

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION
Petitioner,

v.

DIRECTSTREAM, LLC,
Patent Owner.

Case No. IPR2018-01605, -01606, -01607
U.S. Patent No. 7,620,800 B2

PETITIONER MICROSOFT'S UPDATED EXHIBIT LIST

Exhibit #	Reference Name
1001	U.S. Patent No. 7,225,324 (the “324 Patent”)
1002	Original File History of 324 Patent
1003	Declaration of Dr. Harold Stone
1004	Curriculum Vitae of Dr. Harold Stone
1005	U.S. Patent No. 7,620,800 (the “800 Patent”)
1006	Original File History of 800 Patent
1007	Duncan A. Buell, Jeffrey M. Arnold, and Walter J. Kleinfelder. <u>Splash 2: FPGAs in a Custom Computing Machine</u> . IEEE Computer Society Press, 1996 (“ <u>Splash2</u> ”)
1008	R.J. Lipton and D.P. Lopresti, "A Systolic Array for Rapid String Comparison," Proc. 1985 Chapel Hill Conf. VLSI, Computer Science Press, Rockville, Md., 1985, pp. 363-376 (“ <u>Rapid String Comparison</u> ”)
1009	C. Ebeling, D. Cronquist, P. Franklin, J. Secosky and, S. Berg, “Mapping Applications to the RaPiD Configurable Architecture”, in Proc. of Int. Symp. on Field-Programmable Custom Computing Machines (FCCM), pp. 106–115, 1997 (“ <u>RaPiD</u> ”)
1010	Gaudiot, Jean-Luc, <u>Data-Driven Multicomputers in Digital Signal Processing</u> , 1987, IEEE, Proceedings of the IEEE, vol. 75, No. 9, at 1220-1234 (“ <u>Gaudiot</u> ”)
1011	Rencher, et al., “Automated Target Recognition on SPLASH 2”, IEEE Symposium on Field-Programmable Custom Computer Machines, 1997, 192-200 (“ <u>Chunky SLD</u> ”)
1012	Roccatano, et al., “Development of a parallel molecular dynamics code on SIMD Computers: Algorithm for use of pair list criterion,” J. Comp. Chemistry, vol. 19, no. 7, 1998, 685-694 (“ <u>Roccatano</u> ”)

Exhibit #	Reference Name
1013	Plaintiff's Preliminary Infringement Contentions, Case No. 1:17-cv-01172 (LO/JFA), Jan. 19, 2018
1014	US Patent 6,434,687 to Huppenthal
1015	Kung, et al., "Systolic arrays for VLSI," SIAM, 1978, Sparse Matrix Proceedings, 256-282
1016	H. T. Kung, "Why systolic architectures?" IEEE Computer, Jan., 1982, 37-46
1017	Gokhale, et al., "Building and using a highly parallel programmable logic array," IEEE Computer, Vol. 24, no. 1, 81-89
1018	Mertzios, et al., "Fast implementation of 3-D filters via systolic array processors," Multidimensional Systems and Signal Processing, vol. 89, 1997, 335-349
1019	US Patent 5,956,518 to DeHon et al.
1020	US Patent 5,274,832 to Khan
1021	Kung, et al, <u>Wavefront Array Processor: Language, Architecture, and Applications</u> , IEEE Transactions On Computers, Vol. C-31, No. 11, Nov. 1982, 1054-1066
1022	US Patent Publication 2001/0014937 to Huppenthal, <i>et al.</i>
1023	https://www.merriam-webster.com/dictionary/cluster
1024	Moreira et al., "High performance computing with the array package for Java: A case study using data mining", <i>Proc. 1999 Supercomputing Conf.</i> , Nov. 13-19, 1999, 1-15
1025	Microsoft Computer Dictionary (1997)
1026	http://www.dictionary.com/browse/data-mining
1027	https://www.merriam-webster.com/dictionary/data-mining

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1028	Excerpt from Plaintiff's Preliminary Infringement Contentions, Case No. 1:17-cv-01172 (LO/JFA), Jan. 19, 2018, '324 patent, claim 22
1029	Bayat, "Bioinformatics," British Medical Journal, vol. 324, 27 April, 2002, at 1018-1022
1030	Caulfield, et al, "A cloud-scale acceleration architecture," Proc. 49th Micro, Oct. 15-19, 1996, 1-13
1031	Excerpt from Plaintiff's Preliminary Infringement Contentions, Case No. 1:17-cv-01172 (LO/JFA), Jan. 19, 2018, '324 patent, claim 23
1032	Peterson, William H., and Frank M. Strong. <i>General biochemistry</i> . Prentice-Hall, Inc; New York, 1953
1033	Cornell, et al., "A second generation force field for the simulation of proteins, nucleic acids, and organic molecules," J. Am. Chem Soc., vol. 117, 1995, 5179-5197
1034	Hartenstein, et al., "A reconfigurable data-driven ALU for Xputers," Proc. of the 1994 IEEE Workshop on FPGAs for CCMs, April 10-13, 1994, at 139-146
1035	Xilinx XC4000E and XC4000X Series Field Programmable Gate Arrays," May 14, 1999 Ver. 1.6
1036	Brazma, et al., "Predicting gene regulatory elements in silico on a genomic scale," Genome Research, 8, 1202-1215
1037	Marcotte, "Computational genetics: finding protein function by nonhomology methods." Current Opinion in Structural Biology, vol. 10, no. 3, 359-365
1038	Searls, "Linguistic approaches to biological sequences," Bioinformatics, vol. 13, no. 4, Aug. 1, 1997, 333-344
1039	Hoang D.T., Lopresti D.P, "FPGA implementation of systolic sequence alignment," Grünbacher H., Hartenstein R.W. (eds) Field-Programmable Gate Arrays: Architecture and Tools for Rapid Prototyping. FPL 1992. Lecture Notes in Computer Science, vol. 705. Springer, Berlin, Heidelberg, 183-191 ("Hoang")

Exhibit #	Reference Name
1040	Jones, "Protein sequence and structure comparison on massively parallel computers," <i>Inter. J. of Supercomputer Applications</i> , vol. 6, no.2, 1992, 138-146
1041	A. DeHon, "The density advantage of reconfigurable computing," <i>Computer</i> , Vol: 33, Issue: 4, Apr 2000, pp. 41-49
1042	E. Lemoine, <i>et al.</i> , "High speed pattern matching in genetic data base with reconfigurable hardware," <i>ISMB Proceedings 1994</i> , pp. 269-275
1043	A. E. Abdallah, <i>et al.</i> "Formal development of a reconfigurable tool for parallel DNA matching, 5 th Annual. Symp. On Field Programmable Custom Computing Machines, April 16-18, 1997, pp. 24-33
1044	J. Schmutz, <i>et al.</i> , "Quality assessment of the human genome sequence," <i>Nature</i> . vol. 429, May 27, 2004, 365–368
1045	"Xilinx FPGAs: A Technical Overview for the First-Time User," XAPP 097 December 12, 1998 (Version 1.3)
1046	CCITT T.81, Information Technology – Digital compression and coding of continuous-tone still images – requirements and guidelines, 9/92 ("JPEG")
1047	ISO/IEC 11172-2, MPEG Standard, First edition, 1993-08-01 ("MPEG-2")
1048	K. Ramchandran, <i>et al.</i> , "Rate-Distortion optimal fast thresholding with complete JPEG/MPEG decoder compatibility," <i>IEEE Trans. on Image Processing</i> , vol. 3, no. 5, Sept. 1994, 700-704
1049	Spanos, <i>et al.</i> , "Security for real-time MPEG compressed video in distributed multimedia applications," <i>Proc. of 1996 Conf. on Computers and Communications</i> , March 27-29, 1996, 72-78

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