Paper 8

Date: December 16, 2014

### UNITED STATES PATENT AND TRADEMARK OFFICE

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### BEFORE THE PATENT TRIAL AND APPEAL BOARD

SANDISK CORPORATION, Petitioner.

v.

NETLIST, INC., Patent Owner.

Case IPR2014-00994 Patent 8,301,833 B1

Before: LINDA M. GAUDETTE, BRYAN F. MOORE, and GEORGIANNA W. BRADEN, *Administrative Patent Judges*.

MOORE, Administrative Patent Judge.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

## I. INTRODUCTION

Sandisk Corporation, Inc. ("Petitioner") filed a Petition, on June 20, 2014, requesting an *inter partes* review of claims 1–30 of US Patent No. 8,301,833 B1 (Ex. 1001, "the '833 patent"). Paper 1 ("Pet."). Netlist, Inc.



("Patent Owner") filed a Preliminary Response on October 2, 2014. Paper 7 ("Prelim. Resp.").

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may be authorized only if "the information presented in the petition . . . and any [preliminary] response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Pursuant to 35 U.S.C. § 314, the Board does not find a reasonable likelihood that Petitioner would prevail with respect to at least one claim of the '833 patent and, thus, does not authorize an *inter partes* review to be instituted as to those claims.

### A. Related Proceedings

Petitioner indicates that the '833 patent is involved in the following co-pending actions: *Netlist, Inc. v. Smart Modular Technologies, Inc.*, U.S. District Court for the Northern District of California, Civil Action No. 3:13-CV-05889-YGR; *Diablo Technologies, Inc. v. Netlist, Inc.*, U.S. District Court for the Northern District of California, Civil Action No. 4:13-CV-03901-YGR; and *Smart Modular Technologies, Inc. v. Netlist, Inc.*, U.S. District Court for the Northern District of California, Civil Action No. 4:13-CV-03916-YGR.). Pet. 59.

### B. The '833 Patent

The invention in the '833 patent relates to a specific configuration of hybrid memory systems that addresses non-volatile memory backup, while running the volatile memory subsystem at lower power, and therefore, at lower clock speeds. Ex. 1001, col. 16, ll. 29–34. Specifically, the alleged invention of the '833 patent includes circuitry for providing a regular high-



speed clock frequency (first clock frequency) during communications between the host and the volatile memory subsystem, and a slower clock frequency during communications between the volatile memory subsystem (using third clock frequency) and the non-volatile memory subsystem (using second clock frequency). *Id.* at col. 21, ll. 5–21. Further, the second and third clock frequencies may be substantially equal. *Id.* at col. 21, ll. 23–24.

### C. Illustrative Claim

Of the challenged claims, 1 and 5 are independent claims. Claim 1 is illustrative of the claimed subject matter of the '833 patent, and is reproduced below:

1. A method for controlling a memory system operatively coupled to a host system, the memory system including a volatile memory subsystem and a non-volatile memory subsystem, the method comprising:

operating the volatile memory subsystem at a first clock frequency when the memory system is in a first mode of operation in which data is communicated between the volatile memory subsystem and the host system;

operating the non-volatile memory subsystem at a second clock frequency when the memory system is in a second mode of operation in which data is communicated between the volatile memory subsystem and the nonvolatile memory subsystem; and

operating the volatile memory subsystem at a third clock frequency when the memory system is in the second mode of operation, the third clock frequency being less than the first clock frequency.



1. Prior Art Relied Upon

Petitioner relies upon the following prior art references:

Fukuzo		
("Fukuzo," Ex. 1013)	US 2006/0294295 A1	June 24, 2005
Panabaker		
("Panabaker," Ex. 1014)	US 7,716,411 B2	June 7, 2006
Li		
("Li," Ex. 1015)	US 6,336,174 B1	August 9, 1999
Spiers		
("Spiers," Ex. 1016)	US 2006/0080515 A1	October 12, 2004
Hansen		
("Hansen," Ex. 1017)	US 2005/0132250 A1	December 16, 2003
Sun		
("Sun," Ex. 1018)	US 7,102,391 B1	July 29, 2004
Komatsuzaki		
("Komatsuzaki," Ex. 1019)	US 6,944,042 B2	December 31, 2002

## 2. The Asserted Grounds

Petitioner asserts that the challenged claims are unpatentable based on the following grounds:

Reference[s]	Basis	Claims challenged
Fukuzo	§ 102	1, 2, 6, 8, 11, 12, 15, 18, 22,
		24, 27, and 28
Panabaker	§ 102	1–6, 8, 11–13, 15, 17–22,
		24, and 27–29
Fukuzo and Li	§ 103	3 and 19
Fukuzo,	§ 103	3 and 19
Li, and Spiers		
Fukuzo	§ 103	7 and 23
and Hansen		
Fukuzo, Li, and Hansen	§ 103	7, 9, 10, 23, 25, and 26
Fukuzo	§ 103	14 and 30
and Sun		
Fukuzo, Li,	§ 103	14 and 30



Reference[s]	Basis	Claims challenged
and Sun		
Fukuzo and	§ 103	16
Komatsuzaki		
Fukuzo, Li, and	§ 103	16
Komatsuzaki		
Panabaker and Li	§ 103	1–6, 8, 11, 12, 15, 17–22,
		24, 27, and 28
Panabaker and Spiers	§ 103	3 and 19
Panabaker, Li, and Spiers	§ 103	3 and 19
Panabaker and Hansen	§ 103	7, 9, 23, and 25
Panabaker, Li, and	§ 103	7, 9, 10, 23, 25, and 26
Hansen		
Panabaker and Fukuzo	§ 103	13 and 29
Panabaker, Li, and	§ 103	13 and 29
Fukuzo		
Panabaker and Sun	§ 103	14 and 30
Panabaker, Li, and Sun	§ 103	14 and 30
Panabaker and	§ 103	16
Komatsuzaki		
Panabaker, Li, and	§ 103	16
Komatsuzaki		



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