

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner,

v.

MAXELL, LTD.,
Patent Owner

Case: IPR2020-00408

U.S. Patent No. 6,430,498

**PATENT OWNER PRELIMINARY RESPONSE TO PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 6,430,498**

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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PATENT OWNER'S EXHIBIT LIST

Description	Exhibit #
5/31/19 Scheduling Order from District Court Action	2001
3/10/15 Letter from Apple to Maxell	2002
5/15/15 Letter from Apple to Maxell	2003
5/17/18 Letter from Maxell to Apple	2004
Maxell's Infringement Contentions from District Court Action	2005
Apple's Invalidity Contentions from District Court Action	2006
<i>Hayashida</i> Chart from Apple's Invalidity Contentions	2007
<i>Hayashida</i> Chart from Apple's Expert Report from District Court Action	2008
<i>Abowd</i> Chart from Apple's Expert Report from District Court Action	2009
Apple's Final Election of Prior Art	2010
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<i>Markman</i> Decision from District Court Action	2014
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I. INTRODUCTION

Patent Owner Maxell, Ltd. (“Patent Owner”) respectfully requests that the Board deny institution because Petitioner Apple Inc. (hereinafter, “Apple” or “Petitioner”) has failed to demonstrate a reasonable likelihood of success on the grounds submitted in its Petition for challenging the patentability of claims 1, 3-5, 7-11, and 13 (“challenged claims”) of U.S. Patent No. 6,430,498 (“the ’498 patent”).

First, the Board should exercise its discretion pursuant to 35 U.S.C. § 314(a) and deny this petition. Application of the *General Plastic* and *Fintiv* factors weighs heavily in favor of denying institution. One of the purposes of IPRs is to be an “effective and efficient alternative” to litigation. *Gen. Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16-17 (PTAB Sept. 6, 2017) (precedential). Here, instituting an IPR would not be an effective or efficient alternative to litigation, particularly given the advanced stage of the co-pending District Court case *Maxell, Ltd. v. Apple Inc.*, No. 5:19-cv-00036-RWS (E.D. Tex.), the finite resources of the Board, and Apple’s delay in filing its Petition.

Second, it is Petitioner’s burden to propose a construction and then explain how the construed claim is unpatentable under that proposed construction. *See* 37 C.F.R. § 42.104(b)(4). The Petition fails, however, to propose a construction and

explain how the claims are unpatentable in view of that construction, particularly with the terms “a device for getting location information denoting a [p]resent place of said portable terminal;” and “a device for getting direction information denoting an orientation of said portable terminal.”

Third, Apple fails to show that *Abowd* is prior art; this is fatal to Ground 2.

Fourth, even if *Abowd* is prior art, Apple’s obviousness analysis lacks sufficient articulated reasons with rational underpinnings on why it would be obvious to combine the systems of *Hayashida* in view of the knowledge of POSITA and *Hayashida* in view of *Abowd*.

For at least reasons, more fully explained below, Apple has failed to show a reasonable likelihood of success on any ground presented.

II. THE BOARD SHOULD EXERCISE ITS DISCRETION AND DENY INSTITUTION FOR ALL GROUNDS PURSUANT TO 35 U.S.C. § 314

Apple’s Petition for IPR should be denied because the invalidity arguments Apple raises here will be resolved in a co-pending District Court action long before this proceeding will conclude. Specifically, the ’498 Patent is asserted in the co-pending District Court case, *Maxell, Ltd. v. Apple Inc.*, No. 5:19-cv-00036-RWS (E.D. Tex.) (“District Court Action”). While Apple acknowledged the District Court Action in its Petition, it failed to inform the Board that the District Court Action will be complete long before any final decision would issue in this

proceeding. Nor did Apple inform the Board—when attempting to justify its delay in filing its Petition—that Maxell identified Apple’s infringement of the claims at issue in the ’498 Patent long prior to Apple filing its Petition, and that the trial date of October 2020 for the District Court Action was scheduled back in May 2019. Ex. 2001.¹ The jury trial is scheduled in the District Court Action only two months after the Board’s anticipated Institution Decision, and will adjudicate the validity of the ’498 Patent *ten months before* any Final Written Decision issues in this proceeding.

Not only will the District Court Action conclude long before this proceeding, but it will also resolve the invalidity arguments that Apple raises in the instant Petition. The prior art references relied on in this proceeding are the same, or substantially the same, as those at issue in the District Court Action. Apple made a strategic decision to put forward the same art it is using in the District Court Action as it presents in this Petition. Additionally, the challenged claims are substantially the same as those asserted in the District Court Action. The claim construction disputes between the parties with respect to the ’498 Patent are also

¹ See Letter from Maxell to Apple dated May 17, 2018 (Ex. 2004) at 2 (specifically identifying claims 1-13 of the ’498 Patent as being infringed by Apple). As explained further herein, over the next year Maxell consistently and periodically identified asserted claims of the ’498 Patent to Apple. See, e.g., Ex. 1010 at ¶ 78.

the same across the two proceedings. The claim constructions Apple applies in this proceeding are identical to those it is putting forward in the District Court Action and the Court has already issued a *Markman* Order. Thus, any questions of whether the grounds of invalidity raised in Apple's Petition invalidate the asserted claims of the '498 Patent will be decided in the District Court action at least ten months prior to when the Board would issue a Final Written Decision in this proceeding.

Simply put, instituting an IPR in this circumstance would needlessly duplicate the District Court Action, and unnecessarily waste the Board's resources.² See *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential) (denying institution under similar facts); *Apple v. Fintiv*, IPR2020-00019, Paper 11 at 5-6 (PTAB March 20, 2020) (precedential). For at least these reasons and those further set forth below, the Board should exercise its discretion not to institute this proceeding pursuant to 35 U.S.C. § 314.

² Apple has filed nine other Petitions challenging the patentability of the other patents-in-suit in the District Court Action. As set forth individually in Maxell's preliminary responses to those Petitions, the Board should exercise its discretion to deny institution in those proceedings for similar reasons pursuant to 35 U.S.C. § 314. See IPR2020-00199, -00200, -00201, -00202, -00203, -00204, -00407, -00409, -00597.

A. Application of the *General Plastic* Factors Weighs in Favor of Denying Institution

There is no requirement that the Board institute IPR. *Harmonic Inc. v. Avid Tech.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). Instead, the decision to institute is delegated to the Board and is purely discretionary. As 35 U.S.C § 314(b) explains, “[t]he Director shall determine whether to institute an inter partes review.” *See also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016); 37 C.F.R. § 42.108(a). The Director’s discretion is informed by many things, including the consideration of “the integrity of the patent system, [and] the efficient administration of the Office.” 35 U.S.C. § 316(b).

The USPTO recognized that these factors, and the Board’s discretionary denial, apply where “other proceedings relating to the same patent, either at the Office, in district courts, or the ITC” are at advanced stages and will resolve the same or similar issues presented in the Petition before the Board can. *See* Trial Practice Update, 83 Fed. Reg. 39,989 at 10 (August 2018). That is because one of the purposes of IPRs is to be an “effective and efficient alternative” to litigation. *Gen. Plastic*, IPR2016-01357, Paper 19 at 16-17. Here, instituting an IPR would not be an effective or efficient alternative to litigation because the co-pending District Court Action (1) involves the same, or substantially the same prior art that

Apple relies on here, and (2) will be complete well before a final decision in this proceeding.

The majority of the *General Plastic* factors weigh heavily in favor of the Board using its discretion to deny institution. Indeed, even if other factors weighed in favor of institution, Board precedent demands denial of institution due to Apple's delay in filing its Petition and the advanced stage of the District Court Action. *NHK Spring*, IPR2018-00752, Paper 8 at 20 ("Institution of an *inter partes* review under these circumstances would not be consistent with an objective of the AIA . . . to provide an effective and efficient alternative to district court litigation. . . . Accordingly, we find that the advanced state of the district court proceeding is an additional factor that weighs in favor of denying the Petition under § 314(a).") (internal quotes omitted); *see also Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 12 at 15-18 (PTAB Feb. 5, 2020) (noting the advanced stages of the related district court litigation, the substantial similarity of the issues, and the precedential effect of the *NHK* decision as reasons for denying institution); *see also id.*, Paper 18 (PTAB April 6, 2020) (denying request for Precedential Opinion Panel review).

1. General Plastic Factors 6 and 7 Weigh in Favor of Denial

Apple boldly claims that the “Board’s finite resources will not be adversely affected by this IPR.” Petition at 8. But Apple only considers the Board’s resources in relation to the prior denial of institution of a petition filed by ASUSTeK against the ’498 Patent and ignores the duplicative efforts the Board would engage in as a result of the co-pending District Court Action. Considering the status of the District Court Action, and Apple’s delay in filing this Petition, granting institution here would work against the purposes of IPRs to be an “effective and efficient alternative” to litigation, and would needlessly consume the finite resources of the Board. *Gen. Plastic*, IPR2016-01357, Paper 19 at 16-17.

a. The District Court Action Will Resolve the Same or Substantially the Same Arguments as Those Presented Here

The scope of Apple’s challenge to the ’498 Patent’s validity in this proceeding is substantially the same as Apple’s challenge in the District Court Action. For example, there is overlap in the claims challenged in both proceedings. Here, Apple asserts that Claims 1, 3-5, 7-11, and 13 of the ’498 Patent are unpatentable. Petition at 1. These claims cover all the asserted claims against Apple in the District Court Action at the time Apple filed its Petition, including the independent claims and the same or similar dependent claims. *See* Ex. 2005 at 2.

The prior art that Apple relies on in its Petition is the same, or substantially the same, as the prior art at issue in the District Court Action. For example, in the Petition Apple proposes four grounds, utilizing *Hayashida*, *Abowd*, and *Ikeda*. Petition at 6. In the District Court Action, Apple also relies on *Hayashida* and *Abowd* as primary grounds of invalidity in its invalidity contentions and in its Expert Invalidity Report served on May 7, 2020. Ex. 2006 at 6, 12-19; Ex. 2007 (Expert Report *Hayashida* Chart); Ex. 2008 (Expert Report *Abowd* Chart); Ex. 2009 (Paradiso *Abowd* Chart). Indeed, a sample comparison of the evidence cited in the Petition allegedly supporting unpatentability of Claim 1 illustrates that the very same issues will be decided by a jury at the trial in the District Court Action a mere two months after the Board's Institution Decision:

Element	Alleged Support from <i>Hayashida</i> Relied on in Petition	Alleged Support from <i>Hayashida</i> Relied on in District Court Action Expert Reports
1[pre]	<i>Hayashida</i> , 76:13-20	<i>Hayashida</i> , 1:5-8; 76:5-20
1[a]	<i>Hayashida</i> , 6:47-49; 6:65-67; 7:50-54; 7:60-61; 7:66-8:8	<i>Hayashida</i> , 2:46-55; 7:24-30; 7:50-8:21; 10:55-11:8; 13:16-33; Fig. 1, 5
1[b]	<i>Hayashida</i> , 6:47-49; 6:65-67; 7:60-61; 7:28-42; 10:58-64; 13:35-41; Figs. 10, 14, 16	<i>Hayashida</i> , 2:46-55; 7:24-42; 7:60-8:3; 10:55-64; 13:34-47; Fig. 1, 5
1[c][i]	<i>Hayashida</i> , Abstract; 2:10-12; 11:9-14; 12:6-58; 15:64-16:4; 17:58-59; 23:39-42; 25:67-26:1;	<i>Hayashida</i> , 3:9-16; 5:66-6:16; 21:7-63; 21:64-22:44; 34:49-35:8; 49:3-11; 49:44-60; 54:4-12; 58:27-43; Figs. 16-17, 46, 73

	43:31-40; 37:12-13; 64:38-42; Fig. 10, 16, 20, 26, 46	
1[c][ii]	<i>Hayashida</i> , 7:14-16; 10:6-14; 11:25-33; 12:21-25; 50:10-14; 76:13-20	<i>Hayashida</i> , 76:5-20

Compare Petition at 17-32 *with* Ex. 2008 at 1-17. Other claims show similar substantial overlap. *Compare* Petition at 33-38 *with* Ex. 2008 at 17-28.

Apple’s Final Election of Prior Art served on April 7, 2020 also shows that Apple continues to rely on *Hayashida* and *Abowd* to set forth its invalidity case at trial in the District Court litigation in October 2020—*ten months before a final written decision is expected in this IPR*. See Apple’s Final Election of Prior Art (Ex. 2010) at 3.³ In fact, there are four remaining invalidity grounds for the ’498 Patent in the District Court Action, and three rely on *Hayashida*. Thus, substantially the same issues will be decided by a jury, using the same prior art, same invalidity theories, and the same citations of the prior art (shown in the above table), all ten months prior to the issuance of a Final Written Decision.

Here, no meaningful distinction exists between Apple’s references and grounds used in the Petition versus those in the District Court Action. In the District Court Action, Apple relied upon the same prior art as this Petition until at

³ Apple presents the “system” version of *Abowd* in the District Court Action, but clearly relies also on the literature that it contends supports that system, *See, e.g.*, Ex. 2010; Ex. 2009.

least April 7, 2020 at which point it selectively dropped certain prior art references in an attempt to compensate for its delay in filing its Petition and avoid discretionary denial. But from August 15, 2019 through April 7, 2020, Apple relied on identical prior art.

Nor can Apple avoid denial simply by challenging extraneous unasserted claims that raise the same invalidity issues as the asserted ones. First, the Court ordered Maxell to elect a narrower set of claims. This narrowing should not have an impact on the Board's decision. *See NetApp Inc. v. Realtime Data LLC*, IPR2017-01195, Paper 9 at 7-8 (PTAB Oct. 12, 2017). Second, even though independent Claims 5 and 10 are no longer asserted in the District Court Action, Apple itself acknowledges the substantial overlap at least between Claims 1, 5, and 10; it substantially relies on its Claim 1 analysis for Claims 5 and 10. Petition at 58-61.

The Board should not countenance Apple's delayed filing of its IPRs, and its attempt to then take advantage of the Court's narrowing order *months after filing its petition* in an attempt to avoid discretionary denial. This "gotcha" tactic further exposes Apple's insincere claim that it seeks efficiency, and runs contrary to why the Board found *NHK* and *Fintiv* important to declare precedential.

Moreover, Apple's position in the District Court Action is that there is

complete overlap of issues. “Apple reserves the right to amend its election of prior art as appropriate. . . .” Ex. 2010 at 1. Apple’s invalidity contentions in the District Court Action also purport to “incorporate[] by reference all prior art cited during prosecution of the Asserted Patents, and all *inter partes* review (IPR) petitions filed against the Asserted Patents and the prior art cited in these IPR petitions” Ex. 2006 at 2. In other words, Apple has expressly and specifically sought to incorporate all of the Petition’s contentions into the District Court Action.

Thus, substantially the same issues will be decided by a jury, using the same prior art, ten months prior to the issuance of a Final Written Decision. At bottom, the issues presented in the Petition that differ from what will be argued in the District Court Action do not meaningfully distinguish the arguments in this proceeding from those in the District Court Action. *Edwards Lifesciences Corp. v. Evalve*, IPR2019-01546, Paper 7, 12-13 (PTAB Feb. 26, 2020) (denying institution despite lack of a 1:1 overlap of claims and prior art, finding such distinction not meaningful).

b. The District Court Action Will Be Complete Well Before a Final Written Decision in This Proceeding

Not only are the substantive arguments overlapping, but the District Court Action will be complete well before a Final Written Decision is issued in this proceeding. The Court has invested significant time and resources into the District

Court Action. For example, the Court conducted a four-hour *Markman* hearing and issued a 57-page *Markman* order with a detailed discussion of a number of disputed claim terms and phrases for the ten patents at issue in the District Court Action. Ex. 2011; Ex. 2014. The Court also has invested many hours in holding arguments and issuing numerous rulings on various motions, including Apple's motion to dismiss, motion to transfer, and motion to stay along with several discovery related motions and the parties' other various motions. *See* Exs. 2011-2013.

The parties have also invested significant time and resources into the District Court Action. For example, fact discovery closed on March 31, 2020, except for remaining depositions postponed due to COVID-19 that are now complete. Ex. 2015. During fact discovery, the parties collectively produced nearly 2 million pages of documents, conducted 35 depositions, filed 20 motions, and served 50 interrogatories and 120 requests for admission. Ex. 2016, ¶¶3-4. The parties also served over 30 third-party subpoenas. *Id.* ¶5. Expert discovery is underway and closes June 25, 2020. For example, Maxell's experts have already spent nearly 600 hours reviewing source code produced by Apple. *Id.* ¶6. Maxell's expert report regarding infringement and Apple's expert reports regarding invalidity of the '498 Patent were served on May 7, 2020 after substantial expense and effort by counsel

and experts on both sides. Ex. 2017. Indeed, Apple's expert for the '498 Patent addresses the invalidity of the challenged claims based on prior art relied upon by Apple in this petition. Exs. 2008-2009.

The District Court Action is set for trial beginning October 26, 2020. Ex. 2001 at 1. Apple has known about the trial date in the District Court Action since May 31, 2019, over seven months prior to filing the instant petition. *Id.* In contrast, if this proceeding is instituted, an oral hearing would not be expected until May 2021, and a Final Written Decision would not be expected until August 12, 2021, ten months after the trial in the District Court Action. *See* 35 U.S.C. §316(a)(11).

As the Board has recognized, this fact pattern weighs in favor of denying the Petition. For example, in a precedential decision, the Board denied institution when the Petitioner had asserted the same prior art and arguments in a co-pending district court proceeding set to go to trial six months before the IPR hearing. *See NHK Spring*, IPR2018-00752, Paper 8 at 20. Specifically, the Board found that institution in that situation "would not be consistent with 'an objective of the AIA...to provide an effective and efficient alternative to district court litigation.'" *Id.* (quoting *Gen. Plastic*, IPR2016-01357, Paper 19 at 16-17).

Similarly, the Board in *Mylan Pharms., Inc. v. Bayer Intell. Prop. GmbH*, denied institution based on the advanced stage of the co-pending district court

proceeding and the extensive overlap of the asserted prior art, expert testimony and claim construction. IPR2018-01143, Paper 13 at 13 (PTAB Dec. 3, 2018). The Board further held that the “inefficiency is amplified when the district court trial is set to occur . . . more than eight months before [the Board’s] Final Written Decision,” if the Board had instituted trial. *Id.* at 14. *See also Google LLC v. Uniloc 2017 LLC*, IPR2020-00115, Paper 8, at 3 (PTAB March 27, 2020) (denying institution where the underlying trial would begin less than five months from the Institution decision); *Hormel Foods Corp. v. HIP, Inc.*, IPR2019-00469, Paper 9 at 50 (PTAB July 15, 2019) (recognizing “in cases such as *NHK Spring* that the fact that [a] court will resolve the same issues raised by [a] Petition, at an earlier date than the Board, gives rise to inefficiencies and duplication of effort between the tribunals.”); *E-One, Inc. v. Oshkosh Corp.*, IPR2019-00161, Paper 16 at 9 (PTAB May 16, 2019) (denying institution pursuant to §314(a) due to parallel district court trial scheduled eleven months away).

In *Sand Revolution II*, the Board relied on *NHK* to deny institution of a petition in view of the advanced stage of District Court proceedings where the invalidity arguments were “very similar to, but perhaps not exactly the same” as those presented in the District Court. IPR2019-01393, Paper 12 at 17. The Board

recently denied Petitioner's request Precedential Opinion Panel review. *Id.*, Paper 18 (PTAB April 6, 2020).

c. Apple's Inexcusable Delay in Filing the Petition

Apple argues that it has not delayed in filing this Petition (Petition at 9), but the facts are otherwise. Although Apple filed its Petition within the statutory deadline, it has known about the District Court Action trial date for nearly a year and waited nearly a year after being sued by Maxell to file its Petition. Ex. 2001.⁴

Apple argues that § 315(b) “originally contained only a 6-month filing window, which was amended to 1-year prior to passage of the America Invents Act to ‘afford defendants a reasonable opportunity to identify and understand the patent claims that are relevant to the litigation’ before having to file an IPR petition.” Petition at 9. Having analyzed and charted all of the references that support the grounds asserted in its Petition by at least August 2019, Apple could have been ready to file an IPR at that time, but it chose to delay filing until five months later. This delay undermines any argument that Apple was not afforded “a reasonable opportunity to identify and understand the patent claims that are relevant to the

⁴ Further exhibiting Apple's delay in filing the instant Petition, Apple's representative signed the Power of Attorney associated with its Petition on November 4, 2019, two months prior to Apple's filing of its Petition. *See* Paper No. 2.

litigation before having to file an IPR petition.” 157 Cong. Rec. S5429 (daily ed. Sept. 8, 2011) (statement of Sen. Kyl).

Apple also argues that making the status of the district court litigation a threshold consideration before institution ignores “the common scenario, contemplated by Congress, of obtaining a district court stay based on institution.” Petition at 9-10. But Apple only moved for a stay in the District Court Action on March 24, 2019—seven days before completion of fact discovery—and its motion has already been denied by the Court. Ex. 2018. In its decision, the Court noted:

Apple has not sufficiently explained its delay in filing the [IPR] petitions. Apple filed its first wave of petitions nine months after Maxell filed suit and six months after Maxell served its initial infringement contentions. *Id.* at 4-5 (emphasis added). The Court concluded that “The case is not in its infancy and is far enough along that a stay would interfere with ongoing proceedings.” *Id.* at 4. Though the Court denied the motion without prejudice, it noted that because the last of the institution decisions will not be complete until September 25, 2020, “[t]he late stage of the proceedings will certainly weigh against granting a stay.” *Id.* at 6.

Apple also ignores Board precedent such as *NHK Spring* that recognizes precisely the situation here, where the advanced stage of district court proceedings

presenting substantially similar issues would undermine the express goals of the IPR scheme as well as the Board's finite resources. *Mylan Pharms.*, IPR2018-01143, Paper 13 at 13-14. Indeed, inefficiency is amplified here where the district court trial is set to occur ten months before a Final Written Decision. *Id.* at 14.

Here, the advanced stage of the District Court Action relative to a hearing or Final Written Decision in this matter is the same as in *NHK*, *Mylan*, *Hormel Foods*, *E-One*, and *Sand Revolution*. Quite simply, the arguments at issue in this proceeding will be resolved in the District Court Action well before the Board would reach a Final Written Decision on the same issues. Accordingly, it would be inefficient and contrary to the Board's express goals and finite resources to institute IPR here due to the advanced stage of the District Court Action.⁵

Accordingly, *General Plastic* factors 6 and 7 weigh in favor of denial of institution.

2. *General Plastic* Factors 4 and 5 Weigh in Favor of Denial

Apple asserts that it commenced prior art searching no earlier than May 2019 and continued to perform prior art searching as late as August/September

⁵ Apple's delay in filing this Petition should not allow it to "effect a collateral attack on the verdict of a jury empaneled pursuant to the Seventh Amendment or the judgments of an Article III court." *KAIST IP LLC v. Samsung Electronics Co., Ltd.*, No. 2:16-cv-01314-JRG (E.D. Tex. Feb. 13, 2020).

2019. Petition at 7. This is simply not true; Apple clearly performed prior art searching on the related '317 Patent at least as early as 2015, analyzed that prior art, and shared it with Maxell in 2015. Ex. 2002-2003.

Beyond the fact that Apple searched for and located prior art related to the '498 Patent in the 2014-2015 timeframe, Apple's argument that "[t]here has been no delay between the time of locating the presently-applied references and the filing of this IPR" (Petition at 7) is demonstrably false. *Five* months prior to the filing of the instant Petition, Apple served its invalidity contentions in the District Court Action. Ex. 2006. Apple's '498 Patent invalidity contentions disclose that as early as August 14, 2019, Apple was aware of *Hayashida*, *Ikeda*, and *Abowd*. *Id.* at 6. The contentions also disclose that at least as early as August 14, 2019, Apple had hundreds pages of charts attempting to map these references to the challenged claims of the '498 Patent. Based on these facts, it is clear Apple located *Hayashida*, *Ikeda*, and *Abowd* well before August 2019 and well before it filed this Petition five months later in January 2020.

Yet, Apple admits that it did not even begin preparing its Petition until *after* completing its invalidity contentions. *See Apple Inc. v. Maxell Ltd.*, IPR2020-00204, Paper 1 at 46 ("immediately upon completing the invalidity contentions [on August 14, 2019], Apple began preparing the IPRs for the ten asserted patents").

Apple purposefully chose to delay filing its Petition, and elected to litigate in the District Court rather than focus on preparation of its Petition.

General Plastic Factor 4 weighs in favor of denial of institution.

With respect to Factor 5, “whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the patent,” Apple provides *no* explanation, much less an adequate one. *Sand Revolution II*, IPR2019-01393, Paper 12 at 18. Rather than explaining the gap between the time elapsed between when the ’498 IPR was filed and the filing of its Petition, Apple examines the time between the filing of the lawsuit against ASUSTeK and the lawsuit against Apple. Apple then claims, without any evidentiary support, that “Apple has been diligently engaged in prior art searching and preparation of this IPR.” As the facts above with respect to Factors 4, 6, and 7 set forth, Apple has not been diligent in preparing this IPR nor has it provided an adequate explanation for its lack of diligence. This is especially so where Apple was charting prior art against the related ’317 Patent in 2015, and Apple waited until *after* August 14, 2019 to begin preparing this Petition. *See* Exs. 2002-2003; *see also Apple Inc. v. Maxell Ltd.*, IPR2020-00204, Paper 1 at 46.

General Plastic Factor 5 weighs in favor of denial of institution.

3. General Plastic Factor 3 Weighs in Favor of Denial

Apple admits that this factor weighs against institution. At the time it filed the Petition it had already received Maxell's preliminary response to the '498 IPR, as well as the Board's institution decision in the '498 IPR. Petition at 8. *See also* Ex. 2019 and Ex. 1014.

Factor 3 weighs in favor of denial of institution.

4. General Plastic Factor 2 Weighs in Favor of Denial

With respect to factor 2, Apple carefully chooses its words and claims that the references it applies in its Petition were located by Apple's counsel since the March 15, 2019 filing of the District Court Action. Apple, however, fails to disclose that Apple searched for and found prior art allegedly applicable to the related '317 Patent at least as early as 2015. Apple knew or should have known about the references it bases its Petition on back in 2015. As Apple wrote to Maxell in 2015: "Many other prior art references anticipate or render obvious the claims of the '317 patent." Ex. 2002 at 15; *see also* Ex. 2003 (May 15, 2015 letter from Apple to Maxell). Only Apple knows the identification of those "many other prior art references" and whether they include the very references it applies in its Petition. In view of its careful statements in the Petition, and the evidence submitted by Maxell herein, it is reasonable to conclude that Apple knew of *Hayashida*, *Ikeda*, and *Abowd* back in 2015.

5. Factor 1 Has Little Probative Value in this Case

Factor 1 has little probative value in this case. Apple has not previously filed a petition against the '498 Patent. In any event, even were this factor to favor institution, the other six factors weigh in favor of denying institution.

* * *

Application of the *General Plastic* factors weighs heavily in favor of denial of institution. One of the purposes of IPRs is to be an “effective and efficient alternative” to litigation. *Gen. Plastic*, IPR2016-01357, Paper 19 at 16-17. Here, instituting an IPR would not be an effective or efficient alternative to litigation, particularly given the advanced stage of the District Court Action, the finite resources of the Board, and Apple’s delay in filing its Petition.

B. Application of the *Fintiv* Factors Weighs in Favor of Denying Institution

Recently, in *Apple Inc. v. Fintiv, Inc.*, the Board set forth factors relevant to the Board’s decision on whether to apply its discretion under 35 U.S.C. § 314(a) to deny institution. IPR2020-00019, Paper 11 at 5-6 (PTAB March 20, 2020) (precedential). These factors are:

- (1) whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
- (2) proximity of the court’s trial date to the Board’s projected statutory deadline for the final written decision;

- (3) investment in the parallel proceeding by the court and the parties;
- (4) overlap between issues raised in the petition and in the parallel proceeding;
- (5) whether the petitioner and the defendant in the parallel proceeding are the same party; and
- (6) other circumstances that impact the Board's exercise of discretion, including the merits.

Id. In view of the foregoing analysis under *General Plastic*, every single one of these factors favor, if not demand, the Board's denial of the Petition pursuant to 35 U.S.C. § 314(a).

III. THE PETITION DOES NOT SHOW A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CHALLENGED CLAIM

While application of the *General Plastic* and the *Fintiv* factors weighs heavily in favor of denial of institution, if the Board does not exercise its discretion under 35 U.S.C. § 314, institution should nonetheless be denied because, for the reasons more fully set forth below, the petition fails to show a reasonable likelihood of prevailing with respect to any challenged claim.

A. Background

1. Background Of The Relevant Technology

The '498 Patent claims priority to July 12, 1999. The inventions disclosed in the '498 Patent solve numerous problems that existed in conventional navigation systems at the time. For example, prior to the '498 Patent, conventional navigation systems were unsuitable for walking navigation. '498 Patent at 1:25-37. Conventional systems were too large to be carried by a walking user, would not provide information about the direction and orientation of a user, and were unsuitable for display on the smaller screens of portable devices, among other problems. *Id.*

Recognizing these shortcomings, the inventors conceived a portable terminal that would aid users who wished to have real-time directions while walking. *Id.* at 2:45-55. They implemented a portable terminal that displays information about the direction a user is facing and displays navigation information that can be displayed on screens of different sizes, including a narrow screen of a portable terminal. *Id.* at 2:65-3:35. Further, these patents allowed users to identify a location of a friend, get walking directions to navigate to the location of a friend, and learn about the neighborhood and/or different shops around the user's location. *Id.* at 3:21-55.

2. Level of Skill of a POSITA

To minimize disputes that the Board needs to address at this preliminary stage and for the purposes of this Preliminary Response only, Patent Owner does not dispute the level of skill of a POSITA identified in the Petition by Petitioner. Patent Owner, however, reserves all rights to provide its own level of skill of a POSITA with the support of expert testimony to the extent the Board decides to institute review of this Petition.

B. Claim Construction

It is Petitioner's burden to propose a construction and then explain how the construed claim is unpatentable under that proposed construction. *See* 37 C.F.R. § 42.104(b)(4). The Petition fails, however, to propose a construction and explain how the claims are unpatentable, particularly with the terms “a device for getting location information denoting a [p]resent place of said portable terminal;” and “a device for getting direction information denoting an orientation of said portable terminal.”

1. The Petition Fails To Apply A Proper 35 U.S.C. § 112, ¶ 6 Construction To Terms Of The '498 Patent

If a challenged claim has a means-plus-function term, the petitioner is required to “identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.” 37 C.F.R. §

42.104(b)(3). The Board has routinely denied institution or terminated proceedings for failure to identify the corresponding structure in the specification corresponding to each claimed function. *See, e.g., Facebook, Inc. v. Sound View Innovations, LLC*, IPR2017-01006, Paper No. 14 (Aug. 29, 2017) (Petitioner must identify the specific portions of the specification in accordance with 37 C.F.R. § 42.104(b), it cannot rely on its proposed claim construction in a related district court litigation); *Facebook, Inc. v. Sound View Innovations, LLC*, IPR2017-01004, Paper No. 13 at 11 (Aug. 29, 2017) (denying institution for failure to identify structure in specification corresponding to claimed function); *Apple Inc., v. Immersion Corporation*, IPR2016-01372, Paper 7 (January 11, 2017); *Pride Solutions LLC v. Not Dead Yet Manufacturing, Inc.*, IPR2013-00627, Paper No. 14 at 10-11 (March 17, 2014) (insufficient identification warranted denial).

In the District Court Action, Petitioner argued that the terms “a device for getting location information denoting a [p]resent place of said portable terminal” and “a device for getting direction information denoting an orientation of said portable terminal” were governed by 35 U.S.C. § 112, ¶ 6. Ex. 1011 at 5-11. Here, however, the Petition fails to provide a proper construction for this means-plus-function term. Construction under § 112, ¶ 6 involves two steps: (1) identifying the claimed function, and (2) determining what structure, if any, disclosed in the

specification corresponds to the claimed function. *IPCom GmbH & Co. v. HTC Corp.*, 861 F.3d 1362, 1370 (Fed. Cir. 2017). Here, Petitioner skips step one; the Petition fails to identify the claimed function. Instead, the Petition ambiguously states that the “function should be ascribed its plain and ordinary meaning,” without ever stating what that function is or what the plain and ordinary meaning is or how it would be interpreted by a POSITA. Petition at 10-15.

The law is clear on this. One “**must first** identify the claimed function Then, [one] must determine what structure, if any, disclosed in the specification **corresponds to the claimed function.**” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (emphasis added). By skipping the first step and not identifying the claimed function, Petitioner cannot determine what structure is disclosed in the specification that corresponds to this claimed function.

Because these limitations are recited in every independent claim of the ’498 Patent, Petitioner has failed to meet the specific claim construction requirement set forth in 37 C.F.R. § 42.104(b)(3) for every claim challenged in the Petition. Institution should be denied on this basis alone. *ZTE*, IPR2018-00235, Paper 9 at 10.⁶

⁶ It is Petitioner’s responsibility, not Patent Owner’s, to comply with the requirements of 37 C.F.R. § 42.104(b)(3).

2. Maxell Did Not Disavow Claim Scope in Prior IPR Proceedings

Petitioner argues that Maxell conceded in another IPR proceeding certain scope of the terms in the '498 Patent. Petition at 12. In support, the Petition cites to the Board's statement that "Patent Owner does not dispute this construction." *Id* quoting Ex. 1014 at 7-9. Petitioner's attempt to invoke disclaimer onto the claims of the '498 Patent should be rejected.

ASUS proposed a construction in the IPR under a different standard, explicitly stating that "for purposes of **this IPR only**...Petitioners propose the following **BRI** constructions." *See* Ex. 2020 at 18 (emphasis added). Second, Maxell explained that ASUS's Petition should not be instituted because it failed to meet the PTAB's requirements under 37 CFR § 42.104 and explicitly stated that "Patent Owner does not contend that such a construction is proper" and that Maxell "reserves all rights regarding arguments for the construction of these terms under the *Phillips* standard." Ex. 2019 at 10, 14. Maxell even went further by explaining that "the Petitioner's proposed structure are overly narrow and conflate various alternative structures disclosed in the specification." *Id.* at 10 n.3. And when discussing the prior art—Maxell explicitly stated that it was "[u]sing **Petitioner's own** proposed construction" in the arguments. *Id.* at 13 (emphasis added). ASUS had put forth a construction for the purposes of its "IPR only" and then failed to

apply this construction causing its Petition to be non-compliant with the rules of the PTAB. Maxell simply pointed this out, explicitly reserving its right to dispute ASUS's claim construction while identifying the flaws in the construction. This is not a disavowal of claim scope.

Thus, IPR proceedings where trial was not instituted, under a different claim construction standard does not provide a clear disavowal claim scope.

C. Ground 1: Petitioner Failed To Establish That Claims 1, 3, 5, and 7-8 Are Obvious Over *Hayashida* In View Of The Knowledge of POSITA

For at least reasons, more fully explained below, Apple has failed to show that Claims 1, 3, 5, and 7-8 are obvious over *Hayashida* in view of the knowledge of a person of ordinary skill in the art.

1. Petitioner fails to establish that *Hayashida* Discloses Element 1(b)

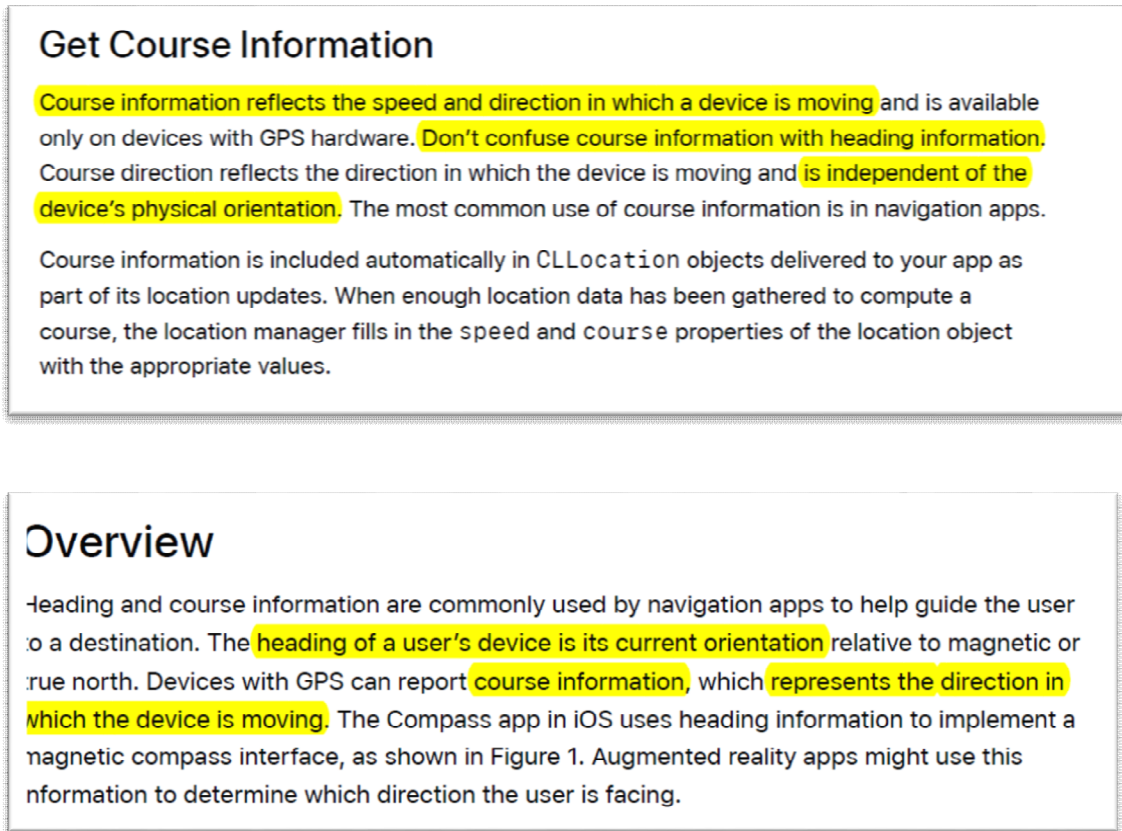
Claim element 1(b) recites “a device for getting a direction information denoting an orientation of said portable terminal.” Apple alleges that *Hayashida* discloses the structure of this limitation by disclosing “absolute direction sensor 21 and relative direction sensor 22”). Petition at 21. But by Apple's own admission, both these sensors merely provide “traveling direction of the car.” Petition at 22-23. For example, the absolute direction sensor 21 “serves as the absolute direction” and the relative direction sensor 22 is “a steering angle sensor and detects the

steering angle of the wheel . . . [and] outputs a relative angle of a **direction of progress of the car with respect to the absolute direction.**” *Hayashida* at 7:28-42 (emphasis added); *see also id.* at 17:46-49 (the map designates “a traveling direction of the car”); 17:56-56 (“traveling direction of the car”).

The traveling direction of the car, however, does **not** constitute the claimed “orientation of said portable terminal.” Nowhere in *Hayashida* is there any disclosure of calculating an orientation of the portable terminal. In *Hayashida*, the absolute direction sensor 21 and relative direction sensor 22 of are calculating the direction of travel regardless of how *Hayashida*’s device is oriented. For example, if *Hayashida*’s device was attached to the car upside down, absolute direction sensor 21 and relative direction sensor 22 would still provide the same direction of travel for the car as when *Hayashida*’s device would be affixed to the car in the correct position as long as the car was traveling in the same direction because the sensors determine the “steering angle of the wheel” relative to the absolute direction.

Even Apple exposes the flaw in its interpretation of *Hayashida* in its own documents provided to application developers to describe navigation functions in general. Apple cautions developers not to confuse direction of travel (*i.e.*, course information) with orientation of a portable terminal (*i.e.*, heading information) and

state that the direction of travel “is independent of the device’s physical orientation”:



Ex. 2021.

Furthermore, in its “Location and Maps Programming Guide” that describes the functionality of Apple’s Maps application in its iPhones and iPads, Apple explicitly states that “Heading and course information don’t represent the same information” and that “the direction travel **doesn’t** take into account the device orientation.” *See* Ex. 2022 (emphasis added, excerpts copied below):

Heading and course information don't represent the same information. The heading of a device reflects the actual orientation of the device relative to true north or magnetic north. The course of the device represents the direction of travel and doesn't take into account the device orientation. Depending on your app, you might prefer one type of information over the other or use a combination of the two. For example, a navigation app might toggle between course and heading information depending on the user's current speed. At walking speeds, heading information would be more useful for orienting the user to the current environment, whereas in a car, course information provides the general direction of the car's movement.

Apple's own Programming Guide explains that "heading information" is more useful at walking speeds "whereas in a car, a course information provides the general direction of the car's movement." *Id.*

Thus, for its application developers Apple distinguishes orientation information from direction of travel, but for *Hayashida* Apple attempts to equate the two. This is inconsistent with the teachings of *Hayashida* and a POSITA would recognize that *Hayashida's* system is configured for a car navigation system and includes sensors to calculate the direction of travel, not the orientation of a portable terminal.

Furthermore, Apple's own expert appears to acknowledge this deficiency of *Hayashida* when he applies *Hayashida's* teachings to the context of walking navigation by explaining that a POSITA would recognize that the system of *Hayashida* would need to be changed by including an additional sensor for purposes of adapting the system for walking navigation:

In the context of a vehicle navigation system, displayed orientation

would intuitively be associated with the orientation of the vehicle since the vehicle is generally constrained to move in a forward direction. This is simply implemented by fixedly mounting the direction sensor to the vehicle to measure the vehicle's bearing – most likely within the navigation system – and calibrating the sensor such that a displayed direction properly associates with a vehicles subsequent forward motion. However, in a portable context, where the device may be moved about freely, **another type of association between expected direction of travel and an indicated display orientation must be provided.** It was well known that handheld devices were intended to be used (or even required to be used) in a particular orientation with respect to the user. For example, when a user held the device in the recommended / mandatory manner, the display on the device would be oriented in a specific manner and consistent with regard to an expected direction of travel. A PHOSITA would have recognized that **all users would hold the device in the same way** when using the device in order to view the screen. This is implemented by **including a direction sensor in the device** – said device also **incorporating a fixedly mounted display**. The sensor is **calibrated in such a manner that a direction indicated on the display properly associates with a defined forward movement of the device.** That the recommended/mandatory orientation of the device would be used as a reference point for purposes of orientation-focused tasks in a handheld navigation device would have been obvious to any PHOSITA familiar with human-machine interactions.

Ex. 1003, ¶ 65. Dr. Kotzin explains that there would be a need to: (1) assume that all users would hold the device in the same way; (2) include a direction sensor in the device; (3) incorporate a fixedly mounted display; and (4) calibrate a sensor in such a manner that a direction indicated on the display associates with a defined forward movement of the device. But beyond conclusory statements, Dr. Kotzin provides no support for his opinions on why it would be obvious to a POSITA in 1999 to change the system of *Hayashida* by, for example, (1) adding an additional direction sensor when it already includes sensors 21 and 22; (2) designing an interface to ensure that this new sensor can interface with sensor input interface 7 in CPU 1 (Fig. 1); (3) recalibrate all the sensors in such a way that they are able to work with each other to provide the information to CPU 1; (4) include additional source code/firmware in program 38b to account for functionality of the new sensor and for additional user interface designs associated with output received by this sensor; and (5) additional memory space to allocate for this additional source code. This is a classic hindsight driven obviousness analysis and should be rejected.

Accordingly, *Hayashida* alone or in combination with the knowledge of POSITA does not render this claim limitation unpatentable.

2. Petitioner fails to establish that *Hayashida* Discloses Element 1(c)(ii)

Claim element 1(c)(ii) recites “to supply route guidance information as said walking navigation information.” *Hayashida* fails to disclose walking navigation as required by Claim 1. *Hayashida* does not change orientation of a portable terminal. Instead, *Hayashida* is focused on direction of car travel by measuring steering angle. It would not be obvious to use the steering angle sensor to change the display for walking navigation information.

For example, *Hayashida* is entirely a car navigation system—its whole disclosure provides a navigation system for cars:

This invention is related to a map display device to guiding and searching **a movement route of a vehicle based on a map information**, especially this invention is relate with the improvement of the display of the map information.

A map is shown in a display at a conventional map display device, e.g. a conventional navigation device, a requested destination is set and a optimal guide route which links this destination and a present **position of the vehicle is retrieved** and is shown. Then when a route but this route are required while **the vehicle is traveling** this route, this another route is searched and is guided....

Also in the conventional device, **when a vehicle deviates** from a guide route, new route is automatically re-searched from the present

position....

Hayashida, 1:5-31 (emphasis added). Even Apple and its expert admits that “Hayashida describes this navigation device in a vehicle context.” Petition at 30; Ex. 1003, ¶ 56.

At best, there is a two sentence teaching in the 76 columns of *Hayashida* that *Hayashida*’s system could also be used as “carrying-type navigation device,” but there is no explanation in *Hayashida* whether this is for walking navigation purposes:

Moreover again this invention may be applied to the carrying-type navigation device in addition to the navigation device which is attached to the movement bodies such as the car. In other words, this invention may be applied to the small navigation device which can be accompanied by the human and which is used in a cycling, a travel, a mountaineering, a hike, a fishing or so on.

Hayashida, 76:38-45. It is unclear from *Hayashida*, nor is there any further explanation in the Petition or from Apple’s expert, about whether the GPS function is providing just basic level of information or actual walking navigation directions. No explanation is given in the Petition as to, for example, how the map display would be changed if the device was a carrying type device. Moreover, no explanation is given in the Petition as to, for example, how would location/orientation of a portable terminal be provided with the higher level of

accuracy required for walking navigation systems.

“Although published subject matter is ‘prior art’ for all that it discloses, in order to render an invention unpatentable for obviousness, the prior art must enable a person of ordinary skill to make and use the invention.” *In re Kumar*, 418 F.3d 1361, 1368–69 (Fed. Cir. 2005); *see also Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). Enablement of prior art requires that the reference teach a skilled artisan—at the time of filing—to make or carry out what it discloses in relation to the claimed invention without undue experimentation. *In re Antor Media Corp.*, 689 F.3d 1282, 1289-90 (Fed. Cir. 2012).

Any changes to *Hayashida*’s system to apply to walking navigation would require undue experimentation as supported by Apple’s own expert. For example, Dr. Kotzin admits that there are differences that need to be accounted for between vehicle and walking systems:

In the context of a vehicle navigation system, displayed orientation would intuitively be associated with the orientation of the vehicle since the vehicle is generally constrained to move in a forward direction. This is simply implemented by fixedly mounting the direction sensor to the vehicle to measure the vehicle’s bearing – most likely within the navigation system – and calibrating the sensor such that a displayed direction properly associates with a vehicles

subsequent forward motion. However, in a portable context, where the device may be moved about freely, **another type of association between expected direction of travel and an indicated display orientation must be provided.** It was well known that handheld devices were intended to be used (or even required to be used) in a particular orientation with respect to the user. For example, when a user held the device in the recommended / mandatory manner, the display on the device would be oriented in a specific manner and consistent with regard to an expected direction of travel. A PHOSITA would have recognized that **all users would hold the device in the same way** when using the device in order to view the screen. This is implemented by **including a direction sensor in the device** – said device also **incorporating a fixedly mounted display**. The sensor is **calibrated in such a manner that a direction indicated on the display properly associates with a defined forward movement of the device.** That the recommended/mandatory orientation of the device would be used as a reference point for purposes of orientation-focused tasks in a handheld navigation device would have been obvious to any PHOSITA familiar with human-machine interactions.

Ex. 1003, ¶65. Dr. Kotzin explains that there would be a need to: (1) assume that all users would hold the device in the same way; (2) include a direction sensor in the device; (3) incorporate a fixedly mounted display; and (4) calibrate a sensor in such a manner that a direction indicated on the display associates with a defined forward movement of the device. At a minimum, this would require adding an

additional direction sensor in *Hayashida* when it already includes sensors 21 and 22. It will also include designing an interface to ensure that this new sensor can interface with sensor input interface 7 in CPU 1 (Fig. 1). It would also need recalibration of all the sensors. Additionally, it would require including additional source code/firmware in program 38b to account for functionality of the new sensor and for additional user interface designs associated with output received by this sensor. Additional memory space to allocate for this additional source code. While also keeping into account the design constraints of adding a new sensor in the navigation device to make it portable.

Despite these changes, Dr. Kotzin or the Petition never once explains (beyond conclusory statements) how this can all be achieved.

3. Petitioner fails to establish that *Hayashida* Discloses Claim 5

Apple relies on its analysis of Claim 1 for the same elements in Claim 5, namely elements 5(b) and 5(c)(ii). For the same reasons expressed above with respect to Claim 1, *Hayashida* fails to render Claim 5 unpatentable.

4. Petitioner fails to establish that *Hayashida* Discloses Claims 3 and 7-8

Claims 3 and 7-8 all depend directly or indirectly from independent Claims 1 or 5. For the reasons expressed above, *Hayashida* does not disclose Claims 1 and 5. As such, neither are Claims 3 and 7-8 rendered unpatentable by *Hayashida*.

D. Ground 2: Petitioner Failed To Establish That Claims 3 And 7 Are Obvious Over *Hayashida* In View Of *Ikeda*

Claims 3 and 7 all depend directly from independent Claims 1 or 5. For the reasons expressed above, *Hayashida* does not disclose Claims 1 and 5. As such, neither are Claims 3 and 7-8 rendered unpatentable by *Hayashida* in view of *Ikeda*.

E. Ground 3: Petitioner Failed To Establish That Claims 1, 3-5, 7-11, and 13 Are Obvious Over *Hayashida* In View Of *Abowd*

Apple has failed to show that Claims 1, 3-5, 7-11, and 13 are obvious over *Hayashida* in view of *Abowd*. As set forth above, *Hayashida* fails to disclose elements 1(b) and 1(c)(ii). Apple relies on its *Hayashida* analysis of elements 1(b) and 1(c)(ii), and thus *Hayashida* fails to disclose these elements for the same reasons for Ground 3. Additionally for Ground 3, Apple attempts to supplement *Hayashida* with *Abowd*, but this too fails to render Claims 1 3-5, and 7-11, and 13 unpatentable for several reasons.

1. Petitioner fails to show that *Abowd* is prior art

Apple, as Petitioner, bears the burden to prove that *Abowd* is prior art. *Hulu, LLC v. Sound View Innovations, LLC*, Case No. IPR2018-01039, Paper 29 at 8 (PTAB Dec. 20, 2019) (precedential). It has failed to do so. Apple hinges its claim that *Abowd* was publicly available on the declaration of librarian Jacob Munford. Ex. 1009. Mr. Munford provides two bases for his belief that *Abowd* was publicly available prior to the critical date of July 12, 1999: (1) the University of Pittsburgh

records, and (2) the Carnegie Mellon University records. Neither prove that *Abowd* was indexed and publicly available prior to the critical date. And neither support a finding that Apple has met its burden of showing that *Abowd* was “sufficiently accessible to the public interested in the art” such that it can be considered a printed publication. *In re Klopfenstein*, 380 F.3d 1345, 1348 (Fed. Cir. 2004).

“[T]he applicable evidentiary standard for assessing public accessibility at the institution stage,” requires that “the petition must identify, **with particularity**, evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Polycom, Inc. v. Directpacket Research, Inc.*, No. IPR2019-01235, 2020 WL 205974, at *13 (P.T.A.B. Jan. 13, 2020) (emphasis added). Mr. Munford’s declaration fails to meet this standard and Apple fails to establish public accessibility of *Abowd* prior to the critical date.

Because Apple has failed to show *Abowd* is prior art, it has not shown that Grounds 3 and 4 have a reasonable likelihood of success.

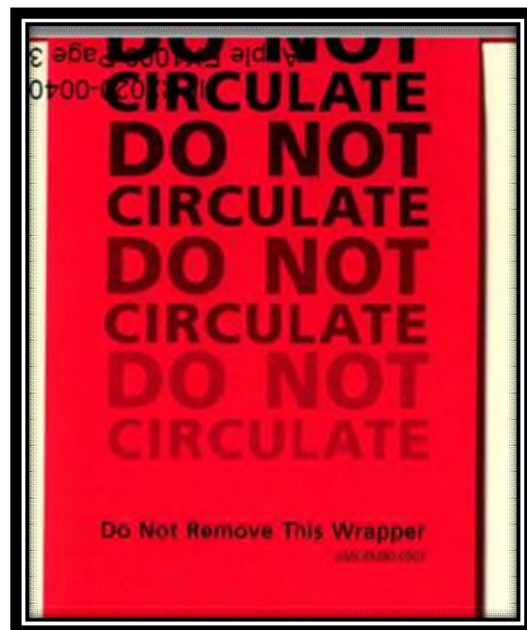
a. The University of Pittsburgh Exhibits Are Insufficient

(1) Appendix AB01 Does Not Show Public Accessibility

First, the University of Pittsburgh Exhibits (“Pittsburgh Exhibits”) do not

establish that *Abowd* was in fact indexed and publicly available on or before July 12, 1999. Mr. Munford claims he personally retrieved Appendix AB01 from the University of Pittsburgh library. Ex. 1009, ¶6. This may be so, but it is irrelevant. What is relevant is that Apple has failed to provide any evidence that this book was “made sufficiently publicly accessible to count as a ‘printed publication’ under § 102(b)” prior to the critical date. *In re Klopfenstein*, 380 F.3d at 1350. Appendix AB01 establishes only that the book *Wireless Network* includes *Abowd* today and is indexed today. It does not provide any evidence that *Abowd* was indexed on or before July 12, 1999—let alone that it was “publicly accessible.” *Id.*

Second, the sleeve of *Wireless Networks* includes a warning: “DO NOT CIRCULATE.”



Ex. 1009 at 38. Thus, even if *Wireless Networks* existed on or before July 12, 1999, the “DO NOT CIRCULATE” warnings indicate that it was not meant for public use. The Board should reject Apple’s claim that *Abowd* is prior art on this basis alone. *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (“A given reference is ‘publicly accessible’ upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.”) (quoting *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006)).

(2) Appendix AB02 Does Not Prove Public Accessibility.

Mr. Munford also claims that “The ‘Holdings Information’ field on page 2 of the library record indicates this journal was held by this library in perpetuity from 1996 – 2003.” Ex 1009, ¶7. This claim is without merit. Below is the “Holdings Information”:

Holdings Information	
Location:	ULS Storage (Request This Item)
Call Number:	No call number available
Order Information:	1 Copy Received as of 09-02-2004
Number of Items:	9
Status:	v. 2-3 1996-1997 Charged - Due on 11-19-2020
Library Has:	v.1:no.1,3-4 (1995:Feb.,Oct.-Dec.) v.2-3 (1996-97) v.4:no.1-2,4-6 (1998:Jan.-Feb.,June-Oct.) v.5-9 (1999-2003) v.11:no.4 (2005:July)
Notes:	Check additional PITTCat records for availability as an electronic resource.

First, the “Holdings Information” plainly shows that only “1 Copy [has been] received as of 09-02-2004.” Note also that Mr. Munford says “this journal” because it is apparent that Mr. Munford does not and cannot testify as to which version/volume was at this library and when. The claim that the library has held this journal in “perpetuity from 1996 - 2003” is not substantiated. Ex 1009, ¶7. Nothing about this exhibit shows that the library made Volume 3 of Wireless Networks publicly available prior to the critical date.

Second, Munford’s claim that “This date range indicates the library’s collection includes the October 1997 Publication . . . containing” *Abowd* is curious because no date range is provided. *Id.* Moreover, this claim has no bearing on when *Abowd* became publically accessible to the appropriate audience. In fact, Apple never argues this part of the evidentiary standard. “A reference is considered publicly accessible if ‘persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.’” *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1369 (Fed. Cir. 2019) (quoting *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772 (Fed. Cir. 2018)). Thus, nothing about this exhibit proves that the library possessed the correct volume of *Wireless Networks* at the correct time. Mr. Munford’s declaration fails to meet the legal standard of “publicly accessible” to “persons interested” under *SRI*, 511 F.3d

at 1194 or *Samsung*, 929 F.3d at 1369.

Finally, Mr. Munford states that the “book bindery sticker on page 25 of AB02 indicates multiple volumes of Wireless Networks owned by the University of Pittsburgh spanning 1996-1997 were sent off to a book bindery sometime during January – March 1998.” Ex. 1009, ¶7. This has no relevance to public accessibility. Also, AB02 does not have a “page 25.” Even if it did, however, the fact that “multiple volumes” of a book were sent to a book bindery does not prove that *Abowd* was “publicly accessible” to the appropriate audience. *Samsung*, 929 F.3d at 1369. The Board should reject Mr. Munford’s claims regarding AB01 and AB02 in their entirety and find that Apple has failed to provide sufficient evidence that Volume 3 of *Wireless Networks*, allegedly containing *Abowd*, was publicly available prior to the critical date.

b. The Carnegie Mellon University Exhibits Are Insufficient

(1) Appendix AB03 Fails to Prove Public Accessibility

The Carnegie Mellon records fare no better. They do not establish that *Abowd* was in fact indexed and publicly available on or before July 12, 1999. Mr. Munford claims that he received *Abowd* from Carnegie Mellon University and compared it with Exhibit 1005 and concluded that “it is a true and correct copy of” *Abowd*. Ex. 1009, ¶8. Nothing about Appendix AB03 nor this claim proves that

Abowd was publically available prior to the critical date.

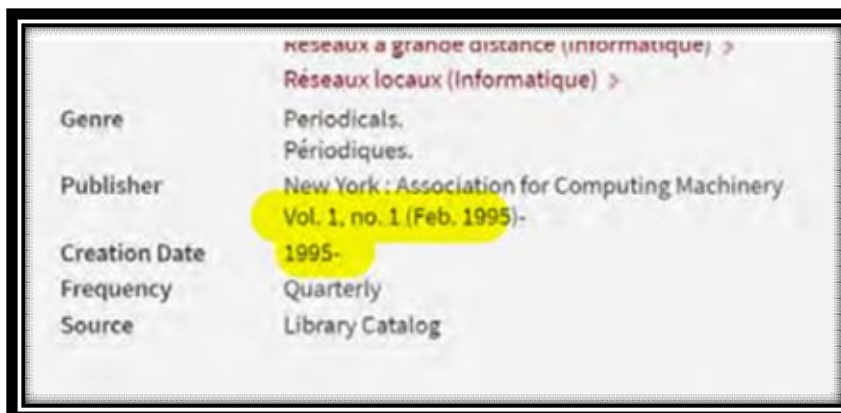
(2) Appendix AB04 Fails to Prove Public Accessibility

Mr. Munford's claims about AB04 are contradictory and neither his statements nor the evidence is sufficient to prove that *Abowd* was publically available. Mr. Munford claims that the "008 field of this MARC record indicates *Wireless Networks* was first cataloged by the Carnegie Mellon University as of January 22, 1999." *Id.* ¶9. Here, as before, Mr. Munford fails to state or explain to which version/volume of *Wireless Networks* he is referring. And now, compounding his errors, it is clear that by 1999 there were five different volumes of *Wireless Networks*. This also necessarily renders Mr. Munford's next claim, that the "Holdings Information' field on page 3 . . . indicates *this journal* has been held by this library in perpetuity since 1999" ineffectual. *Id.* (emphasis added). Finally Mr. Munford states that "[t]his date range" indicates that the University must have had *Abowd* because it includes the entirety of IEEE Communications Magazine via ACM Digital Library. There are many problems with this last claim. *Id.*

First, this fails the "particularity" requirement mandated by the precedential opinion *Hulu*, Case No. IPR2018-01039, Paper 29 at 6 ("Section 312(a) identifies the required contents of a petition. Among other requirements, it provides that the petition must identify with particularity . . . the evidence supporting those grounds .

. . .”) (precedential) (emphasis in original). Indeed, the *Hulu* panel emphasized the importance of the particularity requirement. Apple’s oversight is fatal to its use of *Abowd*. The Board should dismiss Mr. Munford’s declaration in its entirety for want of particularity.

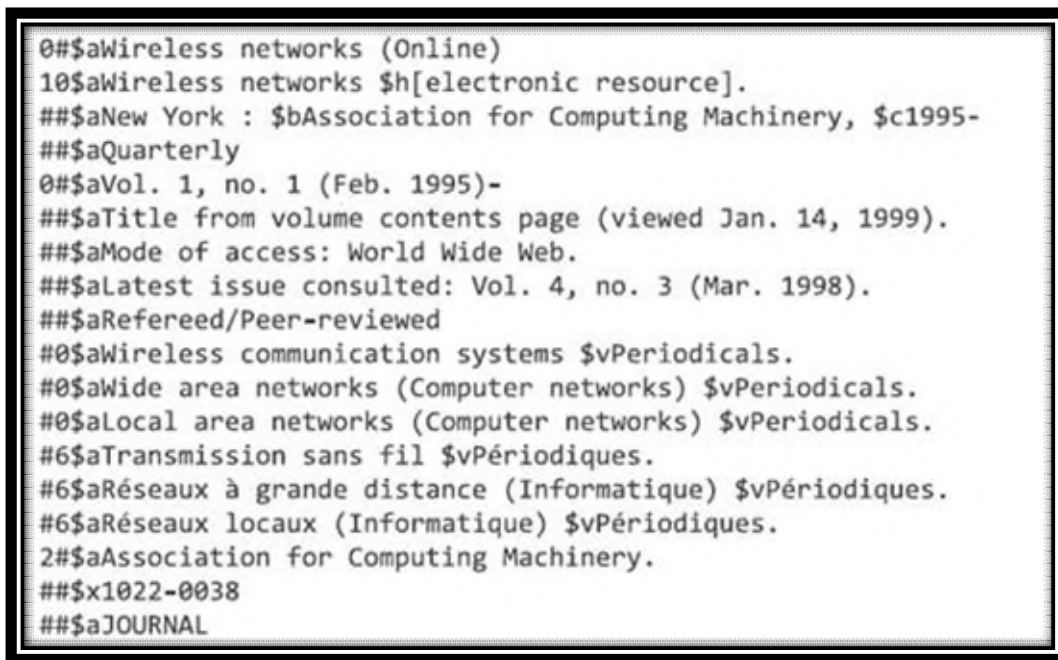
Second, Mr. Munford claims that *Wireless Networks* was first cataloged in the Carnegie Mellon University as of January 22, 1999. Ex. 1009, ¶9. But as seen below in Mr. Munford’s own exhibits, the version of *Wireless Networks* is apparently from 1995.



Ex. 1009, Pg. 59-60. Indeed the contradiction in Apple’s evidence is highlighted

by Mr. Munford's claim that Carnegie Mellon library somehow held "this journal . . . in perpetuity since 1999." Id. ¶9. Now, as before, Mr. Munford does not and cannot tell which version was located when, nor where. Indeed, even setting this aside, nothing about any of this comes close to satisfying the particularity standard in *Hulu*.

Moreover, nowhere in this record nor in Ex. 1009 at 57 is there any mention of when *Abowd*, if ever, was added to this Journal and/or whether this Journal was even indexed at the dates identified in this code:



```
0#$aWireless networks (Online)
10$aWireless networks $h[electronic resource].
##$aNew York : $bAssociation for Computing Machinery, $c1995-
##$aQuarterly
0#$aVol. 1, no. 1 (Feb. 1995)-
##$aTitle from volume contents page (viewed Jan. 14, 1999).
##$aMode of access: World Wide Web.
##$aLatest issue consulted: Vol. 4, no. 3 (Mar. 1998).
##$aRefereed/Peer-reviewed
#0$aWireless communication systems $vPeriodicals.
#0$aWide area networks (Computer networks) $vPeriodicals.
#0$aLocal area networks (Computer networks) $vPeriodicals.
#6$aTransmission sans fil $vPériodiques.
#6$aRéseaux à grande distance (Informatique) $vPériodiques.
#6$aRéseaux locaux (Informatique) $vPériodiques.
2#$aAssociation for Computing Machinery.
##$x1022-0038
##$aJOURNAL
```

Third, Mr. Munford's claim regarding the vague "date range" and how it "indicates" that Carnegie Mellon possessed *Abowd* is fatally flawed. Ex. 1009, ¶¶9-10. Leaving aside the fact that by 1999 there were five volumes of *Wireless*

Networks that Mr. Munford cannot distinguish and the fact that Mr. Munford's own exhibits contradict his claims, there is another critical oversight here: the reference to the ACM Digital Library.

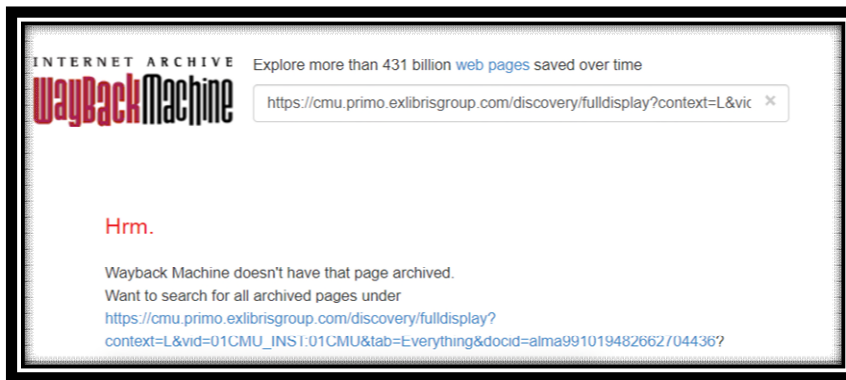
Mr. Munford couches his claim that *Abowd* was in Carnegie Mellon's possession prior to the critical date based on the purported fact that the IEEE Communications Magazine could have been viewed in its entirety via ACM Digital Library. Mr. Munford has no claim regarding any physical book being in the Carnegie Mellon Library. Thus, concluding by inference, Mr. Munford claims that anyone could have accessed Volume 3 at any time prior to the critical date via the ACM Digital Library. But Mr. Munford provides no support for this broad and speculative claim.

Apple's burden is to identify with particularity the evidence supporting its claims. But neither Apple nor Mr. Munford offer any evidence, nor even mention, whether (1) Carnegie Mellon had a publically available website prior to the critical date, (2) whether any version/volume of *Wireless Networks* was publically available, (3) whether Volume 3 was available, (4) whether the ACM Digital Library possessed the licensing rights to *Abowd* or *Wireless Networks* prior to the critical date, (5) whether Carnegie Mullen and ACM Digital Library partnered up to provide access prior to the critical date, or (6) even whether either of these two

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institutions had websites at that time.

A brief look at the way back machine furthers this point: (1) a URL as provided by Munford:



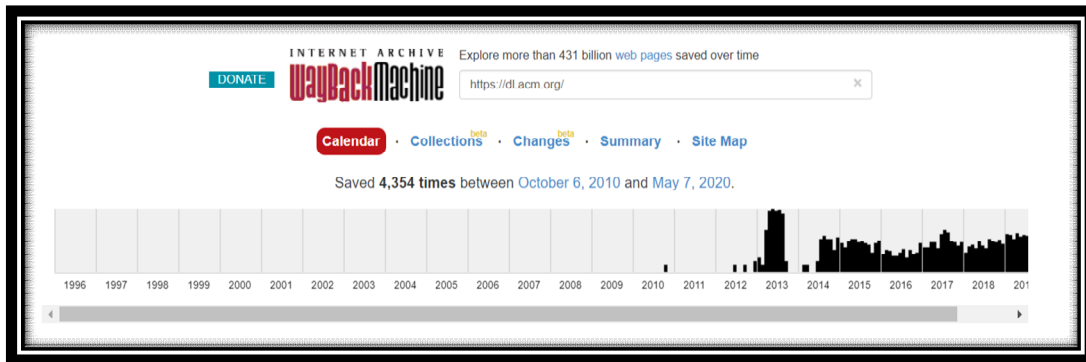
Ex. 2023; (2) a shortened version of the URL captures more content from this domain:



Id.; (3) the URL of ACM Digital:



Id.; (4) a shortened version of the URL, thus capturing more content from this domain:



Ex. 2023. As can be seen, a brief look through both of these URLs and domain names triggers virtually no activity whatsoever within a decade of the critical date. Munford’s claims are not particular, are not substantiated, and fail to even consider the critical question of when was *Abowd* publically available.

Accordingly, Petitioner has not established that *Abowd* is prior art and thus Grounds 3-4 should not be instituted for this reason alone.

2. Petitioner fails to show that it would be obvious to combine *Hayashida* and *Abowd*

Even if *Abowd* is prior art, Apple fails to show that it would be obvious to combine *Hayashida* with *Abowd*. First, as shown above, *Hayashida* discloses its invention in the context of vehicle navigation and is related to calculated direction of travel. The Petition alleges that “A PHOSITA would have been motivated to include the modules taught by *Abowd*, including the map module, information

module, positioning module, and communications module in the system of *Hayashida*.” Petition at 44-46. But *Hayashida* includes its own map module, positioning module, and communications module. *See* Fig. 1. Petitioner provides no reason on why a POSITA would consider removing existing modules of *Hayashida* and how this would alter the core functionality of *Hayashida*.

The Petition further states that it would be obvious to “include a compass to determine the orientation of the portable terminal, as taught by *Abowd*.” Petition at 48. But once again and as acknowledged by Petitioner, *Hayashida* already discloses a “terrestrial magnetism sensor for determining a direction of travel.” *Id.* The Petition further says that “[a] PHOSITA would have been motivated to detect orientation, as taught by *Abowd* because a PHOSITA would have recognized that because of the hand-held nature of the device, detection of orientation, **as opposed to traveling direction**, would produce more accurate results” *Id.* at 48-49. But *Hayashida* **is** directed to determining the traveling direction. The entire disclosure and configuration of *Hayashida* relates to determining the direction of travel for a vehicle.

If *Hayashida* is modified by *Abowd* such that it detects orientation “as opposed to traveling direction,” it would modify *Hayashida* fundamentally because *Hayashida* would no longer be able to provide the direction of travel when the

system is used in a vehicle. There is no discussion in *Hayashida* of determining an orientation of the portable terminal because such information would be irrelevant to the system of *Hayashida* that is primarily concerned with providing a direction of travel as the device is affixed to a car. How the device is oriented in the car is not useful information for vehicle navigation. This is again a hindsight driven approach and disregards the teachings in 76 columns of *Hayashida* that all relate to the determining of direction of travel in a vehicle.

IV. CONCLUSION

The Board should not institute *inter partes* review on any of the grounds set forth in the Petition. Application of the *General Plastic* and *Fintiv* factors weighs heavily in favor of denial of institution. Also, as Patent Owner has shown, Petitioner has not established a reasonable likelihood that the cited references render any of the challenged claims of the '498 Patent unpatentable.

Dated: May 12, 2020

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CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of May, 2020, a copy of the attached **PATENT OWNER'S PRELIMINARY RESPONSE** was served by electronic mail to the attorneys of record, at the following addresses:

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CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 C.F.R. 42.24(d), the undersigned certifies that this Preliminary Response and complies with the type-volume limitation of 37 C.F.R. §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 10,995 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

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