

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC.,
MICRON SEMICONDUCTOR PRODUCTS, INC., and
MICRON TECHNOLOGY TEXAS LLC,
Petitioner,

v.

UNIFICATION TECHNOLOGIES LLC,
Patent Owner.

IPR2021-00940
Patent 8,533,406 B2

Before JUSTIN T. ARBES, TERRENCE W. McMILLIN, and
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

OGDEN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioners Micron Technology, Inc., Micron Semiconductor Products, Inc., and Micron Technology Texas LLC (collectively, “Micron” or “the Micron parties”)¹ filed a Petition (Paper 2, “Pet.”) under 35 U.S.C. §§ 311–319 requesting *inter partes* review of claims 15–21 and 26 of U.S. Patent No. 8,533,406 B2 (Ex. 1001, “the ’406 patent”). Patent Owner Unification Technologies LLC (“UTL”)² filed a Preliminary Response (Paper 11, “Prelim. Resp.”).

Under the authority delegated to us by the Director under 37 C.F.R. § 42.4(a), we may institute an *inter partes* review 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 also* 37 C.F.R. § 42.108(c) (2020). However, the Board has discretion to deny a petition for reasons independent of whether the petitioner meets that threshold. *See, e.g., Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review” (emphasis omitted)); *Harmonic*

¹ According to the Petition, the real parties in interest are the named Petitioners, but “[o]ut of an abundance of caution,” Micron also identifies Dell Technologies Inc., Dell Inc., Denali Intermediate Inc. (“a corporate parent entity of Dell Inc.”), and HP Inc. as real parties in interest. Pet. 58.

² UTL identifies itself as the real party in interest, and states that it “is a subsidiary of Acacia Research Group LLC.” Paper 5, 2.

Inc. v. Avid Tech., Inc., 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

Having considered the parties’ submissions, we determine that it is appropriate in this case to exercise our discretion to deny institution of *inter partes* review, for the reasons explained below.

II. BACKGROUND

A. THE ’406 PATENT (EX. 1001)

The ’406 patent discloses techniques for “managing data in a storage device using an empty data segment directive.” Ex. 1001 1:28–30.

“Typically, when data is no longer useful it may be erased. In many file systems, an erase command deletes a directory entry in the file system while leaving the data in place in the storage device containing the data,” such that the storage device is unaware that the data is now invalid. *Id.* at 1:32–36.

“Another method of erasing data is to write zeros, ones, or some other null data character to the data storage device to actually replace the erased file,” but doing so is inefficient because “valuable bandwidth is used while transmitting the data” and “space in the storage device is taken up by the data used to overwrite invalid data.” *Id.* at 1:36–42.

The ’406 patent attempts to overcome these issues by having the storage device “receive a directive that data is to be erased” and store a “data segment token” that represents erased data, rather than performing either of the typical erase methods. Ex. 1001, 1:63–2:1. In particular, the ’406 patent discloses an apparatus comprising (1) a “request receiver module” that “receive[s] an indication identifying data that can be erased from a non-volatile storage medium,” where the indication identifies the data using a

“logical identifier,” (2) a “marking module” that “invalidate[s] an association between the logical identifier and the physical address” to which the logical identifier is mapped in the index, (3) a “storage recovery module” that “recover[s] the physical storage location at the physical address” at an appropriate time, and (4) a “storage module” that “store[s] data associated with another logical identifier on the physical storage location in response to recovering the physical storage location.” *Id.* at 2:61–3:39.

B. CHALLENGED CLAIMS AND ASSERTED GROUNDS OF
UNPATENTABILITY

Independent claim 15, which exemplifies the other challenged claims of the '406 patent, is as follows:

15. An apparatus, comprising:

a non-volatile storage medium;

a request receiver module of a storage layer for the non-volatile storage medium configured to receive an indication that a data structure, corresponding to data stored on the non-volatile storage medium, has been deleted, wherein the indication comprises a logical identifier that is associated with the data structure by a storage client, and wherein the logical identifier is mapped to a physical address of the data on the non-volatile storage medium; and

a marking module configured to record that the data stored at the physical address mapped to the logical identifier can be erased from the non-volatile storage medium in response to receiving the indication.

Ex. 1001, 54:13–27. Claims 16–21 and 26 depend directly or indirectly from claim 15. *See id.* at 54:28–53, 55:5–14.

Micron argues two grounds for *inter partes* review, as summarized in the following table:

Claims Challenged	35 U.S.C. §	Reference(s)
15, 21, 26	103(a) ³	Shu, ⁴ Trim Proposals, ⁵ Ban ⁶
16–20	103(a)	Shu, Trim Proposals, Ban, Jenett ⁷

Pet. 22.

A. RELATED PROCEEDINGS

The parties identify a co-pending district court litigation between Micron and UTL that challenges the '406 patent: *Unification Technologies LLC v. Micron Technology, Inc.*, No. 6:20-cv-500-ADA(W.D. Tex. filed June 5, 2020) (“the related district court case”). Pet. 59; Paper 5, 2.

³ 35 U.S.C. § 103(a) (2006), *amended by* Leahy–Smith America Invents Act, Pub. L. No. 112-29 § 103, sec. (n)(1), 125 Stat. 284, 287, 293 (2011) (effective Mar. 16, 2013). The '406 patent claims priority, among other applications, to a provisional application filed on September 22, 2007, which is before the effective date of this amendment to § 103. *See* Ex. 1001, code (60); Pet. 1 & n.1 (alleging that September 22, 2007 is the correct priority date for the '406 patent).

⁴ Shu et al., US 9,207,876 B2, filed Feb. 12, 2008, issued Dec. 8, 2015 (Ex. 1003). Micron alleges that Shu is prior art under 35 U.S.C. §§ 102(a) and (e), based on a provisional application filed April 19, 2007. Pet. 22–23.

⁵ Frank Shu, Notification of Deleted Data Proposal for ATA8-ACS2, rev. 0 (Apr. 21, 2007) (Ex. 1017); Frank Shu & Nathan Obr, Data Set Management Commands Proposal for ATA8-ACS2, rev. 1 (July 26, 2007) (Ex. 1018) (collectively, “Trim Proposals”). Micron alleges that the Trim Proposals qualify as prior art under 35 U.S.C. § 102(a). Pet. 25.

⁶ Ban, US 5,404,485, issued Apr. 4, 1995 (Ex. 1025). Micron alleges that Ban is prior art under 35 U.S.C. §§ 102(a), (b), and (e). Pet. 25.

⁷ Jenett, US 6,014,724, issued Jan. 11, 2000 (Ex. 1033). Micron alleges that Jenett qualifies as prior art under 35 U.S.C. §§ 102(a), (b), and (e). Pet. 25.

Micron challenges a subset of the claims of the '406 patent that it also challenges in co-pending *inter partes* review IPR2021-00343, including independent claim 15. *See* Pet. 59; Paper 5, 2–3; IPR2021-00343, Paper 4, 8. Micron and other petitioners (not part of this proceeding) filed the IPR2021-00343 petition on December 22, 2020, challenging claims 15–21 and 26–30 of the '406 patent as unpatentable based on different prior art. *See* IPR2021-00343, Paper 4, 8. UTL filed its preliminary response for that proceeding on April 13, 2021. IPR2021-00343, Paper 8. We then instituted *inter partes* review on July 9, 2021. *See* IPR2021-00343, Paper 9. Thus far in that case, UTL has filed its Patent Owner Response and Micron has served notice to depose UTL's declarant, Dr. Vijay K. Madiseti, in January 2022. *See* IPR2021-00343, Papers 21, 22.

Micron filed its Petition in the current proceeding on June 4, 2021, which is after UTL filed its preliminary response in IPR2021-00343 and before we instituted *inter partes* review. *See* Paper 2.

III. DISCRETION TO DENY INSTITUTION UNDER § 314(A)

A. *GENERAL PLASTIC* FACTORS

The Board has recognized a number of factors that may merit denial of institution under § 314(a) when a party files a “follow-on” petition challenging the same patent as a previous petition. *See General Plastic Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 15–16 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i). These factors are as follows:

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.

General Plastic, Paper 19 at 16. The *General Plastic* factors “are not dispositive, but part of a balanced assessment of all relevant circumstances in the case, including the merits.” Consolidated Trial Practice Guide 58 (Nov. 2019) (“Trial Practice Guide”), <https://go.usa.gov/xpvPF> (citing *General Plastic*, Paper 19 at 15).

UTL contends that the *General Plastic* factors weigh heavily in favor of denying institution in this case. *See* Prelim. Resp. 22–29. We agree. Below, we address each of these factors as they apply to the circumstances of this case.

1. *Whether the Same Petitioner Previously Filed a Petition Directed to the Same Claims of the Same Patent*

The Micron parties in this proceeding are also among the petitioners in IPR2021-00343. The petitioners in the earlier proceeding also include

Dell Technologies Inc., Dell Inc., and HP Inc., which were defendants in district court actions by UTL asserting the '406 patent. IPR2021-00343, Paper 4 at 66, caption. Micron states that “those cases were dismissed before the filing of this Petition,” but Micron still identifies these entities as real parties in interest for this proceeding “[o]ut of an abundance of caution.” Pet. 58–59.

UTL contends that “[t]here is no dispute that the same Petitioners who filed the IPR2021-00343 Petition also filed the present Petition,” and that “[b]oth the present Petition and IPR2021-00343 challenge claims 15–21 and 26 of the '406 Patent.” Prelim. Resp. 24.

We agree with UTL that Micron is the same Petitioner that filed the earlier petition, and that there is complete overlap as to the challenged claims. Therefore, this factor weighs in favor of denying institution.

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*

UTL contends that Micron knew of the prior art cited in this Petition at the time it filed its petition in IPR2021-00343. Prelim. Resp. 24–25. UTL points out that in the related district court litigation, Micron listed all four of the asserted references in its Preliminary Invalidity Contentions dated October 16, 2020, before Micron filed its first petition on December 22, 2020. Prelim. Resp. 26 (citing Ex. 2006, 7–9, 26 (listing Jenett, Shu, and the Trim Proposals)); *see also* Ex. 2006, 11 (listing Ban). UTL also notes that Micron included Ban and the Trim Proposals as exhibits for its petition in IPR2021-00343. Prelim. Resp. 25 (citing IPR2021-00343, Exs. 1017, 1018, 1035). And UTL points out that Shu, Ban, and Jenett appear on the face of

the '406 patent, and the Examiner rejected claims based on Jenett. *Id.* at 2–4, 30 (citing Ex. 1001, code (56)).

The record is clear that Micron was aware of Shu, the Trim Proposals, Ban, and Jenett when it filed its first petition. *See* Ex. 2006, 7–8, 11, 26; IPR2021-00343, Exs. 1017, 1018, 1035. Thus, we agree with UTL that at the time of its first petition, Micron was aware of each reference asserted in the present Petition. Under the circumstances, the second factor weighs strongly in favor of denying institution.

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*

UTL argues that Micron “already received Patent Owner’s preliminary response to the first petition on April 13, 2021. This gave Petitioner approximately two months to review any potential shortcomings in its first petition to address in its second petition.” Prelim. Resp. 25.

Although the Board had not yet instituted an *inter partes* review on the first petition when Micron filed the current Petition, Micron did have access to UTL’s preliminary response to the first petition, and Micron would have been able to take UTL’s arguments into consideration in shaping its strategy for the present Petition. Thus, we agree with UTL that the third *General Plastic* factor weighs in favor of denial.

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*

For the fourth *General Plastic* factor, UTL argues that Micron “listed each of the asserted references in its Preliminary Invalidity Contentions it served on October 16, 2020, but then waited ten months to file the present Petition on June 4, 2021.” Prelim. Resp. 26 (citing Ex. 2006, 7–9, 26).

We agree with UTL that ten months is a substantial delay between learning of potential prior art references and asserting them in a petition, particularly because in this case, Micron had not only learned of the references as of October 16, 2020, but had analyzed them sufficiently by that date to include them in its Preliminary Invalidity Contentions (and then relied on three of them as evidence in its IPR2021-00343 petition). Thus, this factor weighs in favor of denying institution.

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*

Micron contends that, when it filed its first petition, “investigation into the . . . Trim Proposals remained ongoing, and Petitioners did not have possession of relevant materials, such as Frank Shu’s presentations (Ex. 1022, Ex. 1024) until recently.” Pet. 26. Micron also contends that in the related district court case, UTL “delayed providing its priority contentions until late April, 2021.” *Id.* (citing Ex. 1019). Also, according to Micron, “[t]he earlier IPR petition dealt with different prior art and assumed a different priority date.” *Id.* at 26–27 (citing Trial Practice Guide 59 (stating that “a dispute about priority date requiring arguments under multiple prior

art references” can be a potential reason for the Board to institute trial on multiple petitions challenging the same patent)).

UTL argues that Micron’s explanation for the delay is inadequate. *See* Prelim. Resp. 26–27. According to UTL, the later-discovered Frank Shu presentations (Exs. 1022 and 1024) “are irrelevant to the asserted Ground[s] in the present Petition because they are not part of the asserted Ground[s].” *Id.* at 26. UTL also argues that the disputed priority date of the ’406 patent does not justify multiple petitions because “Petitioners were well aware of Patent Owner’s position with respect to the priority date of the ’406 Patent before Patent Owner provided its detailed Interrogatory response in April 2021 and before Petitioner filed its first Petition.” *Id.* at 27 (citing Ex. 2005, 5 (UTL’s Initial Infringement Contentions, served August 21, 2020)). And according to UTL, Micron “was free to argue that the ’406 Patent was only entitled to a later priority date in IPR2021-00343—but it chose not to.” *Id.*

We agree with UTL that Micron’s explanation for the delay between the two petitions is inadequate. Because Micron does not assert the Frank Shu presentations (Exs. 1022, 1024) as prior art, the timing of their discovery is not relevant to the delay in asserting Shu, the Trim Proposals, Ban, and Jenett in the present Petition. We also agree with UTL that Micron should have known UTL’s position on the priority date of the ’406 patent when UTL served its Initial Infringement Contentions on August 21, 2020, well before Micron filed its first petition. *See* Ex. 2005, 5 (contending that “claims [15–21 and 26–30] of the ’406 Patent are entitled to a priority date no later than December 6, 2006.”). Thus, any delay in UTL’s interrogatory responses in April 2021 does not adequately explain Micron’s delay in filing the current Petition.

The Board recognizes that “more than one petition may be necessary . . . when there is a dispute about priority date requiring arguments under multiple prior art references.” Trial Practice Guide 59. But when the Board has accepted such multiple petitions, they are usually parallel petitions filed “at or about the same time (e.g., before the first preliminary response by the patent owner).” *Id.* Micron’s argument that it needs a second petition to address a different priority date assumption still does not adequately explain the delay in filing the current Petition.

Thus, we agree with UTL that the fifth *General Plastic* factor weighs in favor of denying institution.

6. *The Finite Resources of the Board; and 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*

Micron contends that if we institute on its current Petition, “[t]he limited resources of the Board will be put to efficient use because the Board is already familiar with the technology and mainly needs to decide a priority date challenge to prevent the Patent Owner from unfairly using hindsight to capture Frank Shu’s invention.” Pet. 27.

In response, UTL argues that under Micron’s reasoning, “every follow-on IPR on the same patent would then somehow be an efficient use of the Board’s resources because ‘the Board is already familiar with the technology.’” Prelim. Resp. 29 (citing *General Plastic*, Paper 19 at 21 (“[M]ultiple, staggered petition filings, such as those here, are an inefficient use of the *inter partes* review process and the Board’s resources.”)).

We agree with UTL that instituting trial on the present Petition would not be an efficient use of the Board’s resources. In the IPR2021-00343 case,

we already instituted trial about five months ago on all the claims challenged in this Petition, and UTL has already filed its Patent Owner Response. *See* IPR2021-00343, Paper 21. If we were also to institute an *inter partes* review on the current Petition, it would be too late for us to consolidate the two cases on the same schedule, while still issuing a final written decision by July 8, 2022 as required under 35 U.S.C. § 316(a)(11). Thus, the two cases would be on different schedules in entirely separate proceedings, and have different evidentiary records.

Thus, *General Plastic* factors 6 and 7 weigh in favor of denying institution.

B. CONCLUSION AS TO THE *GENERAL PLASTIC* FACTORS

For the reasons above, we weigh all seven *General Plastic* factors in favor of denying institution. Although no single factor is dispositive, the evidence and circumstances as a whole weigh strongly in favor of denying institution on the present Petition.

IV. CONCLUSION

We have considered the evidence and circumstances before us in view of the *General Plastic* factors and the guidance provided in the Consolidated Trial Practice Guide. For the above reasons, we exercise our discretion to deny institution of *inter partes* review.

V. ORDER

In consideration of the foregoing, it is ORDERED that the Petition is *denied*, and no trial is instituted.

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