

# **APPENDICES**

**APPENDIX A**

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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2020-1561  
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APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

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Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01279.

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2020-1642  
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APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

\_\_\_\_\_  
Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01252.

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Decided: April 7, 2021  
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\* \* \*

Before MOORE, REYNA, and HUGHES, *Circuit Judges*.

MOORE, Circuit Judge.

Apple Inc. appeals an *inter partes* review final written decision of the Patent Trial and Appeal Board holding Apple did not prove claims 1–14 and 16–18 of U.S. Patent No. 7,844,037 would have been obvious. Apple also appeals another final written decision of the Board holding Apple did not prove claims 1–6 and 8–20 of U.S. Patent No. 8,683,362 would have been obvious. Because Apple lacks standing to maintain either appeal, we *dismiss*.

#### BACKGROUND

Qualcomm Inc. sued Apple in the United States District Court for the Southern District of California for infringing claims of the '037 patent and the '362 patent. Apple sought *inter partes* review of claims 1–14, 16–18, and 19–25 of the '037 patent and claims 1–6 and 8–20 of the '362 patent. The Board issued final written decisions holding Apple did not prove the challenged claims in either patent would have been obvious.<sup>1</sup> Before the filing of these appeals, Apple and Qualcomm settled all litigation between the two companies worldwide. Based on that settlement, the parties jointly moved to dismiss Qualcomm's district court action with prejudice, which the district court granted. J.A. 2928.<sup>2</sup> Apple, nevertheless, appeals the Board's final written decisions.

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<sup>1</sup> The Board did not institute on claims 19–25 of the '037 patent because Qualcomm statutorily disclaimed them. *See* 37 C.F.R. § 42.107(e).

<sup>2</sup> Citations to briefs and the joint appendix refer to submissions in the *Apple Inc. v. Qualcomm Inc.*, 20-1642 appeal.

## DISCUSSION

“Standing to sue is a doctrine rooted in the traditional understanding of a case or controversy” required by Article III. *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016). “[T]he irreducible constitutional minimum of standing” consists of “three elements.” *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992). An appellant “must have (1) suffered an injury in fact, (2) that is fairly traceable to the challenged conduct of the [appellee], and (3) that is likely to be redressed by a favorable judicial decision.” *Spokeo*, 136 S. Ct. at 1547 (citations omitted). To establish injury in fact, the alleged harm must be “‘concrete and particularized’ and ‘actual or imminent, not conjectural or hypothetical.’” *Id.* at 1548 (quoting *Lujan*, 504 U.S. at 560).

“Article III standing is not necessarily a requirement to appear before an administrative agency.” *Consumer Watchdog v. Wis. Alumni Research Found.*, 753 F.3d 1258, 1261 (Fed. Cir. 2014) (citing *Sierra Club v. E.P.A.*, 292 F.3d 895, 899 (D.C. Cir. 2002)). And the Patent Act permits any person “who is not the owner of the patent” to file a petition for *inter partes* review. 35 U.S.C. § 311(a). While nearly any person may seek an *inter partes* review, an appellant must “supply the requisite proof of an injury in fact when it seeks review of an agency’s final action in a federal court.” *Phigenix, Inc. v. Immunogen, Inc.*, 845 F.3d 1168, 1171–72 (Fed. Cir. 2017). Indeed, the Supreme Court has recognized that not every party will have Article III standing to appeal a Board final written decision. *See Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2143–44 (2016) (Parties that initiate an *inter partes* review “need not have a concrete stake in the outcome; indeed, they may lack constitutional standing.”).

As a preliminary matter, Qualcomm argues Apple waived any argument to establish its standing to file this appeal by failing to address, or submit evidence supporting, standing in its opening brief. *See, e.g.*, Appellee Br. at 1–3. In *Phigenix*, we held “an appellant must identify the relevant evidence demonstrating its standing ‘at the first appropriate’ time, whether in response to a motion to dismiss or in the opening brief.” 845 F.3d at 1173 (quoting *Sierra Club*, 292 F.3d at 900). Likewise, “if there is no record evidence to support standing, the appellant must produce such evidence at the appellate level at the earliest possible opportunity.” *Id.* These rules prevent an appellee or respondent from having to “flail at the unknown in an attempt to prove the negative.” *Sierra Club*, 292 F.3d at 901. Given the global settlement between the parties, Apple should have made its standing arguments and proffered its evidence in support of standing in its opening brief.

Our holding in *Phigenix* is not, however, an inflexible rule. *See Am. Library Ass’n v. F.C.C.*, 401 F.3d 489, 493 (D.C. Cir. 2005). We have consistently held that waiver is a matter of discretion. *See, e.g., Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1251 (Fed. Cir. 2005) (“An appellate court retains case-by-case discretion over whether to apply waiver.”); *Becton Dickinson & Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 800 (Fed. Cir. 1990) (waiver is “not governed by a rigid rule but may as a matter of discretion not be adhered to where circumstances indicate that it would result in basically unfair procedure”). “While there is no general rule for when we exercise our discretion to reach waived issues, we have done so where, among other factors, ‘the issue has been fully briefed by the parties.’” *Ericsson Inc. v. TCL Commc’n Tech. Holdings Ltd.*, 955 F.3d 1317,

1322–23 (Fed. Cir. 2020) (quotation and citation omitted) (quoting *Automated Merch. Sys., Inc. v. Lee*, 782 F.3d 1376, 1379–80 (Fed. Cir. 2015)).

We exercise our discretion to reach the issue of standing because: (1) the issue of Apple’s standing is fully briefed; (2) we see no prejudice to Qualcomm; and (3) the question of standing impacts these and other appeals. In both appeals, Qualcomm sought leave to file a sur-reply addressing Apple’s evidence and arguments on standing. Qualcomm agreed that, if we grant its motions, it will not suffer any prejudice and that evaluating the evidence may resolve standing in other pending cases. *Apple Inc. v. Qualcomm Inc.*, Nos. 20-1561, 20-1642, Oral Arg. at 22:19–22:42, available at [http://oralarguments.cafc.uscourts.gov/default.aspx?fl=20-1561\\_03032021.mp3](http://oralarguments.cafc.uscourts.gov/default.aspx?fl=20-1561_03032021.mp3). Accordingly, we grant Qualcomm’s motions for leave to file a sur-reply and exercise our discretion to review Apple’s arguments and evidence to establish standing. See *Ericsson*, 955 F.3d at 1323 (exercising discretion to reach waived issue that was fully briefed); cf. *Cmtys. Against Runway Expansion, Inc. v. F.A.A.*, 355 F.3d 678, 685 (D.C. Cir. 2004) (excusing belated submission of standing evidence and arguments because appellee would not be prejudiced).

## II

As part of the global settlement between Apple and Qualcomm, the parties executed a six-year license agreement, which included a license to the patents at issue. Apple has characterized that license agreement as a “covenant-not-to-sue,” at least with respect to the patents at issue. See, e.g., Appellant’s Reply Br. at 23. And in addition to the six-year license term, there is a possibility of a two-year extension. J.A. 2930. Because

the parties executed the agreement in 2019, it will expire in either 2025 or 2027.

Apple argues it has standing to appeal the final written decisions of the Board based on three distinct circumstances: (1) its ongoing payment obligations that are a condition for certain rights in the license agreement;<sup>3</sup> (2) the threat that Apple will be sued for infringing the '037 patent and '362 patent after the expiration of the license agreement; and (3) the estoppel effects of 35 U.S.C. § 315 on future challenges to the validity of the '037 patent and '362 patent. We do not agree.

#### A

Relying upon *MedImmune, Inc. v. Genentech, Inc.*, 529 U.S. 118, 120 (2007), Apple argues it has standing based on its payment obligations under the license agreement. *See, e.g.*, Appellant Reply Br. at 20–22. According to Apple, *MedImmune* holds that its ongoing payment obligations as a condition for certain rights provides standing, irrespective of the other patents in the license agreement. Appellant's Reply Br. at 21. In Apple's view, a licensee's obligations to pay royalties for a license to 100,000 patents would provide standing to challenge the validity of any single licensed patent, even if the validity of any one patent would not affect the licensee's payment obligations. Oral Arg. at 4:30–5:53. We do not read *MedImmune* so broadly.

*MedImmune* does not require us to find standing here. In *MedImmune*, Genentech asserted that the Cabilly II patent it licensed to Medimmune covered MedImmune's new product and demanded royalty payments under the license agreement. *Id.* at 121.

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<sup>3</sup> Apple describes these rights in paragraph 4 of a declaration it submitted with its replies. *See* J.A. 2930.

Although MedImmune disagreed it owed royalties because the patent was invalid and did not cover its product, it paid under protest to avoid termination of the agreement and a patent infringement action. *Id.* at 121–22. MedImmune then sought a declaratory judgment that it did not owe any royalties because the sale of its product did not infringe any valid claim of the Cabilly II patent. *Id.* at 122–23. The Supreme Court observed there was no dispute that the standing requirements “would have been satisfied if petitioner had taken the final step of refusing to make royalty payments under the [] license agreement.” *Id.* at 128. The Court held that MedImmune was not required to break or terminate the license agreement before seeking a declaratory judgment of noninfringement and invalidity. *Id.* at 137. Put simply, MedImmune was not required to cease its contract payments (opening itself to a patent suit, treble damages, attorneys’ fees, and an injunction) in order to resolve its disputed contract rights (limiting the royalties to products that cover a valid patent).

Here, in contrast, Apple has not alleged that the validity of the patents at issue will affect its contract rights (i.e., its ongoing royalty obligations). This failure is fatal to establishing standing under the reasoning of *MedImmune*, whether we analyze Apple’s evidence for injury in fact or redressability. Qualcomm asserts, and Apple does not contest, that the license agreement involves tens of thousands of patents. *See* Appellee’s Sur-Reply Br. at 5. Apple nowhere argues or provides evidence that the validity of any single patent, including the ’037 patent or ’362 patent, would affect its ongoing payment obligations. Nor does Apple identify any contractual dispute involving its ongoing royalty obligations (e.g., a disagreement over whether certain Apple product sales trigger additional royalty payments)



that relates to, or could be resolved through a validity determination of, the patents at issue. Because the validity of the challenged patents would not impact Apple's ongoing payment obligations, the reasoning of *MedImmune* does not apply. Ultimately, Apple's assertions amount to little more than an expression of its displeasure with a license provision into which it voluntarily entered. Such allegations do not establish Article III standing. *Cf. In re Johnson & Johnson Talcum Powder Prod. Mktg., Sales Practices & Liab. Litig.*, 903 F.3d 278, 281 (3d Cir. 2018) (“[B]uyer’s remorse, without more, is not a cognizable injury under Article III of the United States Constitution.”). Thus, Apple has failed to establish standing based on its ongoing payment obligations.<sup>4</sup>

## B

Apple next argues it has standing based on the possibility that Qualcomm may sue Apple for infringing the '037 patent or '362 patent after the license expires. *See e.g.*, Appellant Reply Br. at 25–26. But this possibility of suit is too speculative to confer standing. Apple provides no evidence that it intends to engage in any activity that may give rise to an infringement suit of the '037 patent or '362 patent when the license expires. Neither of the declarations<sup>5</sup> Apple submitted as

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<sup>4</sup> Relatedly, Apple argues the cancellation of the '362 patent would redress its ongoing payment obligations because it would remove a significant barrier. Appellant's Reply Br. at 22. However, Apple fails to explain why the '362 patent creates a significant barrier, and we see no evidence that the cancellation of the '362 patent is *likely* to affect Apple's ongoing payment obligations. *Lujan*, 504 U.S. at 561.

<sup>5</sup> Apple submitted identical declarations as evidence of standing in both appeals.

evidence of standing even mention the patents at issue. *See* J.A. 2930–31. Nor do they set forth any plans to engage in conduct after the expiration of the license agreement that might lead to an infringement suit. For example, Apple has not provided any evidence that it has plans to make, use, offer to sell, or sell any of the products, or features thereof, accused of infringement in the district court, such as the iPhone 4, 5, 6, and 7. *See, e.g.*, J.A. 2904, 2920. In fact, Apple offers the sparsest of declarations in support of standing, which are devoid of any of the specificity necessary to establish an injury in fact. Without more, we are left to speculate about what activity Apple may engage in after the expiration of the license agreement that would give rise to a potential suit from Qualcomm. This is insufficient to show injury in fact. *Lujan*, 504 U.S. at 560 (harm must be “actual or imminent, not conjectural or hypothetical” (citation omitted)); *see also JTEKT Corp. v. GKN Auto. Ltd.*, 898 F.3d 1217, 1221 (Fed. Cir. 2018) (holding appellant lacked standing because it had not established that it had “concrete plans for future activity that creates a substantial risk of future infringement”).

To cure the deficiencies in its evidence, Apple suggested we could take judicial notice that Apple sells and will continue to sell its smart phone products. Oral Arg. At 33:45–34:19. A court may take judicial notice of a fact only when it is either “generally known” or “accurately and readily [discernible] from sources whose accuracy cannot reasonably be questioned.” FED. R. EVID. 201(b); *see B.V.D. Licensing Corp. v. Body Action Design, Inc.*, 846 F.2d 727, 728 (Fed. Cir. 1988) (“Courts may take judicial notice of facts of universal notoriety, which need not be proved, and of whatever is generally known within their jurisdictions.”) What

products and product features Apple may be selling at the expiration of the license agreement years from now are not the kind of undisputed facts we may take judicial notice of because they may be reasonably questioned. *See, e.g., In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (declining to take judicial notice of a “long-felt but unresolved need for a device that will help the blind read”). We are not fortune-tellers. Accordingly, we must decline Apple’s invitation to take judicial notice.

Apple also argues Qualcomm’s previous suit for infringement of the ’037 patent and ’362 patent provides standing, citing *Grit Energy Sols., LLC v. Oren Techs., LLC*, 957 F.3d 1309, 1320 (Fed. Cir. 2020). *See, e.g.,* Appellant Reply Br. at 23. But *Grit Energy* involved a dismissal *without* prejudice, unlike the dismissal with prejudice here. *See* J.A. 2928.

Lastly, Apple argues Qualcomm’s refusal to grant Apple an irrevocable license or other permanent rights in the ’037 patent or ’362 patent and Qualcomm’s history of asserting patents against Apple after certain royalty agreements expired provide standing. *See, e.g.,* Appellant Reply Br. at 24. Apple relies on these facts to speculate a future infringement suit might occur. But that is not enough. “The lack of any evidence that the defendants believe or plan to assert that the plaintiff’s product infringes their patents creates a high barrier to proving that the plaintiff faces an imminent risk of injury.” *Prasco LLC v. Medicis Pharm. Corp.* 537 F.3d 1329, 1340 (Fed. Cir. 2008); *see also Lujan*, 504 U.S. at 561. At best, Apple’s allegations are speculation and conjecture about Qualcomm’s proclivity to assert its patent rights generally. But they are devoid of the specificity necessary to show that Qualcomm is likely to assert these particular patents against any particular

products which would be sold after the license agreement expires in 2025 or 2027. As such, Apple has failed to show an injury in fact based on potential future allegations that its products infringe the '037 patent or the '362 patent.

### C

Finally, Apple argues that its injury is compounded by the likelihood that 35 U.S.C. § 315(e) would estop it from arguing that the '037 patent and '362 patent would have been obvious in future disputes. *See, e.g.*, Appellant Reply Br. at 24–25. To the extent Apple argues this provides an independent basis for standing, we do not agree. “We have already rejected invocation of the estoppel provision as a sufficient basis for standing.” *AVX Corp. v. Presidio Components, Inc.*, 923 F.3d 1357, 1362–63 (Fed. Cir. 2019) (citing *Phigenix*, 845 F.3d at 1175–76). Apple’s harm is particularly suspect because it has failed to show it will likely be engaging in activities that could give rise to a potential suit based on the '037 and '362 patents after the expiration of the license agreement. *See Gen. Elec. Co. v. United Techs. Corp.*, 928 F.3d 1349, 1355 (Fed. Cir. 2019) (“Where, as here, the appellant does not currently practice the patent claims and the injury is speculative, we have held that the estoppel provision does not amount to an injury in fact.”). Thus, the harm Apple may face from estoppel is insufficient to provide standing.

### CONCLUSION

Because we hold Apple has failed to establish standing, we *dismiss*.

### **DISMISSED**

### COSTS

Costs to Qualcomm.



**APPENDIX B**

UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT TRIAL AND APPEAL BOARD

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IPR2018-01252  
Patent 8,683,362 B2

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APPLE INC.,  
*Petitioner,*  
*v.*

QUALCOMM INCORPORATED,  
*Patent Owner.*

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Paper 28  
Date: January 22, 2020

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Before DANIEL N. FISHMAN, MICHELLE N.  
WORMMEESTER, and SCOTT B. HOWARD, *Ad-*  
*ministrative Patent Judges.*

HOWARD, *Administrative Patent Judge.*

**JUDGMENT**

Final Written Decision  
Determining No Challenged Claims Unpatentable  
*35 U.S.C. § 318(a)*

**INTRODUCTION**

Apple Inc. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–6 and 8–20 of U.S. Patent No. 8,683,362 B2 (Ex. 1001, “the ’362 patent”) pursuant to 35 U.S.C. §§ 311–319. Paper 2 (“Petition” or “Pet.”). Qualcomm Incorporated (“Patent Owner”)

filed a Patent Owner Preliminary Response. Paper 10. We instituted an *inter partes* review of claims 1–6 and 8–20 on all grounds of unpatentability alleged in the Petition. Paper 11 (“Institution Decision” or “Inst. Dec.”).

After institution of trial, Patent Owner filed a Response (Paper 17, “PO Resp.”), Petitioner filed a Reply (Paper 19, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 21, “PO Sur-reply”).

Petitioner relies on the testimony of Dr. Andrew Sears (Ex. 1003) and Patent Owner relies on the testimony of Dr. Jacob O. Wobbrock (Exs. 2001, 2006).

An oral hearing was held on November 21, 2019, and the record contains a transcript of this hearing. Paper 27 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has not shown by a preponderance of the evidence that claims 1–6 and 8–20 of the ’362 patent are unpatentable.

## BACKGROUND

### *A. Real Parties in Interest*

Petitioner identifies Apple Inc. as the real party in interest. Pet. 72.

Patent Owner identifies Qualcomm Incorporated as the real party in interest. Paper 3, 2 (Patent Owner’s Mandatory Notices).

### *B. Related Matters*

The parties identify the following dismissed patent litigation proceeding in which the ’362 patent was asserted: *Qualcomm Inc. v. Apple Inc.*, Case No. 3:17-cv-

02403 (S.D. Cal.). Pet. 72; Paper 3, 2 (Patent Owner’s Mandatory Notices); Paper. 16, 2 (Petitioner’s Updated Mandatory Notices).

The parties also identify a second request for *inter partes* review of the ’362 patent: *Apple Inc. v. Qualcomm Inc.*, IPR2018–01253. Pet. 72; Paper 3, 2 (Patent Owner’s Mandatory Notices). We take official notice of a third request for *inter partes* review of the ’362 patent: *Apple Inc. v. Qualcomm Inc.*, IPR2019-00112. See Ex. 1015 (IPR2019-00112, Petition). We previously denied institution of the other requests for *inter partes* review. IPR2018-01253, Paper 12 (PTAB Feb. 28, 2019) (Institution Decision); IPR2019-00112, Paper 7 (PTAB Apr. 11, 2019) (Institution Decision).

Additionally, Patent Owner identifies two pending patent applications that “claim the benefit of U.S. Patent Application No. 12/416,279, from which the ’362 patent issued.” Paper 3, 2 (Patent Owner’s Mandatory Notices).

### C. *The ’362 Patent*

The ’362 patent is titled “Card Metaphor for Activities in a Computing Device.” Ex. 1001, code (54). According to the ’362 patent, conventional computer systems use overlapping windows in order to allow the user the opportunity to run several applications at the same time or open multiple copies of a single application, such as opening different documents with a word processor. *Id.* at 1:32–2:2. However, such a graphical user interface typically requires a large screen. *Id.* at 2:3–5. If there is limited screen space, users “must choose between ... making windows smaller and thus reducing available workspace within each application ... [or] stacking windows atop each other so that only one window (or very few) is visible at a time.” *Id.* at



2:5–9. This is especially true for mobile devices, such as smart phones, which have insufficient screen space to display multiple, overlapping windows. *Id.* at 2:32–47.

According to the '362 patent, this problem can be addressed by using a computer that provides at least two modes for interacting with multiple activities which the user can toggle between as desired. Ex. 1001, 2:51–59. Specifically, the '362 patent describes using a card metaphor “in which each activity can be represented within an area of the screen.” *Id.* at 2:60–3:5. “[I]n a full-screen mode, one activity occupies substantially an entire display screen. The card thus fills substantially the entire display screen, although in some embodiments some areas of the screen may be reserved for status indicators, alerts, messages, and the like.” *Id.* at 3:9–13. In a second mode, referred to as a “card mode,” “one activity is visible within a card, and a portion of at least one other card is also visible. Thus, a card that has focus (i.e., that the user is interacting with) is visible in full, while at least one other card is only partially visible.” *Id.* at 3:14–19. When in card mode, the user can change the location of the cards “so as to change focus from one card to another” or a card can be moved off screen. *Id.* at 3:19–29.

#### *D. Illustrative Claims*

Petitioner challenges claims 1–6 and 8–20 of the '362 patent. Pet. 1. Claim 1 is independent, is illustrative of the subject matter of the challenged claims, and reads as follows:

1. A computer system comprising:  
a physical button;  
a processor coupled to the physical button;

a touch-sensitive display screen coupled to the processor, the processor to receive gesture input on the touch-sensitive display screen and operate the computer system in any one of at least two display modes, wherein:

during a given duration, the processor operates at least a first application and a second application concurrently;

in a full-screen mode, the processor provides, on the touch-sensitive display screen, a user interface for only one of either the at least first application or the second application;

in a windowed mode, the processor:

provides on the touch-sensitive display screen, a first card corresponding to the first application, and a first portion of a second card so that a second portion of the second card is not visible on the touch-sensitive display screen, the second card corresponding to the second application, wherein at least the first card displays content from operation of the first application, the content corresponding to (i) an output from an application, (ii) a task, (iii) a message, (iv) a document, or (v) a web page;

responds to a directional contact along a first direction on the touch-sensitive display screen by changing a position of the first card relative to the

touch-sensitive display screen in the first direction; and

responds to a directional contact of moving the first card or the second card along a second direction that is different than the first direction on the touch-sensitive display screen by (i) identifying one of the first card or second card as being selected based on the directional contact along the second direction, and (ii) dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed;

wherein the processor, in response to receiving user input via the physical button, transitions the computer system at least (i) from the full-screen mode to the windowed mode, or (ii) from the windowed mode to the full-screen mode.

Ex. 1001, 24:31–25:7

*E. Prior Art and Asserted Grounds*

Petitioner asserts that claims 1-6 and 8–20 would have been unpatentable on the following grounds:

Claims Chal- lenged	35 U.S.C. §	References
1–6, 8–20	103(a) <sup>1</sup>	Jin, <sup>2</sup> Elias <sup>3</sup>

## ANALYSIS

A. *Legal Standards*

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has “repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor.” *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016), *overruled on other grounds by Aqua Prods., Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc).

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<sup>1</sup> The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 effective on March 16, 2013. Because the ’362 patent issued from an application filed before March 16, 2013, we apply the pre-AIA version of the statutory bases for unpatentability.

<sup>2</sup> Jin, US 8,633,900 B2, issued Jan. 21, 2014 (Ex. 1005).

<sup>3</sup> Elias, US 2007/0177803 A1, published Aug. 2, 2007 (Ex. 1006).

*B. Level of Ordinary Skill in the Art*

Factors pertinent to a determination of the level of ordinary skill in the art include (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of workers active in the field. *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. Ltd, Inc. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

Petitioner argues that a person having ordinary skill in the art “would have had at least a Bachelor’s Degree in Computer Science, Computer Engineering, Electrical Engineering, Psychology, or a related field, and at least five years of experience in the field of human computer interaction.” Pet. 3 (citing Ex. 1003 ¶¶ 18–19); *see also* Pet. Reply 28–30. Petitioner further argues that Patent Owner “incorrectly mischaracterizes a portion of Dr. Sears’s transcript to try to draw a distinction between the definitions of a [person having ordinary skill in the art] provided in the Petition and Dr. Sears’s supporting declaration to argue how Dr. Sears arrived at his determination.” Pet. Reply 30; *see also id.* at 29–30 (citing Ex. 2010 13:8–19:17).

Patent Owner argues for a lower level of ordinary skill in the art:

A person of ordinary skill in the art in the relevant time period would have had at least a Bachelor of Science Degree in electrical engineering, computer engineering, computer science, or in a related field, with at least 2 years of industry experience in touch sensitive computer systems or gesture-based control of computer systems. Alternatively, a person of ordinary skill in the relevant timeframe could have been someone lacking formal technical education but having practical experience that would be equivalent to such education.

PO's Resp. 6–7 (citing Ex. 2001 ¶¶ 33–35).

Patent Owner further argues Petitioner and Dr. Sears disagree as to the qualifications of a person having ordinary skill in the art. PO Resp. 7–8. Patent Owner also argues that “both Petitioner and Dr. Sears appear to have relied solely on Dr. Sears’s personal experiences and judgment, which is not the correct analysis for determining the qualifications of one of ordinary skill in the art.” *Id.* at 8 (citing *Evtl. Designs*, 713 F.2d at 696–97).

First, we are not persuaded by Patent Owner’s argument that Dr. Sears and Petitioner substantially disagree as to the level of skill of a person having ordinary skill in the art. Although the identification of the level of ordinary skill in the art in the Petition is not identical to Dr. Sears’s testimony—the Petitioner omits the word “typically” and adds the qualification that “[a]dditional relevant education ... may compensate for any deficits”—Petitioner’s proposal is substantially the same as Dr. Sears’s testimony. *Compare* Pet. 3, with Ex. 1003 ¶¶ 18–19 (Sears Decl.). That is, we fail to see how the differences are material and Patent Owner has

not argued that any difference in the formulation would result in a different outcome.

Second, we disagree with Patent Owner that Dr. Sears—and by extension Petitioner—did not consider the proper factors. Dr. Sears testified that his identification of the level of skill was based on his experience in the field. Ex. 1003 ¶ 18. In his deposition, he further explained that this was based both on his “research experience” and “practical experience” working for “Goddard Space Flight Center” and “[Sun] [M]icrosystems.” Ex. 2010, 14:22–15:15 (Sears Dep.). Although Dr. Sears may not have considered all of the factors identified in *Environmental Design*, his testimony appears to be based on several of the factors—that is, the level of skill of people who were working with him and solving problems in the field. *See id.* at 16:15–17:22.

Third, besides the reference to a person having ordinary skill in the art having a psychology degree, Drs. Sears and Wobbrock are in agreement regarding the education of a person having ordinary skill in the art. *See* Ex. 1003 ¶ 18; Ex. 2006 ¶ 38. As Dr. Sears has not explained why a psychology degree would be relevant to the claimed invention—which is directed to “application management in computing devices” (*see* Ex. 1001, 1:24–28)—there is not sufficient evidence to support its inclusion in the level of ordinary skill in the art. *See Env'tl. Designs*, 713 F.2d at 696–697.

Fourth, both experts are in general agreement as to the relevant amount of industry experience—a relatively small amount—and neither has offered any testimony that the exact amount of experience makes a difference. *See* Ex. 1003 ¶ 18; Ex. 2001 ¶ 33.

Fifth, both experts use the phrase “at least” in describing the level of ordinary skill in the art. However,

qualifiers such as “at least” expand the range indefinitely without an upper bound, and thus precludes a meaningful indication of the level of ordinary skill in the art. Therefore, we do not use them in setting forth the level of skill in the art.

Accordingly, we find that a person having ordinary skill in the art has a Bachelor’s Degree in computer science, computer engineering, electrical engineering, or a related field, with between two and five years of experience. Moreover, additional relevant education or industry experience may compensate for any deficits.

### C. *Claim Construction*

In this *inter partes* review, we construe claim terms in this unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2018).<sup>4</sup> “Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *Trivascular, Inc. v. Samuels*, 812 F. 3d 1056, 1062 (Fed. Cir. 2016). In addition, the Board may not “construe claims during [an *inter partes* review] so broadly that its constructions are unreasonable under general claim construction principles.” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (emphasis omitted),

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<sup>4</sup> Per recent regulation, the Board will apply the *Phillips* claim construction standard to petitions filed on or after November 13, 2018. See *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b) (2019)). Because Petitioner filed its petition before November 13, 2018, we apply the broadest reasonable interpretation standard.



*overruled on other grounds by Aqua Prods.*, 872 F.3d 1290. An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Neither Petitioner nor Patent Owner identified any claim limitation that needed construction. *See* Pet. 3; PO Resp. 6.

“[W]e need only construe those claim limitations ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). Because the parties did not request the construction of any limitation and no express constructions are necessary to resolve a controversy, we do not construe any of the limitations.

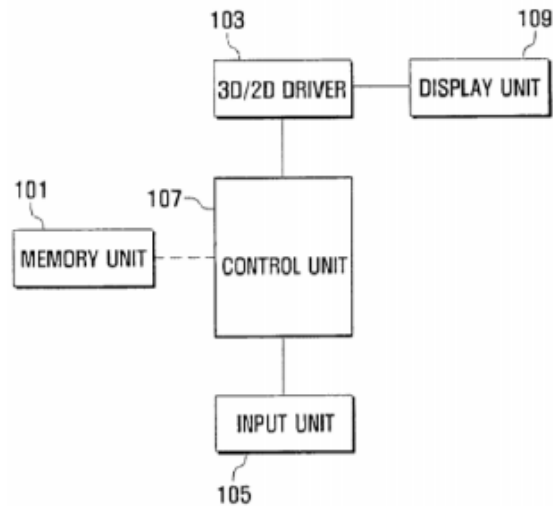
#### *D. Obviousness over Jin and Elias*

##### *1. Jin*

Jin is titled “Screen Display Method for Mobile Terminal” and relates “to a screen display method for a mobile terminal wherein a plurality of contents belonging to the same level or a plurality of applications in execution can be displayed together on a single screen in response to user inputs.” Ex. 1005, code (54), 1:15–20. Jin’s mobile device “provides a screen display method for a mobile terminal wherein a plurality of applications in execution can be simultaneously displayed on the screen.” *Id.* at 2:1–4.

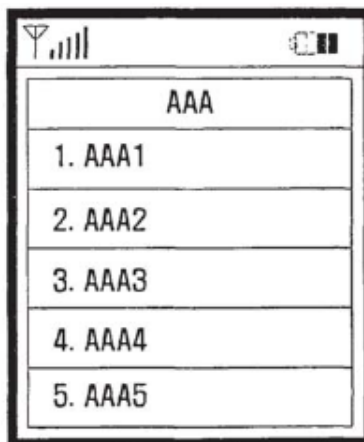
Jin’s Figure 1 is reproduced below.

25a



Ex. 1005, Fig. 1. Jin’s Figure 1 “is a schematic block diagram illustrating a mobile terminal to display contents and applications in accordance with the principles of the present invention.” *Id.* at 2:65–67. As shown in Jin’s Figure 1, “the mobile terminal includes a memory unit 101, 3D/2D driver 103, input unit 105, control unit 107, and display unit 109.” *Id.* at 3:56–58. “The control unit 107 controls the overall operation of the mobile terminal.” *Id.* at 4:36–37. Jin’s mobile terminal can be used to display content and applications in various formats. *See, e.g.*, 3:62–4:3, 4:36–56.

For example, as shown in Jin’s s Figure 4, reproduced below, Jin’s display can show the content of a single window.



Ex. 1005, Fig. 4. Jin's Figure 4 "is a screen representation of a content window" that "corresponds to a state where the artist 'AAA' is selected and songs released by the artist 'AAA' are listed. That is, the control unit 107 recognizes selection of the artist 'AAA', and displays a descriptive listing of the selected artist 'AAA' on the display unit 109." *Id.* at 3:6, 6:12-16.

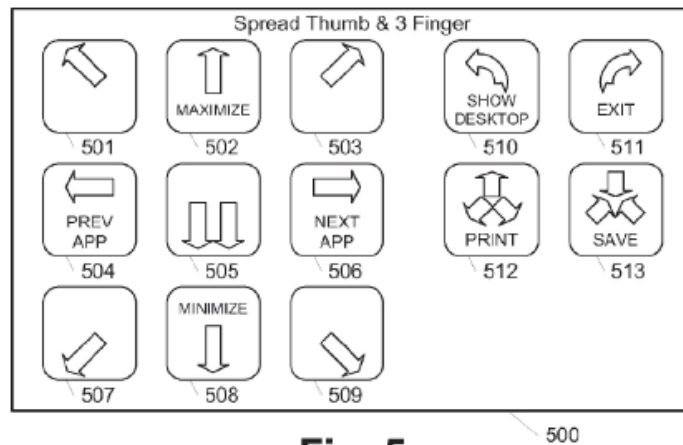
Jin further discloses that "in response to a multi-window display request, the control unit 107 controls the display unit 109 to display those contents at the same level as the currently displayed content in the form of an opaque stack, transparent stack, tile board, or folding fan." Ex. 1005, 4:36-42.

Jin further describes various ways to change the displayed windows. For example, Jin states that "[i]n response to a request for single window movement or multiple window movement during display of windows associated with same-level contents, the control unit 107 controls the display unit 109 to rearrange the windows accordingly." Ex. 1005, 4:49-52. Jin also describes how to scroll windows: "In response to a scrolling request during display of same-level content win-

dows, the control unit 107 controls the display unit 109 to scroll the front one or all of the windows depending upon settings by the user.” *Id.* at 4:52–56.

## 2. *Elias*

*Elias* is titled “Multi-touch Gesture Dictionary.” Ex. 1006, code (54). *Elias* discloses that the gesture dictionary “may take the form of a dedicated computer application that may be used to look up the meaning of gestures.” *Id.* at code (57). *Elias*’ Figure 5 is reproduced below.



**Fig. 5**

*Id.* at Fig. 4. *Elias*’ Figure 5 “illustrates an exemplary dictionary entry associated with a spread thumb and three finger chord that may be used in accordance with some embodiments of the present invention.” *Id.* ¶ 22. As shown in Figure 5, exiting an application is associated with clockwise rotation. *Id.* ¶¶ 44–45.

## 3. *Analysis of Claims 1–6 and 8–20*

Petitioner argues that the combination of *Jin* and *Elias* teaches all of the limitations recited in claim 1. *See* Pet. 5–42; Pet. Reply 2–16. Because it is dispo-

tive, we focus our analysis on the following limitation recited in claim 1:

the processor ... responds to a directional contact of moving the first card or the second card along a second direction that is different than the first direction on the touch-sensitive display screen by (i) identifying one of the first card or second card as being selected based on the directional contact along the second direction, and (ii) dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed.<sup>5</sup>

Ex. 1001, 24:45–25:2.

*a) Petitioner's Arguments*

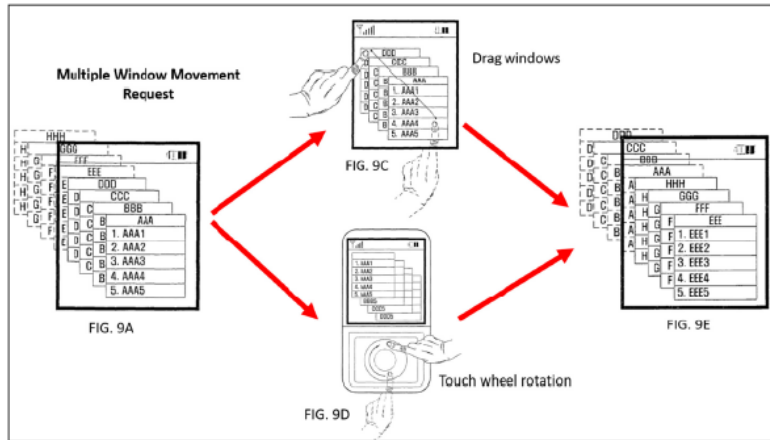
Petitioner argues the combination of Jin and Elias teaches the dismissing limitation recited in claim 1. Pet. 38–40.

Specifically, Petitioner argues Jin teaches moving a card in a first direction in response to a movement on a touch screen in a first direction. *See Id.* at 35–38. According to Petitioner, Jin's Figures 9A, 9C, and 9E "illustrates a multiple window movement request and its result." *Id.* at 35 (citing Ex. 1005, 7:35–39).

Petitioner provides an annotated drawing, reproduced below, that incorporates Figures 9A, 9C, 9D, and 9E of Jin.

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<sup>5</sup> This limitation is sometimes referred to as the "dismissing" limitation.



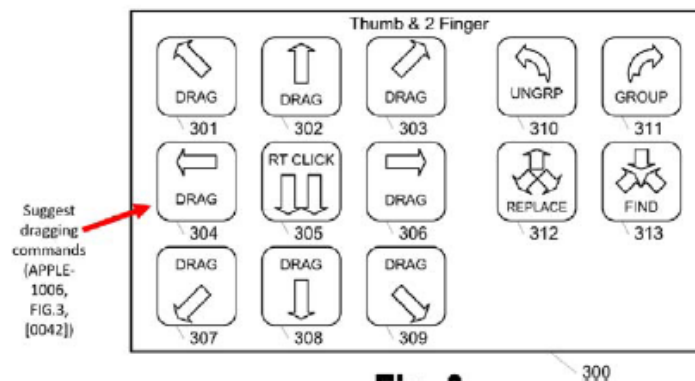
Annotated Figures 9A, 9C, 9D, and 9E of Jin (APPLE-1005)

Pet. 36. Jin's Figures 9A, 9C, 9D, and 9E "illustrate manipulation of content windows for multiple window movement." Ex. 1005, 3:15–16. Petitioner's drawing above incorporates Figures 9A, 9C, 9D, and 9E with red annotations depicting a sequence of events to move multiple windows on the display unit. *See* Pet. 36.

Petitioner argues, for example, that Jin teaches that "the control unit 107 can recognize dragging from the front window to the last window on the display unit 109 as a multiple window movement request', illustrated in FIG. 9C, in which the front window 'AAA' is moved in the direction of the dragging in a sliding manner." Pet. 36 (quoting Ex. 1005, 7:42–46). Petitioner further argues that "[i]n response to Jin's multiple window movement request, the control unit 107 rearranges the windows such that 'content windows in display become invisible and content windows not in display become visible on the display unit 109, as illustrated in FIG. 9E.'" *Id.* (quoting Ex. 1005, 7:53–55); *see also id.* at 37 (summarizing Jin's Figures 9A, 9C, and 9E); Pet. Reply 3 ("In the multiple window movement request, Jin recognizes 'dragging from the front window to the

last window' and 'rearrange[] content windows so that the content windows in display become invisible and contents windows not in display become visible' in response."), 7 ("Thus, Jin contemplates the movement of a window based on finger movements corresponding to the same." (citing Pet. 8)), 16 ("First, a [person having ordinary skill in the art] would have understood that in response to a directional contact along a first direction, as illustrated in FIG. 9C above, the first card's position would change relative to the screen in the first direction. FIGs. 9A-9E illustrate this movement." (citations omitted)).

Petitioner further argues Elias teaches dragging. Pet. Reply 8 (citing Ex. 1006 ¶ 42). Petitioner directs us to an annotated version of Elias's Figure 3, reproduced below.



**Fig. 3**

Pet. Reply 3. Elias's Figure 3 "illustrates an exemplary dictionary entry associated with a thumb and two finger chord." Ex. 1006 ¶ 20. Petitioner annotated Elias's Figure 3 with "Suggest dragging commands" with a red arrow pointing to dictionary entry 304 "DRAG." Pet. Reply 3.

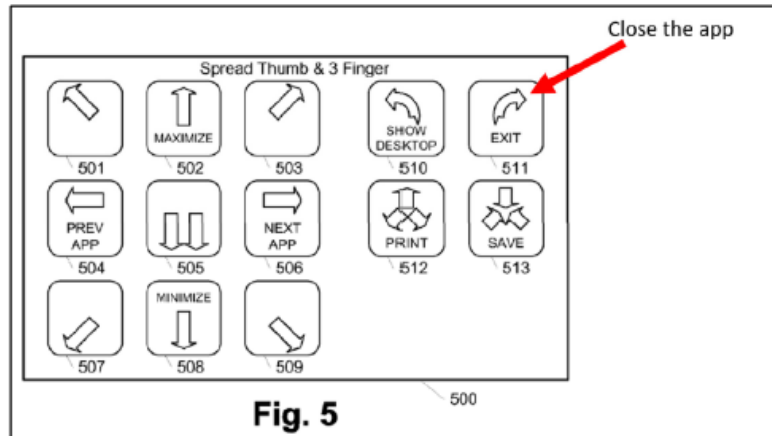
According to Petitioner, Elias’s Figure 3 “illustrates a dictionary entry 300 enabling users to perform dragging typically ‘accomplished in conventional graphical user interface (“GUI”) system[s] by holding a mouse button while moving the mouse.” *Id.* (quoting Ex. 1006 ¶ 42). Additionally, Petitioner argues that “Elias’s gesture dictionary provides feedback in response to recognizing a gesture motion” and that a person having ordinary skill in the art “would have understood that Jin/Elias would display feedback that includes animation illustrating the selected window moving off the display in the second direction in response to a user performing a ‘clockwise rotation 511’ associated with ‘exit[ing], i.e., clos[ing] [an] application’ on a window.” *Id.* (citing Pet. 14–15, 38–40; Ex. 1003 ¶¶ 97–106; Ex. 1006 ¶ 45).

During the Oral Hearing, Petitioner argued that its reliance on Elias for dragging is not a new argument. *See e.g.*, Tr. 13–17, 48–51. Specifically, Petitioner stated its use of Elias’s Figure 5 in the Petition was exemplary and that Petitioner intended to refer to the whole dictionary gesture dictionary. *Id.* at 17.

Petitioner further argues that “a [person having ordinary skill in the art] would have been motivated to incorporate, and would have understood how to incorporate Elias’s gesture dictionary as a background application on Jin’s mobile device.” Pet. 38 (citing Ex. 1006 ¶ 14); *see also* Pet. Reply 19–20. Petitioner further argues that, as shown in an annotated version of Figure 5, reproduced below, “Elias’s dictionary 500 discloses that ‘[o]ther GUI-related commands may be assigned’ including ‘exit, i.e., close application (associated with clockwise rotation 511).” Pet. 38–39 (emphasis



omitted) (quoting Ex. 1006 ¶ 45) (citing Ex. 1003 ¶¶ 45, 60, 88, 95, 96, 101, 102); *see also* Pet. Reply 21.



**Fig. 5**  
Annotated Figure 5 of Elias (APPLE-1006)

*Id.* at 39. Elias’s Figure 5 illustrates an exemplary dictionary entry associated with a spread thumb and three finger chord. Ex. 1006 ¶ 22. The version of Elias’s Figure 5 reproduced above has been annotated by Petitioner to label the exit motion as “[c]lose the app.” Pet. 39. According to Petitioner, the combination of Jin and Elias teach the dismissing limitation:

Jin in view of Elias provides responding to a directional contact of moving the first card along a second direction (such as, clockwise direction illustrated in 511 in Elias) that is different from the first direction. Additionally, moving the card in the second direction (illustrated in clockwise direction 511) exits, i.e., closes the application corresponding to the first card.

*Id.*

*b) Patent Owner's Arguments*

Patent Owner argues that “[t]he Jin-Elias combination does not render obvious” the dismissing limitation recited in claim 1. PO Resp. 8–9; *see also id.* 8–48; PO Sur-reply 2–15. According to Patent Owner, “Petitioner’s argument that the Jin-Elias combination discloses these elements is based on the incorrect position that Jin discloses dragging a window on the screen.”<sup>6</sup> PO Resp. 9 (citing Pet. 35–40). More specifically, Patent Owner argues “Petitioner incorrectly interprets a statement in Jin about a user dragging his finger on a screen to mean windows on the screen are also dragged.” *Id.* (citing Pet. 36). According to Patent Owner, however, “Jin ... does not teach or even show that the windows are dragged with the movement of the user’s finger.” *Id.* (citing Ex. 1005, Fig. 9C, 7:35–55).

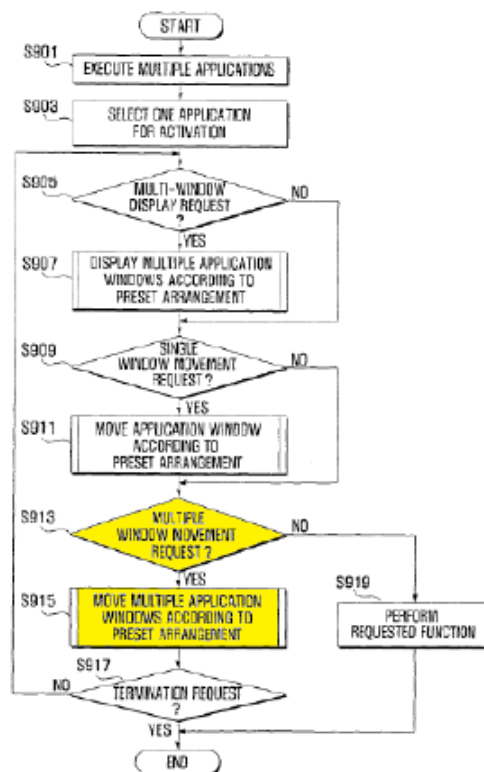
First, Patent Owner argues that “Jin does not teach dragging a window to match a finger movement.” PO Resp. 9–10. According to Patent Owner, “Jin teaches dragging *a finger* on the screen (display unit 109) to initiate a ‘multiple window movement request’ and rearranging the displayed windows *after* this multiple window movement request is complete.” *Id.* at 10 (citing Ex. 1005, 7:35–55). Specifically, Patent Owner argues Jin teaches detecting a “multiple window movement request” and, in response to the detection, the device “rearranges content windows so that the content windows in display become invisible and content windows not in display become visible on the display.” *Id.* at 11 (quoting Ex. 1005, 7:50–55). Patent

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<sup>6</sup> Patent Owner italicizes the names of references in its papers. We have omitted the italics when reproducing the quotes in this Decision.

Owner further argues that the windows are rearranged after the multiple window movement request (finger dragging) is complete and not during the multiple window movement request. *Id.* at 11–13; *see also* PO Sur-reply 4.

Patent Owner argues that this timing is confirmed by Jin's Figure 11, an annotated version of which is reproduced below.



*Id.* at 14. Jin's Figure 11 "is a flow chart illustrating an application display method according to another exemplary embodiment of [Jin]" and has been annotated by Petitioner with yellow highlighting on steps S913 ("MULTIPLE WINDOW MOVEMENT REQUEST") and S915 ("MOVE MULTIPLE APPLICATION

WINDOWS ACCORDING TO PRESET ARRANGEMENT”). Ex. 1005, 3:19–21, Fig. 11; PO Resp. 14. According to Patent Owner, because “step S915 is not executed until after the multiple movement window request has been input[ted],” it “confirms that the application windows in Jin are not rearranged until after the multiple window movement request is complete.” PO Resp. 14 (emphasis omitted); *see also id.* at 15–25 (arguing that “Jin does not teach or suggest that windows in the multiwindow display mode are dragged to match a finger movement”); PO Sur-reply 4–6.

Second, Patent Owner argues Jin does not teach or suggest that a selected card will be dismissed from the screen in a second direction in response to directional contact of moving that card along the second direction. *See* PO Resp. 26–45; PO Sur-reply 12–15. Specifically, Patent Owner argues—for the reasons discussed above—that “Jin does not teach dragging a window to match a finger movement;” instead, “Jin’s system rearranges a preset number of windows after a user drags a finger on the screen.” PO Resp. 27 (citing Ex. 1005, 5:45–50, 7:37–55, 9:28–31). Patent Owner further argues Elias does not teach moving a window in a direction when performing a gesture to exit an application; instead, it simply teaches using a finger gesture to close the window. *Id.* at 27–30. Patent Owner also argues that “Dr. Sears merely alleges that the Jin-Elias combination renders obvious dismissing a card from a display.” *Id.* at 41 (citing Ex. 1003 ¶ 96).

Third, Patent Owner argues Petitioner does not explain why a person having ordinary skill in the art would have modified Jin’s system to dismiss a selected card from a screen in a clockwise direction in response to moving that card along the clockwise direction. PO Resp. 45–48; PO Sur-Reply 15–16. Specifically, Patent

Owner argues that even if a person of ordinary skill in the art would have combined Elias’s gesture dictionary with Jin’s system, Petitioner does not sufficiently explain “why one would specifically modify Jin’s system to dismiss a selected window from a screen in the clockwise direction.” PO Resp. 47 (emphasis omitted). According to Patent Owner, “based on Petitioner’s explanation, it would appear that dismissing a window from the screen in any direction or in any manner would achieve these benefits.” *Id.* at 46 (citing Pet. 15).

Fourth, Patent Owner argues Petitioner raised a new theory regarding Elias in Petitioner’s Reply. *See* PO Sur-reply 6–8. According to Patent Owner, “[r]ecognizing the deficiencies in Jin, Petitioner changes the combination to rely on a dragging action taught in Elias.” *Id.* at 6–7 (citing Pet. Reply 8–9). Patent Owner further argues that Petitioner cannot wait until its Reply to introduce a new theory of invalidity. *Id.* at 6–8. Patent Owner further argues that “[e]ven if Petitioner’s new combination had been timely presented, Petitioner still fails to show how this combination teaches or suggests dismissing a window from the screen in the direction of a finger drag so that a corresponding application is closed.” *Id.*; *see also id.* at 8–11.

*c) Our Analysis*

*(1) Whether Petitioner Raises a New Theory in Petitioner’s Reply*

In an *inter partes* review, “Petitioner may not submit new evidence or argument in reply that it could have presented earlier, *e.g.* to make out a prima facie case of unpatentability.” Trial Practice Guide Update (August 2018), 14, *available at* [https://www.uspto.gov/sites/default/files/documents/2018\\_Revised\\_Trial\\_Practice\\_Guide.pdf](https://www.uspto.gov/sites/default/files/documents/2018_Revised_Trial_Practice_Guide.pdf). As the Federal Circuit has explained,

[i]t is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify “with particularity” the “evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3). “All arguments for the relief requested in a motion must be made in the motion. A reply may only respond to arguments raised in the corresponding opposition or patent owner response.” 37 C.F.R. § 42.23(b). Once the Board identifies new issues presented for the first time in reply, neither this court nor the Board must parse the reply brief to determine which, if any, parts of that brief are responsive and which are improper. As the Board noted, “it will not attempt to sort proper from improper portions of the reply.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,767 (Aug. 14, 2012).

*Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016); *see also Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 775 (Fed. Cir. 2018) (quoting same). Based on that standard, the Federal Circuit determined that the PTAB properly refused to consider a new theory raised for the first time in a reply brief:

Unlike district court litigation—where parties have greater freedom to revise and develop their arguments over time and in response to newly discovered material—the expedited nature of IPRs bring with it an obligation for petitioners to make their case in their petition to institute. While the Board’s requirements are strict ones, they are requirements of which pe-

tioners are aware when they seek to institute an IPR.

....

... In these circumstances, we find that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because IBS relied on an entirely new rationale to explain why one of skill in the art would have been motivated to combine Tsien or Ju with a modification of Zavgorodny.

*Intelligent Bio-Sys.*, 821 F.3d at 1369–70.

In the Petition, Petitioner relies on Jin for both (1) movement of a window and (2) movement of a window corresponding to directional contact. *See* Pet. 8, 37–40; *see also* Pet. Reply 7 (“Thus, Jin contemplates the movement of a window based on finger movements corresponding to the same. Petition, pp. 8.”), 16 (“First, a [person having ordinary skill in the art] would have understood that in response to a directional contact along a first direction, as illustrated in [Jin’s] FIG. 9C above, the first card’s position would change relative to the screen in the first direction. Petition, p. 37-40. [Jin’s] FIGs. 9A-9E illustrate this movement. *Id.*”), 16 (stating that “Dr. Sears does not rely upon Elias for this [describing the movement of the visual representation of the application], but relies upon Jin. (citing Ex. 2010, 72:14–21; Pet. 35–37, 38–40)). Petitioner confirmed this theory during the Oral Hearing:

[Petitioner’s Counsel]: So, turning to Slide 35, and seeing how we believe this combination comes together, we have the claim limitation at issue appearing in the lower right-hand portion

....

JUDGE HOWARD: Okay, and maybe this answers the question that I asked before, but in -- on Slide 35 you recite Limitation 1(j), and you have different colors on different sections. For example, you have the first part which begins, "a response to the directional contact of moving the first card, or the second card, along a second direction that is different from the first direction on the touch sensitive display screen by 1." And with that, you point to two different portions of the Petition, with reference to Exhibit 1005.

...

[Petitioner's Counsel]: Yes, Your Honor, with the understanding that Elias' is predicated upon the gestures that it, in fact -- and the movement that, among other things, exists in Jin to move the multiple window display.

Tr. 18-20. Petitioner's Slide 35<sup>7</sup> is reproduced below.

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<sup>7</sup> Petitioner's Slide 35 is a demonstrative exhibit and is not evidence. Petitioner's Slide 35 is reproduced for the sole purpose of providing context to the exchange quoted above.



**Issue 2: Dismissing a window is obvious based on Jin/Elias**

**Rebuttal to:** "The combination does not dismiss a selected card from a screen in a second direction." POR, 38.

**Jin/Elias meet the claim language**

Pet. Reply, 12, Pet., 38-39

Jin/Elias discloses moving a window. Petition, pp. 15-17, 38-48; APPLE-1005, ¶¶106-107. During Jin's S019, the control unit 107 checks for "tapdrag" (Pet. ¶106-107) and "tapdrag" (APPLE-1005, 8:5-7; Petition, p. 38).

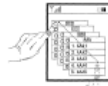
Elias's incorporated dictionary would recognize a swipe as the second direction to dismiss a card in the second direction and close an application of the device. Petition, pp. 28-30; APPLE-1005, ¶ [0014], [0015]. Consequently, Apple

**Tapping on a particular card**


movement request. As illustrated in FIG. 8C, if the display unit 109 has a touch-screen capability, the control unit 107 can recognize touching of a window to be moved (for example, the front window) on the display unit 109 as a single window movement request. As illustrated in FIG. 8D, if a

Pet., 7-8; APPLE-1005, 7:15-22

**Dragging cards**



Pet., 35-38; APPLE-1005, 7:42-46



APPLE-1006, FIG. 5 (Pet., 39)

Fig. 5

**Petition**

(k) [1] responds to a directional contact of moving the first card or the second card along a second direction that is different than the first direction on the touch-sensitive display screen by (i) identifying one of the first card or second card as being selected based on the directional contact along the second direction, and (ii) dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed;

Pet., 38-40

**FISH.** 35

Ex. 1017, 35. Petitioner's Slide 35 is a demonstrative exhibit prepared by Petitioner that maps various portions of the dismissing limitation to argument and evidence. *See id.*

In its Reply, Petitioner, at times, relies on Elias to show using a finger to drag an item across the screen. For example, Petitioner argues that "a [person having ordinary skill in the art] would have understood after reviewed Elias that Elias discloses dragging."<sup>8</sup> Pet. Reply 8 (citing Ex. 1006 ¶ 42 (Elias)) (footnote added). Similarly, Petitioner argues that "a [person having ordinary skill in the art] reviewing Elias would recognize that Elias's dictionary enables users to drag a window, e.g., perform 'translational movements' in a variety of

<sup>8</sup> In the previous paragraph, Petitioner stated "that dragging suggests 'click[ing] on an object' and then moving 'the finger to drag that object on the screen.'" Pet. Reply 8 (quoting Ex. 2010 30:9-23, 31:8-12).

directions.” Pet. Reply 11 (citing Ex. 1006<sup>9</sup> ¶ 42); *see also id.* at 12 (“Additionally, Elias discloses users can perform dragging windows.” (citing Ex. 1006 ¶ 42)), 17 (arguing Elias’s feedback would have been understood to include an “animation illustrating the selected window moving off the display (citing Ex. 1006 ¶ 45) (other citations omitted)). Because the Petition did not rely on Elias for that teaching, Petitioner’s Reply presents a new theory that was not previously presented in the Petition.

We are not persuaded by Petitioner’s arguments during the Oral Hearing that this theory was presented in the Petition. *See* Tr. 13–17, 48–51. First, Petitioner’s argument is inconsistent with Petitioner’s admission that Dr. Sears relied on Jin—and not Elias—for movement:

Qualcomm incorrectly asserts that “Elias does not teach that performing this [exit] gesture causes the application or a corresponding window to move along the clockwise direction (or any other direction)” and that Dr. Sears confirms this—“[Elias] does not describe the movement of the visual representation of the application.” POR, p. 30. *However, Dr. Sears does not rely upon Elias for this feature, but relies upon Jin.* EX. 2010, 72: 14–21; Petition, pp. 35–37 and 38–40. For example, Dr. Sears states “‘dismissing’ ... is tied back to the claim language ... refer[ing] to both removing the

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<sup>9</sup> Although the citation is to Exhibit 1005 (Jin), based on the context of the sentence and the citations to a paragraph, that appears to be a typographical error. Instead, based on the context including the use of “Elias” in the sentence, we understand that Petitioner was citing to Exhibit 1006 (Elias).

visual representation from the screen and closing the application. **Jin describes removing the visual representation from the screen.**” *Id.*, (emphasis added). Dr. Sears reliance on Elias includes “in response to that specific gesture [clockwise gesture], the application would be closed.” *Id.*, pp. 71:23–72:2. *Thus, Dr. Sears clearly explains how Jin describes the visual representation of the dismissing in the second direction and Elias closing the moved application.*

Pet. Reply 16–17 (bold emphasis in original) (italics emphases added).

Second, Petitioner’s argument is inconsistent with the mapping in its own demonstratives. As discussed above, during the Oral Hearing Petitioner presented a demonstrative exhibit that maps the movement of the card to Jin, not Elias. *See* Tr. 18–20.

Third, a comparison of both the Petition and Petitioner’s Reply demonstrates how Petitioner’s use of Elias has changed. For example, the Petition contains a single sentence quoting a statement in Elias about providing feedback indicating the meaning of a gesture: “Elias ‘execute[s] a meaning of the [identified] gesture and may also provide visual and/or audible feedback indicating the meaning of the gesture.”” Pet. 14–15 (citing Ex. 1006 ¶ 13). That citation is not linked to Petitioner’s argument as to why the combination of Jin and Elias teach the dismissing limitation. *Compare* Pet. 14–15 (quoting feedback sentence), *with id.* at 38–40 (discussing the dismissing limitation).

In its Reply, Petitioner changes its approach. Specifically, Petitioner argues that a person having ordinary skill in the art would have understood Elias’s ref-

erence to “provid[ing] visual and/or audible feedback indicating the meaning of the gesture” would “include[] animation illustrating the selected window moving off the display.” *See* Pet. 17 (citing Pet. 14–15, 38–40; Ex. 1003 ¶¶ 93, 97–106, Ex.1006 ¶¶ 45, 49). This is not a clarification of an argument made in the Petition, but a reformulation relying on a new reference. Such a radical change in approach is not allowed by our rules. *See Intelligent Bio-Sys.*, 821 F.3d at 1369–70.

By statute, a petition is required to identify “with particularity[ ] the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge.” 35 U.S.C. § 312(a)(3) (2012). The petition shall also include a “full statement” with “a detailed explanation of the significance of the evidence, including material facts.” 37 C.F.R. § 42.22(a)(2) (2019). In that regard, our rules require a petition to include information sufficient to show how and why the properly construed claims are unpatentable over the asserted prior art. 37 C.F.R. § 42.104(b)(3), (b)(4) (2019). Because Petitioner did not rely on Elias to teach dragging a window to match directional contact with the screen in the Petition, we do not consider that new theory.<sup>10</sup>

*(2) Whether the Combination of Jin and Elias Teaches or Suggests the Dismissing Limitation*

In the Institution Decision, we found that

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<sup>10</sup> Although our Trial Practice Guides states that we “will not attempt to sort proper from improper portions of the reply” (Office Patent Trial Practice Guide, 77 Fed.Reg. 48,756, 48,767 (Aug. 14, 2012)), in the interests of justice, we will not *only* consider the new theory. *See* 37 C.F.R. § 42.5(a), (b) (2019). To the extent that the Reply argues that Jin teaches moving a window, we consider those arguments

Jin teaches moving a card in a first direction in response to a movement on a touch screen in a first direction. Ex. 1005, 7:35–55, Fig. 9A-9E. That is, Jin teaches that control unit 107 can detect a movement request, such as dragging the front window to the last window on a touch-sensitive display. *Id.* at 7:37–46, Fig. 9A, Fig. 9C.

Inst. Dec. 27. We further found that, based on Jin teaching dragging a window to match a finger movement that the combination of Jin and Elias teaches “dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed”:

As discussed above, *Jin teaches dragging a window to match a finger movement* and Elias teaches movement in a clockwise direction to close/exit a window. *The combination of the teachings results in the window moving in the direction of the finger movement when a user desires to close or exit a window.* Therefore, based on the current record, Petitioner has sufficiently shown how the combination of the teachings of Jin and Elias teaches “dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed,” as recited in claim 1.

*Id.* at 28 (emphases added).

At the time, we qualified that our “factual findings ... are preliminary,” “based on the evidentiary record developed thus far,” and that “[o]ur final decision will be based on the record as fully developed during trial.”

*Id.* at 32. We further advised the parties that we were not “determin[ing] whether an individual asserted fact is indisputable or whether a preponderance of the evidence supports Petitioner.” *Id.* at 31. Having conducted the trial, for the reasons discussed below, our preliminary finding is not supported by the entirety of the record. Instead, we agree with Patent Owner that Jin does not teach or suggest “directional contact of moving the [selected] card along ... the touch-sensitive display screen” and agree that the combination of Jin and Elias does not teach or suggest “dismissing the selected first card or second card from the touch-sensitive display screen in the second direction so that the corresponding first application or second application is closed” as recited in claim 1.

Specifically, Petitioner has not sufficiently shown that Jin teaches or suggests that the processor responds to directional contact moving the selected card in the second direction on the display screen. Jin’s Figure 9C shows a finger moving along the screen—directional contact. Ex. 1005, Fig. 9C. However, Jin’s Figure 9C does not illustrate the card moving along with the finger. *Id.* Rather, Jin’s Figure 9E simply shows the cards in a new position without describing what happened on the display while the location of the cards were changed. *See id.* at Fig. 9E. Accordingly, Petitioner has not proven that Jin teaches directional contact moving the selected card in the second direction on the display screen.

That is consistent with the text describing Jin’s Figures 9C and 9E. According to Jin, control unit 107 recognizes dragging from the front window to the last window as a multiple window movement request. Ex. 1005, 35–49. Jin further states that in response to the multiple window movement request—that is after the

finger movement is completed—the control unit 107 performs a multiple window movement operation. *Id.* at 7:50–55. Accordingly, first a finger or other object is dragged along the screen and, after the movement of the finger is completed, the appropriate action—such as moving multiple windows—is performed.

It is also consistent with the flow chart of Jin’s Figure 11. As shown in Jin’s Figure 11, at step S913 a determination is made whether there is a multiple window movement request and, if so, the multiple windows are moved. *Id.* at Fig. 11. In other words, first the processor determines what finger movement (directional contact) is made and then it executes the appropriate command. *See* Ex. 2006 ¶ 43 (Wobbrock Decl.) (“Thus, Figure 11 confirms that the application windows are not moved until after the multiple window movement request is complete.”).

This understanding of the teaching of Jin is not disputed by the parties. During the Oral Hearing, Petitioner agreed that first the motion is made and then, only after it is completed, are the windows moved:

JUDGE HOWARD: Do you contend that this section that you cited from Column 7, describes dragging the window along with the finger movement, or again, is this after the finger movement is done.

[Petitioner’s Counsel]: Your Honor, I think it’s as a result of the finger movement being done.

Tr. 11:20–24.

We do not find Dr. Sears’s contrary testimony persuasive. According to Dr. Sears:

During a multiple window movement request, as the user drags his or her finger on the display unit 109 in the direction from the front window to back window, the location of the front card and each of the subsequent cards changes in the same direction in which the user's finger is moving. For instance, annotated FIG. 9A of Jin above shows the display unit 109 before the user drags the first card "AAA" to the last window position. As shown in annotated FIG. 9C of Jin, the user drags his or her finger on the front card from the bottom right of the display unit 109 to the upper left of the display unit 109 in a direction of the last card to initiate a multiple window movement request. As shown in FIG. 9E, the resultant illustration of the multiple window movement request, the front card "AAA" has changed its position to the last visible window to the display unit 109.

Ex. 1003 ¶ 56. However, contrary to Dr. Sear's testimony, Jin's Figures 9A, 9C, and 9E do not show movement of the card during the multiple window movement request. Specifically, Figure 9C shows the multiple window movement request—the finger dragging across the display—without showing any movement of the windows. *See* Ex. 1005, Fig. 9C. Instead, as discussed above, the cards are not rearranged until after the completion of the multiple window movement request. Because Dr. Sear's testimony regarding when the windows in Jin move is inconsistent with what is shown in the Figures and described in the text, we find it not creditable.

We also do not agree with Petitioner that Jin's reference to dragging refers to dragging the windows. *See* Pet. 8–9, 25, 36–38. Jin recites—in substantially the



same formulation at various places—that, with regard to Figure 9C, “the control unit 107 can recognize *dragging* from the front window to the last window on the display unit 109 as a multiple window movement request.” Ex. 1005, 7:42–46 (emphasis added); *see also id.* at 4:62–65, 5:9–15, 6:22–28, 7:62–65. However, based on the context—such as the use of the language “touchscreen” or reference to the various figures—“dragging” in those sentences refers to dragging an object, such as a finger, along the screen; “dragging” does not refer to moving the windows. For example, the reference at column 7, lines 42–46 describes Jin’s Figure 9C. As discussed above, Jin’s Figure 9C shows a finger being moved—that is dragged—from the lower right corner of the display to the upper left corner; but it does not show any window being dragged. *See* Ex. 1005, Fig. 9C; Ex. 2006 ¶¶ 41–42 (Wobbrock Decl.).

Additionally, we agree with Patent Owner that Jin does not teach moving a card in a direction (i.e., “dragging” the card(s) along with movement of the user’s finger). Although Jin’s Figures 9A and 9E show that the windows are rearranged as a result of the finger motion, the figures do not show how the cards are rearranged. *See* Ex. 1005, Figs. 9A–9E. Similarly, although Jin’s Specification states that multiple window movement operation is performed, it does not describe how the windows are rearranged:

FIGS. 9A to 9E illustrate manipulation of content windows for multiple window movement.

During display of multiple content windows as in FIG. 9A, the control unit 107 detects input of a multiple window movement request. As illustrated in FIG. 9B, if a motion sensor is

equipped, the control unit 107 can recognize turning of the mobile terminal parallel with the ground as a multiple window movement request. As illustrated in FIG. 9C, if the display unit 109 has a touch-screen capability, the control unit 107 can recognize dragging from the front window to the last window on the display unit 109 as a multiple window movement request. As illustrated in FIG. 9D, if a touch wheel or scroll wheel is equipped, the control unit 107 can recognize a large amount of wheel rotation as a multiple window movement request.

In response to input of a multiple window movement request, the control unit 107 performs a multiple window movement operation (S213). *The control unit 107 rearranges content windows so that the content windows in display become invisible and content windows not in display become visible on the display unit 109, as illustrated in FIG. 9E.*

*Id.* at 7:35–55 (emphasis added); *see also* Ex. 2005 ¶¶50–51.

Even Petitioner does not argue that Jin teaches how the cards are rearranged. Instead, when describing Jin, Petitioner simply states that “the position of the first card ‘AAA’ would change relative to the display in the first direction.” Pet. Reply 8 (citing Pet. 37); *see also id.* at 14 (“As a result, the stack of cards shown in FIG. 9E remains in the same order as FIG. 9A, but rearranged in the direction of the drag. [Ex. 1006 ¶ 42], APPLE-1003, ¶¶ 54–55. Thus, the cards have been rearranged direction of the dragging and along the dragging axis.”); Pet. 37 (“A POSITA would have under-

stood that in response to a directional contact along a first direction on the touch-sensitive display screen, as illustrated in FIG. 9C, the position of the first card is changed relative to the display screen in the first direction. ... FIG. 9E illustrates the first card 'AAA' has changed position relative to the display in response to the directional contact along the first direction.”).

Because Petitioner’s arguments as to how the combination of Jin and Elias teaches the dismissing limitation are predicated on Jin teaching both a processor which “respon[ds] to a directional contact of moving” a card and showing movement of a card in a given direction, Petitioner’s failure to show that Jin teaches those features is fatal to its arguments that independent claim 1 and dependent claims 2–6 and 8–11 are unpatentable over Jin and Elias. Additionally, because independent claims 12 and 17 recite substantially the same limitation and Petitioner relies on substantially same evidence (*see* Pet. 64–65, 70), Petitioner similarly failed to show that independent claims 12 and 17 and dependent claims 13–16 and 18–20 are unpatentable over Jin and Elias.

#### CONCLUSION

For the foregoing reasons, we conclude that Petitioner has not demonstrated by a preponderance of the evidence that claims 1–6 and 8–20 would have been obvious under 35 U.S.C. § 103 in light of Jin and Elias.

#### ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, Petitioner has not shown by a preponderance of the evidence that claims 1–6 and 8–20 of the ’362 patent are unpatentable;

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary:

Claims	35 U.S.C. §	References	Claims Shown Unpatentable	Claims Not shown Unpatentable
1-6, 8-20	103(a)	Jin, Elias		1-6, 8-20

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**APPENDIX C**

UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT TRIAL AND APPEAL BOARD

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IPR2018-01279  
Patent 7,844,037 B2

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APPLE INC.,  
*Petitioner,*  
*v.*

QUALCOMM INCORPORATED,  
*Patent Owner.*

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Paper 45  
Date: January 2, 2020

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Before DANIEL N. FISHMAN, MICHELLE N.  
WORMMEESTER, and SCOTT B. HOWARD, *Ad-*  
*ministrative Patent Judges.*

HOWARD, *Administrative Patent Judge.*

**JUDGMENT**

Final Written Decision

Determining No Challenged Claims Unpatentable  
Dismissing as Moot Patent Owner's Motion to Amend  
*35 U.S.C. § 318(a)*

**INTRODUCTION**

Apple Inc. ("Petitioner") filed a Petition to institute  
an *inter partes* review of claims 1–14 and 16–18<sup>1</sup> of U.S.

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<sup>1</sup> The Petition also sought *inter partes* review of claims 19–25.  
*See* Inst. Dec. 6–7. However, because those claims were statutori-

Patent No. 7,844,037 B2 (Ex. 1001, “the ’037 patent”) pursuant to 35 U.S.C. §§ 311–319. Paper 2 (“Petition” or “Pet.”). Qualcomm Incorporated (“Patent Owner”) filed a Patent Owner Preliminary Response. Paper 10. We instituted an inter partes review of claims 1–14 and 16–18 on all grounds of unpatentability alleged in the Petition. Paper 11 (“Institution Decision” or “Inst. Dec.”).

After institution of trial, Patent Owner filed a Response (Paper 23, “PO Resp.”), Petitioner filed a Reply (Paper 38, “Petitioner’s Reply” or “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 39, “PO Sur-reply”). In addition, Patent Owner filed a Contingent Motion to Amend (Paper 24, “Motion to Amend” or “Mot. Amend.”), Petitioner filed an Opposition to Patent Owner’s Contingent Motion to Amend (Paper 31, “Opp. Amend”), Patent Owner filed a Reply to Petitioner’s Opposition (Paper 38, “Reply Amend”), and Petitioner filed a Sur-Reply to Patent Owner’s Reply (Paper 41, “Sur-reply Amend”).

Petitioner relies on the declaration testimony of Dr. Narayan Mandayam<sup>2</sup> (Exs. 1003, 1018) and Patent Owner relies on the declaration testimony of Dr. Kevin Jeffay (Ex. 2004).

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ly disclaimed by the Patent Owner, they are treated as if they were never part of the ’037 patent. *Id.*

<sup>2</sup> Due to a family emergency, Dr. Mandayam was unable to appear for a deposition regarding his Second Declaration (Ex. 1018). *See* Order Modifying Scheduling Order, Paper 33; Ex. 3002 (email from Petitioner). Pursuant to the agreement of the parties and our Order, Dr. Cooperstock adopted Dr. Mandayam’s Second Declaration and was made available for deposition. *See* Ex. 2025, 7:8–21, 9:8–17 (Cooperstock Dep.); Order Modifying Scheduling Order, Paper 33.

An oral hearing was held on November 20, 2019, and the record contains a transcript of this hearing. Paper 44 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has not shown by a preponderance of the evidence that claims 1–14 and 16–18 are unpatentable. Because we do not find any of the challenged claims unpatentable, we dismiss as moot Patent Owner’s Contingent Motion to Amend.

## BACKGROUND

### A. *Real Parties in Interest*

Petitioner identifies Apple, Inc. as the real party in interest. Pet. 63.

Patent Owner identifies Qualcomm Incorporated as the real party in interest. Patent Owner’s Mandatory Notices, Paper 3, 2.

### B. *Related Matters*

The parties identify the following dismissed patent litigation proceeding in which the ’037 patent was asserted: *Qualcomm Inc. v. Apple Inc.*, Case No. 3:17-cv-02403 (S.D. Cal.). Pet. 63; Patent Owner’s Mandatory Notices, Paper 3, 2; Petitioner’s Updated Mandatory Notices, Paper 21, 1. Additionally, Patent Owner identifies a second request for *inter partes* review of the ’037 patent: *Apple Inc. v. Qualcomm Inc.*, Case IPR2018–01280.<sup>3</sup> Patent Owner’s Mandatory Notices, Paper 3, 2.

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<sup>3</sup> We exercised our discretion to deny institution under 35 U.S.C. § 325(d). IPR2018-01280 Paper 11 (Decision Denying Insti-



*C. The '037 Patent*

The '037 patent is titled “Method and Device for Enabling Message Responses to Incoming Phone Calls.” Ex. 1001, code (54). According to the '037 patent, the claimed invention enables “message replies to be made to incoming calls.” *Id.* at 1:64–65. “For example, rather than pick up a phone call or forward the phone call to voicemail, the user may simply generate a text (or other form of) message to the caller.” *Id.* at 1:67–2:3.

Thus, when using the claimed invention,

[r]ather than answer the call or perform some other action like forwarding the call to voicemail, ... the recipient computing device 110 issues a message response 122 to the calling device 120. In one embodiment, the message response 122 is an alternative to the user of the recipient device 110 having to decline or not answer the incoming call 112.

*Id.* at 3:56–63.

As another alternative, in one implementation, the message creation data 222 is generated in response to a trigger from a user 202. The phone application 210, message response module 230, or some other component may prompt the user to message respond to a caller in response to receipt of call data 202. The prompt may occur shortly after the incoming call 204 is received, such as with or before the first “ring” generated on the computing device 200 for the incoming call. For example, the user may be able to elect message response as

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tution); IPR2018-1280, Paper 13 (Decision Denying Request for Rehearing).

one option along with other options of answering or declining the incoming call 204.

Ex. 1001, 5:24–34. Figure 4 of the '037 patent (not reproduced) “illustrates a message for handling incoming calls with message replies, under an embodiment of the invention.” *Id.* at 1:53–54.

*D. Illustrative Claims*

Claim 1 is independent, is illustrative of the subject matter of the challenged claims, and reads as follows:

1. A method for operating a first computing device, the method being implemented by one or more processors of the computing device and comprising:

receiving, from a second computing device, an incoming call to initiate a voice-exchange session;

in response to receiving the incoming call, determining a message identifier associated with the second computing device, wherein the message identifier is determined based at least in part on data provided with the incoming call;

in response to receiving the incoming call, prompting a user of the first computing device to enter user input that instructs the first computing device to handle the incoming call by composing, while not answering the incoming call, a message to a user of the second computing device; and

responsive to receiving the incoming call and the user entering the user input, automatically addressing the message to the second computing device using the message identifier determined from the incoming call.

Ex. 1001, 9:63–10:15

*E. Prior Art and Asserted Grounds*

Petitioner asserts that claims 1–14 and 16–20 would have been unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	References
1–8, 12–14, 16–18	103(a)	Mäkelä, <sup>4</sup> Moran <sup>5</sup>
7–11	103(a)	Mäkelä, Moran, Tsampalis <sup>6</sup>

## ANALYSIS

*A. Legal Standard*

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has “repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor.” *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016), *overruled on other grounds by Aqua Prods., Inc.*

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<sup>4</sup> US 6,301,338 B1, issued Oct. 9, 2001 (Ex. 1004).

<sup>5</sup> US 2003/0104827 A1, published June 5, 2003 (Ex. 1006).

<sup>6</sup> US 2004/0203956 A1, published Oct. 14, 2004 (Ex. 1007).

*v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc). We note that, with respect to the fourth Graham factor, the parties have not presented argument or evidence directed to secondary considerations of nonobviousness. The analysis below addresses the first three *Graham* factors.

*B. Level of Ordinary Skill in the Art*

Factors pertinent to a determination of the level of ordinary skill in the art include (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of workers active in the field. *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. Ltd, Inc. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

Petitioner argues that a person having ordinary skill in the art would have had (1) “a Master of Science Degree in an academic area emphasizing electrical engineering, computer engineering, computer science, or an equivalent field (or a similar technical Master’s Degree, or higher degree) with a concentration in wireless communication and networking systems” or (2) “a Bachelor’s Degree (or higher degree) in an academic area emphasizing electrical engineering, computer engineering, or computer science and having two or more

years of experience in wireless communication and networking systems.” Pet. 4 (citing Ex. 1003 ¶ 13). Additionally, Petitioner argues that “[a]dditional education in a relevant field, such as computer engineering, or electrical engineering, or industry experience may compensate for a deficit in one of the other aspects of the requirements stated above.” *Id.* (citing Ex. 1003 ¶ 13).

In our Institution Decision, we adopted Petitioner’s formulation. Inst. Dec. 17. Patent Owner does not challenge Petitioner’s formulation. *See* PO Resp. 12–13; Ex. 2004 ¶ 57 (Jeffay Decl.) (“[F]or the purposes of this declaration, I have applied Petitioner’s proposed level of skill.”).

Accordingly, we adopt Petitioner’s proposed level of ordinary skill, except that we delete the qualifier “or more” to eliminate vagueness as to the amount of practical experience. The qualifier expands the range indefinitely without an upper bound, and thus precludes a meaningful indication of the level of ordinary skill in the art. Therefore, a person having ordinary skill in the art would have had either (1) a Master of Science Degree in an academic area emphasizing electrical engineering, computer engineering, computer science, or an equivalent field (or a similar technical Master’s Degree, or higher degree) with a concentration in wireless communication and networking systems or (2) a Bachelor’s Degree (or higher degree) in an academic area emphasizing electrical engineering, computer engineering, or computer science and having two years of experience in wireless communication and networking systems. Moreover, additional education in a relevant field, such as computer engineering, or electrical engineering, or industry experience may compensate for a deficit in one of the other aspects of the requirements stated above.

*C. Claim Construction*

In this *inter partes* review, we construe claim terms in this unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2018).<sup>7</sup> “Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). In addition, the Board may not “construe claims during [an *inter partes* review] so broadly that its constructions are unreasonable under general claim construction principles.” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (emphasis omitted), *overruled on other grounds by Aqua Prods.*, 872 F.3d 1290. An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Additionally, “we need only construe those claim limitations ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

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<sup>7</sup> The Board applies the *Phillips* claim construction standard to petitions filed on or after November 13, 2018. See *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b) (2019)). Because Petitioner filed its petition before November 13, 2018, we apply the broadest reasonable interpretation standard.

Petitioner proposes claim constructions for six terms: “voice-exchange session,” “instant messages,” “programmatically,” “automatically,” “one or more communication components,” and “one or more wireless communication ports.” Pet. 5–9. Patent Owner does not contest Petitioner’s proposed constructions but proposes its own constructions of “prompting” and “composing.” PO Resp. 14–36.

Based on the arguments presented during the trial regarding the patentability of the claims, we need only construe the term “composing.”

1. *Patent Owner’s Arguments*

According to Patent Owner, “[t]he plain and ordinary meaning of the term ‘composing [a message]’ is ‘manually providing content for [a message],’” and it is different than “manually providing message content prior to receiving the incoming call (i.e., a precomposed message).” PO Resp. 26–27 (citing Ex. 2004 ¶ 73; Ex. 2023). Patent Owner argues “Petitioner’s expert tacitly admitted that composing a message is different from selecting a precomposed message.” *Id.* at 27; *see also* Ex. 2006, 126:22–127:5, 129:13–130:9 (Mandayam Dep.).

Patent Owner further argues that the ’037 patent “makes it clear that composing a message is different from inserting or selecting a pre-formulated or pre-composed message content.” PO Resp. 28 (citing Ex. 2004 ¶ 75); *see also id.* at 28–29 (citing Ex. 1001, 4:1–3, 6:65–7:11; Ex. 2004 ¶ 75); PO Sur-reply 13–14. Patent Owner also draws a distinction between the language in claim 1 and the language recited in claims 15, 19, and 22. PO Resp. 29–30 (citing Ex. 2004 ¶¶ 76, 77; Ex. 1001, 11:6–8, 11:17–34).

Patent Owner further argues that its proposed claim construction is consistent with the prosecution history of U.S. Patent No. 8,737,578 (“the ’578 patent”), which is a continuation of U.S. Patent No. 8,311,189, which in turn is a continuation of the ’037 patent. *See* PO Resp. 31–32. According to Patent Owner, “each of the independent claims of the ’578 Patent requires ‘enabling the user to *select a pre-formulated or precomposed message content for the message or compose a message content for the message.*” *Id.* at 32 (quoting Ex. 2007, 10:11–12:25); *see also* PO Sur-reply 14. Patent Owner further argues that the Examiner relied on the difference between pre-formulated message content and composing a message when allowing the claims. PO Resp. 32 (citing Ex. 2008). According to Patent Owner, the prosecution history of the related patent “reinforces the understanding that ‘composing’ does not mean rote insertion of pre-formulated or pre-composed message content.” *Id.* at 31 (citations omitted).

Patent Owner also relies on the prosecution history of the ’037 patent as further support for its proposed construction. *See* PO Resp. 32–36.

Patent Owner further argues that “Petitioner’s rebuttal ... fails to take into account the precise nature of the action that the user input instructs the computer to perform—i.e., the claim language only requires the user input to instruct the computer to handle the call.” PO Sur-reply 12–13.

## 2. *Petitioner’s Arguments*

Petitioner argues that Patent Owner’s proposed construction is “unjustified” and “inconsistent with the plain language of claim 1.” Pet. Reply. 11; *see also id.* at 11–13. Specifically, Petitioner argues that the language



recited in claim 1 “clearly recites that the user’s input ‘instructs’ the first computing device to perform an action, namely to handle the incoming call by composing ... a message.” *Id.* at 11 (citing Ex. 1001, cl. 1; Ex. 1018 ¶ 50); *see also id.* at 11–12 (“Notably, the claim does not recite that the user composes the message, or that the first computing device enables the user to compose the message.” (citing Ex. 1001, cl. 1; Ex. 1018 ¶ 50)). According to Petitioner, “[t]he plain language of claim 1 simply cannot be interpreted to require that the user manually provide content for the message unless it is reframed to switch the actor that ‘handle[s] the incoming call by composing’ from the first computing device to the user.” *Id.* at 12 (citing Ex. 1001, cl. 1). Although Petitioner disputes the inclusion of the term manually, Petitioner does not object to the remaining portion of Patent Owner’s proposed construction. *See* Tr. 11–12.

### 3. *Our Analysis*

We agree with Patent Owner that “composing ... a message” as recited in claim 1 means generating a message and does not encompass using pre-composed messages. That construction is consistent with the language recited in the claims, the ’037 patent, and the use of “composing” in a related patent.

We begin with the words of claim 1. Claim 1 recites “in response to receiving an incoming call, prompting a user of the first computing device to enter user input that instructs the first computing device to handle the incoming call by composing, while not answering the incoming call, a message to a user of the second computing device.” Ex. 1001, 10:7–11. Based on the ordinary meaning of the claim language, the claim requires prompting a user to enter user input and that the entered user input “instructs the first computing device

to handle the incoming call by composing ... a message.” *See id.* That is, it is the user input—which itself is in response to an incoming call—which causes the composing to take place. Thus, the language of the claim requires that the composing takes place **after** the incoming call is received and the user input is entered. Therefore, the language of the claim precludes using content composed prior to the call and user input, i.e., a precomposed message. *See* Ex. 2004 ¶ 73 (Jeffay Decl.).

This construction is also consistent with the written description of the '037 patent. The '037 patent describes two different ways of generating messages. First, the '037 patent describes how a device may be configured to respond to all incoming calls with a precomposed message, such as “on vacation.” Ex. 1001, 5:18–23. However, claim 1 was amended during prosecution to exclude automatically responding with a precomposed message, thus excluding that embodiment from the scope of claim 1. *See* Ex. 1002, 157 (amendment to claim 1), 165–68 (prosecution history of the '037 patent) (distinguishing prior art references which automatically responded with a precomposed message); *see also* Ex. 2004 ¶ 70 (Jeffay Decl.) (“Accordingly, the Applicant amended the claims to distinguish over Brown and clearly disclaimed claim scope corresponding to the embodiments in which an incoming call is automatically responded to with a message.” (citing Ex. 1002, 166–68)).

In the second embodiment, a responsive message is created in response to a trigger—user input—from the user. *See* Ex. 1001, 5:24–54, 7:52–8:2, Fig. 4 (step 470 (“address message body”) is after steps 410 (“receive incoming call”) and 435 (“message response?”)). Because the message is generated in response to the user input, it does not exist prior to user input being en-

tered. That is, a precomposed message is not being used.

This construction is also consistent with the use of compose in a related patent. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342–43 (Fed. Cir. 2015) (Statements made in the prosecution of related patents “are legally relevant to the meaning one of skill in the art would attribute to the identical term in the [challenged] patent.”); *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005), *abrogation on other grounds recognized by Zontek Corp. v. United States*, 672 F.3d 1309, 1323 (Fed. Cir. 2012) (Where “patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.” (citing *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004))).

In a continuation of the '037 patent, the independent claims each recite “in response to receiving the user input, enabling the user to *select a pre-formulated message content* for the message or compose a message content for the message.” Ex. 2007, 10:25–27, 10:64–67, 12:16–18 (the '578 patent) (emphasis added). By indicating that a user can select either pre-formulated message content or compose a message, the related '578 patent makes a clear distinction between composing a message and using a precomposed message. *See* Ex. 2004 ¶ 78 (Jaffey Decl.) (“As such, having considered the prosecution history of the patent family of the '037 Patent, a POSITA would have understood the Applicant to have interpreted ‘composing’ a message to require manually providing the content for the message (and not selecting a pre-formulated message content).”).

The parties also dispute whether the composing is done manually by the user (Patent Owner’s position) or by the first computing device (Petitioner’s position). *Compare* PO Resp. 26–27, *with* Pet. Reply 11–13. However, because we construe claims “only to the extent necessary to resolve the controversy,” we do not resolve that dispute. *See Nidec*, 868 F.3d at 1017 (quoting *Vivid*, 200 F.3d at 803).

Accordingly, “composing ... a message” means generating a message and does not encompass using precomposed messages.

*D. Obviousness over (1) Mäkelä in view of Moran or (2) Mäkelä and Moran in View of Tsampalis*

Petitioner argues the subject matter of claims 1–8, 12–14, and 16–18 would have been obvious to a person of ordinary skill in the art at the time of the invention in light of the teachings of Mäkelä and Moran. Petitioner further argues claims 7–11 would have been obvious to a person of ordinary skill in the art at the time of the invention in light of the teachings of Mäkelä, Moran, and Tsampalis. For the reasons discussed below, Petitioner has not shown by a preponderance of the evidence that claims 1–14 and 16–18 are unpatentable.

*1. Summary of Mäkelä*

Mäkelä is titled “Activation of a Telephone’s Own Call Answering Equipment According to the Number of the Calling Party” and is directed “to message services between telephone devices and in particular to using the number of the calling party for transmitting a message in a situation that the receiving party is busy.” Ex. 1004, code (54), 1:1–10. Mäkelä “provide[s] a method and an apparatus, by means of which the telephone answering function can be adapted to operate in differ-

ent ways according to the number of the calling party and the use of which for the mentioned purpose is simple and flexible.” *Id.* at 3:10–14. One such device is

a communication device characterized in that it comprises means for identifying the caller on the basis of an identification information included within the incoming call and for sending, according to a selection made by the user, a reply in response to the call, said reply being one of the following: a voice message, an e-mail message, a facsimile, an SMS message in the form of a character string.

*Id.* at 3:39–46.

### 2. *Summary of Moran*

Moran is titled “Rerouting/Reformat[t]ing Wireless Messages for Cross Connectivity Between Service Providers” and is directed to “a method and system for rerouting and reformatting messages so that users can send messages to other users that use different wireless service providers.” Ex. 1006, code (54), ¶ 2. Specifically, Moran is directed “to provid[ing] a scheme that would provide a much higher degree of cross-compatibility for SMS messaging between users having different service providers [and which] may be implemented without requiring changes to the existing wireless services infrastructure.” *Id.* ¶ 8.

### 3. *Summary of Tsampalis*

Tsampalis is titled “Method and Apparatus for Providing Wireless Messaging” and is directed to a “mobile wireless communication device messaging format capabilities determinator circuitry” which can be used “to obtain second mobile wireless communication device messaging format capabilities information (110)

of a second mobile wireless communication device (100)” along with circuitry “operable to send a message (112) in a message format compatible with at least one of the formats identified in the second mobile wireless communication device messaging format capabilities information (110).” Ex. 1007, codes (54), (57).

4. *Analysis of “Composing ... a Message (Claim 1)”*

Claim 1 recites “in response to receiving the incoming call, prompting a user of the first computing device to enter user input that instructs the first computing device to handle the incoming call by composing, while not answering the incoming call, a message to a user of the second computing device.” Ex. 1001, 10:6–11. Although the parties dispute various portions of this limitation, we focus on “composing ... a message,” which is a dispositive issue.

a) *The Parties’ Arguments*

Petitioner argues Mäkelä teaches the prompting step, including “composing ... a message.” Pet. 16–17. Specifically, Petitioner argues Mäkelä teaches that “in response to the incoming call, the communication device ... sends a reply according to a selection made by the user[.]” *Id.* at 16 (quoting Ex. 1004:3:30–34). Petitioner further argues Mäkelä teaches transmitting an SMS message either automatically or in response to a user command and this can be performed either immediately or shortly after the call has come so that the user can select the appropriate function after seeing the telephone number of the calling party. *Id.* (citing Ex. 1004, 4:3–8; Ex. 1003 ¶ 62). Petitioner further argues Mäkelä teaches that the user is asked whether to send an SMS message in circumstances where the incoming call is not answered. *Id.* at 16–17 (citing Ex. 1003 ¶ 63;

Ex. 1004, 3:64–4:3, 5:32–33, 10:16–20 (claim 4), 12:4–22 (claim 27)).

Petitioner also argues that Patent Owner’s “argument cannot be sustained because it is based on the unsustainable construction of ‘composing.’” Pet. Reply 14.

During the Hearing, Petitioner further argued that Mäkelä’s claims 27 and 28 show that the user composes the message as part of generating a response. Tr. 21, 56–59.

Patent Owner argues Mäkelä does not teach or suggest composing a message in response to receiving the incoming call; instead, Patent Owner argues that “[Mäkelä] is directed exclusively to inserting pre-formulated, stored content for the message.” PO Resp. 43(citing Ex. 2004 ¶ 96); *see also id.* 41–51 (citations omitted). Patent Owner further argues that Dr. Mandayam “repeatedly admitted that [Mäkelä] only discloses the ability for the user receiving an incoming call to respond to the call by selecting a precomposed message that was created and stored in the device at some point prior to the incoming call.” *Id.* at 41–42; *see also id.* at 42–43 (citing Ex. 2006, 112:18–113:4, 128:8–130:9, 133:11–20).

*b) Our Analysis*

As a preliminary matter, we do not consider Petitioner’s arguments raised during the Hearing regarding the teaching of Mäkelä’s claim 28. Petitioner conceded that it did not address claim 28 in either the Petition or Petitioner’s Reply. Tr. 58; *see also* Pet. 16–17 (setting forth arguments on the prompting limitation); Pet. Reply 14 (relying on arguments set forth in the Petition). However, Petitioner argues that we should consider the arguments Petitioner made in Petitioner’s

Opposition to the Contingent Motion to Amend. Tr. 58–59.

Our rules require the Petition to include “[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent.” 37 C.F.R. § 42.22(a)(2) (2017). Additionally, the Petition “must identify ... [h]ow the construed claim is unpatentable under the statutory grounds [on which the petitioner challenges the claims], and must specify where each element of the claim is found in the prior art patents or printed publications relied upon.” 37 C.F.R. § 42.104(b)(4) (2017). Our rules further provide for a petitioner to file a reply to respond to arguments made in the patent owner’s response. *See* 37 C.F.R. § 42.23(b) (2019). Petitioner choose neither option to set forth its arguments regarding Mäkelä’s claim 28.

We decline Petitioner’s invitation to consider arguments presented in papers outside of the Petition and Petitioner’s Reply. We treat Petitioner’s request that we consider arguments only presented in the Opposition to the Motion to Amend as a request for incorporation by reference. However, our rules prohibit “incorporat[ion] by reference from one document into another document.” 37 C.F.R. § 42.6(a)(3) (2019); *see also DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999) (Incorporation “by reference amounts to a self-help increase in the length of the [ ] brief[,]” and “is a pointless imposition on the court’s time. A brief must make all arguments accessible to the judges, rather than ask them to play archeologist with the record.”)). Petitioner has not persuasively argued why we should not apply Rule 42.6(a)(3) in these circumstances. *See* 37 C.F.R. § 42.5(b) (2019) (“The Board may waive or sus-



pend a requirement of parts 1, 41, and 42 and may place conditions on the waiver or suspension.”). Although Petitioner may have intended to make the argument in both Petitioner’s Reply and the Opposition to the Motion to Amend (Tr. 58–59), it did not do so.<sup>8</sup>

And, with regard to arguments concerning Mäkelä’s claim 27, for the same reason discussed above, we limit our analysis to arguments actually presented in the Petition or Petitioner’s Reply and do not consider arguments presented only in the Opposition to the Motion to Amend.

Similarly, to the extent arguments were presented concerning Mäkelä’s claims 27 and 28 during the Oral Hearing, we do not consider them. *See Dell Inc. v. Acceleron, LLC*, 884 F.3d 1364, 1369 (Fed. Cir. 2018) (“Unless it chose to exercise its waiver authority under 37 C.F.R. § 42.5(b), the Board was obligated to dismiss Dell’s untimely argument given that the untimely argument in this case was raised for the first time during oral argument.”); *see also* Trial Practice Guide (“*During an oral hearing, a party may rely upon appropriate demonstrative exhibits as well as evidence that has been previously submitted in the proceeding, but may only present arguments relied upon in the papers previously submitted.*” (emphasis added)).

With regard to the merits, we agree with Patent Owner that Petitioner has not sufficiently shown how Mäkelä teaches “composing ... a message” as recited in claim 1. Neither the Petition nor Petitioner’s Reply specifically addresses when the reply message is pre-

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<sup>8</sup> We note that the Petitioner’s Reply was well under the word count limit. *See* Pet. Reply Certification Under 37 CFR § 42.24. Petitioner has offered no explanation as to why it could not have included the argument in its Reply.

pared. *See* Pet. 16–17; Pet. Reply 14. Moreover, Dr. Mandayam—Petitioner’s expert witness—conceded that the messages in Mäkelä are composed and stored prior to the incoming call being received:

Q. So I think just to repeat the question, is there any disclosure in Mäkelä that the message sent by the user in response to an incoming call is anything other than a message previously stored by the user before the incoming call? Yes or no, please.

...

THE WITNESS: The specification describes messages that have been composed ahead -- previously by the user with the ability to choose them.

....

Q. The modes of response listed in Claim 27, that is a voice message, an e-mail message, a facsimile, and an SMS message in the form of a character string are all limited to precomposed messages. Do you agree with that?

...

THE WITNESS: So the messages have been composed by the user and stored, as we have gone through this already a few times. So that is stored and composed and resides in the device. And the user is making the choice in response to a call to send whichever their preferred option is.

And there is some dynamism if you read through the specifications where there are responses you can fine-tune based on the amount of time you want to be not disturbed or the amount of time your meeting is in session. So there are things

like that. But this is the characterization, and I think this is something I agree.

...

Q. So I think we agree that the user selects a message that is to be transmitted in response to an incoming call. The question is would you agree that in Mäkelä the user's selection of the message in response to an incoming call is limited to precomposed messages?

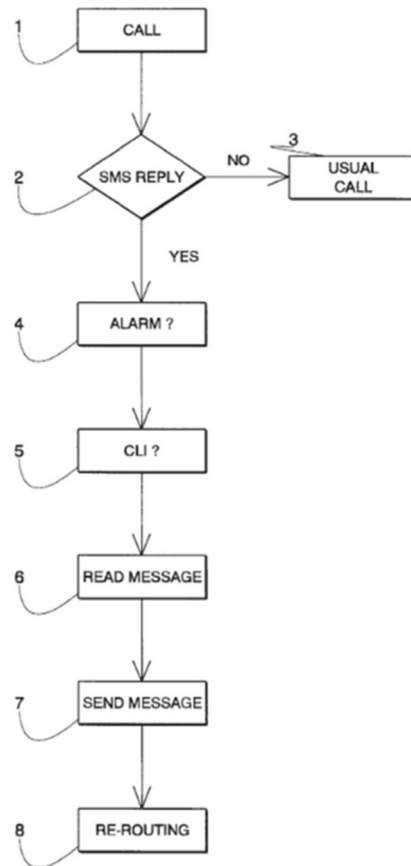
...

THE WITNESS: It is based on the set of messages that are available for the user to use.

Ex. 2006, 112:18-113:4, 129:13-130:9, 133:11-20.

Consistent with Dr. Mandayam's deposition testimony, Mäkelä describes that after receiving an incoming call and determining the caller identity information, "the apparatus reads from the memory the short message stored therein" and "the message is [then] sent to the calling party." Ex. 1004, 4:11-16. This is shown in Mäkelä's Figure 1, which is reproduced below.

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Mäkelä’s Figure 1 “illustrates as a simple flow diagram a preferable embodiment of the method in accordance with the method.” *Id.* at 4:56–57. Step 6—which is performed after the call is received—shows that the message is read from memory and sent; but there is no teaching or suggestion of composing the message after the call was received. *See Id.* at 5:11–15, Fig. 1.

Petitioner’s arguments regarding Mäkelä’s claim 27 are not persuasive. The only references to Mäkelä’s claim 27 in the Petition are as follows:

Mäkelä further teaches that the “short message” sent in response to the user input is

sent “in a situation wherein the user of the portable terminal does not answer the” incoming call. See APPLE-1004, *claim 27* (emphasis added); see also claim 4, 3:64-4:3, 5:32-33; APPLE-1003, ¶63. Thus, Mäkelä discloses a user being asked whether to send a short message in a situation where the incoming call is not answered, thereby teaching that the prompting occurs without answering the incoming call. APPLE-1003, ¶63; see APPLE-1004, claim 4, *claim 27*, 3:64-4:3, 5:32-33.

Pet. 16–17 (underline emphasis in original, bold emphasis added). That is, Petitioner’s argument regarding Mäkelä’s claim 27 is not directed to the composing portion of the limitation; instead, it is directed to whether Mäkelä teaches prompting without answering the call. See *id.*

Because Petitioner has not shown that Mäkelä teaches composing a message after the call is received, Petitioner has not shown that Mäkelä’s teaches “*in response to receiving the incoming call, prompting a user of the first computing device to enter user input that instructs the first computing device to handle the incoming call by composing, while not answering the incoming call, a message to a user of the second computing device*” as recited in claim 1. (emphases added.)

We have considered the entirety of the evidence submitted by the parties, both for and against obviousness, and determine that Petitioner has not shown by a preponderance of the evidence that claims 1–8, 12–14, and 16–18 are unpatentable as obvious over Mäkelä in view of Moran.

Additionally, because Petitioner does not argue that Tsampalis cures the deficiencies of Mäkelä, we fur-

ther determine that Petitioner has not shown by a preponderance of the evidence that claims 7–11 are unpatentable as obvious over Mäkelä in view of Moran and Tsampalis.

#### PATENT OWNER’S CONTINGENT MOTION TO AMEND

We have concluded that Petitioner has not proven by a preponderance of the evidence that claims 1–14 and 16–18 are unpatentable. Patent Owner filed a contingent motion to amend proposing “Claims 26–42 as substitutes for Claims 1–14 and 16–18 in the event that any of Claims 1–14 and 16–18 are found unpatentable.” Mot. Amend 1. Because we have not found any of the challenged claims unpatentable, Patent Owner’s Contingent Motion to Amend is dismissed as moot.

#### CONCLUSION

For the foregoing reasons, we conclude that Petitioner has not demonstrated by a preponderance of the evidence the unpatentability of claims 1–14 and 16–18 of the ’037 patent. Specifically, Petitioner has not demonstrated by a preponderance of the evidence that (1) claims 1–8, 12–14, and 16–18 would have been obvious under 35 U.S.C. § 103(a) in view of Mäkelä and Moran and (2) that claims 7–11 would have been obvious under 35 U.S.C. § 103(a) in view of Mäkelä, Moran, and Tsampalis.

Additionally, Patent Owner’s Contingent Motion to Amend is dismissed as moot.

#### ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, that Petitioner has not shown by a preponderance of the evidence that claims 1–14 and 16–18 of the '037 patent are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend is *dismissed* as moot; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1-8, 12-14, 16-18	103(a)	Mäkelä, Moran		1-8, 12-14, 16-18
7–11	103(a)	Mäkelä, Moran, Tsampalis		7-11
<b>Overall Outcome</b>				1-14, 16-18

Motion to Amend Outcome	Claim(s)
Original Claims Cancelled by Amendment	
Substitute Claims Proposed in the Amendment	26–42
Substitute Claims: Motion to Amend Granted	
Substitute Claims: Motion to Amend Denied	
Substitute Claims: Not Reached	26–42

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**APPENDIX D**

NOTE: This order is nonprecedential.

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

\_\_\_\_\_  
2020-1561  
\_\_\_\_\_

APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

\_\_\_\_\_  
Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01279.  
\_\_\_\_\_

**ON PETITION FOR REHEARING EN BANC**

\_\_\_\_\_  
Before MOORE, *Chief Judge*, NEWMAN, LOURIE,  
DYK, PROST, REYNA, TARANTO, CHEN, HUGHES, and  
STOLL, *Circuit Judges*.\*

PER CURIAM.

**ORDER**

Apple Inc. filed a petition for rehearing en banc. A response to the petition was invited by the court and filed by Qualcomm Incorporated. The petition was first referred as a petition for rehearing to the panel that

\_\_\_\_\_  
\* Circuit Judge O'Malley did not participate.

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heard the appeal, and thereafter the petition for rehearing en banc was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue on July 27, 2021.

FOR THE COURT

July 20, 2021  
Date

/s/ Peter R. Marksteiner  
Peter R. Marksteiner  
Clerk of Court

**APPENDIX E**

NOTE: This order is nonprecedential.

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

\_\_\_\_\_  
2020-1642  
\_\_\_\_\_

APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

\_\_\_\_\_  
Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01252.  
\_\_\_\_\_

**ON PETITION FOR REHEARING EN BANC**

\_\_\_\_\_  
Before MOORE, *Chief Judge*, NEWMAN, LOURIE,  
DYK, PROST, REYNA, TARANTO, CHEN, HUGHES, and  
STOLL, *Circuit Judges*.\*

PER CURIAM.

**ORDER**

Apple Inc. filed a petition for rehearing en banc. A response to the petition was invited by the court and filed by Qualcomm Incorporated. The petition was first referred as a petition for rehearing to the panel that

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\* Circuit Judge O'Malley did not participate.

heard the appeal, and thereafter the petition for rehearing en banc was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue on July 27, 2021.

FOR THE COURT

July 20, 2021

Date

/s/ Peter R. Marksteiner

Peter R. Marksteiner

Clerk of Court

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**APPENDIX F**

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

\_\_\_\_\_  
2020-1561  
\_\_\_\_\_

APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

\_\_\_\_\_  
Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01279.

\_\_\_\_\_  
Filed April 7, 2021  
\_\_\_\_\_

**JUDGMENT**

THIS CAUSE having been considered, it is  
Ordered and Adjudged  
DISMISSED

ENTERED BY ORDER OF THE COURT

April 7, 2021

/s/ Peter R. Marksteiner  
Peter R. Marksteiner  
Clerk of Court



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**APPENDIX G**

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

\_\_\_\_\_  
2020-1642  
\_\_\_\_\_

APPLE INC.,  
*Appellant,*  
*v.*

QUALCOMM INCORPORATED,  
*Appellee.*

\_\_\_\_\_  
Appeal from the United States Patent and  
Trademark Office, Patent Trial and Appeal Board  
in No. IPR2018-01252.

\_\_\_\_\_  
Filed April 7, 2021  
\_\_\_\_\_

**JUDGMENT**

THIS CAUSE having been considered, it is  
Ordered and Adjudged  
DISMISSED

ENTERED BY ORDER OF THE COURT

April 7, 2021

/s/ Peter R. Marksteiner  
Peter R. Marksteiner  
Clerk of Court





**APPENDIX H****RELEVANT CONSTITUTIONAL  
AND STATUTORY PROVISIONS****U.S. Const. art. III**

SECTION 1. The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office.

SECTION 2. The Judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of admiralty and maritime Jurisdiction; to Controversies to which the United States shall be a Party;—to Controversies between two or more States; between a State and Citizens of another State; between Citizens of different States,—between Citizens of the same State claiming Land under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both

as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

SECTION 3. Treason against the United States, shall consist only in levying War against them, or in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

The Congress shall have Power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person Attainted.

**28 U.S.C. § 1295(a)(1), (4)**

**§1295. Jurisdiction of the United States Court of Appeals for the Federal Circuit**

(a) The United States Court of Appeals for the Federal Circuit shall have exclusive jurisdiction—

(1) of an appeal from a final decision of a district court of the United States, the District Court of Guam, the District Court of the Virgin Islands, or the District Court of the Northern Mariana Islands, in any civil action arising under, or in any civil action in which a party has asserted a compulsory counterclaim arising under, any Act of Congress relating to patents or plant variety protection;

\* \* \*

(4) of an appeal from a decision of—

(A) the Patent Trial and Appeal Board of the United States Patent and Trademark Office with respect to a patent application, derivation proceeding, reexamination, post-grant review, or inter partes review under title 35, at the instance of a party who exercised that party's right to participate in the applicable proceeding before or appeal to the Board, except that an applicant or a party to a derivation proceeding may also have remedy by civil action pursuant to section 145 or 146 of title 35; an appeal under this subparagraph of a decision of the Board with respect to an application or derivation proceeding shall waive the right of such applicant or party to proceed under section 145 or 146 of title 35;

(B) the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office or the Trademark Trial and Appeal Board with respect to applications for registration of marks and other proceedings as provided in section 21 of the Trademark Act of 1946 (15 U.S.C. 1071); or

(C) a district court to which a case was directed pursuant to section 145, 146, or 154(b) of title 35;

\* \* \*

**35 U.S.C. § 141****§141. Appeal to Court of Appeals for the Federal Circuit**

(a) EXAMINATIONS.—An applicant who is dissatisfied with the final decision in an appeal to the Patent Trial and Appeal Board under section 134(a) may appeal the Board's decision to the United States Court of Appeals for the Federal Circuit. By filing such an appeal, the applicant waives his or her right to proceed under section 145.

(b) REEXAMINATIONS.—A patent owner who is dissatisfied with the final decision in an appeal of a reexamination to the Patent Trial and Appeal Board under section 134(b) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit.

(c) POST-GRANT AND INTER PARTES REVIEWS.—A party to an inter partes review or a post-grant review who is dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) or 328(a) (as the case may be) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit.

(d) DERIVATION PROCEEDINGS.—A party to a derivation proceeding who is dissatisfied with the final decision of the Patent Trial and Appeal Board in the proceeding may appeal the decision to the United States Court of Appeals for the Federal Circuit, but such appeal shall be dismissed if any adverse party to such derivation proceeding, within 20 days after the appellant has filed notice of appeal in accordance with section 142, files notice with the Director that the party elects to have all further proceedings conducted as provided in

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section 146. If the appellant does not, within 30 days after the filing of such notice by the adverse party, file a civil action under section 146, the Board's decision shall govern the further proceedings in the case.

**35 U.S.C. § 315(e)**

**§315. Relation to other proceedings or actions**

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(e) ESTOPPEL.—

(1) PROCEEDINGS BEFORE THE OFFICE.—The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

(2) CIVIL ACTIONS AND OTHER PROCEEDINGS.—The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

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**35 U.S.C. § 319**

**§319. Appeal**

A party dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) may appeal the decision pursuant to sections 141 through 144. Any party to the inter partes review shall have the right to be a party to the appeal.