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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SK HYNIX INC., SK HYNIX AMERICA INC., and SK HYNIX MEMORY SOLUTIONS INC.,
Petitioner,

v.

NETLIST, INC.,
Patent Owner.

Case IPR2017-00649
Patent 8,301,833 B1

Before BRYAN F. MOORE, GEORGIANNA W. BRADEN, and SHEILA F. McSHANE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

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

I. INTRODUCTION

SK hynix Inc., SK hynix America Inc. and SK hynix memory solutions Inc. ("Petitioner") requests *inter partes* review of claims 1–30 of

U.S. Patent No. 8,301,833 B2 ("the '833 Patent," Ex. 1001) pursuant to 35 U.S.C. §§ 311 *et seq*. Paper 1 ("Pet."). Netlist, Inc. ("Patent Owner") filed a preliminary response. Paper 6 ("Prelim. Resp."). Institution of an *inter partes* review is authorized by statute when "the information presented in the petition . . . and any 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); *see* 37 C.F.R. § 42.108. Upon consideration of the Petition and Preliminary Response, we conclude the information presented shows there is not a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claims 1–30 of the '833 Patent.

A. Related Matters

Petitioner recites the District Court proceedings related to this *inter partes* review. Pet. 2. The Board has twice declined to institute an *inter partes* review of claims 1–30 of the '883 Patent. *Sandisk Corporation v. Netlist, Inc.*, Case IPR2014-00994 (PTAB December 16, 2014) (Paper 8) (rehearing denied, Paper 10); *Smart Modular Technologies Inc. v. Netlist, Inc.*, Case IPR2014-01370 (PTAB March 13, 2015) (Paper 13)).

Considering the particular circumstances of this case, we address the merits of the Petition and do not exercise our discretion under 35 U.S.C. § 325(d) (indicating "if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the post-grant review or other processing or matter may proceed . . . and may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office") and/or 35 U.S.C. § 314(a) (authorizing institution of an *inter*

partes review under particular circumstances, but not requiring institution under any circumstances). *See* 37 C.F.R. § 42.108(a) ("the Board may authorize the review to proceed") (emphasis added); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (explaining that under § 314(a), "the PTO is permitted, but never compelled, to institute an IPR proceeding"). Petitioner was not a party to any of the prior proceedings. In addition, this Petition raises new issues, including asserting obviousness in view of references not at issue in the previous proceedings. Pet. 3.

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, 16:29–34. 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 a third clock frequency) and the non-volatile memory subsystem (using a second clock frequency). *Id.* at 21:5–21. Furthermore, the second and third clock frequencies may be substantially equal. *Id.* at 21:23–24.

C. Illustrative Claim

Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

> 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.

Ex. 1001, 21:6–22.

D. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–30 are unpatentable based on the following grounds:

References	**Basis**	**Claim(s) challenged**
Bonella[1] and Mills[2]	§ 103	1–30
Bonella, Mills, and Ashmore[3]	§ 103	1–30
Bonella, Mills, Ashmore and Larson[4]	§ 103	7 and 23
Bonella, Mills, Ashmore and Windows 2000[5]	§ 103	8–10, 24–26

[1] US Publication No. 2007/0136523 A1, filed December 8, 2006 ("Bonella," Ex. 1005). Claims priority to US Provisional No. 11/635,926 filed December 8, 2005.
[2] US Patent No. 6,026,465, issued February 15, 2000 ("Mills," Ex. 1007).
[3] US Publication No. 2006/0212651 A1, published September 21, 2006 ("Ashmore," Ex. 1008).
[4] US Patent No. 6,571,244 B1, issued May 27, 2003 ("Larson," Ex. 1019).
[5] MICROSOFT WINDOWS 2000 PROFESSIONAL RESOURCE KIT, lists Feb. 2, 2000 date of publication ("Windows 2000," Ex. 1021).

Bonella, Mills, Ashmore and Klein[6]	§ 103	16
Bonella, Mills, Ashmore and Maeda[7]	§ 103	17

Pet. 3, 14–59.

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

At this juncture of the proceeding, we determine that it is not necessary to provide an express interpretation of any term of the claims.

B. Asserted Obviousness over Bonella and Mills

Petitioner contends claims 1–30 are unpatentable under 35 U.S.C. § 103(a) as obvious over Bonella and Mills. Pet. 14–48. Relying on the testimony of Ron Maltiel, Petitioner explains how Bonella and Mills allegedly describe all of the claim limitations. *Id.* (citing Ex. 1003).

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[6] US Patent No. 6,721,860 B2, issued April 3, 2004 ("Klein," Ex. 1009).
[7] US Publication No. 2005/0249011 A1, published November 10, 2005 ("Maeda," Ex. 1013).

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