing conduct or at least by March 26, 2008, when AMD was formally placed on notice of its infringement.

150. Upon information and belief, Freescale has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the MC9S08AW60 Automotive MCU and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Freescale that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent. Upon information and belief, the S08SG, S08SL, S08QD, S08EL, S08D, S08AW, HC08AB Family, HC08AS Family, HC08AZ Family, HC08EY Family, HC08GR Family, HC08GZ Family, HC08QB Family, HC08QC Family, HC08QL Family, HC08QY Family, HC08KX Family, HC08RF Family, RS08KA, S08AC, S08GB, S08GT, S08JM, S08LC, S08QA, S08QE, S08QG, S08R, S08SH, 68HC08AB16A, 68HC908AB32, 68HC908AP16, 68HC908AP16A, 68HC908AP32, 68HC908AP32A, 68HC908AP64, 68HC908AP64A, 68HC908AP8, 68HC908AP8A, 68HC08AS32, 68HC08AS32A, 68HC08AZ32A, 68HC08AZ60A, 68HC908AS32A, 68HC908AS60, 68HC908AS60A, 68HC908AZ32A, 68HC908AZ60A, 68HC08BD24, 68HC908BD48, 68HC908EY16, 68HC908EY16A, 68HC908EY8, 68HC908EY8A, 68HC08GP16A, 68HC08GP32A, 68HC08GR16A, 68HC08GR32A,

68HC08GT16, 68HC908GP32, 68HC908GR16, 68HC908GR16A, 68HC908GR32A,  
68HC908GR4, 68HC908GR48A, 68HC908GR60A, 68HC908GR8, 68HC908GR8A,  
68HC908GT16, 68HC908GT8, 68HC08GZ32, 68HC908GZ16, 68HC908GZ32,  
68HC908GZ48, 68HC908GZ60, 68HC908GZ8, 68HC08JB1, 68HC08JB8, 68HC08JT8,  
68HC908JB12, 68HC908JB16, 68HC908JB8, 68HC908JW32, 68HC08JK3E, 68HC08JK8,  
68HC08JL3E, 68HC08JL8, 68HC908JK1E, 68HC908JK3E, 68HC908JK8, 68HC908JL16,  
68HC908JL3E, 68HC908JL8, 68HLC908JK1E, 68HLC908JK3E, 68HLC908JL3E,  
68HC08KH12, 68HC908KX2, 68HC908KX8, 68HC908LD60, 68HC908LD64, 68HC908LJ12,  
68HC908LJ24, 68HC908LK24, 68HC908LV8, 68HC908MR16, 68HC908MR32,  
68HC908MR8, MC3PHAC, 68HC908QF4, 68HC908QT1, 68HLC908QT1, 68HC908QT2,  
68HLC908QT2, 68HC908QT4, 68HLC908QT4, 68HC908QY1, 68HLC908QY1,  
68HC908QY2, 68HLC908QY2, 68HC908QY4, 68HLC908QY4, 68HC908QT2A,  
68HC908QT4A, 68HC908QC16, 68HC908QC8, 68HC908QL4, 68HC908QT1A,  
68HC908QY1A, 68HC908QY2A, 68HC908QY4A, MC908QB4, MC908QB8, MC908QY8,  
68HC908RF2, 68HC908SR12, MM908E621, MM908E622, MM908E624, MM908E625,  
MM908E626, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P,  
S12Q, 68HC12BC32, 68HC12BE32, 68HC12D60, 68HC912B32, 68HC912BC32,  
68HC912D60A, 68HC912D60C, 68HC912D60P, 68HC912DG128A, 68HC912DG128C,  
68HC912DG128P, 68HC912DT128A, 68HC912DT128C, 68HC912DT128P, 68HC16R1,  
68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, 568XX Family, 56F8XX Family, 56F8XXX  
Family, S12XA, S12UF, S12NE, S12GC, S12XD, S12E, S12XHZ, S12C, S12A, S12HZ,  
S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q,  
DSP56852, DSP56853, DSP56854, DSP56855, DSP56857, DSP56858, DSP56F801,

DSP56F802, DSP56F803, DSP56F805, DSP56F807, DSP56F826, DSP56F827, 56F801X, 56F802X, 56F803X, 56F832X-812X, 56F8335-8135, 56F834X-814X, 56F835X-815X, 56F836X-816X, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, MCF540X, MCF5445X, MCF547X, MCF548X, MCF530X, MCF532X, MCF537X, MCF5206, MCF5206E, MCF520X, MCF5227X, MCF523X, MCF524X, MCF525X, MCF527X, SCF5250, MCF521X, MCF521XX, MCF5221X, MCF5222X, MCF5223X, MCF528X, MCF51AC, MCF51JM, MCF51QE, MC68302, MC68306, MC68331, MC68332, MC68336, MC68340, MC68360, MC68376, MC68F375, MC68000, MC68020, MC68030, MC68040, MC68060, MC68SZ328, MC68VZ328, RFX300-30, RFX300 20, RFX275-30, RFX275-20, RFX250-20, MXC300-30, and MXC275-30 may also infringe the '212 patent.

151. Upon information and belief, Freescale has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the MC9S08AW60 Automotive MCU and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Freescale that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent. Upon information and belief, the S08SG, S08SL, S08QD, S08EL, S08D, S08AW, HC08AB Family, HC08AS Family, HC08AZ Family, HC08EY Family, HC08GR Family, HC08GZ Family, HC08QB Family, HC08QC Family, HC08QL Family,

HC08QY Family, HC08KX Family, HC08RF Family, RS08KA, S08AC, S08GB, S08GT, S08JM, S08LC, S08QA, S08QE, S08QG, S08R, S08SH, 68HC08AB16A, 68HC908AB32, 68HC908AP16, 68HC908AP16A, 68HC908AP32, 68HC908AP32A, 68HC908AP64, 68HC908AP64A, 68HC908AP8, 68HC908AP8A, 68HC08AS32, 68HC08AS32A, 68HC08AZ32A, 68HC08AZ60A, 68HC908AS32A, 68HC908AS60, 68HC908AS60A, 68HC908AZ32A, 68HC908AZ60A, 68HC08BD24, 68HC908BD48, 68HC908EY16, 68HC908EY16A, 68HC908EY8, 68HC908EY8A, 68HC08GP16A, 68HC08GP32A, 68HC08GR16A, 68HC08GR32A, 68HC08GT16, 68HC908GP32, 68HC908GR16, 68HC908GR16A, 68HC908GR32A, 68HC908GR4, 68HC908GR48A, 68HC908GR60A, 68HC908GR8, 68HC908GR8A, 68HC908GT16, 68HC908GT8, 68HC08GZ32, 68HC908GZ16, 68HC908GZ32, 68HC908GZ48, 68HC908GZ60, 68HC908GZ8, 68HC08JB1, 68HC08JB8, 68HC08JT8, 68HC908JB12, 68HC908JB16, 68HC908JB8, 68HC908JW32, 68HC08JK3E, 68HC08JK8, 68HC08JL3E, 68HC08JL8, 68HC908JK1E, 68HC908JK3E, 68HC908JK8, 68HC908JL16, 68HC908JL3E, 68HC908JL8, 68HLC908JK1E, 68HLC908JK3E, 68HLC908JL3E, 68HC08KH12, 68HC908KX2, 68HC908KX8, 68HC908LD60, 68HC908LD64, 68HC908LJ12, 68HC908LJ24, 68HC908LK24, 68HC908LV8, 68HC908MR16, 68HC908MR32, 68HC908MR8, MC3PHAC, 68HC908QF4, 68HC908QT1, 68HLC908QT1, 68HC908QT2, 68HLC908QT2, 68HC908QT4, 68HLC908QT4, 68HC908QY1, 68HLC908QY1, 68HC908QY2, 68HLC908QY2, 68HC908QY4, 68HLC908QY4, 68HC908QT2A, 68HC908QT4A, 68HC908QC16, 68HC908QC8, 68HC908QL4, 68HC908QT1A, 68HC908QY1A, 68HC908QY2A, 68HC908QY4A, MC908QB4, MC908QB8, MC908QY8, 68HC908RF2, 68HC908SR12, MM908E621, MM908E622, MM908E624, MM908E625, MM908E626, S12XE, S12XS, S12XD, S12XHZ,

S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q, 68HC12BC32, 68HC12BE32, 68HC12D60, 68HC912B32, 68HC912BC32, 68HC912D60A, 68HC912D60C, 68HC912D60P, 68HC912DG128A, 68HC912DG128C, 68HC912DG128P, 68HC912DT128A, 68HC912DT128C, 68HC912DT128P, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, 568XX Family, 56F8XX Family, 56F8XXX Family, S12XA, S12UF, S12NE, S12GC, S12XD, S12E, S12XHZ, S12C, S12A, S12HZ, S12XE, S12XS, S12XD, S12XHZ, S12XB, S12XF, S12C, S12HZ, S12R, S12P, S12Q, DSP56852, DSP56853, DSP56854, DSP56855, DSP56857, DSP56858, DSP56F801, DSP56F802, DSP56F803, DSP56F805, DSP56F807, DSP56F826, DSP56F827, 56F801X, 56F802X, 56F803X, 56F832X-812X, 56F8335-8135, 56F834X-814X, 56F835X-815X, 56F836X-816X, 68HC16R1, 68HC16Y1, 68HC16Y3, 68HC16Z1, 68HC16Z3, MCF540X, MCF5445X, MCF547X, MCF548X, MCF530X, MCF532X, MCF537X, MCF5206, MCF5206E, MCF520X, MCF5227X, MCF523X, MCF524X, MCF525X, MCF527X, SCF5250, MCF521X, MCF521XX, MCF5221X, MCF5222X, MCF5223X, MCF528X, MCF51AC, MCF51JM, MCF51QE, MC68302, MC68306, MC68331, MC68332, MC68336, MC68340, MC68360, MC68376, MC68F375, MC68000, MC68020, MC68030, MC68040, MC68060, MC68SZ328, MC68VZ328, RFX300-30, RFX300 20, RFX275-30, RFX275-20, RFX250-20, MXC300-30, and MXC275-30 may also infringe the '212 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '212 patent in substantially the same way to achieve the same result.

152. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Freescale

had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '212 patent throughout the entire period of its infringing conduct or at least by August 19, 2008, when Freescale was formally placed on notice of its infringement.

153. Upon information and belief, Sony has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the CXD2964GB Cell Broadband Engine and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Sony that contain semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the Color Video Printer UP-50, Digital Audio Mixer DMX-R100, Digital Printing System UPX-200, Vaio Laptop PCG-N505ES, Digital Color Printer UP-D70A, Multiscan Projector VPH-G90U, Camera Control Unit CCU-900, Color Video Camera BVP-570, Color Video Camera BVP-900, Color Video Camera BVP-950, Color Video Camera BVP-9500WS, Digital Betacam Camcorder DVW-707, Digital Film Imager UP-D71XR, Digital Master Switcher DVS-M1000C, Digital Multi Effects DME-3000/7000, Digital Videocassette Player DNW-65/65P, Digital Videocassette Player DNW-A30, Digital Videocassette Player DNW-A65/A65P, Digital Videocassette Recorder DNW-75/75P, Digital Videocassette Recorder DNW-A220, Digital Videocassette Recorder DNW-A28/A28P, Digital Videocassette Recorder

DNW-A75, Digital Videocassette Recorder MSW-A2000, DME Switcher DFS-700A, Film Scanner UY-S90, HD Digital Multi Effects HDME-7000, HD Digital Video Switcher HDS-7000, Digital Video Switcher HDS-7150, HD Digital Videocassette Recorder HDW-250, HD Digital Videocassette Recorder HDW-F500, HD-SD Down Converter Board with Audio HKPF-525AV, Master Setup Unit MSU-700A, Master Setup Unit MSU-750, Multi Access Video and Audio Server MAV-70, Multi Access Video Disk Recorder MAV-555, Multi Bit Rate Routing Switcher HDS-X3400, Multimedia Terminal PCS-6000, Remote Control Unit RM-B150, Sampling Digital Reverb DRE-S777, SDTV Non-Linear Production System DMW-S01NL, Telecine Film Sound Processor BKFV-500, Telecine Log Data Processor BKFV-300, Videocassette Recorder BVW-55, XPRI Jog and Shuttle Control Panel DMWC2, HD Camcorder HDW-700A, Digital Color Printer UP-D23MD, Digital Color Printer UP-D70XR, Digital Color Video Printer UP-D21MD, Digital Color Printer UP-D50, Game Console PlayStation 3, and other similar products.

154. Upon information and belief, Sony has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the CXD2964GB Cell Broadband Engine and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Sony that contain semiconductor devices that include all of the limitations of one or more claims

of the '212 patent, including, but not limited to, the Color Video Printer UP-50, Digital Audio Mixer DMX-R100, Digital Printing System UPX-200, Vaio Laptop PCG-N505ES, Digital Color Printer UP-D70A, Multiscan Projector VPH-G90U, Camera Control Unit CCU-900, Color Video Camera BVP-570, Color Video Camera BVP-900, Color Video Camera BVP-950, Color Video Camera BVP-9500WS, Digital Betacam Camcorder DVW-707, Digital Film Imager UP-D71XR, Digital Master Switcher DVS-M1000C, Digital Multi Effects DME-3000/7000, Digital Videocassette Player DNW-65/65P, Digital Videocassette Player DNW-A30, Digital Videocassette Player DNW-A65/A65P, Digital Videocassette Recorder DNW-75/75P, Digital Videocassette Recorder DNW-A220, Digital Videocassette Recorder DNW-A28/A28P, Digital Videocassette Recorder DNW-A75, Digital Videocassette Recorder MSW-A2000, DME Switcher DFS-700A, Film Scanner UY-S90, HD Digital Multi Effects HDME-7000, HD Digital Video Switcher HDS-7000, Digital Video Switcher HDS-7150, HD Digital Videocassette Recorder HDW-250, HD Digital Videocassette Recorder HDW-F500, HD-SD Down Converter Board with Audio HKPF-525AV, Master Setup Unit MSU-700A, Master Setup Unit MSU-750, Multi Access Video and Audio Server MAV-70, Multi Access Video Disk Recorder MAV-555, Multi Bit Rate Routing Switcher HDS-X3400, Multimedia Terminal PCS-6000, Remote Control Unit RM-B150, Sampling Digital Reverb DRE-S777, SDTV Non-Linear Production System DMW-S01NL, Telecine Film Sound Processor BKFV-500, Telecine Log Data Processor BKFV-300, Videocassette Recorder BVW-55, XPRI Jog and Shuttle Control Panel DMWC2, HD Camcorder HDW-700A, Digital Color Printer UP-D23MD, Digital Color Printer UP-D70XR, Digital Color Video Printer UP-D21MD, Digital Color Printer UP-D50, and Game Console PlayStation 3, and other similar products. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the



inventions embodied in one or more claims of the '212 patent in substantially the same way to achieve the same result.

155. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Sony had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '212 patent throughout the entire period of its infringing conduct or at least by April 1, 2009, when Sony was formally placed on notice of its infringement.

156. Upon information and belief, Toshiba has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the Color TV 40WH08G, Color TV 40WH08B, Color TV MW20FM1, Color TV MW20FM1, Color TV MW20FM3, Color TV MW24FM1, Color TV MW24FM1C, Color TV MW24FM3, Color TV MW24FM5, DVD Video Player SD-400V/SD-K600, DVD Video Audio Player SD-4700/SD-5700, DVD Video Player SD-5109, DVD Video Player and Cassette Recorder SD-V280, HD LCD TV 32HL95, Printer E-Studio 3511, Notebook Satellite A200, Notebook Satellite A210, Notebook Satellite A300, Notebook Satellite P300, Notebook Tecra A6-EZ6411 Digital Photocopier e-STUDIO 163/203, and other similar products.

157. Upon information and belief, Toshiba has been directly and equivalently infringing under the doctrine of equivalents and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '212 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '212 patent, including, but not limited to, the Color TV 40WH08G, Color TV 40WH08B, Color TV MW20FM1, Color TV MW20FM1, Color TV MW20FM3, Color TV MW24FM1, Color TV MW24FM1C, Color TV MW24FM3, Color TV MW24FM5, DVD Video Player SD-400V/SD-K600, DVD Video Audio Player SD-4700/SD-5700, DVD Video Player SD-5109, DVD Video Player and Cassette Recorder SD-V280, HD LCD TV 32HL95, Printer E-Studio 3511, Notebook Satellite A200, Notebook Satellite A210, Notebook Satellite A300, Notebook Satellite P300, Notebook Tecra A6-EZ6411 Digital Photocopier e-STUDIO 163/203, and other similar products. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '212 patent in substantially the same way to achieve the same result.

158. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Toshiba had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '212 patent throughout the entire period of its infringing conduct or at least by June 16, 2008, when Toshiba was formally placed on notice of its infringement.

159. Upon information and belief, Fujitsu, AMD, Freescale, Sony, and Toshiba's acts of infringement of the '212 patent have been willful and intentional.

160. As a direct and proximate result of these acts of patent infringement, Fujitsu, AMD, Freescale, Sony, and Toshiba have encroached on the exclusive rights of Plaintiffs and their licensees to practice the '212 patent, for which Plaintiffs are entitled to at least a reasonable royalty.

#### **COUNT IV**

##### **Patent Infringement of U.S. Patent No. 5,001,367**

161. Plaintiffs repeat and re-allege each and every allegation of paragraphs 1-160 as though fully set forth herein.

162. The '367 patent is valid and enforceable.

163. Elpida, ProMOS, and Toshiba have at no time, either expressly or impliedly, been licensed under the '367 patent.

164. Upon information and belief, to the extent any marking or notice was required by 35 U.S.C. § 287, Plaintiffs have complied with the requirements of that statute by providing actual or constructive notice to Elpida, ProMOS, and Toshiba of their alleged infringement. Upon information and belief, Plaintiffs surmise that any express licensees of the '367 patent have complied with the marking requirements of 35 U.S.C. § 287 by placing a notice of the '367 patent on all goods made, offered for sale, and/or sold within, and/or imported into, the United States that embody one or more claims of that patent.

165. Upon information and belief, Elpida has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367

patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the EDD5108ABTA-6B DDR SDRAM and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Elpida that contain semiconductor devices that include all of the limitations of one or more claims of the '367 patent. Upon information and belief, the EDD5116AFTA-6B-E, EDD2516AKTA-6B, EDD2516AKTA-6BTI, EDD45128163G5, EDD1232AAFA-7A-E, EDD45128841G5, EDD2516AKTA-6BTI-E, EDD5108ADTA, EDD2508AKTA-5C, EDD2508AKTA-5B, EDD2508AMTA, EDD1218AATA, EDD5108AFTA-5B, EDD2516AKTA-6B-E, EDD45128163G5-A75-9JF, EDJ1104BASE, EDJ1108BABG, EDJ1108BASE, EDJ1116BABG, EDEJ1116BASE, EBJ21UE8BASA, EBJ21UE8BAU0, EBJ11UE6BASA, EBJ11UE6BAU0, EBJ82HF4B1RA, EBJ41HE4BAFA, EBJ41RE4BAFA, EBJ42RE8BAFA, EBJ20RE4BAFA, EBJ21RE8BAFA, EBJ10RE8BAFA, EBJ21UE8BAFA, EBJ21UE8BAW0, EBJ21EE8BAFA, EBJ10UE8BAFA, EBJ10UE8BAW0, EBJ10EE8BAFA, EBJ10EE8BAW0, EBJ10EE8BAWA, EDE2104ABSE, EDE2108ABSE, EDE2116ABSE, EDE1104ABSE, EDE1104ACSE, EDE1108ABSE, EDE1108ACBG, EDE1108ACSE, EDE1116ABSE, EDE1116ACBG, EDE116ACSE, EDE1116ACSE-6E-E, EDE5108AGBG, EDE5108AGBG-6E-E, EDE5108AJBG, EDE5108AJSE, EDE5116AHSE, EDE5116AJBG, EDE5116AJSE, EDE2508AEBG, EDE2516AEBG, EBE81AF4ABHA, EBE82AF4A1RA, EBE41AE4ABHA, EBE41AE4ACFA, EBE41RE4ABHA, EBE41RE4ACFA, EBE20AE4ABFA, EBE20AE4ACFA, EBE20RE4ABFA, EBE20RE4ACFA, EBE21AD4AJFA, EBE21RD4AJFA, EBE10AD4AJFA,

EBE10AE8ACFA, EBE10RD4AJFA, EBE10RE8ACFA, EBE51AD8AJFA, EBE51RD8AJFA, EBE41UF8ABFA, EBE41EF8ABFA, EBE21UE8ABFA, EBE21UE8ACFA, EBE21UE8ACWA, EBE21EE8ABFA, EBE21EE8ACFA, EBE21EE8ACWA, EBE10UE8ACFA, EBE10UE8ACWA, EBE11UD8AHFA, EBE11UD8AHWA, EBE11UD8AJWA, EBE10EE8ACFA, EBE10EE8ACWA, EBE11ED8AJWA, EBE51UD8AJWA, EBE51ED8AJWA, EBE41UF8ABDA, EBE21UE8ABDA, EBE21UE8ACSA, EBE21UE8ACUA, EBE11UD8AJUA, EBE11UE6ACSA, EBE11UE6ACUA, EBE52UD6AJUA, EBE81FF4ABHT, EBE82FF4A1RQ, EBE41FE4ABHD, EBE41FE4ACFT, EBE21FD4AJFT, EBE21FE8ACFT, EBE10FE8ACFT, EBE11FD8AJFT, EBE51FD8AJFT, EDS6416AHTA-75-E, EDS2532JE-75-E, EDS1216AATA-75-E, EDS1232EC-75, EDS2532EE75E, EDS6416AHTA-6BEH, EDS6416GHTA-10-E, EDS641GHTA-10-E, EDS2516ADTA-75-E, and EDS2518ADTA-75-E may also infringe the '367 patent.

166. Upon information and belief, Elpida has been directly and equivalently infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the EDD5108ABTA-6B DDR SDRAM and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by Elpida that contain semiconductor devices that include all of the limitations of one or more claims of the '367 patent. Upon

information and belief, the EDD5116AFTA-6B-E, EDD2516AKTA-6B, EDD2516AKTA-6BTI, EDD45128163G5, EDD1232AAFA-7A-E, EDD45128841G5, EDD2516AKTA-6BTI-E, EDD5108ADTA, EDD2508AKTA-5C, EDD2508AKTA-5B, EDD2508AMTA, EDD1218AATA, EDD5108AFTA-5B, EDD2516AKTA-6B-E, EDD45128163G5-A75-9JF, EDJ1104BASE, EDJ1108BABG, EDJ1108BASE, EDJ1116BABG, EDEJ1116BASE, EBJ21UE8BASA, EBJ21UE8BAU0, EBJ11UE6BASA, EBJ11UE6BAU0, EBJ82HF4B1RA, EBJ41HE4BAFA, EBJ41RE4BAFA, EBJ42RE8BAFA, EBJ20RE4BAFA, EBJ21RE8BAFA, EBJ10RE8BAFA, EBJ21UE8BAFA, EBJ21UE8BAW0, EBJ21EE8BAFA, EBJ10UE8BAFA, EBJ10UE8BAW0, EBJ10EE8BAFA, EBJ10EE8BAW0, EBJ10EE8BAWA, EDE2104ABSE, EDE2108ABSE, EDE2116ABSE, EDE1104ABSE, EDE1104ACSE, EDE1108ABSE, EDE1108ACBG, EDE1108ACSE, EDE1116ABSE, EDE1116ACBG, EDE116ACSE, EDE1116ACSE-6E-E, EDE5108AGBG, EDE5108AGBG-6E-E, EDE5108AJBG, EDE5108AJSE, EDE5116AHSE, EDE5116AJBG, EDE5116AJSE, EDE2508AEBG, EDE2516AEBG, EBE81AF4ABHA, EBE82AF4A1RA, EBE41AE4ABHA, EBE41AE4ACFA, EBE41RE4ABHA, EBE41RE4ACFA, EBE20AE4ABFA, EBE20AE4ACFA, EBE20RE4ABFA, EBE20RE4ACFA, EBE21AD4AJFA, EBE21RD4AJFA, EBE10AD4AJFA, EBE10AE8ACFA, EBE10RD4AJFA, EBE10RE8ACFA, EBE51AD8AJFA, EBE51RD8AJFA, EBE41UF8ABFA, EBE41EF8ABFA, EBE21UE8ABFA, EBE21UE8ACFA, EBE21UE8ACWA, EBE21EE8ABFA, EBE21EE8ACFA, EBE21EE8ACWA, EBE10UE8ACFA, EBE10UE8ACWA, EBE11UD8AHFA, EBE11UD8AHWA, EBE11UD8AJWA, EBE10EE8ACFA, EBE10EE8ACWA, EBE11ED8AJWA, EBE51UD8AJWA, EBE51ED8AJWA, EBE41UF8ABDA, EBE21UE8ABDA, EBE21UE8ACSA, EBE21UE8ACUA, EBE11UD8AJUA, EBE11UE6ACSA,

EBE11UE6ACUA, EBE52UD6AJUA, EBE81FF4ABHT, EBE82FF4A1RQ, EBE41FE4ABHD, EBE41FE4ACFT, EBE21FD4AJFT, EBE21FE8ACFT, EBE10FE8ACFT, EBE11FD8AJFT, EBE51FD8AJFT, EDS6416AHTA-75-E, EDS2532JE-75-E, EDS1216AATA-75-E, EDS1232EC-75, EDS2532EE75E, EDS6416AHTA-6BEH, EDS6416GHTA-10-E, EDS641GHTA-10-E, EDS2516ADTA-75-E, and EDS2518ADTA-75-E may also infringe the '367 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '367 patent in substantially the same way to achieve the same result.

167. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and Elpida had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '367 patent throughout the entire period of its infringing conduct or at least by April 18, 2008, when Elpida was formally placed on notice of its infringement.

168. Upon information and belief, ProMOS has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the BBOT64M8M DDR2 SDRAM, V58C2256164SBT5 DDR SDRAM, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by

ProMOS that contain semiconductor devices that include all of the limitations of one or more claims of the '367 patent. Upon information and belief, the V58C2512164SBI5, V58C2256804SAT6, V58C2128164SB15, V58C2256804SCI5, V58C2128164SBI5, V58C2512164SAI5, V59C1G01808QA, V59C1G01808QB, V59C1G01168QB, V59C1256164QA, V59C1512164QAL, V59C1512404QA, V59C1512804QA, V59C1512164QA, V59C1512404QB, V59C1512804QB, V59C1512164QB, V59C1512404QC, V59C1512804QC, V59C1512164QC, V916765K24QA, V916765K24QB, V916865K28QB, V916765K24QC, V916866K28QB, V916732J24QA, V916732J24QB, V916732J24QC, V916764K24QA, V916764K24QB, V916764K24QC, V917565K24QA, V917565K24QB, V917665K28QB, V917565K24QC, V917666K28QB, V917564K24QA, V917564K24QB, V917565N24QB, V917565U24QB, V917565N24QC, V917666N28QB, V917666U28QB, V917564U24QA, V917564U24QB, V58C2128804SB, V58C2128164SB, V58C2128804SC, V58C2128164SC, V58C2128804SB, V58C2128164SB, V58C2256324SA, V58C2256404SC, V58C2256804SC, V58C2256164SC, V58C2256164SG, V58C2256804SC, V58C2256164SC, V58C2512404SA, V58C2512804SA, V58C2512164SA, V58C2512804SB, V58C2512164SB, V58C2512804SA, V58C2512164SA, V826765K24SA, V826765K24SB, V826616J24SA, V826616J24SC, V826632K24SA, V826732J24SA, V826632K24SC, V826764K24SA, V826664K24SA, V826764K24SB, V826664K24SC, V827565K24SA, V827565K24SB, V827432K24SA, V827432K24SC, V827464K24SA, V827564K24SA, V827564K24SB, V827464K24SC, V827565N24SA, V827565N24SB, V827432U24SA, V827432U24SC, V827564U24SA, V827464N24SA, V827564U24SB, V827464N24SC, V826765G24SA, V826765G24SB, V826616B24SC, V826732B24SA, V826632B24SA, V826632B24SC, V826664G24SA, V826764B24SA, V826764B24SB, V826664G24SC, V54C3128804VBL,



V54C3128164VBL, V54C3128804VCL, V54C3128164VCL, V54C3128804VB, V54C3128164VB, V54C3128804VC, V54C3128164VC, V54C3128804VB, V54C3128804VC, V54C3128164VB, V54C3128164VC, V54C3256164VDL, V54C3256404VD, V54C3256804VD, V54C3256164VD, V54C3256164VG, V54C3256804VD, V54C3256164VD, V54C365164VE, V54C465164VE, V436632S24VD, V436664S24VD, V56C1128164MC, V55C1128164MC, V55C2128164VA, V55C2128164VC, V56C1256164MG, V55C1256164MG, V55C2256164VB, V55C3256164VB, V55C3256164VG, and V55C2256164VG may also infringe the '367 patent.

169. Upon information and belief, ProMOS has been directly and equivalently infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the BBOT64M8M DDR2 SDRAM, V58C2256164SBT5 DDR SDRAM, and other similar semiconductor devices, and/or other products made, used, sold, offered for sale, or imported by ProMOS that contain semiconductor devices that include all of the limitations of one or more claims of the '367 patent. Upon information and belief, the V58C2512164SBI5, V58C2256804SAT6, V58C2128164SB15, V58C2256804SCI5, V58C2128164SBI5, V58C2512164SAI5, V59C1G01808QA, V59C1G01808QB, V59C1G01168QB, V59C1256164QA, V59C1512164QAL, V59C1512404QA, V59C1512804QA, V59C1512164QA, V59C1512404QB, V59C1512804QB, V59C1512164QB,

V59C1512404QC, V59C1512804QC, V59C1512164QC, V916765K24QA, V916765K24QB,  
V916865K28QB, V916765K24QC, V916866K28QB, V916732J24QA, V916732J24QB,  
V916732J24QC, V916764K24QA, V916764K24QB, V916764K24QC, V917565K24QA,  
V917565K24QB, V917665K28QB, V917565K24QC, V917666K28QB, V917564K24QA,  
V917564K24QB, V917565N24QB, V917565U24QB, V917565N24QC, V917666N28QB,  
V917666U28QB, V917564U24QA, V917564U24QB, V58C2128804SB, V58C2128164SB,  
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V826765G24SA, V826765G24SB, V826616B24SC, V826732B24SA, V826632B24SA,  
V826632B24SC, V826664G24SA, V826764B24SA, V826764B24SB, V826664G24SC,  
V54C3128804VBL, V54C3128164VBL, V54C3128804VCL, V54C3128164VCL,  
V54C3128804VB, V54C3128164VB, V54C3128804VC, V54C3128164VC, V54C3128804VB,  
V54C3128804VC, V54C3128164VB, V54C3128164VC, V54C3256164VDL,  
V54C3256404VD, V54C3256804VD, V54C3256164VD, V54C3256164VG, V54C3256804VD,  
V54C3256164VD, V54C365164VE, V54C465164VE, V436632S24VD, V436664S24VD,  
V56C1128164MC, V55C1128164MC, V55C2128164VA, V55C2128164VC,

V56C1256164MG, V55C1256164MG, V55C2256164VB, V55C3256164VB, V55C3256164VG, and V55C2256164VG may also infringe the '367 patent. These semiconductor devices and/or products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '367 patent in substantially the same way to achieve the same result.

170. Upon information and belief, these semiconductor devices and/or products containing these semiconductor devices have no substantial non-infringing uses, and ProMOS had knowledge of the non-staple nature of these semiconductor devices and/or products containing these semiconductor devices and the '367 patent throughout the entire period of its infringing conduct or at least by April 18, 2008, when ProMOS was formally placed on notice of its infringement.

171. Upon information and belief, Toshiba has been directly and literally infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the Notebook Tecra A6-EZ6411, Projection Television 46HM94, Projection Television 52HM94, Projection Television 62HM94, Projection Television 52HMX94, Projection Television 62HMX94, and other similar products.

172. Upon information and belief, Toshiba has been directly and equivalently infringing under 35 U.S.C. § 271(a) and/or indirectly infringing, by way of inducement with

specific intent under 35 U.S.C. § 271(b) and/or contributory infringement under 35 U.S.C. § 271(c), the '367 patent by making, using, offering to sell, and/or selling to customers and/or distributors (directly or through intermediaries and/or subsidiaries) in this District and elsewhere within the United States and/or importing into the United States, without authority, products containing semiconductor devices that include all of the limitations of one or more claims of the '367 patent, including, but not limited to, the Notebook Tecra A6-EZ6411, Projection Television 46HM94, Projection Television 52HM94, Projection Television 62HM94, Projection Television 52HMX94, Projection Television 62HMX94, and other similar products. The products containing these semiconductor devices perform substantially the same function as the inventions embodied in one or more claims of the '367 patent in substantially the same way to achieve the same result.

173. Upon information and belief, the products containing these semiconductor devices have no substantial non-infringing uses, and Toshiba had knowledge of the non-staple nature of the products containing these semiconductor devices and the '367 patent throughout the entire period of its infringing conduct or at least by December 19, 2008, when Toshiba was formally placed on notice of its infringement.

174. Upon information and belief, Elpida, ProMOS, and Toshiba's acts of infringement of the '367 patent have been willful and intentional.

175. As a direct and proximate result of these acts of patent infringement, Elpida, ProMOS, and Toshiba have encroached on the exclusive rights of Plaintiffs and their licensees to practice the '212 patent, for which Plaintiffs are entitled to at least a reasonable royalty.

### **CONCLUSION**

176. Plaintiffs are entitled to recover from Defendants the damages sustained by Plaintiffs as a result of Defendants' wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court.

177. Plaintiffs have incurred and will incur attorneys' fees, costs, and expenses in the prosecution of this action. The circumstances of this dispute create an exceptional case within the meaning of 35 U.S.C. § 285, and Plaintiffs are entitled to recover their reasonable and necessary attorneys' fees, costs, and expenses.

### **JURY DEMAND**

178. Plaintiffs hereby request a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

### **PRAYER FOR RELIEF**

179. Plaintiffs respectfully request that the Court find in their favor and against Defendants, and that the Court grant Plaintiffs the following relief:

- A. A judgment that each Defendant has infringed the patents-in-suit as alleged herein, directly and/or indirectly by way of inducing or contributing to infringement of such patents;
- B. A judgment for an accounting of all damages sustained by Plaintiffs as a result of the acts of infringement by each Defendant;
- C. A judgment and order requiring each Defendant to pay Plaintiffs damages under 35 U.S.C. § 284, including up to treble damages for willful

infringement as provided by 35 U.S.C. § 284, and any royalties determined to be appropriate;

- D. A judgment and order requiring each Defendant to pay Plaintiffs pre-judgment and post-judgment interest on the damages awarded;
- E. A judgment and order finding this to be an exceptional case and requiring each Defendant to pay the costs of this action (including all disbursements) and attorneys' fees as provided by 35 U.S.C. § 285; and
- F. Such other and further relief as the Court deems just and equitable.

Dated: September 1, 2011

Respectfully submitted,

**FARNAN LLP**

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