

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ASUSTEK COMPUTER INC. AND ASUS COMPUTER INTERNATIONAL,
Petitioners,

v.

MAXELL, LTD.,
Patent Owner

Case: IPR2019-00071

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

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

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	IV
I. INTRODUCTION	1
II. BACKGROUND	3
A. Technology Background	3
B. Overview of the ’498 Patent Invention	3
C. Summary of Petitioner’s Proposed Grounds of Unpatentability and the References Cited	5
III. CLAIM CONSTRUCTION	6
A. “a device for getting location information denoting a present place of said portable terminal” and “a device for getting direction information denoting an orientation of said portable terminal” (Claims 1, 5, and 10)	8
B. “walking navigation,” “walking navigation information,” and “said walking navigation” (Claims 1, 5, and 10)”	11
C. “route guidance information” and “neighborhood guidance information” (Claims 1, 5, 8, and 10)	11
IV. LEGAL STANDARD	12
V. THE PETITION DOES NOT SHOW A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CHALLENGED CLAIM	13
A. Ground 1: Petitioner Failed To Establish That Claims 1-3, 5-8 are Obvious Over Suzuki and Nosaka.	13
1. Ground 1 Has No Reasonable Likelihood of Succeeding Because the Suzuki/Nosaka Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims	13
2. Ground 1 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner’s Obviousness Arguments for Suzuki/Nosaka.....	21

B.	Ground 2: Petitioner Failed to Established That Claims 1-3 and 5-8 are Obvious Over Suzuki in view of Colley.....	27
1.	Ground 2 Has No Reasonable Likelihood of Succeeding Because the Suzuki/Colley Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.	27
2.	Ground 2 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Arguments for Suzuki/Colley.	33
C.	Ground 3: Petitioner Failed to Established That Claims 1-3 and 5-7 are Rendered Obvious By Suzuki in view of Colley and Ellenby.....	34
1.	Ground 3 Has No Likelihood of Succeeding Because the Suzuki/Colley/Ellenby Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.	34
2.	Ground 3 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Suzuki and Colley and Ellenby.	36
D.	Ground 4: Petitioner Failed to Established That Claims 1-7, 9-13 are Rendered Obvious By Norris in view of Colley.	37
1.	Ground 4 Has No Reasonable Likelihood of Succeeding Because Norris in view of Colley Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.	37
2.	Ground 4 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Norris With Colley.	43
E.	Ground 5: Petitioner Failed to Established That Claims 1-2, 5-6, 8, 10, and 12 are Rendered Obvious by Norris in view of Nosaka and Colley.....	48

1.	Ground 5 Has No Likelihood of Succeeding Because Norris in view of Nosaka and Colley Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.	48
2.	Ground 5 Has No Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner’s Obviousness Combination of Norris With Nosaka and Colley.	49
F.	Ground 6: Petitioner Failed to Established That Claims 1-2, 5-6, 8, 10, and 12 are Rendered Obvious By Norris in view of Colley and Ellenby.	51
1.	Ground 6 Has No Likelihood of Succeeding Because Norris in view of Colley and Ellenby Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.	52
2.	Ground 6 Has No Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner’s Obviousness Combination of Norris With Colley and Ellenby.	53
G.	The Board Should Disregard Mr. Andrews’s Conclusory Declaration and Most of Petitioner’s Exhibits	54
VI.	THE PETITION SHOULD BE DENIED BECAUSE IT EXCEEDS THE WORD LIMIT BY IMPROPERLY INCORPORATING ARGUMENTS BY REFERENCE.....	57
VII.	CONCLUSION.....	59

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>A. C. Dispensing Equipment Inc. v. Prince Castle LLC</i> , IPR2014-00511, Paper No. 16 (P.T.A.B. March 17, 2014)	59
<i>ActiveVideo Networks, Inc. v. Verizon Comm's, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	22, 44
<i>Apple Inc., v. Immersion Corporation</i> , IPR2016-01372, Paper No. 7 (January 11, 2017).....	9
<i>Facebook, Inc. v. Sound View Innovations, LLC</i> , IPR2017-01004, Paper No. 13 (Aug. 29, 2017)	9
<i>Facebook, Inc. v. Sound View Innovations, LLC</i> , IPR2017-01006, Paper No. 14 (Aug. 29, 2017)	9
<i>Ferring B.V. v. Watson Laboratories, Inc.-Florida</i> , 764 F.3d 1401 (Fed. Cir. 2014)	24
<i>Garmin Int'l, Inc. v. Cuozzo Speed Techs. LLC</i> , IPR2012-00001, Paper No. 59 (P.T.A.B. Nov. 13, 2013).....	7, 8
<i>Graham v. John Deere Co. of Kansas City</i> , 383 U.S. 1 (1966).....	passim
<i>Guangdong Alison Hi-Tech Co., Ltd. v. Aspen Aerogels, Inc.</i> , Case IPR2017-00152, Paper No. 8 (P.T.A.B. Mar. 23, 2017)	passim
<i>In re Abbott Diabetes Care, Inc.</i> , 696 F.3d 1142 (Fed. Cir. 2012)	7
<i>In re Am. Acad. Of Sci. Tech. Ctr.</i> , 367 F.3d 1359 (Fed. Cir. 2004)	6
<i>In re Kahn</i> , 441 F.3d 977 (Fed. Cir. 2006)	22, 45

Patent No. 6,430,498
Patent Owner's Preliminary Response

<i>In re NTP, Inc.</i> , 654 F.3d 1279 (Fed. Cir. 2011)	6, 7
<i>In re Suitco Surface, Inc.</i> , 603 F.3d 1255 (Fed. Cir. 2010)	7, 8
<i>In re Translogic Tech., Inc.</i> , 504 F.3d 1249 (Fed. Cir. 2007)	7
<i>Innogenetics, N. V. v. Abbott Labs.</i> , 512 F.3d 1363 (Fed. Cir. 2008)	22, 45, 56
<i>Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016)	12
<i>Kinetic Techs., Inc. v. Skyworks Sol'ns, Inc.</i> , IPR2015-00529, Paper No. 8 (P.T.A.B. Sept. 23, 2014)	57
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	<i>passim</i>
<i>LG Electronics, Inc. v. Cellular Communications Equipment LLC</i> , IPR2016-00197, Paper No. 7 (PTAB Apr. 29, 2016).....	25, 27, 48
<i>Liberty Mutual Insurance Company v. Progressive Casualty Insurance Company</i> , CBM2012- 00003, Paper No. 8 (P.T.A.B. Sept. 16, 2012).....	59
<i>Medichem, S.A. v. Rolabo, S.L.</i> , 437 F.3d 1157 (Fed. Cir. 2006)	12
<i>Microsoft Corp. v. Proxyconn, Inc.</i> , 789 F.3d 1292 (Fed. Cir. 2015)	6
<i>Pride Solutions LLC v. Not Dead Yet Manufacturing, Inc.</i> , IPR2013-00627, Paper No. 14 (March 17, 2014).....	9
<i>Renishaw PLC v. Marposs Societa' per Azioni</i> , 158 F.3d 1243 (Fed. Cir. 1998)	8
<i>Trivascular, Inc. v. Samuels</i> , 812 F.3d 1056 (Fed. Cir. 2016)	23, 45

Patent No. 6,430,498
Patent Owner’s Preliminary Response

<i>Unigene Labs., Inc. v. Apotex, Inc.</i> , 655 F.3d 1352 (Fed. Cir. 2011)	22, 45
--	--------

<i>Wowza Media Sys., LLC v. Adobe Sys. Inc.</i> , IPR2013-00054, Paper No. 12 (P.T.A.B. Apr. 8, 2013)	58
--	----

Statutes

37 C.F.R. § 1.75(d)(1).....	7
37 C.F.R. § 42.6(a)(3).....	57
37 C.F.R. § 42.65(a).....	2, 56
37 C.F.R. § 42.104(b)(3).....	9
37 C.F.R. § 42.104(b)(4).....	14, 16, 29, 30, 40
35 U.S.C. § 103(a)	<i>passim</i>
77 Fed. Reg. 48756 (Aug. 14, 2012).....	6

I. INTRODUCTION

Patent Owner Maxell, Ltd. ("Patent Owner") respectfully requests that the Board deny institution because Petitioner Asustek Computer Inc. and Asus Computer International (hereinafter "Petitioner") have failed to demonstrate a reasonable likelihood of success on the grounds submitted in its Petition for challenging the patentability of claims 1-13 ("challenged claims") of U.S. Patent No. 6,430,498 ("the '498 patent").

First, Petitioner fails to show a reasonable likelihood of prevailing because it has not shown that the cited references anticipate or render obvious claims 1-13 of the '498 patent. Neither Suzuki nor Norris disclose the arrangement of claims as set forth in the Petition. Further, none of Petitioner's obviousness arguments, whether modifications of Suzuki or Norris alone, or the Suzuki/Nosaka, Suzuki/Colley/Ellenby, Norris/Colley, Norris/Nosaka/Colley, and Norris/Colley/Ellenby combinations, disclose each limitation.

Second, Petitioner also fails to show a reasonable likelihood of prevailing because the entire Petition relies on hindsight reconstruction of the invention without any explanation why a person having ordinary skill in the art (POSITA) would have been motivated to modify and/or combine the primary references (Suzuki, Norris) with various secondary references or purported knowledge of a POSITA, none of which disclose a limitation required by all of the challenged

claims. Often, Petitioner does not explain which elements from each reference it contends would have been obvious to combine with specified elements of the other references or knowledge of a POSITA. Rather, Petitioner states what a POSITA “would understand,” but such statements cannot satisfy the obviousness test under *KSR*. In the absence of such an identification, there can be no discussion at all of why those particular elements would or would not have been obvious to combine to arrive at the claimed invention. Petitioner therefore falls short of carrying its burden to explain the grounds of unpatentability on which its Petition is based.

Finally, throughout the Petition, Petitioner makes a number of conclusory statements regarding its arguments. Additionally, the Declaration provided by Mr. Andrews simply parrots these same conclusory statements found in the Petition without any additional analysis. *See* 37 C.F.R. §42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). These conclusory statements by Petitioner and Petitioner’s expert do not assist in demonstrating obviousness because they do not provide the rational underpinning necessary to establish obviousness. As the evidence discussed herein will show, Petitioner has failed to meet its burden of showing a reasonable likelihood of prevailing because the cited references simply do not disclose each and every element of the challenged claims and Petitioner’s expert provides no additional support for many of the conclusory statements

located throughout the Petition.

Accordingly, the Board should refuse to institute this *inter partes* review.

II. BACKGROUND

A. Technology Background

The claims at issue in the '498 Patent generally relates to a mobile device, such as a smartphone, that can determine the location and orientation of the device and directional information that a user can view to assist with walking navigation. In addition, one embodiment of the '498 Patent allows a user to get the location of location of another mobile device, such as another smartphone.

B. Overview of the '498 Patent Invention

The '498 Patent is entitled "Portable Terminal with the Function of Walking Navigation," and has a priority date of no later than July 12, 1999. The '498 Patent was filed on July 11, 2000, and issued on August 6, 2002.

The '498 Patent solves a problem that existed in conventional navigation systems at the time. Prior to the '498 Patent, conventional navigation systems were unsuitable for walking navigation. ASUS-1001 at 1:25-37.¹ Conventional systems

¹ Accordingly, the referenced navigation systems in the Petition or by Mr. Andrews—e.g., the Telepath 100, TravTek In-Vehicle System, and Acura RL Navigation Systems—are all mounted in a vehicle and suitable for use only in vehicles. *See* Petition at 9-11; ASUS-1003, §5. Further, ASUS does not rely on

(Footnote continued)

were too large to be carried by a walking user, would not provide information about the direction and orientation of a user, and were unsuitable for display on the smaller screens of portable devices, among other problems. *Id.* at 1:25-46.

Recognizing these shortcomings with conventional systems, the inventors of the '498 Patent conceived a portable terminal that would aid users who wished to have real-time directions while walking. *Id.* at 2:44-54. These inventors implemented a portable terminal that displays information about the direction a user is facing. Additionally, it displays navigation information that can be displayed on screens to aid the user to walk to a desired destination. These displays were of different sizes including, for example, a narrow screen of a portable terminal. *Id.* at 2:66-3:35.

The popularity and use of smart phones with GPS functionality has made traditional GPS standalone systems obsolete, and GPS is now considered a necessary feature for smart phones. End users of smart phones expect to be able to use their phones to get walking directions, instead of relying on maps. The '498 Patent addressed this need and provides a solution to the problem of providing walking navigation including orientation of the user while walking such that the

any of these references for anticipation or obviousness and, thus, these references are irrelevant.

position information is updated precisely and in real time. The inventors conceived these solutions as early as July 12, 1999—well before the wide acceptance of smart phones and eight years before the first release of the first iPhone in June 2007.

C. Summary of Petitioner's Proposed Grounds of Unpatentability and the References Cited

Petitioner contends that claims 1-13 would have been obvious under pre-AIA 35 U.S.C. § 103(a). The Petition raises nine grounds of alleged invalidity based on the following five references.

1. Japanese Patent No. H07-280583 (“Japanese Suzuki”) and the corresponding English translation (“Suzuki”)
2. Japanese Patent No. H10-170301 (“Japanese Nosaka”) and the corresponding English translation (“Nosaka”)
3. U.S. Patent No. 5,781,150 (“Norris”)
4. U.S. Patent No. 5,592,382 (“Colley”)
5. U.S. Patent No. 5,815,411 (“Ellenby”)

The Petition asserts the following six anticipation and/or obviousness grounds:

Ground	'498 Patent Claims	Type of Challenge	Primary Reference	Secondary Reference
1	Claims 1-3, 5-8	§ 103	Suzuki	Nosaka
2	Claims 1-3, 5-8	§ 103	Suzuki	Colley
3	Claims 1-3, 5-7	§ 103	Suzuki	Colley, Ellenby
4	Claims 1-7, 9-13	§ 103	Norris	Colley
5	Claims 1-2, 5-6, 8, 10, 12	§ 103	Norris	Nosaka, Colley
6	Claims 1-2, 5-6, 8, 10, 12	§ 103	Norris	Colley, Ellenby

III. CLAIM CONSTRUCTION

When considering whether to institute a patent trial, the Board has indicated that it will interpret the claims of a challenged patent using a “broadest reasonable construction” approach. Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48766 (Aug. 14, 2012). In applying such a standard, it is important to recognize that the broadest reasonable construction of claim language is not one that permits any reading thereof. Instead, it is one that must be made “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. Of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *see also In re NTP, Inc.*, 654 F.3d 1279, 1288 (Fed. Cir. 2011) (vacating Board decision based on erroneous claim construction; “While the Board must give the terms their broadest reasonable construction, the construction cannot be divorced from the specification and the record evidence” (internal citation omitted)). Moreover, the Board “should also consult the patent’s prosecution history in [*inter partes* review] proceedings” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (internal citation omitted).). Of course, patent claims must “conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.” 37 C.F.R. § 1.75(d)(1). That is, “[c]laim terms are

also given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure.” *Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC*, IPR2012-00001, Paper 59 at 8 (P.T.A.B. Nov. 13, 2013) (citing *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007)).

Given that claims are construed in the context of the description of the invention, it is error to construe claims in a way that conflicts with the description. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010) (vacating Board decision based on erroneous claim construction and stating: “The broadest-construction rubric coupled with the term ‘comprising’ does not give the PTO an unfettered license to interpret claims to embrace anything remotely related to the claimed invention. Rather, claims should always be read in light of the specification and teachings in the underlying patent.”); *see also, In re NTP, Inc.*, 654 F.3d 1279, 1288 (Fed. Cir. 2011) (vacating Board decision based on erroneous claim construction and stating: “While the Board must give the terms their broadest reasonable construction, the construction cannot be divorced from the specification and the record evidence.”); *In re Abbott Diabetes Care, Inc.*, 696 F.3d 1142, 1149 (Fed. Cir. 2012) (vacating Board decision based on erroneous claim construction and stating: “Although the PTO emphasizes that it was required to give all claims their broadest reasonable construction, . . . this court has instructed that any such construction be consistent with the specification, and that claim

language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.” (quoting *In re Suitco Surface, Inc.*, 603 F.3d at 1260) (ellipses in original)). Ultimately, “[t]he construction that stays true to the claim language and most naturally aligns with the inventor’s description is likely the correct interpretation.” *Garmin Int’l, Inc.*, IPR2012-00001, Paper 59 at 8 (citing *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

Patent Owner objects to certain of Petitioner’s statements related to its proposed constructions:

- A. “a device for getting location information denoting a present place of said portable terminal” and “a device for getting direction information denoting an orientation of said portable terminal” (Claims 1, 5, and 10)**

Patent Owner agrees that both of these terms are means-plus-function terms. However, Patent Owner disagrees with Petitioner that these terms are indefinite for lack of sufficient corresponding structure (i.e., lack of sufficient algorithm). *See* Petition, at 14-18.²

² Petitioner raises certain indefiniteness allegations against the identified means-plus-function terms that Petitioner claims it intends to argue in district court. Patent Owner disputes these allegations and notes that Petitioner has been able to identify the associated structures for each of these terms in the Petition. Patent Owner reserves the right to provide further arguments in response to Petitioner’s

(Footnote continued)

If a challenged claim has a means-plus-function term, the petitioner is required to “identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.” 37 C.F.R. § 42.104(b)(3). The Board has routinely denied institution or terminated proceedings for failure to identify the corresponding structure in the specification. *See, e.g. Facebook, Inc. v. Sound View Innovations, LLC*, IPR2017-01006, Paper No. 14 (Aug. 29, 2017); *Facebook, Inc. v. Sound View Innovations, LLC*, IPR2017-01004, Paper No. 13 (Aug. 29, 2017); *Apple Inc., v. Immersion Corporation*, IPR2016-01372, Paper 7 (January 11, 2017); *Pride Solutions LLC v. Not Dead Yet Manufacturing, Inc.*, IPR2013-00627, Paper No. 14 (March 17, 2014).

Accordingly, Petitioner forwarded constructions for the corresponding structure for these two means-plus-function terms as follows:

- “a device for getting location information denoting a present place of said portable terminal” means “a wireless or cellular antenna, or a GPS, or a Personal Handyphone System; and an infrared ray sensor; and a control unit for analyzing received data, with the control unit

indefiniteness allegations at the district court, or to the extent Petitioner attempts to pursue such arguments in this proceeding.

calculating location information as disclosed in 5:48-56, and Fig. 2.”

Petition at 18-19.

- “a device for getting direction information denoting an orientation of said portable terminal” means “a compass, a gyro, a clinometer, and a control unit for analyzing sensor-measured data, thereby calculating direction information denoting an orientation of said portable terminal, with the control unit calculating direction information as disclosed in 4:14-29, 5:56-62, and Fig. 2.” Petition at 19.

Petitioner claims that they “have applied [Patent Owner]’s proposed algorithm as the claimed structure for purposes of this IPR, as the alleged BRI.” Petition at 18. That is not accurate. *See* ASUS-1023.

However, for purposes of this Preliminary Response only, Patent Owner does not dispute Petitioner’s proposed constructions for the corresponding structure for these two means-plus-function terms.³

³ Patent Owner reserves all rights regarding arguments for the construction of these terms under the *Phillips* standard, i.e., as set forth in litigation and/or in Patent Owner’s response to the extent the PTAB decides to institute this Petition. For example, the Petitioner’s proposed structure are overly narrow and conflate various alternative structures disclosed in the specification. However, Patent Owner will apply Petitioner’s forwarded constructions to the prior art in its Preliminary

(Footnote continued)

B. “walking navigation,” “walking navigation information,” and “said walking navigation” (Claims 1, 5, and 10)”

As Petitioner notes, a previous court has construed the terms “walking navigation” and “walking navigation information” as “information to navigate a user who is walking” and Petitioner has applied that construction in its analysis. Petition at 20. Patent Owner agrees that this construction is proper and have adopted this construction in its Preliminary Response.

For “said walking navigation,” Petitioner states that this term is indefinite for lack of antecedent basis and, for purposes of the IPR, means “walking navigation information.” Petition at 20. Patent Owner disagrees that this term is indefinite and does not believe it needs to be construed differently than the “walking navigation” and “walking navigation information” terms. However, for purposes of this IPR, Patent Owner adopts Petitioner's proposed construction in its Preliminary Response.

C. “route guidance information” and “neighborhood guidance information” (Claims 1, 5, 8, and 10)

Patent Owner disagrees with Petitioner that these terms are indefinite. Patent Owner agrees that the proper construction of these terms is “plain and ordinary meaning” and has applied that construction in its Preliminary Response.

Response because it is Petitioner's burden to propose a construction and then apply these constructions in the prior art analysis, which Petitioner fails to do.

To the extent Patent Owner has further objections to Petitioner's proposed or implicit constructions, such objections are not pertinent to this Preliminary Response. Accordingly, Patent Owner reserves all rights to provide additional arguments relating to Petitioner's claim construction positions if institution occurs.

IV. LEGAL STANDARD

A claim is not patentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. 35 U.S.C. § 103(a) (pre-AIA). Obviousness requires assessing (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." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

It is the petitioner's burden "to demonstrate both 'that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (quotations and citations omitted). However, a petitioner must first show that all of the claimed elements

are disclosed in the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006) (considering motivation to combine and reasonable expectation of success only “if all the elements of an invention are found in a combination of prior art references”). The Petition fails under this legal standard.

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

A. Ground 1: Petitioner Failed To Establish That Claims 1-3, 5-8 are Obvious Over Suzuki and Nosaka.

Petitioner failed to show a reasonable likelihood of success that claims 1-3, 5-8 are obvious over Suzuki in view of Nosaka. The Petition fails to demonstrate that the Suzuki/Nosaka combination discloses multiple limitations.

1. Ground 1 Has No Reasonable Likelihood of Succeeding Because the Suzuki/Nosaka Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims

- (a) The Suzuki/Nosaka combination does not disclose “a device for getting location information denoting a present place of said portable terminal” (claims 1 and 5)

Using Petitioner's own proposed construction of “a device for getting location information denoting a present place of said portable terminal,” the Suzuki/Nosaka combination does not disclose this limitation. Petitioner's proposed construction for the corresponding structure for this means-plus-function term is “a wireless or cellular antenna, or a GPS, or a Personal Handyphone

System; and an infrared ray sensor; and a control unit for analyzing received data, with the control unit calculating location information as disclosed in 5:48-56, and Fig. 2.” Petition at 18-19.⁴ However, neither Suzuki nor Nosaka disclose an “infrared ray sensor”—the phrase is completely absent from the translated copies of the references—a necessary component of Petitioner’s proposed construction. *See* Petition at 46-49. Petitioner attempts to paper-over this deficiency but such attempts should be rejected.

Suzuki discloses a GPS receiver, but this cannot be an infrared sensor under Petitioner’s proposed construction, which separates the two limitations with a semi-colon. Next, Petitioner points to the beacon receiver and states that “a POSITA would recognize as a ‘data receiver as an infrared ray sensor, or the like.’” Petition at 47. First, Petitioner is not even applying its own construction—the phrases “data receiver” and “or the like” do not appear in its proposed construction for this term. Second, Petitioner provides an unsupported statement

⁴ While Patent Owner does not contend that such a construction is proper, for purposes of the IPR, it is Petitioner’s burden to propose a construction and then explain how the construed claim is unpatentable. *See* 37 CFR § 42.104(b)(4). The Petition fails to do so. Thus, the Petition does not comply with the requirements set forth in 37 CFR § 42.104, and for this reason alone, the Petition should not be instituted.

about what a POSITA “would recognize,” but merely copies and pastes the near identical paragraph from Mr. Andrews’ declaration that itself does not provide any support for the statement. *See id.* Such a conclusory “opinion” is insufficient to establish that Suzuki discloses this limitation under the Petitioner’s proposed construction.

Regarding Nosaka, Petitioner relies on the GPS deduction unit 3, “step sensor,” directional sensor, and device antenna 10 as evidence this limitation is met. *See* Petition at 48-49. However, nowhere does Petitioner identify the infrared ray sensor. *See id.* Thus, similar to Suzuki, Nosaka does not disclose this limitation under Petitioner’s proposed construction.

- (b) The Suzuki/Nosaka combination does not disclose “a device for getting direction information denoting an orientation of said portable terminal” (claims 1 and 5)

Applying Petitioner’s own proposed construction of “a device for getting direction information denoting an orientation of said portable terminal,” the Suzuki/Nosaka combination does not disclose this limitation. For purposes of the IPR, Petitioner’s proposed construction for the corresponding structure for this means-plus-function term is “a compass, a gyro, a clinometer, and a control unit for analyzing sensor-measured data, thereby calculating direction information denoting an orientation of said portable terminal, with the control unit calculating

direction information as disclosed in 4:14-29, 5:56-62, and Fig. 2.” Petition at 19.⁵ However, neither Suzuki nor Nosaka disclose this limitation pursuant to Petitioner's proposed construction.

Regarding Suzuki, Petitioner claims that the “‘azimuth sensor’ that includes a geomagnetic sensor (i.e., a compass) and a gyro sensor” meets this limitation, but such hardware does not under Petitioner's proposed construction—at a minimum, Suzuki does not disclose a clinometer. *See* Petition at 49-51. As noted in the '498 Patent, a three-dimensional gyro could substitute for a compass and clinometer. *See* '498 Patent, 4:24-29. However, Suzuki does not disclose such a three-dimensional gyro. Petitioner admits this fact. *See* Petition at 40 (conceding that Suzuki and Colley do not “explicitly suggest using a three-axial gyroscope or an inclinometer”).

Regarding Nosaka, Petitioner claims that the compass 11 and three-axis accelerometer 22 satisfy this limitation according to its proposed construction.

⁵ While Patent Owner does not contend that such a construction is proper, for purposes of the IPR, it is Petitioner's burden to propose a construction and then explain how the construed claim is unpatentable. *See* 37 CFR § 42.104(b)(4). The Petition fails to do so. Thus, the Petition does not comply with the requirements set forth in 37 CFR § 42.104, and for this reason alone, the Petition should not be instituted.

Patent Owner disagrees. *See* Petition at 51-53. First, the three-axis accelerometer relates to the step-count sensor when the apparatus, for example, is in a bag. *See* ASUS-1008 [0072]. Nosaka does not disclose that three-axis accelerometer performs the functionality of the gyro/compass and clinometer as described in the '498 Patent. Second, Petitioner sets forth an conclusory inherency argument regarding the control unit, stating that "Nosaka would implicitly have a control unit for calculating the direction information based on the data from the compass and triaxial accelerometer." *See* Petition at 53. Petitioner does not provide any support for this statement. Petitioner cites to Mr. Andrews' declaration—ASUS-1003, §IX.B.ii.c—but this section merely includes the inadequate citations to Suzuki and Nosaka and does not support Petitioner's inherency (or "implicitly") argument. In sum, Mr. Andrews does not provide any additional opinions regarding Petitioner's unsupported inherency argument.

- (c) The Suzuki/Nosaka combination not disclose “wherein a direction and a distance of a destination from said present place are denoted with an orientation and a length of a line that is distinguished between starting and ending points to supply route guidance information as said walking navigation information” (claim 1)

Suzuki does not disclose the route guidance information as claimed. *See* Petition at 53-55. First, while Suzuki provides a “recommended route K,” this disclosure does not provide a “direction and a distance of a destination from said present place are denoted with an orientation and a length of a line that is distinguished between starting and ending points.” *See id.* Indeed, Petitioner concedes this point, consistently referring to Suzuki as allegedly disclosing a “rotating map display and directional guidance” (*see id.* at 37-38), but relying on Colley to provide the route information. *See id.* at 38 (“While Suzuki’s rotating map display and directional guidance indicate the direction to the destination, the display described by Colley not only indicates the direction to the destination, but also indicates the route to be taken and the direction the user is to travel to get to the route, should their path deviate.”). Second, although Petitioner describes Suzuki as disclosing some form of “directional guidance,” Suzuki does not show that the information provided contains a starting point and ending point in Figures 6A-B. *See id.* at 53-55. Thus, Suzuki does not disclose “a length of a line that is distinguished between starting and ending points to supply route guidance

information.” Finally, Petitioner's further citation to Suzuki (ASUS-1005, [0037]) comprises a vehicle-related embodiment, irrelevant for all of the challenged claim that relate to walking navigation. *See* Petition at 54.

Regarding Nosaka, Petitioner's citation to paragraph [0028] and Figure 8 do not disclose this limitation as claimed. *See* Petition at 55-56. Although Nosaka may denote a route having starting and ending points, neither Nosaka nor Mr. Andrews' annotations disclose a route showing direction and orientation. *See id.*

- (d) The Suzuki/Nosaka combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5], wherein said device for getting direction information gets information of a direction pointed by the tip[s] of said portable terminal, as well as an angle of elevation” (claims 2 and 6)

For the same reasons that Suzuki and Nosaka do not disclose the elements of claim 1 (from which claim 2 depends upon) and 5 (from which claim 6 depends upon), the Suzuki/Nosaka combination also does not disclose this element. *See supra* Sections V(A)(1)(a)-(c).

- (e) The Suzuki/Nosaka combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5] wherein said device for getting direction information gets orientation information of a display of said portable terminal” (Claims 3 and 7)

For the same reasons that Suzuki and Nosaka do not disclose the elements of claim 1 (from which claim 3 depends upon) and 5 (from which claim 7 depends

upon), the Suzuki/Nosaka combination also does not disclose this element. *See supra* Sections V(A)(1)(a)-(c).

- (f) The Suzuki/Nosaka combination does not disclose “wherein a local route around said present place is shown with a bent line and a direction of movement is shown with an arrow on said bent line to supply route guidance information as said walking navigation information” (Claim 5)

For Suzuki, Petitioner claims that the “recommended route K” passage and Figure 6 disclose this limitation. *See* Petition at 66-68. Patent Owner disagrees. At a minimum, Suzuki does not disclose “an arrow on said bent line to supply route guidance information as said walking navigation information.” Rather, at most, Suzuki discloses a floating “large arrow” that provides the user with a visual indication of how close s/he is to the recommended route. *See id.* (“By watching this arrow or listening to the guidance sound, the wearer can easily recognize which direction of the recommended route is in the landscape actually being watched.”). Petitioner also attempts to point to the “small arrow” apparently on the end of the recommended route as support for the direction of movement, but nothing in Suzuki explicitly indicates that the “small arrow” supplies route guidance information or walking navigation information.

Petitioner concedes this point, arguing as to what a POSITA would “understand” to be obvious—modifying the bent line to include an arrow as

claims. *See id.* at 68-69. But such an argument (and accompanying opinion by Mr. Andrews) is rooted in hindsight, conclusory, and unsupported.

- (g) The Suzuki/Nosaka combination does not disclose “The portable terminal with said function of walking navigation according to claim 5 wherein neighborhood guidance information is retrieved in a direction form said present place so as to supply said neighborhood guidance information as said walking navigation information” (Claim 8)

For the same reasons that Suzuki and Nosaka do not disclose the elements of claim 5 (from which claim 8 depends upon), the Suzuki/Nosaka combination also does not disclose this element. *See supra* Sections V(A)(1)(a)-(b), (f).

* * *

In sum, even if a POSITA combined Suzuki and Nosaka, the combination would not disclose multiple limitations. Accordingly, the Petition identifies no evidence these elements of the claims was obvious over the Suzuki/Nosaka combination, and Petitioner's asserted obviousness ground fails.

2. Ground 1 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Arguments for Suzuki/Nosaka.

The Petition also fails to establish obviousness of the challenged claims because it provides nothing more than unrelated excerpts from Suzuki and Nosaka. Petitioner fails to specify which elements of Suzuki it contends would have been

obvious to combine with Nosaka, let alone how or why such a combination would be made. *See ActiveVideo Networks, Inc. v. Verizon Comm's, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012) (“The expert failed to explain how specific references could be combined, which combination(s) of elements in specific references would yield a predictable result, or how any specific combination would operate to read on the asserted claims; *see also Innogenetics, N. V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008). And, instead of providing any “rational underpinning” to support its asserted obviousness grounds, Petitioner offers only “conclusory assertions.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

“Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development *to yield the claimed invention.*” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (emphasis added) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 421 (2007)).

“To establish that a particular combination of references would have been obvious, Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce the claimed invention.”

Guangdong Alison Hi-Tech Co., Ltd. v. Aspen Aerogels, Inc., Case IPR2017-00152, Paper 8 at 16 (P.T.A.B. Mar. 23, 2017) (citing *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (emphasis in original)).

Petitioner does not do so here.

(a) Petitioner Fails to Provide Sufficient Motivations to Modify Suzuki with Nosaka.

Petitioner articulates insufficient reasons why it would have been obvious to modify any particular elements of Suzuki with Nosaka to achieve the claimed invention with all its limitations, pursuant to Petitioner's proposed constructions.

Petitioner sets forth a general motivation to combine Suzuki with Nosaka. *See* Petition at 37-38. However, the professed reasons—e.g., providing “a more complete route guidance display for walks that indicate not only the direction to walk, but also the specific path to take” and effective “route guidance system” for walking in complicated city streets or inside multi-story buildings—are not limitations in the challenged claims. *See id.*; *see also id.* at 57. Petitioner provides a citation to Mr. Andrews' declaration—§IX.B.iv—but this is in relation to only challenged claim 3.

For some limitations and claims, Petitioner provides conclusory and unsupported “motivations,” sometimes citing to Mr. Andrews' declaration, which provides a near carbon-copy of the “motivation” in the Petitioner (i.e., no further

analysis or detailed explanation from a POSITA). *See* Petition at 61 (adding a three-axis gyro to Suzuki) and 68 (adding an arrow from Suzuki to the route in Nosaka).

For other limitations and claims, Petitioner sets forth what a POSITA “would understand” as to Suzuki and/or Nosaka but nowhere does Petitioner set forth sufficient motivation to modify Suzuki with Nosaka to disclose those claimed limitations. *See* Petition at 47, 63, 68; *see also Ferring B.V. v. Watson Laboratories, Inc.-Florida*, 764 F.3d 1401, 1407 (Fed. Cir. 2014) (affirming nonobviousness finding where prior art did not “provide[] any reason or motivation to combine . . . teachings to derive the *claimed* formulations”) (emphasis added).

However, stating what a POSITA “would understand” when Suzuki and/or Nosaka does not expressly or inherently describe a limitation does not transform that analysis to a sufficient motivation to combine analysis under same rationale as set forth in *Guangdong Alison*—there is no “how or why” required under *Innogenetics*. This deficiency is particularly apparent as Petitioner attempts to combine two different navigation techniques, including different hardware (e.g., Nosaka’s triaxial gyro)—this is not simply “the addition of one familiar element...to another.” *See* Petition at 37. For this reason alone, the ground fails.

(b) Petitioner Fails to Identify the Differences Between
Suzuki and Nosaka and Claimed Invention.

Petitioner improperly relies on hindsight to reconstruct the claimed invention from disparate elements without ever addressing the differences between the cited references and the claimed invention. This flaw is fatal; indeed, the obviousness analysis is rooted in the “differences” between the claimed invention and the art cited against it, among other factual considerations. 35 U.S.C. § 103(a); *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (reciting the familiar *Graham* factors, including the differences between the prior art and the claims at issue) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)); *see also LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper No. 7, 11 (PTAB Apr. 29, 2016) (rejecting an obviousness ground stating that the motivation to combine “rationale does not explain what differences between the challenged claims and Heo [primary reference] are being addressed by Ho [secondary reference]”).

Here, for nearly all of the limitations and claims, Petitioner provides citations to Suzuki and then then follows those citations with citations to Nosaka and/or statements of what a POSITA “would understand.” But nowhere does Petitioner identify the differences between the ’498 claims and Suzuki. *See generally* Petition at 45-72. In other words, it is unclear whether Petitioner

contends that the limitation is met by Suzuki or whether it is missing and Petitioner is relying on Nosaka to fill in the gaps.

(c) Petitioner Fails to Identify What Was Missing From Suzuki.

Petitioner's obviousness analysis lacks sufficient articulated reasons with rational underpinnings because Petitioner fails to identify what element is missing from Suzuki in its obviousness combination with Nosaka. In *LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper No. 7 (PTAB Apr. 29, 2016), the Board rejected two obviousness grounds because the Petitioner failed to explain under what circumstances the primary reference would not disclose a certain element. For example, the Board faulted Petitioner for not indicating in the petition that the primary reference had any deficiencies related to the element it asserts would also have been obvious in view of the secondary reference. *Id.* at 8. As a result, the Board found it unclear why a person of ordinary skill would turn to the teachings of the secondary reference for an element that, according to Petitioner, was also taught by the primary reference. *Id.*

Petitioner makes the same mistakes here. As explained above, for certain limitations and claims, the Petition provides cites to Suzuki but then follows those citations with citations to Nosaka and/or statements of what a POSITA "would understand." But nowhere does Petitioner identify what is missing in Suzuki or

specifically why a POSITA would look to Nosaka or the knowledge of a POSITA to account for these shortcomings.

* * *

For all these reasons, Petitioner has failed to show obviousness and institution should be denied.

B. Ground 2: Petitioner Failed to Established That Claims 1-3 and 5-8 are Obvious Over Suzuki in view of Colley.

For the same reasons set forth in Ground 1, Petitioner failed to show a reasonable likelihood of success that claims 1-3 and 5-8 are obvious over Suzuki in view of Colley. The Petition fails to demonstrate that the Suzuki/Colley combination discloses multiple limitations.

1. Ground 2 Has No Reasonable Likelihood of Succeeding Because the Suzuki/Colley Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.

- (a) The Suzuki/Colley combination does not disclose “a device for getting location information denoting a present place of said portable terminal” (claims 1 and 5)

For the same reasons that Suzuki did not disclose this element in Ground 1, the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(A)(1)(a).

Applying Petitioner's own proposed construction of “a device for getting location information denoting a present place of said portable terminal,” the

Suzuki/Colley combination does not disclose this limitation. For purposes of the IPR, Petitioner's proposed construction for the corresponding structure for this means-plus-function term is "a wireless or cellular antenna, or a GPS, or a Personal Handyphone System; and an infrared ray sensor; and a control unit for analyzing received data, with the control unit calculating location information as disclosed in 5:48-56, and Fig. 2." Petition at 18-19.⁶ However, as with Suzuki (*see supra*), Colley does not disclose an "infrared ray sensor"—the phrase is completely absent from the reference—a necessary component of Petitioner's proposed construction. *See* Petition at 73. Petitioner provides some general statements regarding Colley's disclosure—"utilizing data from a variety of navigation systems" and calculating the point along the current course that is closet to a predetermined destination" and "course-over-ground indication"—but this subject matter does not disclose the limitation according to Petitioner's proposed construction. *See id.*

⁶ While Patent Owner does not contend that such a construction is proper, for purposes of the IPR, it is Petitioner's burden to propose a construction and then explain how the construed claim is unpatentable. *See* 37 CFR § 42.104(b)(4). The Petition fails to do so. Thus, the Petition does not comply with the requirements set forth in 37 CFR § 42.104, and for this reason alone, the Petition should not be instituted.

- (b) The Suzuki/Colley combination does not disclose “a device for getting direction information denoting an orientation of said portable terminal” (claims 1 and 5)

For the same reasons that Suzuki did not disclose this element in Ground 1, the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(A)(1)(b).

Applying Petitioner's own proposed construction of “a device for getting direction information denoting an orientation of said portable terminal,” the Suzuki/Colley combination does not disclose this limitation. For purposes of the IPR, Petitioner's proposed construction for the corresponding structure for this means-plus-function term is “a compass, a gyro, a clinometer, and a control unit for analyzing sensor-measured data, thereby calculating direction information denoting an orientation of said portable terminal, with the control unit calculating direction information as disclosed in 4:14-29, 5:56-62, and Fig. 2.” Petition at 19.⁷ However, as with Suzuki (*see supra*), Colley does not disclose this limitation.

⁷ While Patent Owner does not contend that such a construction is proper, for purposes of the IPR, it is Petitioner's burden to propose a construction and then explain how the construed claim is unpatentable. *See* 37 CFR § 42.104(b)(4). The Petition fails to do so. Thus, the Petition does not comply with the requirements set forth in 37 CFR § 42.104, and for this reason alone, the Petition should not be instituted.

Although some general statements regarding a “user’s current track” are provided, Petitioner does not identify the presence of, at least, a compass, a gyro, a clinometer in Colley. *See* Petition at 74-75. Moreover, the only “expert support” cited is for the previous limitation. *See id.* at 75 (citing ASUS-1003, §IX.C.ii.b, the device for getting location information term). This citation to the wrong limitation is also the basis for Petitioner’s conclusory and unsupported inherency argument, which should be given no weight.

In sum, Petitioner provides no support—either with citation to the intrinsic evidence or to Mr. Andrews’ declaration—that Colley discloses this limitation pursuant to Petitioner’s proposed construction.

- (c) The Suzuki/Colley combination does not disclose “wherein a direction and a distance of a destination from said present place are denoted with an orientation and a length of a line that is distinguished between starting and ending points to supply route guidance information as said walking navigation information” (claim 1)

For the same reasons that Suzuki did not disclose this element in Ground 1, the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(A)(1)(c).

Moreover, for the same reasons that Colley failed to disclose the “device for getting direction information,” Colley also fails to disclose this limitation. *See* Section V(B)(1)(b).

- (d) The Suzuki/Colley combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5], wherein said device for getting direction information gets information of a direction pointed by the tip[s] of said portable terminal, as well as an angle of elevation” (claims 2 and 6)

For the same reasons that Suzuki and Colley do not disclose the elements of claim 1 (from which claim 2 depends upon) and 5 (from which claim 6 depends upon), the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a)-(c). Moreover, Petitioner concedes that neither Suzuki nor Colley disclose a three-axial gyroscope or inclinometer. Petition at 40. Despite this concession, Petitioner forwards an unsupported inherency argument both as to Colley and how a POSITA would modify the combination to meet the limitation—both are conclusory and should be ignored. *See id.* at 78.

- (e) The Suzuki/Colley combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5] wherein said device for getting direction information gets orientation information of a display of said portable terminal” (claims 3 and 7)

For the same reasons that Suzuki and Colley do not disclose the elements of claim 1 (from which claim 3 depends upon) and 5 (from which claim 7 depends upon), the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a)-(c).

- (f) The Suzuki/Colley combination does not disclose “wherein a local route around said present place is shown with a bent line and a direction of movement is shown with an arrow on said bent line to supply route guidance information as said walking navigation information” (claim 5).

For the same reasons that Suzuki and Colley do not disclose the elements of claim 5, the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a)-(b).

- (g) The Suzuki/Colley combination does not disclose “The portable terminal with said function of walking navigation according to claim 5 wherein neighborhood guidance information is retrieved in a direction from said present place so as to supply said neighborhood guidance information as said walking navigation information” (claim 8)

For the same reasons that Suzuki and Colley do not disclose the elements of claim 5 (from which claim 8 depends upon), the Suzuki/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a)-(b).

* * *

In sum, even if a POSITA combined Suzuki and Colley, the combination would not disclose multiple limitations. Accordingly, the Petition identifies no evidence these elements of the claims was obvious over Suzuki/Colley, and Petitioner's asserted obviousness ground fails.

2. Ground 2 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Arguments for Suzuki/Colley.

As noted in Section V(A)(2), Petitioner failed to (1) provide sufficient motivations to modify Suzuki with Nosaka; (2) identify the differences between Suzuki and Nosaka and claimed invention; and (3) identify what was missing from Suzuki. *See* Section V(A)(2). These arguments are equally applicable here to the combination of Suzuki in view of Colley.

Moreover, Petitioner provides citations to Suzuki and Colley and conclusory motivations to combine Suzuki with Colley, generically stating that the “additional guidance capability of Colley” would provide certain benefits to Suzuki. *See* Petition at 38-39, 72-80. However, even if those alleged benefits are realized, Petitioner cannot escape the fundamental result that the Suzuki/Colley combination does not disclose each of the elements of claims 1-3 and 5-8. Nor does Petitioner explain how or why a POSITA would integrate Colley's course-over-ground system to Suzuki's “directionally sensitive rotating map display” to meet the claim elements. *See Guangdong Alison*, Case IPR2017-00152, Paper 8 at 16 (“Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce the claimed invention.”). This deficiency is particularly apparent as Petitioner attempts to combine two different navigation

techniques—this is not simply “the addition of one familiar element...to another.”

See Petition at 39. For this reason alone, the ground fails.

Rather, Petitioner is improperly relying on hindsight based on the teachings of the '498 Patent and using these teachings as a guide. *See id.* at 38-39, 72-80. Petitioner's weaving of superficial similarities of Suzuki and Colley and conclusory statements regarding purported advantages does not provide any motivation to combine the references for a POSITA at the time of the '498 Patent's priority date. *See id.*

C. Ground 3: Petitioner Failed to Established That Claims 1-3 and 5-7 are Rendered Obvious By Suzuki in view of Colley and Ellenby.

Petitioner failed to show a reasonable likelihood of success that claims 1-3 and 5-7 are obvious over Suzuki in view of Colley and Ellenby. The Petition fails to demonstrate that the Suzuki/Colley/Ellenby combination discloses multiple limitations.

1. Ground 3 Has No Likelihood of Succeeding Because the Suzuki/Colley/Ellenby Combination Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.

For the bulk of the limitations relating to claims 1-3 and 5-7—numbered 1-5 on page 81 of the Petitioner—Petitioner referred back to Grounds 1 and 2. *See* Petition at 81. Thus, for the same reasons that Suzuki or the Suzuki/Colley combination did not disclose these elements of claims 1-3 and 5-7, the

Suzuki/Colley/Ellenby combination also does not disclose these elements. *See* Sections V(A)(1)-(2) and V(B)(1)-(2) (Grounds 1 and 2).

- (a) The Suzuki/Colley/Ellenby combination does not disclose “a device for getting direction information denoting an orientation of said portable terminal” (claims 1 and 5)

For the same reasons that Suzuki and/or Colley do not disclose this element for Grounds 1 and 2, the Suzuki/Colley/Ellenby combination also does not disclose this element. *See supra* Sections V(A)(1)(b) and V(B)(1)(b).

- (b) The Suzuki/Colley/Ellenby combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5], wherein said device for getting direction information gets information of a direction pointed by the tip[s] of said portable terminal, as well as an angle of elevation” (claims 2 and 6)

For the same reasons that Suzuki and Colley do not disclose the elements of claim 1 (from which claim 2 depends upon) and 5 (from which claim 6 depends upon), the Suzuki/Colley/Ellenby combination also does not disclose this element. *See supra* Sections V(A)(1)(d) and V(B)(1)(d).

* * *

In sum, even if a POSITA combined Suzuki, Colley, and Ellenby, the combination would not disclose multiple limitations. Accordingly, the Petition

identifies no evidence the above limitations and claims are obvious over Suzuki in view of Colley and Ellenby, and Petitioner's asserted obviousness grounds fail.

2. Ground 3 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Suzuki and Colley and Ellenby.

As noted in Sections V(A)(2) and V(B)(2), Petitioner failed to (1) provide sufficient motivations to modify Suzuki with Nosaka or Colley; (2) identify the differences between Suzuki and Nosaka and Colley and claimed invention; and (3) identify what was missing from Suzuki. *See* Sections V(A)(2) and V(B)(2). These arguments are equally applicable here to the combination of Suzuki in view of Colley and Ellenby.

Moreover, Petitioner provides conclusory motivations to combine Suzuki and Colley with Ellenby in an attempt to satisfy its own proposed constructions regarding the means-plus-function terms. *See* Petition at 40. However, Petitioner cannot escape the fundamental result that the Suzuki/Colley/Ellenby combination does not disclose the elements of claims 1-3 and 5-8 pursuant to Petitioner's proposed constructions. Nor does Petitioner explain how or why a POSITA would integrate Ellenby's hardware into the Suzuki/Colley combination. *See Guangdong Alison*, Case IPR2017-00152, Paper 8 at 16 ("Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce

the claimed invention.”). In fact, the Petitioner's failure to provide any motivation to combine all three references together is another reason to reject this ground.

Rather, Petitioner is improperly relying on hindsight based on the teachings of the '498 Patent and using these teachings as a guide. *See* Petition at 39-40, 81-84. Petitioner's weaving of superficial similarities of Suzuki, Colley, and Ellenby and conclusory statements regarding purported advantages does not provide any motivation to combine the references for a POSITA at the time of the '498 Patent's priority date. *See id.*

* * *

For all these reasons, Petitioner has failed to show obviousness over Suzuki in view of Colley and Ellenby and institution should be denied.

D. Ground 4: Petitioner Failed to Established That Claims 1-7, 9-13 are Rendered Obvious By Norris in view of Colley.

1. Ground 4 Has No Reasonable Likelihood of Succeeding Because Norris in view of Colley Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.

Petitioner failed to show a reasonable likelihood of success that claims 1-7 and 9-13 are obvious over Norris in view of Colley. The Petition fails to demonstrate that the Norris/Colley combination discloses multiple limitations.

- (a) The Norris/Colley combination does not disclose “a device for getting location information denoting a present place of said portable terminal” (claims 1, 5, and 10)

Applying Petitioner's own proposed construction of “a device for getting location information denoting a present place of said portable terminal,” the Norris/Colley combination does not disclose this limitation. For purposes of the IPR, Petitioner's proposed construction for the corresponding structure for this means-plus-function term is “a wireless or cellular antenna, or a GPS, or a Personal Handyphone System; and an infrared ray sensor; and a control unit for analyzing received data, with the control unit calculating location information as disclosed in 5:48-56, and Fig. 2.” Petition at 18-19. However, as with Colley (*see supra*), Norris does not disclose an “infrared ray sensor”—the phrase is completely absent from the reference—a necessary component of Petitioner's proposed construction. *See* Petition at 86-88. Petitioner points to Norris's disclosure of GPS receivers as support for meeting this limitation, but this material cannot be an infrared sensor under Petitioner's proposed construction, which separates the two limitations with the semi-colon. Thus, similar to Colley, Norris does not disclose this limitation under the Petitioner's proposed construction.

Moreover, for the same reasons that Colley did not disclose this element for Grounds 2 and 3, the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a) and V(C)(1).

- (b) The Norris/Colley combination does not disclose “a device for getting direction information denoting an orientation of said portable terminal” (claims 1, 5, and 10)

Applying Petitioner's own proposed construction of “a device for getting direction information denoting an orientation of said portable terminal,” the Norris/Colley combination does not disclose this limitation. For purposes of the IPR, Petitioner's proposed construction for the corresponding structure for this means-plus-function term is “a compass, a gyro, a clinometer, and a control unit for analyzing sensor-measured data, thereby calculating direction information denoting an orientation of said portable terminal, with the control unit calculating direction information as disclosed in 4:14-29, 5:56-62, and Fig. 2.” Petition at 19.⁸ However, as with Colley (*see supra*), Norris does not disclose this limitation under Petitioner's proposed construction.

Although, Petitioner identifies the alleged presence of a “GPS device [that] includes an internal compass and performs calculations to determine the

⁸ While Patent Owner does not contend that such a construction is proper, for purposes of the IPR, it is Petitioner's burden to propose a construction and then explain how the construed claim is unpatentable. *See* 37 CFR § 42.104(b)(4). The Petition fails to do so. Thus, the Petition does not comply with the requirements set forth in 37 CFR § 42.104, and for this reason alone, the Petition should not be instituted.

orientation of the device,” Petitioner does not identify a clinometer or three-dimensional gyroscope. *See* Petition at 88-90. In sum, Petitioner provides no support—either with citation to the intrinsic evidence or to Mr. Andrews’ declaration—that Colley discloses this limitation pursuant to Petitioner’s proposed construction.

Moreover, for the same reasons that Colley did not disclose this element for Grounds 2 and 3, the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(b) and V(C)(1)(a).

- (c) The Norris/Colley combination does not disclose “wherein a direction and a distance of a destination from said present place are denoted with an orientation and a length of a line that is distinguished between starting and ending points to supply route guidance information as said walking navigation information” (claim 1)

Norris does not disclose this limitation. Norris discloses, at most, a compass that provides directional information to the user’s destination. *See* Petition at 90-92. Norris does not disclose “a length of a line that is distinguished between starting and ending points to supply route guidance information.” Petitioner attempts to read the “grid” in Norris onto this limitation, but there is not a starting or ending point on the grid. *See id.* at 91-92.

Moreover, for the same reasons that Colley did not disclose this element for Grounds 2 and 3 (e.g., Colley does not disclose a “device for getting direction

information” pursuant to Petitioner’s claim construction), the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(c) and V(C)(1).

- (d) The Norris/Colley combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5/10], wherein said device for getting direction information gets information of a direction pointed by the tip[s] of said portable terminal[, as well as an angle of elevation]” (Claims 2, 6, 11, and 12)

For the same reasons that Norris and Colley do not disclose the elements of claim 1 (from which claim 2 depends upon), 5 (from which claim 6 depends upon), and 10 (from which claims 11 and 12 depend on), the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(d), V(C)(1)(b), and V(D)(1)(a)-(c).

- (e) The Norris/Colley combination does not disclose “A portable terminal, with the function of walking navigation according to Claim [1/5/10] wherein said device for getting direction information gets orientation information of a display of said portable terminal” (Claims 3, 7, and 13)”

For the same reasons that Norris and Colley do not disclose the elements of claim 1 (from which claim 3 depends upon), 5 (from which claim 7 depends upon), and 10 (from which 13 depends on), the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(e), V(C)(1), and V(D)(1)(a)-(c).

- (f) The Norris/Colley combination does not disclose “wherein a local route around said present place is shown with a bent line and a direction of movement is shown with an arrow on said bent line to supply route guidance information as said walking navigation information” (Claim 5).”

For the same reasons that Norris and Colley do not disclose the elements of claim 5, the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(f), V(C)(1), and V(D)(1)(a)-(b).

- (g) The Norris/Colley combination does not disclose “wherein location of a user of said portable terminal is determined according to said location information and said direction information” (Claims 4, 9, and 10)”

For the same reasons that Norris and Colley do not disclose the elements of claim 1 (from which claim 4 depends upon), 5 (from which claim 9 depends upon), and 10, the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a), V(C)(1), and V(D)(1)(a).

- (h) The Norris/Colley combination does not disclose “and wherein location of partner of the user is determined according to a location information from the partner's portable terminal” (Claims 4, 9, and 10)

For the same reasons that Norris and Colley do not disclose the elements of claim 1 (from which claim 4 depends upon), 5 (from which claim 9 depends upon), and 10, the Norris/Colley combination also does not disclose this element. *See supra* Sections V(B)(1)(a), V(C)(1), and V(D)(1)(a).

* * *

In sum, even if a POSITA combined Norris and Colley, the combination would not disclose multiple limitations. Accordingly, the Petition identifies no evidence the above limitations and claims are obvious over Norris in view of Colley, and Petitioner's asserted obviousness grounds fail.

2. Ground 4 Has No Reasonable Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Norris With Colley.

The Petition also fails to establish obviousness of the challenged claims because it provides nothing more than unrelated excerpts from Norris and Colley. Petitioner fails to specify which elements of Norris it contends would have been obvious to combine with Colley, let alone how or why such a combination would be made. *See ActiveVideo Networks, Inc. v. Verizon Comm's, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012) ("The expert failed to explain how specific references could be combined, which combination(s) of elements in specific references would yield a predictable result, or how any specific combination would operate to read on the asserted claims; *see also Innogenetics, N. V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008). And, instead of providing any "rational underpinning" to support its asserted obviousness grounds, Petitioner offers only "conclusory assertions." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

“Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development *to yield the claimed invention.*” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (emphasis added) (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 421 (2007)).

“To establish that a particular combination of references would have been obvious, Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce the claimed invention.” *Guangdong Alison Hi-Tech Co., Ltd. v. Aspen Aerogels, Inc.*, Case IPR2017-00152, Paper 8 at 16 (P.T.A.B. Mar. 23, 2017) (citing *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (emphasis in original).

Petitioner does not do so here.

(a) Petitioner Fails to Provide Sufficient Motivations to
Modify Norris with Colley.

Petitioner articulates insufficient reasons why it would have been obvious to modify any particular elements of Norris with Colley to achieve the claimed invention with all its limitations, pursuant to Petitioner’s proposed constructions.

Petitioner (and its expert) provides nothing but conclusory statements regarding any purported motivation to combine Norris and Colley that, even combined, do not disclose multiple limitations. *See* Pet. at 41-42. For example, Petitioner never explains how or why a POSITA would combine the generically described “navigation applications” of Colley with the specific RF tuner in Norris to meet this limitation—further dooming this ground. *See Guangdong Alison*, Case IPR2017-00152, Paper 8 at 16 (“Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce the claimed invention.”).

For example, the arrow 354 of Norris (e.g. Fig. 5) remains pointed toward a tracked GPS device. *ASUS-1010* at 7:30-39. In contrast, the course over ground (COG) 214 of Colley does not point toward the destination 220. Thus a POSITA would not be motivated to replace the arrow 354 of Norris with the COG 214 of Colley. Moreover, Norris operates on different principles from Colley. Norris relies on two GPS receivers to perform differential GPS calculations. In contrast, Colley's directional steering is based on point-of-closest-approach (PCA) calculations. *See ASUS-1011*, at 2:65-3:9. A POSITA would not be motivated to attempt to replace the second GPS of Norris with the PCA calculations of Colley because Norris's relative position detection is specially designed to operate with

differential GPS and would be rendered inoperable if the second GPS was removed and replaced by some form of PCA calculations.

Rather, Petitioner is improperly relying on hindsight based on the teachings of the '498 Patent and using these teachings as a guide. *See* Pet. at 41-42, 93, 97. Petitioner's weaving of superficial similarities of Norris and Colley and conclusory statements regarding purported advantages does not provide any motivation to combine the references for a POSITA at the time of the '498 Patent's priority date. *See id.*

(b) Petitioner Fails to Identify the Differences Between
Norris and Colley and Claimed Invention.

Petitioner improperly relies on hindsight to reconstruct the claimed invention from disparate elements without ever addressing the differences between the cited references and the claimed invention. This flaw is fatal; indeed, the obviousness analysis is rooted in the "differences" between the claimed invention and the art cited against it, among other factual considerations. 35 U.S.C. § 103(a); *see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (reciting the familiar *Graham* factors, including the differences between the prior art and the claims at issue) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)); *see also LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper No. 7, 11 (PTAB Apr. 29, 2016) (rejecting an obviousness ground

stating that the motivation to combine “rationale does not explain what differences between the challenged claims and Heo [primary reference] are being addressed by Ho [secondary reference]”).

Here, for nearly all of the limitations and claims, Petitioner provides citations to Norris and then then follows those citations with a cross-reference to Colley in Ground 2 and/or statements of what a POSITA “would understand.” But nowhere does Petitioner identify the differences between the ’498 claims and Norris. *See generally* Petition at 85-97. In other words, it is unclear whether Petitioner contends that the limitation is met by Norris or whether it is missing and Petitioner is relying on Colley to fill in the gaps.

(c) Petitioner Fails to Identify What Was Missing From Norris.

Petitioner's obviousness analysis lacks sufficient articulated reasons with rational underpinnings because Petitioner fails to identify what element is missing from Norris in its obviousness combination with Colley. In *LG Electronics, Inc. v. Cellular Communications Equipment LLC*, IPR2016-00197, Paper No. 7 (PTAB Apr. 29, 2016), the Board rejected two obviousness grounds because the Petitioner failed to explain under what circumstances the primary reference would not disclose a certain element. For example, the Board faulted Petitioner for not indicating in the petition that the primary reference had any deficiencies related to

the element it asserts would also have been obvious in view of the secondary reference. *Id.* at 8. As a result, the Board found it unclear why a person of ordinary skill would turn to the teachings of the secondary reference for an element that, according to Petitioner, was also taught by the primary reference. *Id.*

Petitioner makes the same mistakes here. As explained above, for certain limitations and claims, the Petition provides cites to Norris but then follows those citations with a cross-reference to Colley in Ground 2 and/or statements of what a POSITA “would understand.” But nowhere does Petitioner identify what is missing in Norris or specifically why a POSITA would look to Colley or the knowledge of a POSITA to account for these shortcomings.

* * *

For all these reasons, Petitioner has failed to show obviousness over Norris in view of Colley, and institution should be denied.

E. Ground 5: Petitioner Failed to Established That Claims 1-2, 5-6, 8, 10, and 12 are Rendered Obvious by Norris in view of Nosaka and Colley.

1. Ground 5 Has No Likelihood of Succeeding Because Norris in view of Nosaka and Colley Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.

For Ground 5 (claims 1-2, 5-6, 8, 10, and 12), Petitioner states that “Norris, Nosaka, and Colley disclose the elements of each of these claims as discussed in Grounds 1, 2, and 4. A POSITA would have been motivated to combine these

references as discussed in Section VII.C.6. ASUS-1003, § IX.F.viii.” Petition at 98. Accordingly, Patent Owner incorporates its arguments regarding Grounds 1, 2, and 4 herein by reference. *See* Sections V(A)(1), V(B)(1), and V(D)(1).

Apart from that incorporation, however, Petitioner's citations that allegedly support its arguments are woefully insufficient. Petitioner cross-cites to “Section VII.C.6,” but this section of the Petition relates to the purported motivations to combine Norris, Colley, and Ellenby—Nosaka is not mentioned. In addition, Petitioner cross-cites to Section IX.F.viii of Mr. Andrews' declaration, but this section relates only to Mr. Andrews' opinion on Claim 12 of the Norris/Nosaka/Colley combination and does not contain any motivations to combine the three references apart from Petitioner's conclusory statements in Section VII.C.5 of the Petition.

In sum, neither Norris, Nosaka, nor Colley disclose alone or in combination each of the limitations of the challenged claims pursuant to the Petitioner's proposed constructions.

2. Ground 5 Has No Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Norris With Nosaka and Colley.

As noted in Section V(D)(2), Petitioner failed to (1) provide sufficient motivations to modify Norris with Colley; (2) identify the differences between

Norris and Colley and the claimed invention; and (3) identify what was missing from Norris. *See* Section V(D)(2). These arguments are equally applicable here to the combination of Norris in view of Nosaka and Colley.

Moreover, Petitioner provides conclusory motivations to combine Norris and Colley with Nosaka, claiming that “a POSITA would have been motivated to further apply features of the navigation display described by Nosaka to the pedestrian navigation device of Norris.” Petition at 42. However, Petitioner cannot escape the fundamental result that the Norris/Colley/Nosaka combination does not disclose the elements of claims 1-2, 5-6, 8, 10, and 12 pursuant to Petitioner's proposed constructions. Nor does Petitioner explain how or why a POSITA would integrate Nosaka's navigation display and hardware (a three-axis accelerometer, but Petitioner's inherency argument related to such disclosure is unsupported, *see* Section V(A)(1)(b)) into the Norris/Colley combination. *See Guangdong Alison*, Case IPR2017-00152, Paper 8 at 16 (“Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the references to produce the claimed invention.”). This deficiency is particularly apparent as Petitioner attempts to now combine **three** different navigation techniques and additional hardware—this is not simply “the addition of one familiar element...to another.” *See* Petition at 43. In fact, the Petitioner's failure

to provide any motivation to combine all three references together is another reason to reject this ground.

Rather, Petitioner is improperly relying on hindsight based on the teachings of the '498 Patent and using these teachings as a guide. *See id.* at 42-43. Petitioner's weaving of superficial similarities of Norris, Colley, and Nosaka and conclusory statements regarding purported advantages does not provide any motivation to combine the references for a POSITA at the time of the '498 Patent's priority date. *See id.*

* * *

For all these reasons, Petitioner has failed to show obviousness and institution should be denied.

F. Ground 6: Petitioner Failed to Established That Claims 1-2, 5-6, 8, 10, and 12 are Rendered Obvious By Norris in view of Colley and Ellenby.

Petitioner failed to show a reasonable likelihood of success that claims 1-2, 5-6, 8, 10, and 12 are obvious over Norris in view of Colley and Ellenby. The Petition fails to demonstrate that Norris in view of Colley and Ellenby discloses multiple limitations.

1. Ground 6 Has No Likelihood of Succeeding Because Norris in view of Colley and Ellenby Does Not Disclose or Suggest Each and Every Element of the Challenged Claims.

For Ground 6 (claims 1-2, 5-6, 8, 10, and 12), Petitioner states that “Norris and Colley disclose each of the above-listed elements [numbered 1-5] as discussed in Grounds 2 and 4.” Petition at 98. Patent Owner disagrees. Petitioner does not provide any additional support or citation to Mr. Andrews’ declaration for this combination. Accordingly, Patent Owner incorporates its arguments regarding Grounds 2 and 4 herein by reference. *See* Sections V(B)(1) and V(D)(1).

Further, Petitioner states that, for elements numbered 6 and 7, “Norris and Colley disclose each of these elements as discussed in Grounds 2 and 4. Ellenby discloses each of these elements as discussed in Ground 3.” Petition at 99. Patent Owner disagrees. Accordingly, Patent Owner incorporates its arguments regarding Grounds 2-4 herein by reference. *See* Sections V(B)(1), V(C)(1), and V(D)(1).

In addition, Petitioner cross-cites to Section IX.G.viii of Mr. Andrews’ declaration,⁹ but this section only provides further conclusory opinions regarding purported motivations to combine the three references.

⁹ It appears that the subheading “viii” was omitted from Mr. Andrews’ declaration on page 585.

In sum, neither Norris, Colley, nor Ellenby disclose alone or in combination each of the limitations of the challenged claims pursuant to the Petitioner's proposed constructions.

2. Ground 6 Has No Likelihood of Succeeding Because Petitioner Does Not Articulate Any Rational Underpinning for Petitioner's Obviousness Combination of Norris With Colley and Ellenby.

As noted in Section V(D)(2), Petitioner failed to (1) provide sufficient motivations to modify Norris with Colley; (2) identify the differences between Norris and Colley and the claimed invention; and (3) identify what was missing from Norris. *See* Section V(D)(2). These arguments are equally applicable here to the combination of Norris in view of Colley and Ellenby.

Moreover, Petitioner provides conclusory motivations to combine Norris and Colley with Ellenby in an attempt to satisfy its own proposed constructions regarding the means-plus-function terms. *See* Petition at 43-44. However, Petitioner cannot escape the fundamental result that the Norris/Colley/Ellenby combination does not disclose the elements of claims 1-3 and 5-8 pursuant to Petitioner's proposed constructions. Nor does Petitioner explain how or why a POSITA would integrate Ellenby's hardware into the Norris/Colley combination. *See Guangdong Alison*, Case IPR2017-00152, Paper 8 at 16 ("Petitioner must explain both *how* and *why* one of ordinary skill in the art would have combined the

references to produce the claimed invention.”). In fact, the Petitioner's failure to provide any motivation to combine all three references together is another reason to reject this ground.

Rather, Petitioner is improperly relying on hindsight based on the teachings of the '498 Patent and using these teachings as a guide. *See id.* at 43-44. Petitioner's weaving of superficial similarities of Norris, Colley, and Ellenby and conclusory statements regarding purported advantages does not provide any motivation to combine the references for a POSITA at the time of the '498 Patent's priority date. *See id.*

* * *

For all these reasons, Petitioner has failed to show obviousness and institution should be denied.

G. The Board Should Disregard Mr. Andrews's Conclusory Declaration and Most of Petitioner's Exhibits

As noted above, the statements made by Petitioner's expert, Mr. Andrews, fail to provide any articulated reasoning with a rational underpinning necessary to support the conclusory statements regarding the claims of obviousness made in the Petition. *See Innogenetics, N. V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008); *see also* 37 C.F.R. §42.65(a) (“Expert testimony that does not disclose the

underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Mr. Andrews's statements largely parrot the conclusory statements in the Petition, and it is impossible to tell whether they are his own or are those of Petitioner's lawyers. For example, Mr. Andrews sporadically provides a few “motivation to combine” paragraphs here and there for a given combination (or modification of a single reference), but these “motivations” are nearly identical to those in the Petition. *Compare* Petition at 37-38 with ASUS-1003, ¶¶242-243 (Suzuki/Nosaka); Petition at 38-39 with ASUS-1003, ¶¶330-333 (Suzuki/Colley); Petition at 39-40 with ASUS-1003, ¶¶439-440 (Suzuki/Colley/Ellenby); Petition at 41-42 with ASUS-1003, ¶¶582-587 (Norris/Colley); Petition at 42-43 with ASUS-1003, ¶¶710-719 (Norris/Colley/Nosaka); Petition at 43-44 with ASUS-1003, ¶¶842-844 (Norris/Colley/Ellenby). Even worse, these “motivations” are conclusory and merely repeat the teachings of the prior art to conclude that the modification or combination would yield certain advantages or benefits. *See generally id.* Mr. Andrews also liberally sprinkles in other boilerplate language in his “motivation” paragraphs such as “this improvement of [prior art reference] would involve nothing more than the addition of one familiar element ([secondary reference element]) to another” (*id.* at ¶¶243, 332, 719), “this combination would produce the predictable result of providing a more complete and useful display for

pedestrian navigation. Further, this combination would simply represent an arrangement of old known elements with each performing the same function it had been known to perform and would yield no more than one would expect from such an arrangement” (*id.* at ¶¶243, 332, 440, 587, 715), and “This substitution of [secondary reference] in [primary reference] would represent a combination of familiar elements that would yield the predictable result of providing more complete guidance information to the user. In this combination, each of these systems would be performing the same function it had been known to perform and would yield no more than one would expect from such an arrangement.” *Id.* at ¶¶333, 719, 844. However, these statements are nothing more than impermissible hindsight that courts have warned against for decades. *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966) (discussing the “importance of guarding against hindsight ... and resist[ing] the temptation to read into the prior art the teachings of the invention in issue” when considering the obviousness of a patent).

Accordingly, Mr. Andrews’ opinions should be afforded no probative value. *Kinetic Techs., Inc. v. Skyworks Sol’ns, Inc.*, IPR2015-00529, Paper 8, at 15 (P.T.A.B. Sept. 23, 2014) (“Merely repeating an argument from the Petition in the declaration of a proposed expert does not give that argument enhanced probative value.”), at 18 (“Paragraphs 28, 29, and 30 of Dr. Mohapatra’s Declaration essentially are identical to the corresponding text of the Petition. Based on our

analysis above, we give Dr. Mohapatra's Declaration no probative weight."); *see also Wowza Media Sys., LLC v. Adobe Sys. Inc.*, IPR2013-00054, Paper12, at 12 (P.T.A.B. Apr. 8, 2013) ("The Declaration . . . appears, for the most part, simply to track and repeat the arguments for unpatentability presented in the Petition [and] . . . is therefore no more helpful tha[n] the Petition in determining where the challenged recitation is found in the references.").

For at least this reason, the declaration of Mr. Andrews should be afforded little or no weight, and the conclusory Petition should be denied.

VI. THE PETITION SHOULD BE DENIED BECAUSE IT EXCEEDS THE WORD LIMIT BY IMPROPERLY INCORPORATING ARGUMENTS BY REFERENCE

The Board should not institute *inter partes* review on any of the grounds set forth in the Petition. As Patent Owner has shown, Petitioner has not established a reasonable likelihood that the cited references render any of the challenged claims of the '498 Patent obvious.

Petitioner also exceeds the word limit by improperly incorporating by reference arguments presented only in the Expert Declaration. Nowhere is this circumvention of the word limit clearer than Petitioner's "discussion" of Grounds 5 and 6. Petitioner spends just 1.5 pages, with headings/subheadings constituting the bulk of the Sections, discussing two Grounds covering 7 claims each. *See* Petition at 98-99. In contrast, Mr. Andrews' discussion is 100 pages for Ground 5 (ASUS-

1003 at 394-494) and 93 pages for Ground 6 (*id.* at 494-587). Under 37 C.P.R. § 42.6(a)(3) such incorporation by reference from one document into another is improper. The rationale behind this rule is simple: The Board should “address only the basis, rationale, and reasoning put forth by Petitioner in the petition.” *Liberty Mutual Insurance Company v. Progressive Casualty Insurance Company*, CBM2012- 00003, Paper 8, p. 10 (P.T.A.B. Sept. 16, 2012) (emphasis supplied).

For example, the Petition cites large portions of Mr. Andrews’ nearly **600 page** declaration and accompanying appendices, including for nearly each claim limitation.

The Board should not be required to sift through paragraph after paragraph, page after page, of the Expert Declaration to look for support for Petitioner’s conclusory statements—support that in fact is not even present in the declaration. *See A. C. Dispensing Equipment Inc. v. Prince Castle LLC*, IPR2014-00511, Paper 16, pp. 6-7 (P.T.A.B. March 17, 2014) (The “practice of citing the Declaration to support conclusory statements that are not otherwise supported in the Petition amounts to incorporation by reference Accordingly, we will not consider .. . arguments incorporated by reference to the belatedly cited paragraphs of the Miltzer Declaration”).

VII. CONCLUSION

The Board should not institute *inter partes* review on any of the grounds set forth in the Petition. As Patent Owner has shown, Petitioner has not established a reasonable likelihood that the cited references render any of the challenged claims of the '498 Patent obvious.

Patent No. 6,430,498
Patent Owner's Preliminary Response

Dated: January 22, 2019

Respectfully submitted,

/Robert G Pluta Reg No 50970 /
Robert G. Pluta (Reg. No. 50,970)
Michael J. Word (Reg. No. 57,386)
Amanda S. Bonner (Reg. No. 65,224)
Luiz A. Miranda (Reg. No. 74,762)
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: (312) 701-8641
Fax: (312) 706-8144
rpluta@mayerbrown.com

Jamie B. Beaber
(Pro Hac Admission to be Sought)
Saqib J. Siddiqui (Reg. No. 68,626)
Mayer Brown, LLP
1999 K Street NW
Washington DC, 20006

Counsel for Maxell, Ltd.

CERTIFICATE OF SERVICE

I hereby certify that on this 22nd day of January, 2019, a copy of the attached PRELIMINARY RESPONSE TO PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,430,498, together with all exhibits was served by electronic mail to the attorneys of record, at the following addresses:

Christopher T.L. Douglas (lead counsel)
Alston & Bird LLP
Bank of America Plaza, 101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel: 704.444.1000
Fax: 704.444.1111
Christopher.Douglas@alston.com

Thomas W. Davison (Reg. No. 57,160)
Alston & Bird LLP
950 F Street, NW
Washington, DC 20004-1404
Tel: 202.239.3933
Fax: 202.654.4913
Tom.Davison@alston.com,

Derek S. Neilson (Reg. No. 65,447)
2828 North Harwood Street
18th Floor, Dallas, TX 75201-2139
Tel: 214.922.3400
Fax: 214.922.3899
Derek.Neilson@alston.com
ASUS-Maxell@alston.com

Patent No. 6,430,498
Patent Owner's Preliminary Response

Respectfully submitted,

Date: January 22, 2019

By: /Robert G Pluta Reg No 50970/
Robert G. Pluta (Reg. No. 50,970)
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: (312) 701-8641
Fax: (312) 706-8144
rpluta@mayerbrown.com

Counsel for Maxell, Ltd.

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

Pursuant 37 C.F.R. 42.24(d), the undersigned certifies that this Preliminary Response and complies with the type-volume limitation of 37 C.F.R. §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 12,620 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

Respectfully submitted,

/Robert G Pluta Reg No 50970/
Robert G. Pluta (Reg. No. 50,970)
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: (312) 701-8641
Fax: (312) 706-8144
rpluta@mayerbrown.com