

Paper No. ____

Filed on behalf of Patent Owner by:
Gerald B. Hrycyszyn, Reg. No. 50,474
Richard F. Giunta, Reg. No. 36,149
Curtis R. Powell, Reg No. 73,995
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, MA 02210
(617) 646-8000 Phone
(617) 646-8646 Fax

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LENOVO (UNITED STATES) INC.,
Petitioner,

v.

LITL LLC,
Patent Owner.

IPR Case No. IPR2021-00822
U.S. Patent No. 8,624,844

PATENT OWNER'S PRELIMINARY RESPONSE

LiTL Exhibit 2011 HP Inc. v. LiTL IPR2024-00404

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37 C.F.R. § 42.6(a)(3)	22, 23
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37 C.F.R. § 42.65(a)	21
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LISTING OF EXHIBITS

Exhibit	Description
2001	[No Author Listed], The Litl webbook. European Consumers Choice. URL= https://www.europeanconsumerschoice.org/hi-tech/litl-webbook-computer-test-and-reviews/ [last accessed June 25, 2021]
2002	[No Author Listed], Litl Webbook Beats ChromeOS, Becomes First Cloud Computer. CoolThings. November 16, 2009. URL: https://www.coolthings.com/litl-webbook-beats-chromeos-becomes-first-cloud-computer/ [last accessed June 25, 2021]
2003	Noe, The Litl Webbook: A more social computing device. November 5, 2009. Corr77. URL: https://www.core77.com/posts/15122/The-Litl-Webbook-A-more-social-computing-device [last accessed June 25, 2021]
2004	Saxena, CES 2010: All New Litl Webbook Makes Its Debut Appearance. Elite Choice. URL: https://elitechoice.org/luxury/ces-2010-all-new-litl-webbook-makes-its-debut-appearance [last accessed June 25, 2021]
2005	McDonald, LiTL Webbook Review. Little Tech Girl. August 31, 2010. URL: https://littletechgirl.com/2010/08/31/litl-webbook-review/ [last accessed June 25, 2021]
2006	Strauss, Litl Webbook Re-Defines Computing. ABC News. December 14, 2009. URL: https://abcnews.go.com/Technology/GadgetGuide/litl-webbook-defines-computing/story?id=9311095 [last accessed June 25, 2021]
2007	Scinto, Introducing The Litl WebBook. The Gadgeteer. November 19, 2009. URL: https://the-gadgeteer.com/2009/11/19/introducing-the-litl-webbook/ [last accessed June 25, 2021]
2008	[No Author Listed], All-New Litl Webbook Debuts at 2010 CES. Cision. January 5, 2010. URL: https://www.prnewswire.com/news-releases/all-new-litl-webbook-debuts-at-2010-ces-80716797.html [last accessed June 25, 2021]
2009	U.S. Pat. No. 6,771,494
2010	U.S. Pat. No. 6,266,236

I. INTRODUCTION

Lenovo's Petition is fatally flawed both procedurally and substantively. Institution should be denied.

A. The Petition Is Procedurally Improper

The Petition's six Grounds purport to demonstrate how all limitations in each of twenty-one challenged claims are met by the prior art. For nearly half of the limitations addressed, the Petition's *entire explanation* is a conclusory statement—e.g., “Shimura discloses [18c1]” (Pet., 101)—supported by cross-reference(s) to elsewhere in the Petition. Many of the Petition's cross-referenced sections do nothing more than make a different conclusory statement supported by cross-reference(s) to yet other sections. The Petition's nested cross-references often require review of voluminous (e.g., 50+) pages of cross-referenced material to even attempt to determine how or why Petitioner alleges a single claim limitation is met by a single ground.

Institution should be denied because the Petition's “web of internal cross-references” “improperly shifts the burden of deciphering Petitioner's arguments onto Patent Owner and the Board” and results in the Petition failing to meet the requirements imposed by statute and the rules to establish with particularity how the prior art allegedly meets the challenged claims. *Apple Inc. v. Contentguard Holdings, Inc.*, IPR2015-00442, Paper 9, 7-10 (PTAB July 13, 2015)

(“*Contentguard*”) (citing *Cisco Systems Inc v. C-Cation Technologies*, IPR2014-00454, Paper 12, 10 (PTAB Aug. 29, 2014) (informative) (“*Cisco*”); 35 U.S.C. § 312(a)(3); 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4)-(5)).

Compounding the problem, the laborious process of tracing through the Petition’s cross-references often fails to lead to ***any place*** where the Petition maps the claim language to the prior art. Indeed, for some claim elements, the Petition refers back only to sections that never even discuss the claim language, let alone explain how or why the claim element is allegedly met by the prior art.

The Petition also facially fails for nearly half (i.e., claims 1-9) the Challenged Claims for another reason. The Petition refers to portions of claim language as “elements” identified ***only*** by labels purportedly explained in a “claim listing” (Ex. 1012). But for claim 1 there is a mismatch. The claim listing subdivides claim 1 into ***nine*** claim elements but the Petition references ***ten***, including claim element “[1b3]” which is not in the claim listing. Given this, the Petition facially fails to explain how and why Ground 1’s combination allegedly maps to all claim 1’s language. This alone results in the Petition being facially deficient for nearly half the Challenged Claims.

The Petition failed to meet the most fundamental requirements imposed by statute and the rules to state the grounds “with particularity” and demonstrate how every element of each challenged claim is met by the prior art.

B. The Petition's Grounds Fail on the Merits

The invention described and claimed in U.S. Patent 8,624,844 (“the ’844 Patent”) were groundbreaking in 2008. It earned substantial contemporaneous praise and has become industry standard that is ubiquitous today. It was anything but ubiquitous in the timeframe relevant to this proceeding.

Lenovo could not find a single prior art reference disclosing the combination of features in any challenged claim. All Grounds were based on alleged obviousness. Yet, Lenovo ignored substantial objective evidence of non-obviousness. None of Lenovo’s hindsight-driven combinations establishes obviousness of a single challenged claim. All six Grounds fail on the merits for at least two independent reasons.

First, none of the portable computers that result from the asserted prior art combinations is configurable into “frame mode” – a requirement of every challenged claim.

Second, all Grounds rely on (at least) an alleged “Shimura-Tsuji-Pogue Computer” a POSA never would have made. The “Shimura-Tsuji-Pogue Computer” takes buttons from Tsuji’s handheld PDA that are used to facilitate thumb typing, and adds them to the back of Shimura’s laptop with a full-sized ten-finger keyboard. The Petition establishes no reason a POSA would have done this. Additionally, the Petition never explains why a POSA would have combined

Pogue's Windows XP operating system with Shimura and Tsuji. Indeed, the Petition's evidence makes clear a POSA would ***not*** have combined Pogue with Shimura-Tsuji in the manner the Petition alleges.

II. LITL'S '844 PATENT

Before the LiTL Webbook, “home computers were essentially the same as office computers,” and home users “struggle[d] with complex interfaces designed in pre-web times.” Ex. 2001, 1. LiTL worked for years to develop its Webbook. LiTL recruited leading user experience design (“UXD”) experts and worked closely with some of the world’s leading technology and UXD consultancies. *Id.*, 1-2.

This design effort led to the filing of provisional application no. 61/041,365 on April 1, 2008, to which the '844 Patent claims priority. Ex. 1001, 1. The named inventors all worked for Fuseproject, one of the world’s leading design firms. Ex. 2001, 2.

The '844 Patent discloses and claims a portable computer configurable between a plurality of display modes (*e.g.*, “a closed mode, a laptop mode, an easel mode, a flat mode and a frame mode.”). Ex. 1001, 2:19-22. In some embodiments, a sensor detects the computer’s mode and adjusts the display accordingly. Pet., 11-12. In other embodiments, integrated navigation hardware allows a user to manipulate displayed content regardless of the mode. *Id.*, 12.

A. Challenged Claims

The Petition challenged claims 1-16 and 18-22 (“Challenged Claims”) of the ’844 Patent, including independent claims 1, 10 and 18.

B. The Challenged Claims Cover LiTL’s Webbook

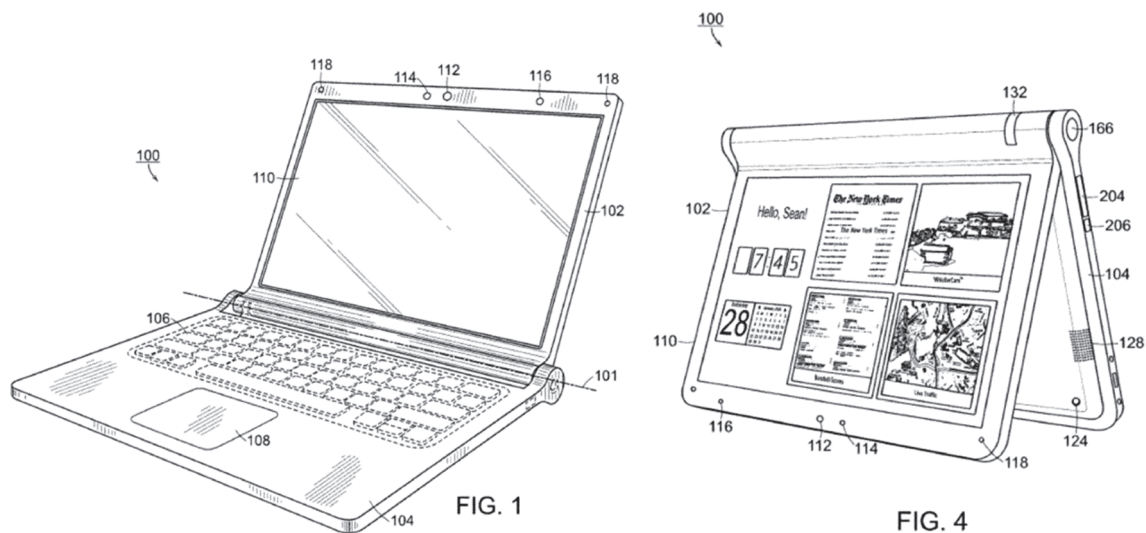
LiTL launched its Webbook in November 2009. Ex. 2002, 1 (“Litl Webbook Beats ChromeOS, Becomes First Cloud Computer”). The LiTL Webbook is nearly indistinguishable from the figures in the ’844 Patent:

LiTL Webbook



Ex. 2001, 1.

'844 Patent Figures 1 & 4



The Challenged Claims read on the LiTL Webbook. This is demonstrated below¹ using claim 1 as an example and adopting the Petition's claim limitation labels:

¹ Words in this image have been counted in certifying compliance with the word count limit.

[1pre]: A portable computer configurable between a plurality of display modes

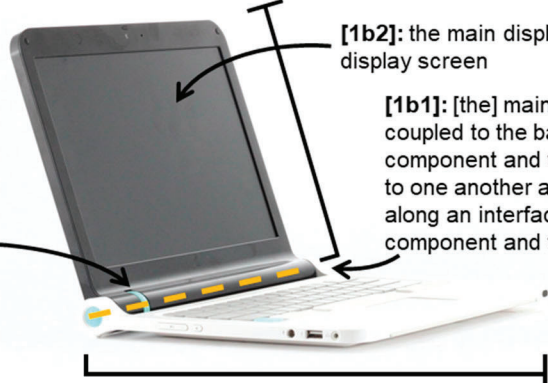
[1e1]: a navigation control disposed at least partially within the base and rotatable about the longitudinal axis, the navigation control configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the single display screen

[1b1]: a main display component

[1b2]: the main display component including the single display screen

[1b1]: [the] main display component [is] rotatably coupled to the base such that the main display component and the base are rotatable with respect to one another about a longitudinal axis running along an interface between the main display component and the base

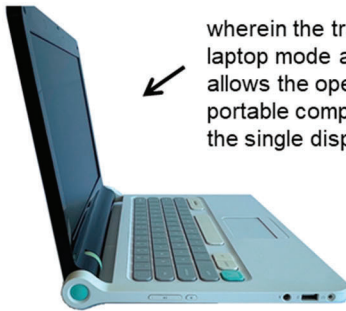
[1a]: a base including a keyboard



[1pre]: transitions between the plurality of display modes allows an operator to interact with a single display screen in each of the plurality of display modes

[1d2]: the portable computer is operable in the easel mode to enable the user to interact with displayed content without interacting with the keyboard

wherein the transition between the laptop mode and the easel mode allows the operator to operate the portable computer while viewing the single display screen



[1pre]: a laptop mode

[1pre]: an easel mode

[1e2]: a frame mode in which the main display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface

[1c]: with the main display component oriented towards the user and the keyboard oriented to receive input from the user

[1d1]: with the main display component oriented towards the user and the keyboard oriented away from the user

[1c]: the laptop mode is configured to display to a user on the main display component a first content mode having a first content display orientation

[1d1]: the easel mode is configured to display to the user on the main display component a second content mode having a second content display orientation

[1d1]: the first and second content display orientations are 180 degrees relative to each other



See e.g., Ex. 2003, 2; see also Ex. 1012 (claim listing).

C. Claimed Aspects of LiTL’s Webbook Received Contemporaneous Praise

Industry publications lavished praise on aspects of the LiTL Webbook claimed by the ’844 Patent, including integrated navigation controls and the ability to convert between notebook and easel modes. For example, an article covering the 2010 Consumer Electronics Show stated, “[t]he all new webbook boasts of a **highly innovative convertible design** that allows for the display to be flipped over and viewed as a standalone screen.” Ex. 2004, 1.² A November 2009 article stated, “[p]hysically, **it looks exciting**, toting a 12.1-inch display that can open past 180 degrees, allowing you to **prop it on a table like an overpowered LCD frame**.” Ex. 2002, 2. An August 2010 product review touted the LiTL Webbook’s “[p]atented hinge to convert to easel mode,” its “[b]uilt-in scroll wheel for easy navigation,” and its “[f]ull-sized keyboard.” Ex. 2005, 4. A December 2009 ABC News report titled “Litl Webbook Re-Defines Computing” highlighted “two interesting display options that set it apart from traditional laptops” including one in which the “screen flips around into **easel mode** allowing the full 12-inch screen to display ... anything ... while hiding the keyboard.” Ex. 2006, 2. Other 2009-2010 articles also recognized the innovative claimed features of the LiTL Webbook. Ex. 2001, 1; Ex. 2003, 1, 3; Ex. 2007, 1-2; Ex. 2008, 1.

² Emphasis is added unless noted otherwise.

III. THE PETITION FAILED TO IDENTIFY WITH PARTICULARITY HOW THE PRIOR ART IS ALLEGED TO MEET THE CHALLENGED CLAIMS

The Petition failed to meet the requirements for institution because it failed to point out “with particularity” how the prior art discloses the limitations of the Challenged Claims. 35 U.S.C. § 312(a)(3); *see also* 37 C.F.R. §§ 42.22(a)(2) (the petition “must include ... a detailed explanation of the significance of the evidence”) and 42.104(b)(5) (the petition “must” identify “specific portions of the evidence that support the challenge”).

A. The Petition’s Conclusory Analysis Improperly Relied on a Web of Nested Cross-References

For nearly half (23 of 53) the claim limitations the Petition addressed (identified in the table below), the Petition’s mapping of the limitation to the combination alleged to render the claim obvious is nothing more than a conclusory assertion that the limitation is met “supported” by a string of nested cross-reference to other sections of the Petition.

Ground	Petition <u>Only</u> Provided Cross-References
1	10 of 35 claim elements
	[10pre], [10a], [10b], [10c2], [10c3], [10d1], [10d2], [10e2], [14a], [14b]
2	0 of 1 claim elements
3	1 of 1 claim elements
	[2]
4	10 of 11 claim elements
	[18pre], [18a], [18b], [18c1], [18c2], [18d], [18e1], [18e2], [18f2], [22]
5	1 of 4 claim elements
	[21]
6	1 of 1 claim elements
	[20]

Limitation [18c1] is an example. Ground 4 begins with alleging reasons to combine Shimura, Tsuji, Pogue, and Lin to form the “Shimura-Tsuji-Pogue-Lin Computer.” Pet., 97-100 (§ VIII.E.1). Next, the Petition purportedly maps the Shimura-Tsuji-Pogue-Lin Computer to claim 18 limitation-by-limitation. *Id.*, 101-102 (§ VIII.E.2). For limitation [18c1] (*id.*, 101), instead of identifying with particularity how and why the Shimura-Tsuji-Pogue-Lin Computer allegedly meets it, the Petition’s only explanation is a single conclusory sentence stating: “Shimura discloses [18c1]. See VIII.A.1; VIII.B.3.c; VIII.B.10.d; EX-1010, ¶328.”

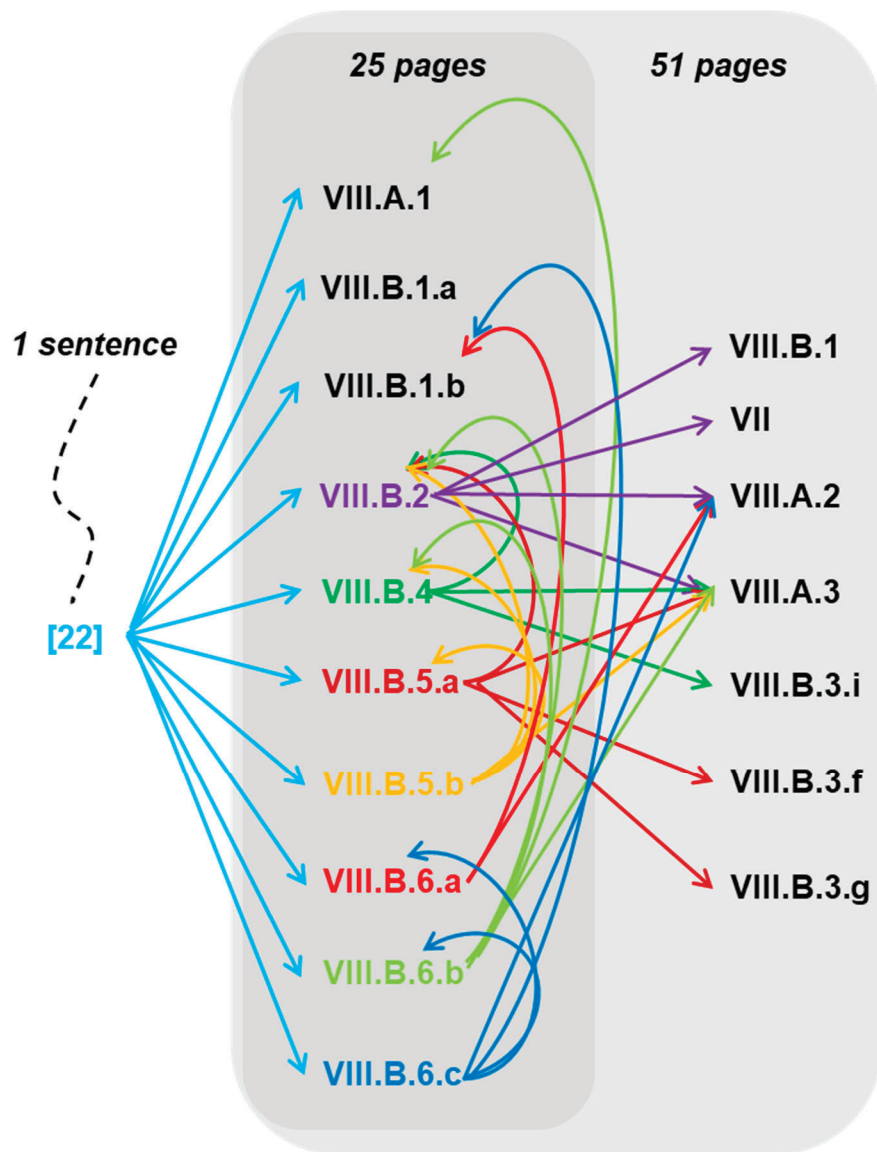
If any one of §§ VIII.A.1, VIII.B.3.c, VIII.B.10.d had mapped the language of [18c1] to the Shimura-Tsuji-Pogue-Lin Computer (or even to Shimura alone), a cross-reference to these sections may have been appropriate. But none of §§ VIII.A.1, VIII.B.3.c, VIII.B.10.d *even mention* the limitations of claim 18.

§ VIII.B.10.d further cross-references § VIII.B.3.a (Pet., 82), which in turn further cross-references § VIII.B.1.a. Pet., 57. Neither § VIII.B.1.a nor VIII.B.3.a helps Lenovo, because they also fail to map the language of [18c1] to Shimura or the Shimura-Tsuji-Pogue-Lin Computer.

Nowhere in the ten pages of §§ VIII.A.1, VIII.B.3.c, and VIII.B.10.d, or in the six pages of §§ VIII.B.1.a and VIII.B.3.a cross-referenced thereby, is the language of [18c1] ever mapped to Shimura or the Shimura-Tsuji-Pogue-Lin Computer. Thus, the Petition's single conclusory sentence for limitation [18c1] spawns a search through sixteen pages of the Petition to understand how or why Lenovo alleged the Shimura-Tsuji-Pogue-Lin Computer meets limitation [18c1], and that search yielded no such explanation.

Limitation [22] is another example. The Petition made the conclusory assertion that “[t]he Shimura-Tsuji-Pogue combination discloses the additional limitation of this claim [22], and the Shimura-Tsuji-Pogue-Lin combination renders the claim obvious.” Pet., 103. *No analysis* supports this conclusory assertion. Instead, the Petition relied entirely on a string-cite of no fewer than *ten* cross-references. *Id.* (citing “VIII.A.1; VIII.B.1.a-VIII.B.1.b; VIII.B.2; VIII.B.4-VIII.B.5.b; VIII.B.6.a-VIII.B.6.c”). The ten cross-referenced sections—totaling twenty-five pages—in turn cross-reference sixteen sections (including nine circular references) as illustrated below.³

³ Words in this image were counted in certifying compliance with the word count limit.



Following the web of nested cross-references requires reviewing *fifty-one pages of the Petition*—all to support the Petition’s conclusory assertion that limitation [22] is met.

Lenovo's expert Declaration largely parroted the Petition and thus also repeatedly made a conclusory statement that the prior art meets a particular claim limitation "supported" only by cross-reference(s) to elsewhere in the Declaration. For example, the Declaration's allegation in ¶ 337 that the Shimura-Tsuji-Pogue-Lin Computer meets limitation [22] is verbatim the same as in the Petition, except the cross-references are within the Declaration rather than within the Petition:

The Shimura-Tsuji-Pogue combination discloses the additional limitation of this claim, and the Shimura-Tsuji-Pogue-Lin combination renders the claim obvious. See ~~VIII.A.1; VIII.B.1.a-VIII.B.1.b; VIII.B.2; VIII.B.4-VIII.B.5.b; VIII.B.6.a-VIII.B.6.e; EX-1010, ¶337 VI.C; VII.B.1 VII.A; VIII.A.1.a; VIII.A.1.b; VIII.A.2; Claim 3; [4a]; [4b]; [5a]; [5b]; [5c].~~

The Declaration cited no evidence to support the assertion that [22] is met, and instead cross-referenced other paragraphs and "analysis" collectively spanning twenty-nine pages. But it did not stop there. The directly cross-referenced Declaration paragraphs in turn cross-reference thirteen Declaration passages (including circular cross-references). All told, to support the single conclusory statement in ¶ 337, the Declaration cross-referenced or cited fifty-four pages of the Declaration.

B. The Web of Nested Cross-References Improperly Shifts the Burden of Deciphering Petitioner’s Arguments onto Patent Owner and the Board

The Petition “may be considered *only* if” it “identifies, in writing and *with particularity*, each claim challenged, the grounds ... and *the evidence that supports the grounds* for the challenge to each claim[.]” 35 U.S.C. § 312(a)(3).

“The petition *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). The Petition “*must* include ... *a detailed explanation of the significance of the evidence*[.]” 37 C.F.R. § 42.22(a)(2).

Institution should be denied because the Petition failed to comply with these fundamental requirements.

The Board consistently denies institution where the petition and/or its supporting declaration forces the patent owner and the Board to hunt through the record to attempt to decipher a petitioner’s arguments and the evidence alleged to support them. *See Apple Inc. v. ZiiLabs Inc., Ltd.*, IPR2015-00963, Paper 8, 20-21 (PTAB Oct. 1, 2015) (denying institution where an expert declaration had “numerous nested string citations to other portions of his Declaration” that “effectively obscure the evidence”); *Glaxosmithkline Consumer Healthcare Holdings LLC v. Cipla Ltd.*, IPR2020-00369, Paper 7, 13 (PTAB July 31, 2020) (denying institution where petition cites “about 60 paragraphs of [the expert’s]

declaration to support its contentions,” forcing the Board to “play archeologist with the record.”).

The Petition’s approach of making a conclusory statement followed by a web of nested cross-references has been *specifically* rejected by the Board because it improperly forces the patent owner and the Board “to play archeologist with the record.” *Contentguard*, 9-10 (citing *Cisco*, 10). The petition in *Contentguard* had the same structure as Lenovo’s Petition—it began with a general description of the prior art (like §§ VIII.A.1-7 of the Petition), described generally a resulting combination (like §§ VIII.B, VIII.C.1, VIII.D.1, VIII.E.1, VIII.F.1, and VIII.G.1 of the Petition), and then purportedly mapped the combination to the challenged claims. *Contentguard*, 6. The mapping “relie[d] on all the previous summaries and descriptions.... [t]he result of all these layers of analysis [being] that the final unpatentability analysis is two or three levels removed from the actual disclosure of the references.” *Id.* at 6-7. The Board denied institution because the “web of internal cross-references” “improperly shifts the burden of deciphering Petitioner’s arguments onto Patent Owner and the Board.” *Id.* at 7, 9.

Again, the Petition relied on a conclusory assertion that the prior art meets a claim limitation “supported” by a web of nested cross-references for nearly half (23 of 53) the limitations the Petition addressed. Even if the Board believes it is possible for every one of these 23 limitations, through significant effort, to

decipher Petitioner’s arguments and the specific evidence alleged to support them (it is not), institution should be denied because Congress and the Board have made it clear that Lenovo cannot subject the Board and the Patent Owner to that burden. *Contentguard*, 9-10; 35 U.S.C. § 312(a)(3); 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4).

C. The Petition Fails to Map the Language of the Challenged Claims to Its Prior Art Combinations

To establish obviousness of a Challenged Claim based on a prior art combination, the Petition needed to identify how and why the asserted prior art combination meets every element in the challenged claim. *KSR International Company v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *Graham v. John Deere Company of Kansas City*, 383 U.S. 1, 17-18 (1966); accord 35 U.S.C. § 312(a)(3); 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4).

The Petition’s “mapping” of its prior art combinations to the claim language is often nothing more than a conclusory assertion that relies on (1) a claim listing label to identify the relevant claim language and (2) a web of nested cross-references to purportedly demonstrate how the prior art meets that claim language. But as detailed below, the Petition relies on claim element labels that do not exist in the claim listing. Given this error, the Petition facially fails to explain how or why certain claim language is allegedly met by the prior art combinations.

1. A Mismatch Between Claim Element Labels in the Petition and Claim Listing Results in the Petition Failing to Align Its Prior Art Allegations with Claims 1-9

Rather than specifically recite and apply relevant claim language to its prior art combinations, the Petition refers throughout to portions of claim language identified *only* by a label purportedly explained in a “claim listing” (Ex. 1012) that associates various labels with claim language groupings Petitioner calls “claim elements” or “limitations.” Pet., 16 (“*EX-1012 is a claim listing that enumerates each claim element.*”). Petitioner’s mapping of the claims to its obviousness combinations primarily refers to these labels. That is, the Petition asserts “[t]he Shimura-Tsuji combination discloses [1pre] and renders it obvious” (*id.*, 57), “Shimura discloses [1a]” (*id.*, 59), and so on.

For one of the three challenged independent claims (claim 1), the Petition invokes limitation [1b3] (*id.*, 62), a “claim element” nowhere in the claim listing. *cf.* Ex. 1012 (claim listing). Thus, the Petition suggests claim 1 is sub-divided into *ten* claim elements, but the claim listing subdivides claim 1 differently into *nine* claim elements. The Petition *never identifies* the language of [1b3], and as a result, it is entirely unclear what claim language the Petition’s “analysis” at page 62 concerning “[1b3]” intends to invoke.

The Petition's heavy reliance on a web of nested cross-references is reason enough to deny institution because it improperly shifts the burden onto the Board and Patent Owner to decipher Petitioner's arguments as discussed in § III.B above. When coupled with the Petition's failure to even identify in its claim listing the claim language corresponding to [1b3], the Petition is manifestly deficient in its showing for nearly half of the Challenged Claims (*i.e.*, for claim 1-9).

2. The Board Should Reject the Petition's Invitation to Launch an Archaeological Expedition Simply to Ascertain How Petitioner Alleges the Claims Are Mapped to Its Prior Art Combinations

The above flaws render the Petition improper under 35 U.S.C. § 312 and the Board's rules (37 C.F.R. §§ 42.22(a)(2), 42.104(b)(4)). It was Petitioner's obligation to provide "concise, well organized, easy-to-follow arguments." *ZiiLabs*, IPR2015-00963, Paper 8 at 4 (citing *Cisco*, 11) (quoting 77 Fed. Reg. at 48,763 (Aug. 14, 2012)). The Petition failed to meet that obligation. Neither Patent Owner nor the Board should have to hunt through the Petition to ascertain how Petitioner alleges the claim language maps to its obviousness combinations, nor should Patent Owner or the Board be required to guess what Petitioner intended to argue. The Board should reject the Petition because its failure to map all the language of challenged claims to the prior art combinations, coupled with its web of internal cross-references, "improperly shifts the burden of deciphering Petitioner's arguments onto Patent Owner and the Board." *Contentguard*, 7.

IV. LENOVO’S EXPERT TESTIMONY CANNOT SAVE THE PETITION

A. The Testimony Merely Parrots the Petition

As detailed below, in numerous circumstances where the Petition is deficient, Lenovo’s expert Declaration (Ex. 1010) did nothing more than parrot the Petition and thus has the same shortcomings. Indeed, the Petition only cites to ¶¶ 26, 54, 90, 100, 134-135, and 161-355 of Mr. Ward’s Declaration. These paragraphs are essentially word-for-word identical to the Petition.

Given that Mr. Ward’s “analysis” did little more than parrot the Petition, his testimony should be given no weight. *See e.g. Tesla, Inc. v. Nikola Corporation*, IPR2019-01646, Paper 7, 19 (PTAB Mar. 27, 2020) (denying institution, holding “Mr. Baker’s testimony simply repeats the conclusions articulated in the Petition” which “is entitled to little or no weight.”) (quoting 37 C.F.R. § 42.65(a)); *One World Technologies, Inc. d/b/a Techtronic Industries Power Equipment v. Chervon (HK) Ltd.*, IPR2020-00885, Paper 21, 29 (PTAB Nov. 6, 2020) (similar); *Fitbit Inc. v. Koninklijke Philips N.V.*, IPR2020-00774, Paper 13, 25 (PTAB Oct. 16, 2020) (similar); *Micro-Tech (Nanjing) Company, Ltd. and Micro-Tech Endoscopy USA, Inc. v. Boston Scientific Scimed, Inc.*, IPR2020-00185, Paper 11, 19-20 (PTAB May 4, 2020) (similar); *Initiative for Medicines, Access & Knowledge (I-Mak), Inc. v. Gilead Pharmasset LLC*, IPR2018-00122, Paper 10, 21 (PTAB May 21, 2018) (similar).

B. The Declaration Cannot Be Incorporated by Reference into the Petition

The Declaration includes significant testimony – and cites additional evidence – nowhere cited in the Petition; other than ¶¶ 90 and 100, Mr. Ward’s description of the “State of the Art” (¶¶ 58-125) – which is 6216 words long and discusses six exhibits nowhere cited in the Petition – was not cited anywhere in the Petition. The Petition also repeatedly block-cites a large number of paragraphs from the Declaration. *See e.g.*, Pet., 40 (citing “EX-1010, ¶¶161-78”), 50 (citing “EX-1010, ¶¶161-78”), 56 (citing “EX-1010, ¶¶179-97”), 65 (citing “EX-1010, ¶¶219-31”), 70 (citing “EX-1010, ¶¶198-235”), 88 (citing “EX-1010, ¶¶269-89”).

That is improper because the *Petition* must identify the evidence needed to support the requested relief and must provide a detailed explanation of how the cited evidence supports that relief. 35 U.S.C. § 312(a)(3); 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(5); *Cisco*, 10 (“It is improper to incorporate by reference arguments from one document into another document. 37 C.F.R. § 42.6(a)(3).... [W]e will not consider arguments that are not made in the Petition, but are instead incorporated by reference to the cited paragraphs... of [the] Declaration.”).

C. Exhibits Cannot Be Incorporated by Reference into the Petition

The Petition repeatedly cites exhibits without pin-citing any portion thereof. *See e.g.*, Pet., 42 (citing “EX-1004; EX-1005; ... EX-1017; EX-1036; EX-1037; EX-1038; EX-1039”); *id.*, 48 (citing “EX-1005; ... EX-1018; EX-1020; EX-1024” and “EX-1004; EX-1005; ... EX-1014; EX-1018; EX-1020; EX-1022; EX-1024; EX-1026; EX-1027; EX-1028; EX-1029; EX-1030”); *id.*, 51 (citing “EX-1016; EX-1017; EX-1018; EX-1031; EX-1032; EX-1033; EX-1034; EX-1035” and “EX-1016; EX-1017; EX-1018”). Cumulatively, these exhibits include over **340+ pages**. **Nineteen** of those exhibits **are never** cited in the Petition with a pin cite (Exs. 1017-1018, 1020, 1022, 1024, 1026-1039). This is improper. *See SNF S.A. v. Solenis Tech., L.P.*, IPR2020-01730, Paper 10, 18-19, n.13 (PTAB Sep. 30, 2020) (failure to provide pin cites for even **two** exhibits “violates 35 U.S.C. § 322, which requires that a petition identify ‘in writing, and with particularity, ... the evidence that supports the grounds for the challenge to each claim.’”).

V. THE PETITION IMPROPERLY MOVED ARGUMENT TO AN EXHIBIT

Lenovo moved an entire section of the Petition (§ VIII.A.7) “depicting different modified Portable Computers of Shimura used in the Grounds” to an exhibit. Pet., 39. Ex. 1013 is not evidence; it is **165 words of argument** explaining the combinations used in the Grounds. This argument cannot be incorporated by

reference into the Petition (37 C.F.R. § 42.6(a)(3)) – it needed to be in the Petition itself. The Board should not consider it.

VI. THE PETITION FAILED TO DEMONSTRATE UNPATENTABILITY OF ANY CHALLENGED CLAIM

A. Ground 1 Fails for Claims 1, 3-5, and 7-9

Ground 1’s allegation that claims 1, 3-5, and 7-9 are rendered obvious by Shimura, Tsuji and Pogue fails for four independent reasons.

1. Independent Reason 1: Lenovo Failed to Establish that the Cited Prior Art Discloses a Frame Mode

Claims 1, 3-5, and 7-9 require a portable computer configurable between a plurality of display modes including a “*frame mode* in which the main display component is oriented *towards the operator*, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface.”⁴ Ex. 1001, 17:47-51. Lenovo alleged Shimura discloses a frame mode, but Lenovo is wrong—the Shimura disclosure alleged to show a frame mode instead shows a tablet mode.

⁴ Claim 1 issued with an error in the recitation of “frame mode.” Specifically, issued claim 1 recited “frame” instead of “frame mode.” This error was corrected in the Certificate of Correction of April 1, 2014.

a. Frame Mode

The '844 Patent explains the “frame mode” is “illustrated in FIG. 26.”

Ex. 1001, 16:1-3. As shown in Figure 26, the frame mode is characterized by (i) the keyboard is face-down on a surface, (ii) the screen faces up, and (iii) the base and display components form a non-zero angle 134 like easel mode’s inverted “V.”

Id., 16:1-13.

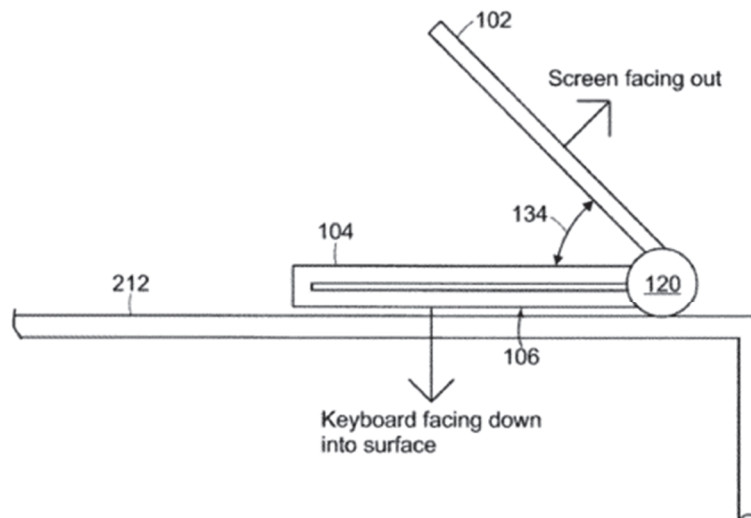
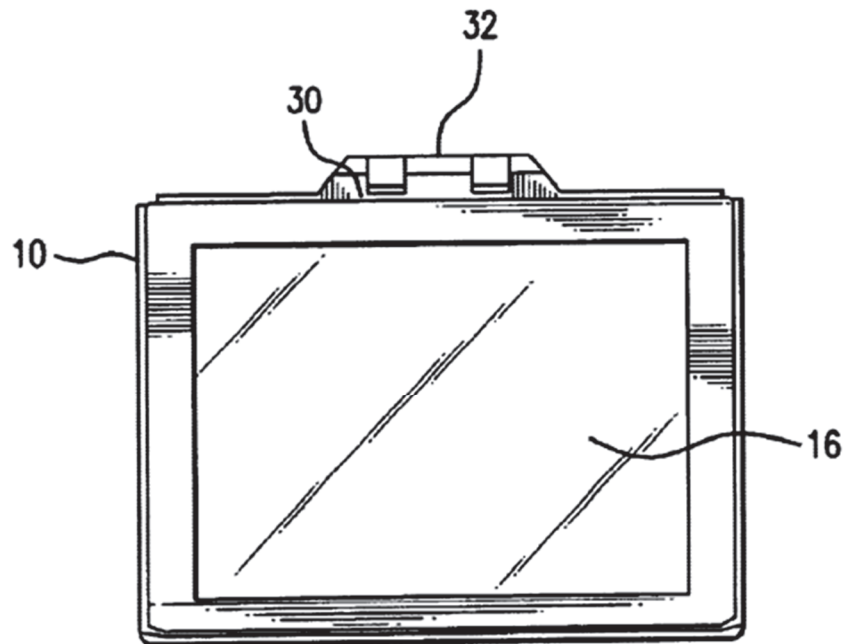
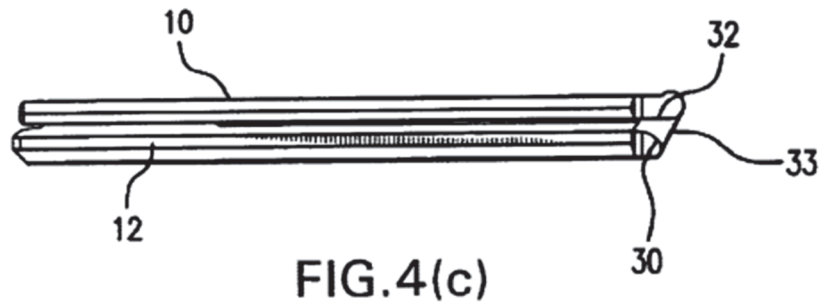


FIG. 26

b. Tablet Mode

The '844 Patent acknowledged “tablet mode” was a known mode where the “display ... [is] rotated and *folded against* the base.” *Id.*, 1:32-55 (citing U.S. Patents Nos. 6,771,494 (“the '494 Patent”) (Ex. 2009) and 6,266,236 (“the '236 Patent”) (Ex. 2010)).

In the '494 Patent's tablet mode, the display is folded *against* the base "in a similar manner to a tablet of paper," as shown in Figs 4(c) and 5 below. Ex. 2009, 1:31-34, 3:1-6. "In the tablet configuration, the display unit 10 is tilted **360 degrees** relative to the bottom disclosure 12 from its original starting position in the closed configuration." *Id.*, 7:54-65.



In the '236 Patent's "tablet mode" the display and base are back-to-back, as shown in Figure 2. Ex. 2010, 3:1-3.

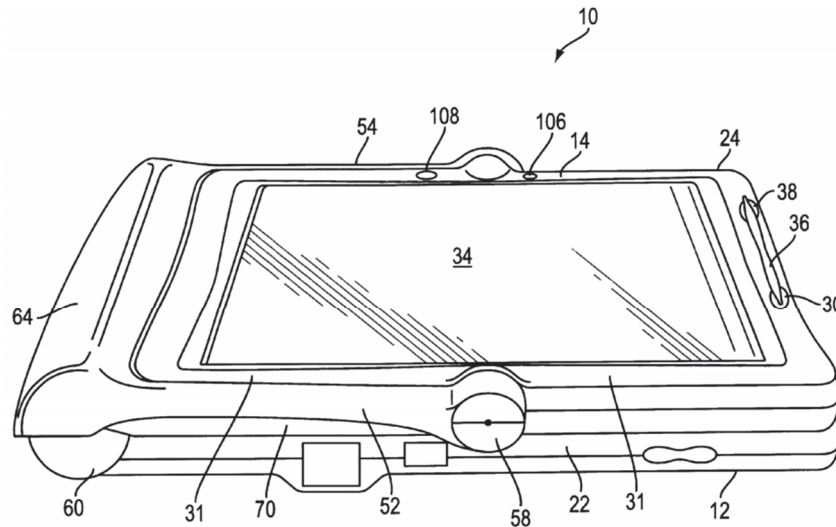


Figure 2

Because they are cited in the '844 Patent, the '494 and '236 patents are *intrinsic* evidence that inform how the claims should be construed. *Phillips v. AWH Corporation*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) ("the 'intrinsic evidence,' ... includes the prior art cited....").

The intrinsic evidence is clear that "tablet mode" – where the display component is flush against the base—is different than the "frame mode" illustrated in FIG. 26 where the keyboard faces down *and* a non-zero angle is formed between the display component and the base, "form[ing] an inverted 'V'" like in easel mode. Ex. 1001, 16:5-13.

**c. Lenovo Mischaracterized Shimura's Tablet Mode as
a Frame Mode**

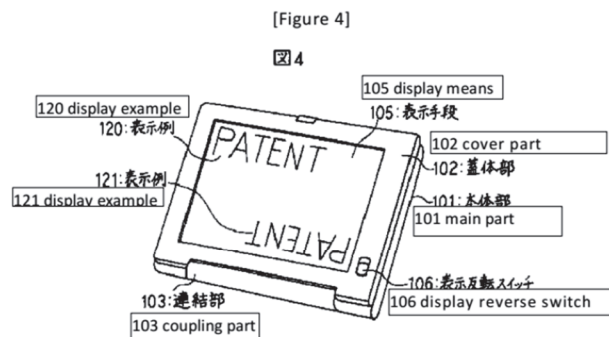
Tsuji and Pogue do not disclose a frame mode and the Petition never alleged either reference does. Instead, the Petition alleged “Shimura’s Figure 4 discloses the claimed ‘frame mode’ of the ’844 Patent (FIG. 26)” and “Shimura’s Figure 5 discloses the claimed ‘easel mode’ of the ’844 Patent (FIG. 4).” Pet., 57.

Shimura never says its computer has a “frame mode” and never shows a computer configured as in Fig. 26 of the ’844 Patent. Despite that, Lenovo assigned the frame mode limitation identifier [1e2] and argued Shimura discloses the claimed frame mode. Pet., 70 (“Shimura discloses [1e2]”). The portions of Shimura cited in the Petition’s section alleging [1e2] is met are paragraphs 11, 14, and Figure 4. *Id.* Paragraphs 11 and 14 make no mention of a frame mode, and Fig. 4 shows a tablet mode, not a frame mode.

Lenovo’s cross-reference to § VIII.A.1 fares no better. There Lenovo cites to paragraphs 16-18 and Fig. 4 of Shimura as allegedly disclosing a frame mode. Pet. 22-23. Again, this figure and these paragraphs of Shimura address a tablet mode, not a frame mode.

Lenovo mischaracterized the '844 Patent as disclosing that the keyboard facing down and the display up are determinative of the computer being in frame mode. Pet., 22, n. 1. That is necessary but **not** sufficient. The specification states frame mode is “illustrated in Fig. 26” which shows a configuration having a non-zero “inverted ‘V’” angle between the base and display. Ex. 1001, 16:5-13. The portions of Shimura cited in the Petition show a tablet mode—which the intrinsic evidence makes clear is **not** a frame mode.

Shimura Fig. 4 (Tablet Mode)



'844 Patent (Frame Mode)

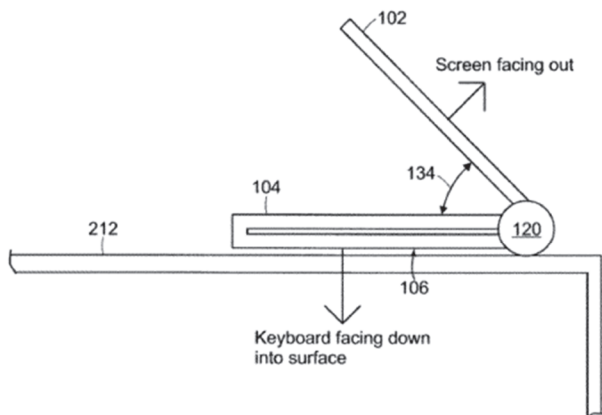


FIG. 26

The Petition alleges Shimura’s computer could be configured “to any angle between 0° to 360°, such as 340°,” but never alleges Shimura shows the computer configured as in Fig. 26 of the '844 Patent. Pet., 22, n. 1. Shimura includes no such disclosure.

In its mapping of [1e2] (Pet., 70), Lenovo further cites to §§ VIII.B.1.c, VIII.B.2, and VIII.B.3.a of the Petition. In § VIII.B.1.c, Lenovo *assumed* Shimura discloses a frame mode and alleged that would have led a POSA to add certain sensors to the combination to distinguish between frame and easel modes. In § VIII.B.2, Lenovo alleges reasons for combining Shimura with Tsuji and Pogue. In § VIII.B.3.a, Lenovo addresses [1pre]. Nothing in these cross-referenced sections identifies any disclosure in Shimura of a frame mode.

Lenovo never alleges Shimura shows a computer configured as in Fig. 26 of the '844 Patent. Shimura includes no such disclosure. The Petition failed to establish that Shimura discloses claim 1's frame mode.

d. The Petition's Obviousness Arguments Fail Because They Are Based on Shimura's Teaching of Tablet Mode

Lenovo alleged a POSA would have incorporated a gravity sensor in the Shimura-Tsuji Computer to distinguish between easel and *frame modes*. Pet., 44 (“[E]ven when the easel and frame modes have the same rotation angle such that the output of the rotation angle sensor 202 would be the same, the output of the gravity sensor 203 would be different in those two modes and this difference can be used to distinguish between them.”). Indeed, the “[e]xemplary logic” Lenovo

constructed⁵ and illustrated in Table 1 alleged the gravity sensor is “[n]ot used” for any reason other than to differentiate between easel and *frame modes*. *Id.*, 46-47.

To establish obviousness, Lenovo needed to establish a supportable non-hindsight reason why a POSA would have modified Shimura’s computer to incorporate a gravity sensor. *KSR*, 550 U.S. at 421 (“warning against ... slipping into use of hindsight”). Given that Shimura does not disclose a frame mode (*see* § VI.A.1.c), the “reason” Lenovo offered for modifying Shimura to include a gravity sensor – to distinguish between easel and *frame modes* (Pet., 45) – is entirely unsupported.

Lenovo’s assertion that a POSA would have added a gravity sensor to Shimura to differentiate between its easel mode and *a frame mode – that Shimura nowhere describes* – is based on nothing but Lenovo’s improper hindsight attempt to reconstruct the Challenged Claims. Ground 1 fails for claims 1, 3-5, and 7-9 for this additional reason.

⁵ This “logic” is not found in Shimura, Tsuji or any other prior art reference.

Lenovo fabricated it out of whole cloth in an improper attempt to reconstruct the claims in hindsight.

e. Lenovo Failed to Establish that the Alleged Shimura-Tsuji Computer's Hinge Supports Frame Mode

Lenovo's hindsight-driven analysis with respect to the frame mode is further evidenced by the Petition's failure to provide any evidence that the hinge assembly in the Shimura-Tsuji Computer is capable of supporting the display component in that configuration.

In easel mode (Fig. 4 below), the display and base components are both supported by a surface (*e.g.*, a table). Conversely, in frame mode (Fig. 26 below), the hinge must support the display to prevent it from collapsing into tablet mode. A hinge designed to support easel mode is not necessarily designed to support frame mode (*e.g.*, a simple door hinge would support a configuration like easel mode but would collapse and be unable to support a configuration like frame mode).

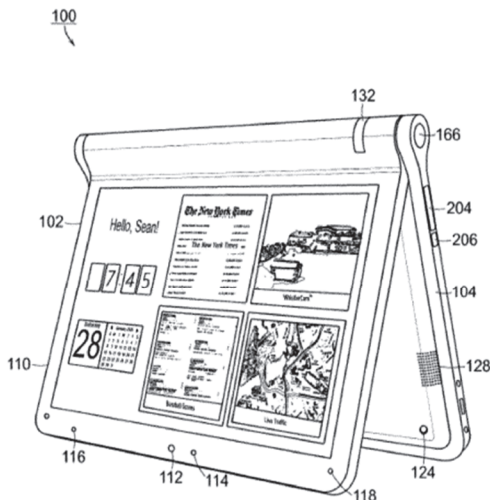


FIG. 4

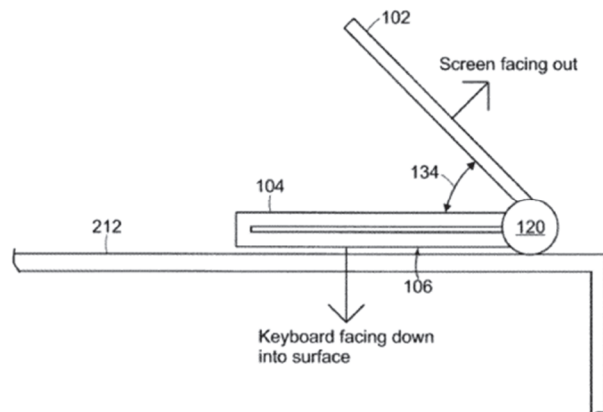
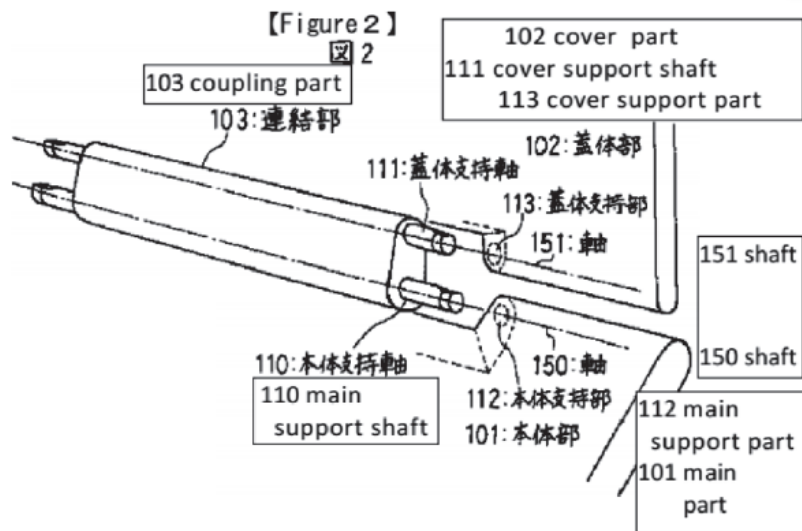


FIG. 26

Given that neither Shimura nor Tsuji discloses a frame mode, neither discloses that its hinge assembly supports frame mode. Lenovo alleged the Shimura-Tsuji Computer has the hinge of Shimura. Pet., 44. Lenovo relied primarily on the hinge (“coupling part (103)”) in Figure 2 (below). Pet., 19-20. Lenovo failed to establish that this hinge could support the display component in frame mode.



To support its assertion that a POSA would have been motivated to add a sensor to Shimura to support placing Shimura’s computer in frame mode, Lenovo needed to establish that the computer’s hinge assembly was physically capable of configuring the computer in frame mode, and the Petition failed to make any such showing.

2. Independent Reason 2: Lenovo Failed to Show that a POSA Would Have Formed the Alleged Shimura-Tsuji Computer Relied upon in Every Ground

Every Ground relies on a combination of references including at least Shimura, Tsuji and Pogue. The Petition builds its combinations progressively. In § VIII.B.1, the Petition first alleges a POSA would have combined specific features of Shimura and Tsuji to form a “resulting system ... referred to as the ‘Shimura-Tsuji Computer.’” Pet., 48-49. Next, in § VIII.B.2 the Petition alleges a POSA would have combined Tsuji with Shimura as described in “VIII.B.1” and would have combined that computer with Pogue to form the “Shimura-Tsuji-Pogue Computer” that is the basis of Ground 1. Pet., 50-53. The combinations in the other Grounds are built the same way. For example, Ground 4 (Petitioner’s only ground other than Ground 1 challenging an independent claim) alleges obviousness over Shimura, Tsuji, Pogue, and Lin because “a POSITA would have been motivated to incorporate Lin's standard rotary knob *into the Shimura-Tsuji-Pogue Computer* to arrive at the ‘Shimura-Tsuji-Pogue-Lin Computer’.”). Pet., 99.

All Grounds fail because they all rely on a combination including the features in the Shimura-Tsuji Computer, and the Petition failed to establish that a POSA would have actually had a reason to make this “Shimura-Tsuji Computer.” Pet., 50. For example, the Shimura-Tsuji Computer has “R and L buttons, as in Tsuji” (hereafter “Tsuji Buttons”) “integrat[ed] into the Shimura Computer” “so a

user could interact with the portable computer in multiple display modes” (Pet., 50) but the Petition failed to identify a non-hindsight reason to make this Shimura-Tsuji Computer by integrating the Tsuji Buttons into Shimura. None of the Grounds is mapped to a valid prior art combination a POSA would have had a reason to make, so all Grounds fail.

a. Tsuji’s Push Buttons Support Thumb Typing on a Handheld Device

Tsuji describes a handheld portable computer that can convert between a personal data assistant (PDA) tablet mode and a “laptop” mode. Ex. 1005, ¶¶ 34 (“PC style”), 50 (“PDA style”). Tsuji’s handheld portable computer includes physical push-button “key switches 118 and 119” that are “arranged on the back of the computer main body 11.” Ex. 1005, ¶ 38; *see also* Ex. 1005, Fig. 4. Tsuji calls switch 119 “left” and switch 118 “right.” Ex. 1005, ¶ 38.

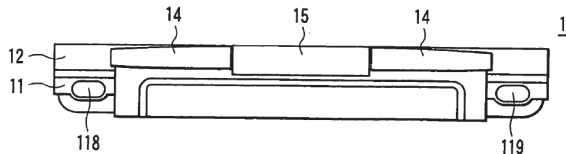


FIG. 4

Tsuji Fig. 4.

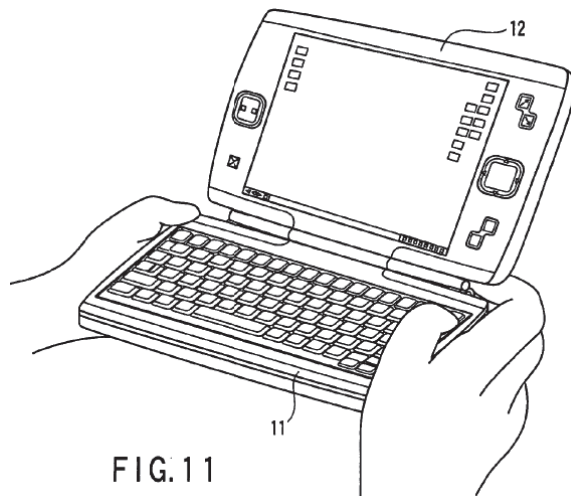


FIG. 11

Tsuji Fig. 11.

Tsuji describes the side-mounted buttons as being useful to help the user operate the keyboard when the user holds the device in their hands (Fig. 11) and has to operate the keyboard with thumbs. Ex. 1005, ¶ 40 (describing the PC style in Tsuji Fig. 11, where “the user *has to operate the keyboard 111 chiefly with thumbs*. In the PC style, therefore, it is desirable to use both the R and L button switches 118 and 119 as key switches for *assisting a user in operating the keyboard 111.*”); id. ¶ 41 (“The R and L button switches 118 and 119 are provided on the back of the computer main body 11 as described above. A user can thus *operate the keyboard 111 with thumbs* while supporting the computer 1 with both hands as shown in FIG. 11 and simultaneously operate the R button switch 118 with, e.g., the right forefinger or the L button switch 119 with, e.g., the left forefinger.”).

R/L push buttons 118 and 119 are on the back of Tsuji’s handheld device (Tsuji, Fig. 4) so that they can be operated with the user’s forefingers while the user holds the device in both hands and operates the keyboard with thumbs.

b. The Petition Fails to Establish that a POSA Would Have Put Tsuji’s Buttons on Shimura’s Laptop

The Petition offers several “reasons” why a POSA allegedly would have integrated Tsuji’s push buttons into Shimura’s full-size laptop. None is supportable.

i. Lenovo’s Assertion that Shimura and Tsuji Are in the Same Field Is Factually Wrong and Legally Irrelevant

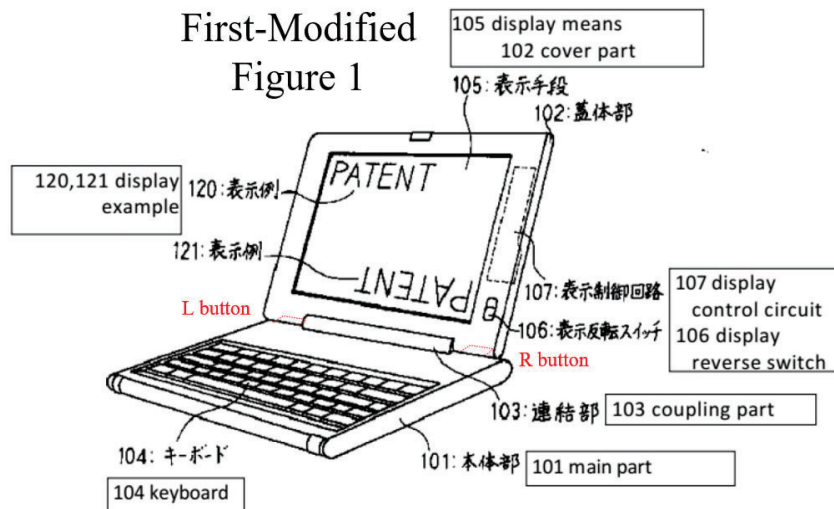
Petitioner contends Tsuji and Shimura are in the “same field” (Pet., 40) which provides a reason a POSA would have combined them. This fails factually and legally. Anyone who owns a laptop and a PDA or smartphone knows these are different devices with different uses.

But even if Shimura and Tsuji were in the same field, that is legally insufficient to provide a reason to combine them. *See Ayla Pharma LLC v. Novartis AG*, IPR2020-00295, Paper 12, 10 (PTAB Aug. 6, 2020) (“simply demonstrating that a set of references are all directed to the same problem is not, by itself, a sufficient rationale to combine the references”) (citing both *Wyers v. Master Lock Company*, 616 F.3d 1231, 1238 (Fed. Cir. 2010) and *In re Kahn*, 441 F.3d 977, 987–88 (Fed. Cir. 2006) (whether a POSA would have combined references “picks up where the analogous art test leaves off”)).

ii. The Petition’s Assertion that Tsuji Motivates Adding Tsuji’s Buttons to Shimura Ignores Disclosures in Tsuji and Shimura

Petitioner’s contention that “Tsuji provides express motivation for the proposed modification,” which improves “user operability ... regardless of the display mode,” because R/L buttons 118-119 “are exposed regardless of whether the computer 1 is used in a PC style or a PDA style” (Pet., 41) fares no better.

The Petition asserts a POSA would have added Tsuji's buttons to improve user operability of Shimura's computer "regardless of display mode" and alleges the buttons would improve operability in Shimura's laptop mode as shown below. Pet., 41-42. Tsuji does not remotely "provide[]" express motivation for the proposed modification." *Id.*



The only benefit Tsuji describes for buttons 118-119 in PC-style use is when the device is held in both hands and the user "has to" operate the keyboard with the thumbs. *See* Tsuji, Ex. 1005, ¶¶ 40-44. Buttons 118-119 can "assist[]" a user in operating the keyboard 111" with the thumbs by being programmed to perform the functionality of some keyboard keys (*e.g.*, [Ctrl], [Shift], arrow keys such as [↑], [↓]). *Id.*

Shimura's computer, by contrast, is a full-size⁶ laptop that is not designed to be operated by having the user hold it in their hands while typing with thumbs. A user operating Shimura's laptop in laptop mode can simply access the keyboard keys (*e.g.*, [Ctrl], [Shift], [↑], [↓]) that provide the functionality Tsuji programmed buttons 118-119 to perform. Shimura's laptop has no need for Tsuji buttons designed to support a handheld thumb-typing use mode because Shimura is not designed for such a use mode. The teachings the Petition identified in Tsuji would not have motivated the modification to Shimura.

Tellingly, the Petition identified no specific function Tsuji's buttons would perform in Shimura to improve its "operability." Pet., 41-42 (alleging the buttons could perform any "known function"). The Petition identified no problem Shimura actually had that adding Tsuji's buttons would solve. Instead, Lenovo concocted a "problem" Shimura did not have – the need for always-accessible buttons *irrespective of what function they performed* – to justify picking elements from the prior art and putting them together by following the recipe of the challenged claims. That is impermissible hindsight bias. *Monarch Knitting Machinery*

⁶ Shimura's size would increase further if, as Petitioner argues, the computer base were enlarged to make room for a trackpad adjacent the keyboard. See Pet., 51-52 & "Third-Modified Figure 1."

Corporation v. Sulzer Morat GmbH, 139 F.3d 877, 881 (Fed. Cir. 1998) ("Defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness."); *In re Antle*, 444 F.2d 1168, 1171–72 (CCPA 1971) (warning against selection of prior art with hindsight).

iii. Tsuji Buttons Would Not Improve Shimura Operability in Easel Mode

Petitioner's suggestion that Tsuji's R/L buttons 118 and 119 would improve user operability in Shimura's easel mode – where the laptop is placed on a table (Shimura, Ex. 1004, ¶ 17) – fails. Pet., 41 (alleging improved user operability "regardless of the display mode").

Shimura says that in easel mode the keyboard facing away from the user is not a problem "if mouse 130 is connected and it is a mouse centered operating environment." Shimura, Ex. 1004, ¶ 17; *see also id.*, Fig. 5 (showing use of a mouse in easel mode). The only input technique Shimura describes in easel mode is via a mouse and supported by a "mouse centered operating environment." The Petition fails to explain how Shimura's "mouse-centered operating environment" (which is not modified in the Shimura-Tsuji combination) would work with buttons 118-119. And given that Shimura's mouse provides demonstrably better user operability than forcing the user to continually reach forward to operate buttons on Shimura's computer in easel mode, Petitioner's assertion that buttons 118 and 119 would "improve user operability" fails.

iv. The Petition Identifies No Supportable Reason to Combine Tsuji with Shimura in the Manner the Petition Alleged

While the nature of these references argues against Petitioner’s combination, Petitioner never addresses these issues or identifies any valid reason to integrate Tsuji’s buttons into Shimura. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009) (“An inference of nonobviousness is especially strong where the prior art’s teachings undermine the very reason being proffered as to why a person of ordinary skill would have combined the known elements.”).

(1) The Petition Never Identifies a Reason a POSA Would Have Looked to Tsuji to Modify Shimura

The Petition provides no explanation, or evidence, for why a POSA would have selected *Tsuji*—and its inaccessible, rear-mounted push buttons for use when typing with thumbs on the keypad of a handheld-device—to modify Shimura’s full-size laptop. That is fatal because the law requires a reason that a POSA would have selected the particular references in an alleged combination. “[T]o establish a prima facie case of obviousness based on a combination of elements in the prior art, the law requires a motivation to *select the references* and to combine them in the particular claimed manner to reach the claimed invention.” *Eli Lilly and Company v. Zenith Goldline Pharmaceuticals, Inc.*, 471 F.3d 1369, 1379 (Fed. Cir.

2006); *see also Unigene Laboratories, Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1361 (Fed. Cir. 2011) (“[T]he claimed invention is not obvious if a person of ordinary skill would not *select* and combine the prior art references to reach the claimed composition or formulation.”).

As noted above, Shimura and Tsuji point away from each other:

- Tsuji describes the side-mounted buttons as being useful to help the user operate the keyboard when the user holds the device in their hands (Fig. 11) and has to operate the keyboard with thumbs;
- Shimura’s laptop is a full-size device that nobody would ever hold in their hands while typing with thumbs, and thus would never have occasion to use the Tsuji buttons with their index fingers while typing on the keypad; and
- this size constraint only increases if, as Petitioner further argues, the computer base is enlarged to make room for a touchpad adjacent to the keyboard. *See* Pet. at 51-52 & “Third-Modified Figure 1.”

The Petition offers no evidence or argument explaining why a POSA would have selected *Tsuji* despite these problems. Under *Eli Lilly* and *Unigene Laboratories*, Petitioner’s combination fails.

(2) The Shimura-Tsuji Computer Is Not a Combination of Elements According to Known Methods

Petitioner’s assertion that its combination is nothing more than combining prior art elements according to known methods fails. Pet., 49. To fit under this rationale, Petitioner needed to establish that no changes would be required other than combining the elements. *DePuy Spine*, 567 F.3d at 1326-27. Petitioner never even attempts this showing—nor could it. Shimura’s “operating environment” (Shimura, Ex. 1004, ¶ 17) would need to be reprogrammed to somehow use buttons 118-119 in *any* mode (*e.g.*, instead of or in addition to a mouse in easel mode), which eliminates the availability of the prior art elements combined according to known methods rationale. *DePuy Spine*, 567 F.3d at 1326-27.

(3) The Federal Circuit Rejects Conclusory “build something better” as Motivation to Combine

Petitioner’s argument to combine Tsuji with Shimura to “improve user operability” is conclusory argument that only thinly veils the hindsight bias driving Petitioner’s piecemeal art combinations. In *ActiveVideo Networks, Inc. v. Verizon Communications, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012), the Federal Circuit expressly rejected testimony that “motivation to combine would be because you wanted to build something better” on grounds that it “fail[ed] to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does.*”

Petitioner’s argument adds nothing to the conclusory testimony on motivation the Federal Circuit rejected in *ActiveVideo Networks* and fails to identify a valid art combination. “[A] conclusory assertion with no explanation is inadequate to support a finding that there would have been a motivation to combine” because “[t]his type of finding, without more, tracks the *ex post* reasoning *KSR* warned of and fails to identify any actual reason why a skilled artisan would have combined the elements in the manner claimed.” *In re Van Os*, 844 F.3d 1359, 1362 (Fed. Cir. 2017) (citing *KSR*, 550 U.S. at 418, 421).

c. Without the Shimura-Tsuji Computer All Grounds Fail

The Petition failed to establish a supportable reason that a POSA would have made the Shimura-Tsuji Computer. *See* § VI.A.2.b above. Without a motivation to combine Tsuji with Shimura in the manner the Petition argued, the combination is improper and the Shimura-Tsuji Computer is unavailable to render obvious any Challenged Claim. *In re Kahn*, 441 F.3d at 986 (“Mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole.”). That is fatal to the Petition because *every* Ground is based on a combination that includes the improper Shimura-Tsuji Computer. *See* § VI.A.2 (pp. 33-34 above).

This result follows regardless of whether the Petition needed to combine Tsuji’s push-button key switches with Shimura to meet the limitations of every Challenged Claim. *See Nautilus Hyosung, Inc. v. Diebold, Inc.*, IPR2016-00580, Paper 15, 7 (PTAB Jan. 31, 2017) (“We agree that *certain* challenged claims do not require a lower or bottom wall, however, petitioner based its arguments on a service opening in a lower wall or bottom portion of Dickenson’s rolling tray. . . . The Board must base its analysis on the arguments and evidence presented in the petition and not upon what the petitioner could have argued.”) (citing *In re Magnum Oil Tools International, Ltd.*, 829 F.3d 1364, 1380-81 (Fed. Cir. 2016)).

Accordingly, Petitioner fails to carry its burden of showing a reasonable likelihood of prevailing in demonstrating obviousness of any Challenged Claim. 35 U.S.C. §314(a).

3. Independent Reason 3: Lenovo Failed to Show that a POSA Would Have Formed the Shimura-Tsuji-Pogue Computer with a Reasonable Expectation of Success

Ground 1 relies on a combination of Shimura, Tsuji, and Pogue the Petition calls the “Shimura-Tsuji-Pogue Computer.” Pet., 50-53. The Petition alleges a POSA would have modified the Shimura-Tsuji Computer to have the capability of operating Windows XP Home Edition with the functionality described in Pogue and thereby “arrive at the Shimura-Tsuji-Pogue Computer.” Pet., 54-56.

However, the Petition failed to prove a POSA would have combined these

references in the alleged manner with a reasonable expectation of success. That is fatal to Ground 1.⁷

a. The Petition Provides No Supportable Reason to Use Windows XP in the Shimura-Tsuji Computer

Pogue is a book titled “Windows XP *Home Edition*: The Missing Manual” (2d Ed.) copyrighted 2004. EX-1006 at 5. The Petition contends Pogue received user reviews as early as January 2005. Pet., 27. Pogue purports to describe functionality found in Microsoft’s Windows XP Home Edition circa 2004. Importantly, this operating system (“OS”) was not designed for tablets (or PDA’s like Tsuji’s) and it would not support critical features of the Shimura-Tsuji Computer as detailed below. A POSA never would have chosen the operating system Pogue describes for use on the Shimura-Tsuji Computer.

The Petition never explains *why* a POSA would have selected the Windows XP OS Pogue describes for use in the Shimura-Tsuji Computer. The Petition begins its § VIII.B.2 (Pet., 50-56) on the “Shimura-Tsuji-Pogue combination” by

⁷ Since every Ground relies on a combination of references including *at least* the “Shimura-Tsuji-Pogue Computer” (see § VI.A.2 (pp. 33-34 above)), this failing also is fatal to every other Ground as detailed below.

promising it will provide “*several reasons*” (Pet., 50), but the Petition never delivers on that promise.

The Petition’s “analysis” at 50-56 is at best a laundry list of functionalities that provide no “reason” to choose XP for the Shimura-Tsuji Computer. For example, even if it would have been obvious to provide hardware in the Shimura-Tsuji Computer that meets XP’s requirements, that is no reason to choose XP as the OS for the Shimura-Tsuji Computer.

The Petition’s § VIII.B.2 (Pet., 50-56) provides a *single* conclusory “reason” for choosing the XP OS Pogue describes for use in the Shimura-Tsuji Computer, alleging: “[t]here would have been motivation to combine, and a reasonable expectation of success in combining, Pogue with Shimura and Tsuji because prior art elements are merely combined according to known methods to yield predictable results” by using “Tsuji’s R or L button programmed to access Pogue’s Start menu.” Pet., 56. This assertion fails.

Combining known elements in known ways to yield a predictable result requires that the elements being combined have no change in their respective functions. *DePuy Spine*, 567 F.3d at 1326-27. Lenovo’s conclusory assertion fails this test for two reasons.

First, none of the three references used in the combination teach a button on the back of a computer that is used to access the start menu of the computer's OS. That is not a "known prior art element" added to Shimura's laptop.

Second, the functionality of components of Shimura, Tsuji and Windows XP are *all* changed in Lenovo's combination. The Petition acknowledges that in Windows XP OS the Start menu is accessed by "pressing the Windows logo key or Ctrl+Esc on the keyboard" as the Petition alleges. Pet., 54. Lenovo's combination requires *reprogramming Windows XP* so the Start menu is accessed by a Tsuji R/L button. Pet., 56. The combination also requires *changing the function of Tsuji's button* which is never described as being a start button for an OS. The combination also requires *changing the function of Shimura's laptop* by adding a button on the back of the laptop to access the OS start menu.

The *only* "reason" the Petition offered to support modifying the Shimura-Tsuji Computer based on Pogue fails. This is fatal to Ground 1 – and all other Grounds that rely on the Shimura, Tsuji, Pogue Computer – because the Supreme Court is clear there must be some supportable "reason" to make an obviousness combination. *KSR*, 550 U.S. at 421 ("warning against ... slipping into use of hindsight") (citing *Graham*, 383 U.S. at 36) (quoting *Monroe Auto Equipment Company v. Heckethorn Manufacturing & Supply Company*, 332 F.2d 406, 412 (6th Cir. 1964)).

b. Citation To Its Expert Cannot Save Lenovo

Lenovo block-cited nineteen paragraphs of expert testimony in support of its assertion that “several reasons” support the combination. Pet., 50 (citing “EX-1010, ¶¶179-97”). This cannot save Lenovo for three reasons. *First*, this expert testimony cannot be incorporated by reference into the Petition. See § IV.B (citing authority). *Second*, it simply parrots the text in the Petition at 50-56 and is entitled to no weight. See § IV.A. *Third*, if considered this “analysis” fails for the same reasons as the Petition’s “analysis” it parrots.

c. Pogue’s 2004 Windows XP OS Does Not Accept Pen Input that Shimura’s Tablet Mode Requires Which Is Fatal to Lenovo’s Combination

Shimura “provide[s] an electronic machine and device and a personal computer which adopt a shape which is *suitable for a user environment centered on pen input operations* and mouse operations while maintaining a shape which can be used as a keyboard.” Ex. 1004, ¶ 5. The particular Windows XP operating system described in Pogue does not support pen input. Lenovo’s suggested combination would leave the Shimura-Tsuji-Pogue Computer inoperable for one of Shimura’s primary intended purposes – accepting pen input in tablet mode. This precludes there being any supportable reason to combine the cited references. See *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (finding no motivation to modify the prior art where doing so “would destroy the basic

objective” of the prior art); *In re Gordon*, 733 F. 2d 900, 902 (Fed. Cir. 1984) (If a proposed modification would render the prior art being modified unsatisfactory for its intended purpose there is no suggestion or motivation to make the proposed modification).

Lenovo submitted Pogue in six pdf files forming EX-1006. The Petition never identifies any part of Pogue describing the XP operating system as capable of accepting pen input as required by Shimura. Pogue never mentions pen input or a tablet mode in its Chapter 8 on the “Control Panel” that covers input device management (*See* EX-1006, 7-8, 256-306) or anywhere else in its 627 pages.

The Petition argues that Pogue teaches “various well-known input devices for computers, including a keyboard, a trackpad, and a mouse.” Pet. at 34. Lenovo never mentions a pen—and for good reason. In 2004, when David Pogue published his book, Microsoft sold a *different operating system* than the Windows XP Home Edition (or even Windows XP Professional Edition, EX-1006 at 27) described in Pogue, for devices (e.g., tablets) like Shimura’s that required pen input. Pogue never discusses this different operating system.

The Petition failed to establish that the Windows XP Home Edition described in Pogue supports the pen input Shimura relies on. This fatally undermines the Petition’s conclusory assertion that a POSA would have selected Pogue, and the Windows XP Home Edition operating system it describes, to be the operating system in the Shimura-Tsuji Computer. This renders the Petition’s alleged reason to combine Pogue with Shimura and Tsuji inoperable as a matter of law. *See DePuy Spine*, 567 F.3d at 1326-27.

d. Lenovo Never Explains Why a POSA Would Have Selected Pogue’s Windows XP as a Suitable Operating System for the Shimura-Tsuji Computer

The Petition simply asserts a POSA would have used the Windows XP Home Edition operating system described in Pogue in the Shimura-Tsuji Computer. The Petition offers no argument or evidence supporting the selection of *this particular* operating system as suitable for the Shimura-Tsuji Computer.

As discussed in § VI.A.2.b.iv above, for the Petition to make its *prima facie* obviousness case, “the law requires a motivation to *select* the references and to combine them in the particular claimed manner to reach the claimed invention.” *Eli Lilly*, 471 F.3d at 1379; *see also Unigene Laboratories*, 655 F.3d at 1361 (“[T]he claimed invention is not obvious if a [POSA] would not *select* and combine the prior art references to reach the claimed composition or formulation.”).

Here, the Petition completely fails to explain why a POSA would have selected the Windows XP Home Edition described in Pogue, in particular, for combination with Shimura and Tsuji. That failure of evidence and analysis is another reason the Shimura-Tsuji-Pogue Computer is improper and defective as a matter of law.

e. Lenovo Never Explains How the Shimura-Tsuji-Pogue Computer Meets the Hardware Requirements to Run XP

The Petition never articulates how the Shimura-Tsuji-Pogue Computer could operate Windows XP, and never explains with particularity why Pogue would have motivated a POSA to modify the “Shimura-Tsuji Computer” so that it could meet the minimum XP hardware requirements.

Although it contends “Shimura and Tsuji disclose hardware components and related circuitry” (Pet., 51), the Petition never even alleges these hardware components/circuitry in Shimura and Tsuji meet the minimum requirements to run Windows XP.

The Petition acknowledges the *minimum* hardware requirements for Windows XP include “a computer with 233 MHz processor clock speed, 64 MB of RAM, 1.5 GB of free hard disk space, 800 x 600 resolution video adapter and monitor,” and “a CD-ROM or DVD drive.” Pet., 34 (citing Pogue, EX-1006 at 558).

The petition merely alleges that “Shimura and Tsuji disclose hardware components and related circuitry.” Pet., 51. The Petition never even alleges that Shimura or Tsuji discloses the *particular* hardware the Petition says is required to run Windows XP. Nothing in the record supports a finding that the Shimura-Tsuji Computer meets the minimum hardware requirements the Petition says are required to run Windows XP, so nothing in the record supports the contention that *the Shimura-Tsuji Computer* could run Pogue’s Windows XP.

Even if *other* “computers at the Critical Date would have met at least these [hardware] requirements” (Pet., 51), that is irrelevant. None of the exhibits the Petition cites are used in Ground 1 and the Petition never even alleges that it would have been obvious to have the Shimura-Tsuji Computer meet these hardware requirements, let alone submit evidence and argument to establish that. To the contrary, the Petition’s sole “reason” to combine Shimura, Tsuji and Pogue (see § VI.A.3.a above) alleges a POSA would have “merely combined” the “prior art elements” of Shimura, Tsuji and Pogue. Pet., 56. The Petition fails to establish that if the “prior art elements” of Shimura and Tsuji were “merely combined” that the resulting Shimura-Tsuji Computer would have had the hardware required to run Pogue’s Windows XP OS. Thus, the Petition fails to establish a reasonable expectation of success for the Shimura, Tsuji and Pogue Computer relied upon in Ground 1.

f. Conclusion

The Petition's addition of Pogue's OS to the Shimura-Tsuji computer fails for at least three independent reasons: (1) no supportable reason is provided to use Pogue's Windows XP OS (§ VI.A.3.a); (2) Pogue's Windows XP OS would render inoperable Shimura's pen input (§ VI.A.3.c); and (3) the Petition fails to establish a reasonable expectation of success that the Shimura-Tsuji Computer had the hardware necessary to run Pogue's Windows XP OS (§ VI.A.3.e).

That is fatal to all Grounds because they all rely on the "Shimura-Tsuji-Pogue Computer." For example, Ground 1's challenge to claims 1, 3-5, and 7-9 all require that the alleged Shimura-Tsuji-Pogue Computer have the capability of operating Windows XP Home Edition with the functionality described in Pogue. *See e.g.*, Pet., 62-70 (discussing Petition's limitations [1c], [1d1], [1d2], and [1e1]).

4. Independent Reason 4: Lenovo Failed to Establish that the Prior Art Discloses a Portable Computer Having a Rotatable Navigation Control

Claims 1, 3-5, and 7-9 require a portable computer comprising "*a navigation control* disposed at least partially within the base and rotatable about the longitudinal axis." Ex. 1001, 17:42-46.

Lenovo takes a scattershot and inconsistent approach. The Petition variously alleges the claimed rotatable navigation control is met by the trackpad, a start menu button on the keyboard, keyboard arrow keys of the Shimura-Tsuji-Pogue Computer (Pet., 65-70), or the R and L buttons of the Shimura-Tsuji-Pogue Computer, which the Petition alleges (Pet., 74-75) could be programmed to be “Pogue’s Start menu button,”⁸ arrow navigation keys or a “display inversion” key.

Lenovo is wrong – none of these components is a *rotatable* navigational control.

**i. The Navigation Control Must Be Rotatable
Relative to the Base**

Lenovo’s argument is that *anything* on a base of a portable computer (even a fixed component, such as a trackpad) is “rotatable.” Lenovo’s argument misconstrues the claims because it renders the requirement of a navigation control that is rotatable about the longitudinal axis *entirely superfluous*. See *Aristocrat Technologies Australia Pty Ltd. v. International Game Technology*, 709 F.3d 1348, 1356–57 (Fed. Cir. 2013) (declining proposed construction because it would render another limitation “superfluous”).

⁸ This is inconsistent with the Petition’s assertion that the keyboard already has a menu start key. Pet., 69.

The '844 Patent specification describes a control (e.g., scroll wheel 132 in Fig. 15, below) that is disposed at least partially within the base, is rotatable relative to the base about the computer's longitudinal axis and is rotated to "control certain functionality" including "navigating web pages." Ex. 1001, 7:30-35; *see also id.*, 3:26-35; FIGs. 7A-7B; FIGs. 14-16.

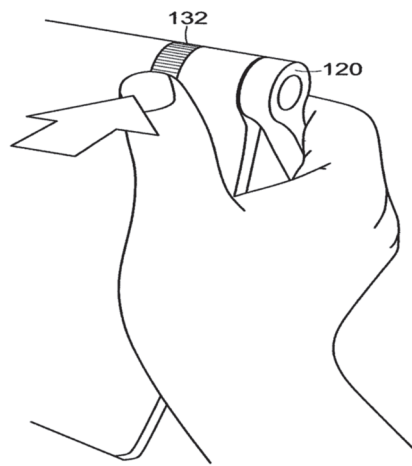


FIG. 15

Claim 1 requires a portable computer comprising three tangible components: a base (including a keyboard); a main display (including a single display screen); and a navigation control. *Id.*, 17:15-21, 42-46. "[T]he main display component and the base are rotatable ***with respect to one another*** about the longitudinal axis." *Id.* The navigation control is "disposed at least partially within the base" (*id.*, 17:17-20) so it travels with the base (relative to the display) whenever the base is rotated relative to the display.

Claim 1 *further requires* that the navigation control be “rotatable about the longitudinal axis.” *Id.*, 17:42-43. The navigation control must be rotatable about the longitudinal axis with respect to the base to give meaning to this limitation. *Bicon, Inc. v. Straumann Company*, 441 F.3d 945, 950 (Fed. Cir. 2006) (“claims are interpreted with an eye toward giving effect to all terms in the claim.”). Otherwise, claim 1’s requirement that the navigation control be “rotatable about the longitudinal axis” ([1e1]) would be superfluous and rendered meaningless because a different limitation already requires that the base – which the navigation control disposed at least partially within it – be rotatable with respect to the main display component.

ii. The Trackpad, Keyboard Start Menu Button, Keyboard Arrow Keys, and the R and L Buttons of the Shimura-Tsuji-Pogue Computer Are Not Rotatable Navigation Controls

The Petition alternatively argues that a (1) trackpad (Pet., 65-66), (2) keyboard start menu button (Pet., 68-69), (3) keyboard arrow keys (Pet. 69), and (4) the R and L buttons (Pet., 74-75) are parts of the Shimura-Tsuji-Pogue Computer that can control navigation and *can be rotated*. *Id.* The Petition only asserts that these alleged navigation controls are rotatable to the extent the base is rotatable relative to the main display. The Petition never alleges any of these alleged navigation controls is rotatable relative to the base and they demonstrably are not.

Even if the main part (the alleged base) of the Shimura-Tsuji-Pogue Computer is rotatable about the coupling part (the alleged longitudinal axis), the Petition failed to establish that any of these alleged navigation controls *themselves* are rotatable relative to the base as claim 1 requires. Ex. 1001, 17:42-46. None of these alleged navigation controls of the Shimura-Tsuji-Pogue Computer meet the requirements of a rotatable navigational control.

B. Ground 1 Fails for Claims 10 and 13-16

Ground 1's allegation that claims 10 and 13-16 are rendered obvious by Shimura, Tsuji and Pogue fails for three independent reasons.

1. Independent Reason 1: Lenovo Failed to Establish that the Cited Prior Art Discloses a Frame Mode

Claims 10 and 13-16 (like claims 1, 3-5, and 7-9, *see* § VI.A.1) require a portable computer comprising a plurality of modes including a “*frame mode*.” Ex. 1001, 18:65-19:2. Lenovo again relied solely on Shimura as allegedly disclosing a frame mode. Pet., 87 (asserting that “Shimura discloses [10e2]”). However, as described above (*see* § VI.A.1), Lenovo is wrong – the Shimura disclosure alleged to show a frame mode instead shows a tablet mode. Thus, Ground 1 fails for this reason with respect to claim 10 and dependent claims 13-16.

2. Independent Reason 2: Lenovo Failed to Show that a POSA Would Have Made the Shimura-Tsuji Computer

The Petition's arguments regarding claims 10 and 13-16 (like claims 1, 3-5, and 7-9, *see* § VI.A.2) require that the Shimura-Tsuji-Pogue Computer include the Tsuji buttons incorporated as part of the Shimura-Tsuji-Pogue Computer. Pet., 83-87 (discussing the Shimura-Tsuji-Pogue Computer, which includes the Tsuji buttons). As described above in § VI.A.2, however, the Petition fails to establish that a POSA would have added the Tsuji buttons to Shimura. The Shimura-Tsuji-Pogue Computer is thus improper. Ground 1 fails for this reason with respect to claim 10 and dependent claims 13-16.

3. Independent Reason 3: Lenovo Failed to Show a POSA Would Have Made the Shimura-Tsuji-Pogue Computer with a Reasonable Expectation of Success

The Petition's arguments regarding claims 10 and 13-16 (like claims 1, 3-5, and 7-9, *see* § VI.A.3) require combining the Shimura-Tsuji Computer with the Windows XP Home Edition operating system described in Pogue. *See e.g.*, Pet., 83-87 (discussing Petition's limitations [10c3], [10d1], [10d2], and [10e1]). As described above in § VI.A.3, the Petition fails to establish that a POSA would have used the particular Windows XP OS described in Pogue in the Shimura-Tsuji Computer with a reasonable expectation of success. Ground 1 fails for claim 10 and dependent claims 13-16 for this reason as well.

C. Ground 2 Fails

Ground 2 challenges only claim 6, which depends from claim 1. For claim 6, the Petition only alleged that the “additional limitation” *introduced* thereby is met by the “Shimura-Tsuji-Pogue-Escamilla Computer.” Pet., 94-95. Lenovo did not even allege that the Shimura-Tsuji-Pogue-Escamilla Computer *also* meets claim 1, which is required to establish obviousness of claim 6 that depends therefrom. Ground 2 fails for this reason alone.

If the Board considers the Petition to have implicitly alleged the Shimura-Tsuji-Pogue-Escamilla combination meets claim 1’s limitations for the same reasons as the Shimura-Tsuji-Pogue Computer relied on in Ground 1, then Ground 2 fails for claim 6 for the same reasons Ground 1 fails for claim 1. *See* § VI.A above.

D. Ground 3 Fails

Ground 3 challenges only claim 2 which depends from claim 1. For claim 2, the Petition only alleged that the “additional limitation” *introduced* thereby is met by the “Shimura-Tsuji-Pogue-Escamilla-Yeh Computer.” Pet., 95-97. Lenovo did not even allege that the Shimura-Tsuji-Pogue-Escamilla-Yeh Computer *also* meets claim 1, which is required to establish obviousness of claim 2 that depends therefrom. Ground 3 fails for this reason alone.

If the Board considers the Petition to have implicitly alleged the Shimura-Tsuji-Pogue-Escamilla-Yeh combination meets claim 1's limitations for the same reasons as the Shimura-Tsuji-Pogue Computer relied on in Ground 1, then Ground 3 fails for claim 2 for the same reasons Ground 1 fails for claim 1. *See* § VI.A above.

E. Ground 4 Fails

Ground 4 challenges only independent claim 18 and dependent claim 22. Ground 4's allegation that claims 18 and 22 are rendered obvious by Shimura, Tsuji, Pogue, and Lin fails for several independent reasons.

Ground 4 alleges "a POSITA would have been motivated to incorporate Lin's standard rotary knob into *the Shimura-Tsuji-Pogue Computer [of Ground 1]* to arrive at the 'Shimura-Tsuji-Pogue-Lin Computer'." Pet. 98.

Lin discloses "an electronic device with a rotary knob ... disposed on the electronic device, so that a user can activate ... functions by turning the knob." Ex. 1009, paragraph [0009]; *see also* FIG. 2 (modified below to emphasize rotary knob (red)).

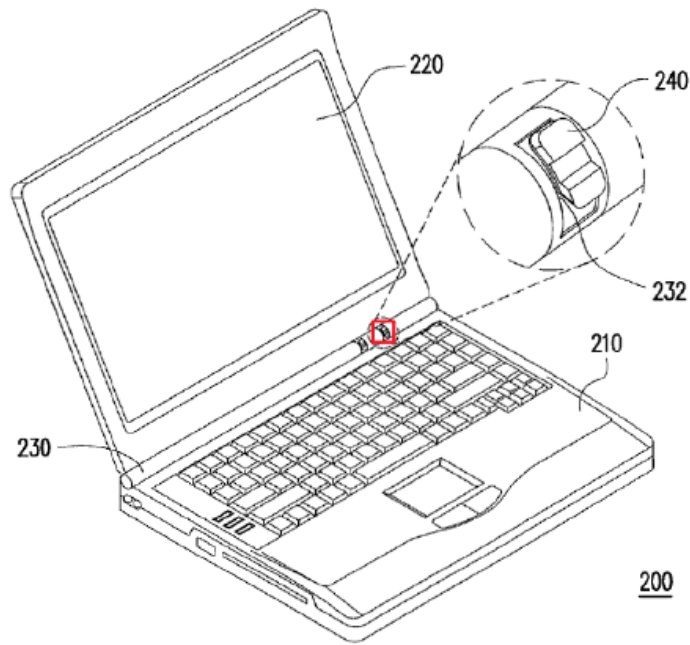
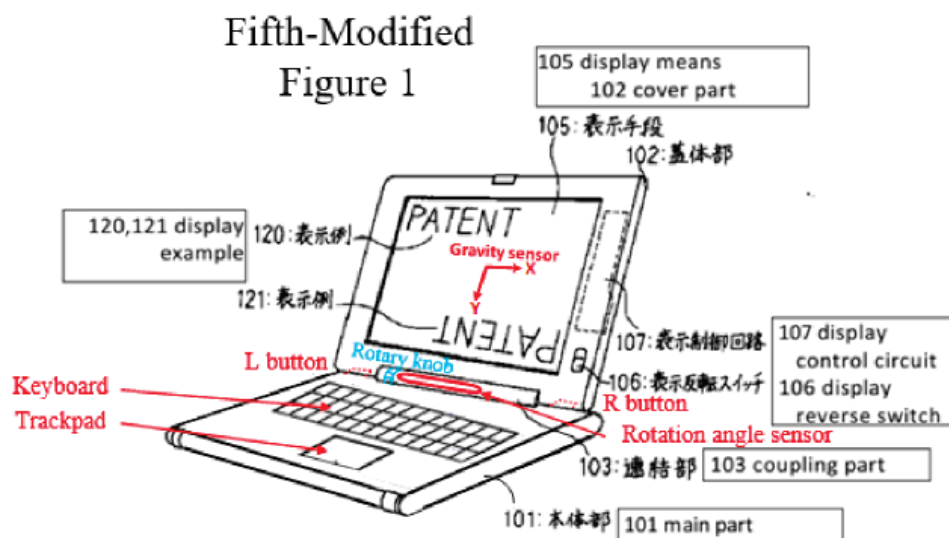


FIG. 2

Other than the addition of Lin's rotary knob, Ground 4's Shimura-Tsuji-Pogue-Lin Computer (as illustrated in the "Fifth-Modified Figure 1 of Shimura," Pet., 99-100; shown below) is *identical to Ground 1's Shimura-Tsuji-Pogue Computer* (as illustrated in the "Third-Modified Figure 1 of Shimura," Pet., 52). Thus, as detailed below, Ground 4 fails for three of the same reasons as Ground 1.



1. Independent Reason 1: Lenovo Failed to Establish that the Cited Prior Art Discloses a Frame Mode

Claims 18 and 22 (like claims 1, 3-5, and 7-9, *see* § VI.A.1) require a portable computer comprising a plurality of modes including a “*frame mode*.” Ex. 1001, 20:26-29. Lenovo again relied solely on Shimura as allegedly disclosing a frame mode. Pet., 102 (asserting that “Shimura discloses [18f2]”). As described above (*see* § VI.A.1), Lenovo is wrong – the Shimura disclosure alleged to show a frame mode instead shows a tablet mode. Ground 4 fails for this reason alone.

2. Independent Reason 2: Lenovo Failed to Show that a POSA Would Have Made the Shimura-Tsuji Computer upon Which Ground 4 Relies

Ground 4 relies on adding Lin’s rotary knob to “the Shimura-Tsuji-Pogue-Lin Computer” (Pet., 99-100), which in turn adds Pogue’s Windows XP operating system to “the Shimura-Tsuji Computer.” Pet., 50-56. The Petition’s mapping of the Shimura-Tsuji-Pogue-Lin Computer to claims 18 and 22 maps limitations onto the Shimura-Tsuji Computer. *See e.g.*, Pet., 101-102 (limitations [18pre], [18b], [18c2], [18e2]).

As described above in § VI.A.2, the Petition failed to establish that a POSA would have had a reason to make the Shimura-Tsuji Computer. The addition of Lin changes nothing in the analysis at § VI.A.2 showing the error in Lenovo’s arguments for this combination. Thus, Ground 4 alleges claims 18 and 22 are

rendered obvious by a Shimura-Tsuji-Pogue-Lin Computer the Petition failed to establish that a POSA would have made. Ground 4 fails for this additional reason.

3. Independent Reason 3: Lenovo Failed to Show that a POSA Would Have Made the Shimura-Tsuji-Pogue Computer on which Ground 4 Relies with a Reasonable Expectation of Success

Ground 4 relies on adding Lin's rotary knob to "the Shimura-Tsuji-Pogue-Lin Computer" (Pet., 99-100), which in turn adds Pogue's Windows XP operating system to "the Shimura-Tsuji Computer." Pet., 50-56. The Petition's mapping of the Shimura-Tsuji-Pogue-Lin Computer to claims 18 and 22 maps limitations onto the Shimura-Tsuji-Pogue Computer. *See e.g.*, Pet., 101-102 (limitations [18d], [18e1]). However, as described above in §§ VI.A.2-VI.A.3, the Petition failed to establish that a POSA would have had a reason to make the Shimura-Tsuji-Pogue Computer with a reasonable expectation of success. The addition of Lin changes nothing in the analysis of §§ VI.A.2-VI.A.3 showing the error in Lenovo's arguments for this combination. Thus, Ground 4 alleges claims 18 and 22 are rendered obvious by a Shimura-Tsuji-Pogue-Lin Computer the Petition failed to establish that a POSA would have made with a reasonable expectation of success. Ground 4 fails for this additional reason.

F. Ground 5 Fails

Ground 5 challenges only dependent claims 11, 12, 19 and 21. Claims 11-12 depend from independent claim 10 and claims 19 and 21 depend from independent claim 18. For these dependent claims, the Petition only alleged that the “additional limitation[s]” *introduced* thereby are met by the “Shimura-Tsuji-Pogue-Escamilla-Lin Computer.” Pet., 105-107. Lenovo did not even allege that the Shimura-Tsuji-Pogue-Escamilla-Lin Computer *also* meets claim 10 or claim 18, which is required to establish obviousness of these claims that depend therefrom. Ground 5 fails for this reason alone.

If the Board considers the Petition to have implicitly alleged the Shimura-Tsuji-Pogue-Escamilla-Lin Computer meets claim 10’s limitations for the same reasons as the Shimura-Tsuji-Pogue Computer relied on in Ground 1, then Ground 5 fails for claims 11-12 for the same reasons Ground 1 fails for claim 10. *See* § VI.B above.

Similarly, if the Board considers the Petition to have implicitly alleged that the Shimura-Tsuji-Pogue-Escamilla-Lin Computer meets claim 18’s limitations for the same reasons as the Shimura-Tsuji-Pogue-Lin Computer in Ground 4, then Ground 5 fails for claims 19 and 21 for the same reasons Ground 4 fails for claim 18. *See* § VI.E above.

G. Ground 6 Fails

Ground 6 challenges only claim 20 which depends from independent claim 18. For this dependent claim, the Petition only alleged that the “additional limitation” *introduced* thereby is purportedly met by the Shimura-Tsuji-Pogue-Escamilla-Lin-Yeh Computer. Pet., 109. Lenovo did not even allege that the Shimura-Tsuji-Pogue-Escamilla-Lin-Yeh Computer *also* meets the requirements of claim 18, which is required to establish obviousness of claim 20 that depends therefrom. Ground 6 fails for this reason alone.

If the Board considers the Petition to have implicitly alleged that the Shimura-Tsuji-Pogue-Escamilla-Lin-Yeh Computer meets claim 18’s limitations for the same reasons as the Shimura-Tsuji-Pogue-Lin Computer in Ground 4, then Ground 6 fails for claim 20 for the same reasons Ground 4 fails for claim 18. *See* § VI.E above.

VII. CONCLUSION

For the foregoing reasons, the Board should deny institution.

Respectfully submitted,

Date: July 28, 2021

/ Gerald B. Hrycyszyn /

Gerald B. Hrycyszyn, Reg. No. 50,474

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24, the undersigned certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** contains 12,065 words, including words on page 7 and 13, but excluding; a table of contents, a table of authorities, a certificate of service or word count, or appendix of exhibits or claim listing. Patent Owner has relied on the word count feature of the word processing system used to create this paper in making this certification.

Date: July 28, 2021

/Brooke Lunn/

Brooke Lunn

Paralegal

WOLF, GREENFIELD & SACKS, P.C.

CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)

I certify that on July 28, 2021, I will cause a copy of the foregoing document, including any exhibits filed therewith, to be served via electronic mail, as previously consented to by Petitioner, upon the following:

Martin R. Bader	mbader@sheppardmullin.com
Nam H. Kim	nkim@sheppardmullin.com
Mike Kim	mskim@sheppardmullin.com
Michael Hopkins	MHopkins@sheppardmullin.com
	LegalTm-LNV-LTL@sheppardmullin.com

Date: July 28, 2021

/Brooke Lunn/
Brooke Lunn
Paralegal
WOLF, GREENFIELD & SACKS, P.C.