

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC.,
Petitioner,

v.

SONRAI MEMORY LIMITED,
Patent Owner.

IPR2023-00904
Patent 6,920,527 B2

Before STACEY G. WHITE, GARTH D. BAER, and
MICHAEL T. CYGAN, *Administrative Patent Judges*.

BAER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

Micron Technology, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–7, 9–18, and 20 (the “challenged claims”) of U.S. Patent No. 6,920,527 B2 (Ex. 1001, “the ’527 patent”). Sonrai Memory Limited (“Patent Owner”) filed a Preliminary Response to the Petition (Paper 6, “Prelim. Resp.”). An *inter partes* review may not be instituted unless “the information presented in the petition filed under section 311 and any response filed under section 313 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 (2018); *see also* 37 C.F.R § 42.4(a) (2021) (“The Board institutes the trial on behalf of the Director.”). For the reasons provided below, Petitioner has demonstrated a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims. Accordingly, we institute an *inter partes* review on all grounds set forth in the Petition.

B. Related Proceedings

The ’527 patent is at issue in *Sonrai Memory Ltd. v. Micron Technology, Inc.*, No.6:22-cv00855 (W.D. Tex.). Pet. 95; Paper 3, 1. The ’527 patent was the challenged in IPR2022-00255, IPR2022-00437, IPR2022-00762, and IPR2022-00765. Pet. 89.

C. The ’527 Patent (Ex. 1001)

The ’527 patent describes a portable random access memory (RAM) device. Ex. 1001, code (57). Data is stored on nonvolatile memory, and is transferable to volatile memory when the portable drive is connected to a computer. *Id.* Figure 4 is reproduced below.

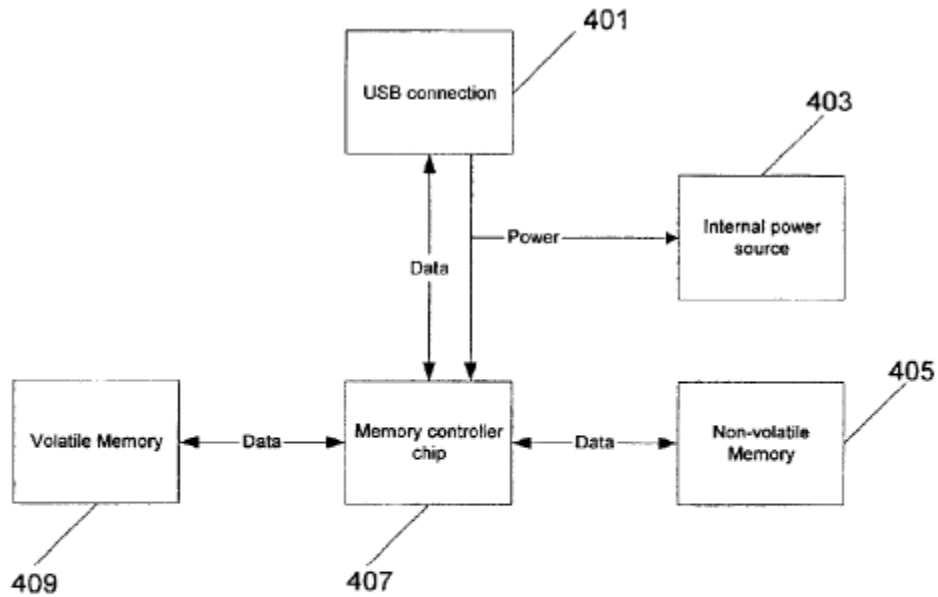


Figure 4

Figure 4 is a block diagram of a portable RAM drive. *Id.* at 2:16.

D. Challenged Claims

Petitioner challenges claims 1–7, 9–18, and 20. Of the challenged claims, claims 1 and 15 are independent. Independent claim 1 is illustrative of the claimed subject matter and is reproduced below:

1. A portable memory apparatus, comprising:
 - a housing;
 - a memory controller comprised in the housing;
 - a volatile memory coupled to said memory controller comprised in the housing;
 - a non-volatile memory coupled to said memory controller comprised in the housing;

a connector positioned on the housing, wherein said connector couples said portable memory apparatus to a computer system when said connector is plugged into said computer system; and wherein, when said connector couples said portable memory apparatus to said computer system, said memory controller chip copies data from said non-volatile memory to said volatile memory, and said computer system accesses said data in said volatile memory through said connector updating said non-volatile memory with data from said volatile memory.

Ex. 1001, 7:29–8:2.

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability. Pet. 1–2.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1, 6, 9, 11–12, 14–15	103 ¹	Tsunoda ²

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. § 103 that became effective after the filing of the application that led to the ’961 patent. Therefore, we apply the pre-AIA version of 35 U.S.C. § 103.

² US 2003/0028733 A1, published Feb. 6, 2003 (Ex. 1004).

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
2–5, 16–17	103	Tsunoda, Tomio ³
13, 20	103	Tsunoda, Tomio, Shigeo ⁴
1, 6–7, 9–12, 14–15, 18	103	Tsunoda, Sukegawa ⁵
2–5, 16–17	103	Tsunoda, Sukegawa, Tomio
13, 20	103	Tsunoda, Sukegawa, Tomio, Shigeo
1–6, 9, 12, 15–17	103	Tomio
13, 20	103	Tomio, Shigeo
1–7, 9–12, 14–18	103	Tomio, Sukegawa
13, 20	103	Tomio, Sukegawa, Shigeo

Petitioner also submits a declaration from Dr. David Kuan-Yu Liu.
Ex. 1003.

II. DISCUSSION

A. Discretionary Denial in View of Parallel Litigation

Patent Owner argues that we should exercise our discretion under § 314(a) to deny institution in view of the related district court case. Prelim. Resp. 2–10. For the reasons explained below, we decline to exercise our discretion to deny institution based on the related district court case.

The Director’s Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21,

³ JP 2001-005723, published Jan. 12, 2001 (English translation) (Ex. 1006).

⁴ JP 2000-112836, published Apr. 21, 2000 (English translation) (Ex. 1007).

⁵ US 7,069,370 B2, issued Feb. 6, 2003 (Ex. 1005).

2022)⁶ (“Interim Procedure”) states that “the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.”

Interim Procedure at 3 (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A)); *see id.* at 7, 9. As the Interim Procedure explains, such a stipulation (a *Sotera* stipulation) “mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the PTAB.” *Id.* at 7.

Here, Petitioner provides a *Sotera* stipulation. Ex. 1026. Specifically, Petitioner stipulates that if we institute review, “Micron will not seek resolution in the district court of the same grounds as set forth in the petitions or any grounds that Micron could have reasonably raised in the petition[.]” *Id.* (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)).

Patent Owner asserts we should deny the Petition despite Petitioner’s *Sotera* stipulation because Petitioner has not identified “which references cited in its invalidity contentions Petitioner will contend could not have been raised in the Petition and could therefore be asserted in the district court.” Prelim. Resp. 8. We disagree with Patent Owner because nothing in the Interim Procedure or *Sotera Wireless* requires Petitioner to identify what prior art from its district court invalidity contentions falls outside of its

⁶ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

stipulation. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 18–19; Interim Procedure at 7–8.

Because Petitioner provides a *Sotera* stipulation, we decline to exercise our discretion under § 314(a) to deny institution in view of the related district court litigation. *See* Interim Procedure at 3, 7, 9.

B. Discretionary Denial in View of Multiple Petitions

Relying on framework from *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential as to Section II.B.4.i) (“*General Plastic*”), Patent Owner asserts that we should exercise our discretion under § 314(a) to deny institution because this Petition is the fifth to challenge the ’527 patent. Prelim Resp. 11–15. For the reasons that follow, we disagree.

In *General Plastic*, the Board discussed the “potential for abuse” due to multiple, staggered petitions “challenging the same patent and same claims.” *General Plastic* at 17. The Board said, “The absence of any restrictions on follow-on petitions would allow petitioners the opportunity to strategically stage their prior art and arguments in multiple petitions, using our decisions as a roadmap, until a ground is found that results in the grant of review.” *Id.*

In *General Plastic*, the Board identified the following nonexclusive factors to consider when deciding whether to exercise discretion under § 314(a) to deny institution based on a follow-on petition:

- 1) whether the same petitioner previously filed a petition directed to the same claims of the same patent;
- 2) whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;

- 3) whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;
- 4) the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
- 5) whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
- 6) the finite resources of the Board; and
- 7) the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

Gen. Plastic, 16.

Here, *General Plastic* factors 1–5 weigh against denying institution. This is the first time this petitioner has challenged the '527 patent. Pet. 90. The only connection Patent Owner alleges between this and previous petitioners challenging the same patent is that Petitioner's law firm also represented one of the previous petitioners. Prelim. Resp. 12. That, however, is not the kind of relationship that might warrant denying a follow-on petition by a different petitioner. See *Valve Corp. v. Elec. Scripting Prods. Inc.*, IPR2019-00062, Paper 11 at 9–10 (Apr. 2, 2019) (precedential) (exercising discretion to deny institution based on a different petitioner's earlier-filed petition where the different petitioners were co-defendants in a related district-court litigation, and where both petitioners were accused of infringing the challenged patent based on the same product incorporating

technology licensed from petitioner Valve). Because this Petitioner has not previously filed a petition and Patent Owner does not assert extenuating circumstances that might justify discretionary denial, *see* Prelim. Resp. 12–14, factors 1–5 weigh against denying institution. *See Alcatel-Lucent USA Inc. v. Oyster Optics, LLC*, IPR2017-02146, Paper 12, 12 (Feb. 28, 2018) (“Once resolution of factor 1 indicates that Petitioner had not previously filed a petition against the same patent, factors 2–5 bear little relevance unless there is evidence in the record of extenuating circumstances.”).

General Plastic factors 6 and 7 also weigh against denying institution. The four previous IPRs have all terminated due to settlement. *See* Pet. 89. Because this Petition is now the only IPR before the Board challenging the ’527 patent, we agree with Petitioner that this case provides an efficient means for resolving patentability within one year after institution and does so without unnecessarily straining the Board’s limited resources. *See id.* at 91.

For these reasons, the circumstances in this case do not warrant denying the Petition under § 314(a).

C. Claim Construction

Petitioner asserts that “no claim terms require a formal construction for purposes of addressing the Grounds in this Petition.” Pet. 3 Patent Owner does not contest Petitioner’s argument at this stage. We agree with Petitioner that we do not need to explicitly construe any terms to determine whether to institute *inter partes* review. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“we need only construe terms ‘that are in controversy, and only to the

extent necessary to resolve the controversy” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Description of Principal Prior Art References

1. Tsunoda (Ex. 1004)

Tsunoda teaches “a memory apparatus, which uses a volatile memory and a nonvolatile memory.” Ex. 1004 ¶ 1. Tsunoda’s Figure 1 is reproduced below.

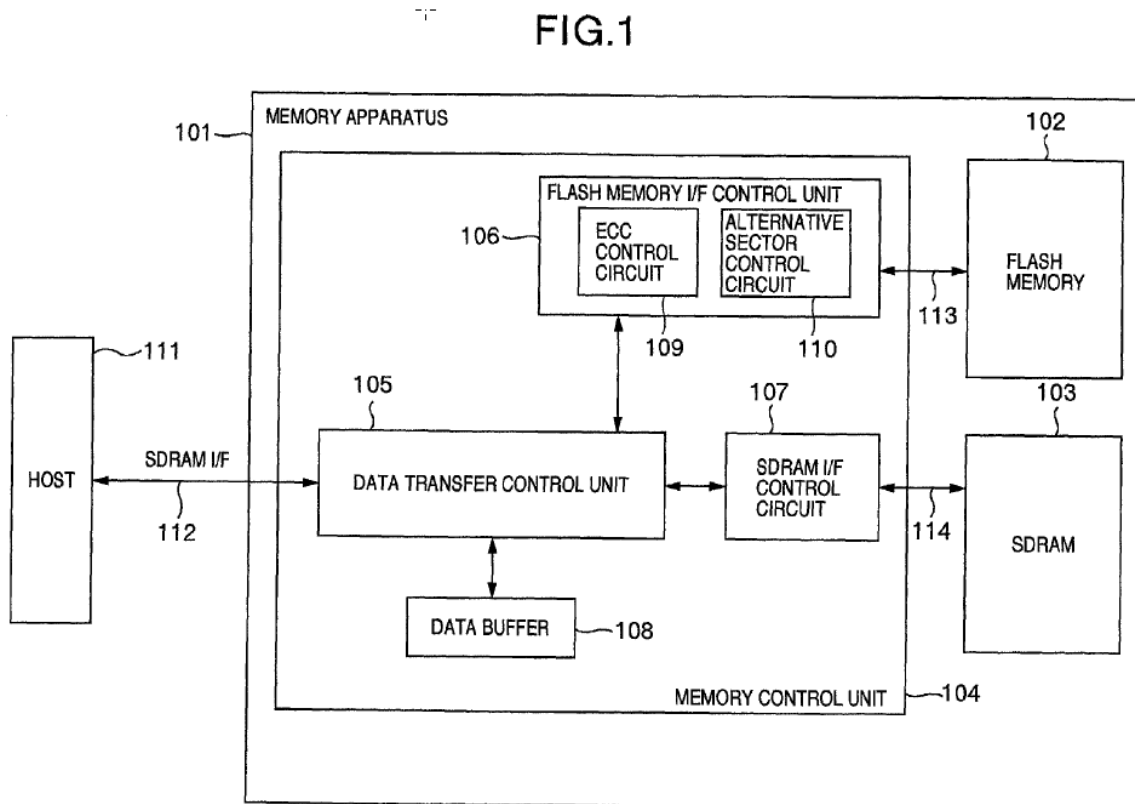


Figure 1 is “an internal configuration of a memory apparatus.” *Id.* at ¶ 12. ion.” According to Tsunoda, “memory control unit 104 controls data transfer or the like between a host 111 and the memory apparatus 101, and between the flash memory 102 and the SDRAM 103 in response to a request from the host 111.” *Id.* at ¶ 96.

2. Tomio (Ex. 1006)

Tomio discloses “a semiconductor memory apparatus.” Tomio’s Figure 2 is reproduced below.

[Fig. 2]

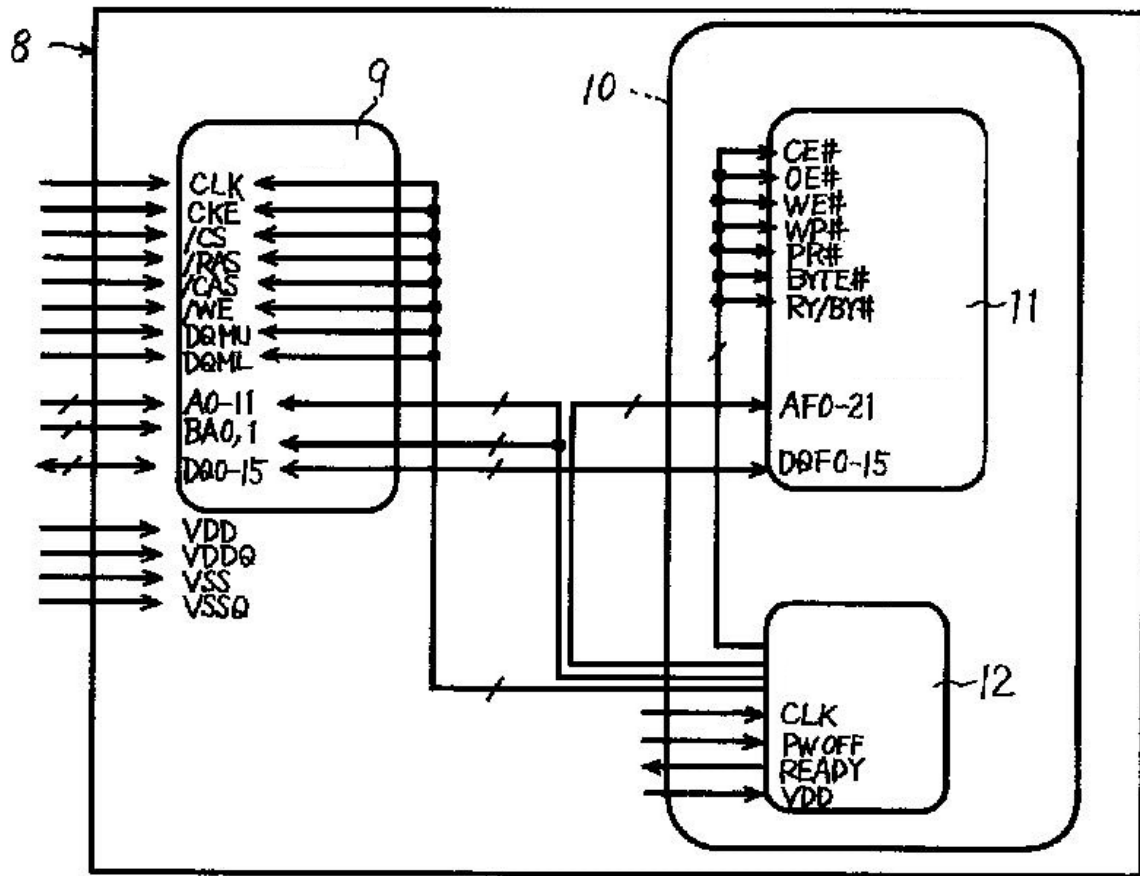


Figure 2 is a “semiconductor memory.” *Id.* at ¶ 18. The semiconductor memory includes volatile DRAM 9 and nonvolatile flash memory unit 10. *Id.* at ¶¶ 2, 18. Tomio teaches that a “transfer control circuit transfers data stored in the flash memory to the DRAM in response to the rising edge of the power supply potential.” *Id.* at ¶ 22 (reference numerals omitted).

E. Obviousness Analysis

1. Petitioner's Obviousness Challenge to Claim 1 based on Tsunoda

Petitioner asserts claim 1 would have been obvious over Tsunoda. Pet. 8–22. Specifically, Petitioner explains that Tsunoda teaches claim 1's housing because Tsunoda describes “memory chips and a control chip [that] are sealed in one package” and “housed in a memory card shape.” Pet. 11 (quoting Ex. 1004, ¶¶ 56, 124). Petitioner maps Tsunoda's “memory control unit 1402,” “SDRAM 103,” and “flash memory 102” to claim 1's memory controller, volatile memory, non-volatile memory, respectively. *Id.* at 13–16 (quoting Ex. 1004, ¶ 122). Petitioner explains that Tsunoda teaches claim 1's pluggable connector because Tsunoda's device “includes an MMC interface 1407 as an interface with a host 1408” and “connection with the host 1408 is made . . . through the MMC interface 1407.” *Id.* at 18 (quoting Ex. 1004, ¶ 121). Petitioner also explains that Tsunoda teaches claim 1's data transfer between volatile and nonvolatile memory and one skilled in the art would have known to do so when portable memory is coupled to the host “to beneficially allow the host 1408 to control data transfer between the flash memory 102 and the SDRAM 103, use the MMC 1401 as a nonvolatile SDRAM compatible memory, and access data on the MMC 1401 via SDRAM 103 at a high speed.” *Id.* at 21–22 (internal citations omitted); *see id.* at 6.

Patent Owner does not challenge Petitioner's analysis in its Preliminary Response. We have reviewed Petitioner's arguments and the underlying evidence cited in support. Based on the analysis outlined above, at this stage, Petitioner demonstrates a reasonable likelihood of prevailing in its obviousness challenge to claim 1 based on Tsunoda.

2. Petitioner's Additional Challenges based on Tsunoda

Petitioner asserts that claim 1 would also have been obvious over Tsunoda and Sukegawa, and that claims 2–7, 9–18, and 20 would have been obvious over Tsunoda either alone, or in various combinations with three additional references. *See* Pet. 23–52. Patent Owner does not challenge Petitioner's analysis in its Preliminary Response. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that, at this stage, Petitioner demonstrates a reasonable likelihood of prevailing in these additional challenges.

3. Petitioner's Obviousness Challenges based on Tomio

Petitioner asserts alternative grounds based on Tomio. Pet. 52–88. Petitioner explains that it includes these alternative challenges to address claim constructions for the terms “portable” and “housing” that “Patent Owner advanced in its complaint for infringement.” *Id.* at 52–53. Patent Owner does not challenge Petitioner's analysis in its Preliminary Response. We have reviewed Petitioner's arguments and the underlying evidence cited in support and are persuaded that, at this stage, Petitioner demonstrates a reasonable likelihood of prevailing in its additional challenges based primarily on Tomio. *See, e.g., id.* at 61 (annotated Figures 11, 2, 7 alleged to teach claimed structure features), 64 (Tomio's personal computer data access alleged to teach claimed data operations).

III. CONCLUSION

After considering the evidence and arguments presented in the current record, we determine that Petitioner has demonstrated a reasonable likelihood of success in proving that at least one of the challenged claims of the '527 patent is unpatentable. We therefore institute trial on all challenged

claims and grounds raised in the Petition. At this stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or as to the construction of any claim term. Any final determination will be based on the record developed during trial.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–7, 9–18, and 20 of the '527 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '527 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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