

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent of: Morton *et al.*  
U.S. Patent No.: 7,296,121 Case No. IPR2015-01353  
Issue Date: Nov. 13, 2007  
Appl. Serial No.: 10/966,161  
Filing Date: Oct. 15, 2004  
Title: REDUCING PROBE TRAFFIC IN MULTIPROCESSOR  
SYSTEMS

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**PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT  
NO. 7,296,121 PURSUANT TO 35 U.S.C. §§ 311–319, 37 C.F.R. § 42**

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## EXHIBITS

- APPL-1001 U.S. Patent Number 7,296,121 to Morton et al. (“the ‘121 Patent”)
- APPL-1002 Excerpts from the Prosecution History of the ‘121 Patent (“the Prosecution History”)
- APPL-1003 U.S. Patent Application Publication Number 2002/0053004 to Pong (“Pong”)
- APPL-1004 David Chaiken *et al.*, “Directory-Based Cache Coherence in Large-Scale Multiprocessors,” *Computer* vol. 24, issue 9 (Jun 1990) (“Chaiken”)
- APPL-1005 Daniel Lenoski *et al.*, “The Directory-Based Cache Coherence Protocol for the DASH Multiprocessor,” *ISCA ‘90 Proceedings of the 17th annual international symposium on Computer Architecture*, pp. 148-159 (May 1990) (“Stanford DASH”)
- APPL-1006 U.S. Patent Number 6,490,661 to Keller *et al* (“Keller”)
- APPL-1007 Excerpts from Jose Duato *et al.*, INTERCONNECTION NETWORKS – AN ENGINEERING APPROACH (1997) (“Duato”)
- APPL-1008 Michael John Sebastian Smith, APPLICATION-SPECIFIC INTEGRATED CIRCUITS (1997) (“Smith”)
- APPL-1009 U.S. Patent No. 7,698,509 to Koster *et al.* (“Koster”)
- APPL-1010 U.S. Patent No. 7,315,919 to O’Krafka *et al.* (“O’Krafka”)
- APPL-1011 U.S. Patent No. 6,338,122 to Baumgartner *et al.* (“Baumgartner”)
- APPL-1012 Anant Agarwal *et al.*, “An Evaluation of Directory Schemes for Cache Coherence,” *Conference Proceedings of 15th Annual International Symposium on Computer Architecture* (1988)

- APPL-1013 Louis G. Johnson, "Multiprocessors," ECEN 6253 Lecture Notes (April 28, 2003)
- APPL-1014 Declaration of Dr. Robert Horst
- APPL-1015 Excerpts from Merriam-Webster's Collegiate Dictionary - 10th Ed. (2001)
- APPL-1016 Redacted Letter of March 28, 2014 from Memory Integrity's Counsel to Samsung's Counsel in *Memory Integrity LLC v. Samsung Electronics Co., Ltd. et al.*, Case No. 1:13-cv-01808-GMS, including "Response to Samsung's Allegation of a Rule 11 Violation"
- APPL-1017 Luca Benini and Giovanni De Micheli, "Networks on chips: a new SoC paradigm," *Computer* vol. 35, issue 1 (Jan. 2002) ("Benini")
- APPL-1018 "HyperTransport™ Technology I/O Link - A High-Bandwidth I/O Architecture" (Jul. 20, 2001) ("HyperTransport")
- APPL-1019 U.S. Publication No. 2005/0228952 to Mayhew *et al.* ("Mayhew")
- APPL-1020 U.S. Patent No. 6,662,277 to Gaither ("Gaither")
- APPL-1021 U.S. Patent Application Serial No. 10/966,161, as filed
- APPL-1022 U.S. Patent Application Serial No. 10/288,347, as filed
- APPL-1023 U.S. Patent No. 7,003,633 to Glasco ("Glasco")

Sony Corp., Sony Electronics Inc., Sony Mobile Communications AB, and Sony Mobile Communications (USA) Inc., (collectively “Sony”) and LG Electronics, Inc., LG Electronics USA, Inc., and LG Electronics Mobilecomm USA, Inc., (collectively “LG”) (collectively “Petitioners”) petition for *Inter Partes* Review (“IPR”) under 35 U.S.C. §§ 311–319 and 37 C.F.R. § 42 of claims 4-6, 11, 12,<sup>1</sup> and 19-24 (“the Challenged Claims”) of U.S. Patent No. 7,296,121 (“the ‘121 Patent”) based on the substantively identical grounds as instituted for the pending IPR Proceeding, IPR2015-00163. For the exact same reasons previously considered by the Board, on the exact same schedule, Petitioners respectfully seek to join IPR2015-00163.

In this petition, Petitioners assert substantively identical arguments that the Board has already instituted in IPR2015-00163. This petition does not add to or alter any argument that has already been considered by the Board, and this petition does not seek to expand the grounds of unpatentability that the Board has already instituted or subject to reconsideration. Accordingly, and as explained below, there exists a reasonable likelihood that Petitioners will prevail in demonstrating

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<sup>1</sup> Claim 12 is subject to a Motion for Reconsideration in the Apple IPR. *See* IPR2015-00163, Paper 20. Petitioners include claim 12 here merely to conform to the Apple IPR petition and current motions.

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