

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., HTC CORPORATION, HTC AMERICA, INC., SAMSUNG
ELECTRONICS CO. LTD, SAMSUNG ELECTRONICS AMERICA, INC., AND
AMAZON.COM, INC.,
Petitioners,

v.

MEMORY INTEGRITY, LLC,
Patent Owner.

Case IPR2015-00163
Patent 7,296,121

**PETITIONERS' REPLY TO PATENT OWNER RESPONSE
PURSUANT TO 37 C.F.R. § 42.23**

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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")
- APPL-1024 Affidavit of Mr. Michael Rueckheim in Support of Petitioner Apple Inc.'s Motion for *Pro Hac Vice* Admission

- APPL-1025 Reply Declaration of Dr. Robert Horst
- APPL-1026 Deposition Transcript of Dr. Vojin G. Oklobdzija Vol. 1, November 23, 2015
- APPL-1027 Deposition Transcript of Dr. Vojin G. Oklobdzija Vol. 2, November 23, 2015
- APPL-1028 David E. Culler et al., Parallel Computer Architecture: A Hardware/software Approach (1st Ed.) (1998)
- APPL-1029 "InfiniBand Architecture Specification Volume 1 Release 1.0.a" (June 19, 2001)
- APPL-1030 James Laudon and Daniel Lenoski, Proceedings of the 24th Annual International Symposium on Computer Architecture, "The SGI Origin: A ccNUMA Highly Scalable Server" (1997)

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