

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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L&P PROPERTY MANAGEMENT COMPANY,  
Petitioner,

v.

NATIONAL PRODUCTS INC.,  
Patent Owner.

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Case IPR2016-00475  
Patent 9,036,343 B2

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Before JENNIFER S. BISK, MICHAEL J. FITZPATRICK, and  
JOHN A. HUDALLA, *Administrative Patent Judges*.

HUDALLA, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*Inter Partes* Review  
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

Petitioner, L&P Property Management Company (“L&P”), filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–20 of U.S. Patent No. 9,036,343 B2 (Ex. 1001, “the ’343 patent”) pursuant to 35 U.S.C. §§ 311–319. Patent Owner, National Products Inc. (“NPI”), filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). Taking into account the arguments presented in NPI’s Preliminary Response, we determined that the information presented in the Petition established that there is a reasonable

likelihood that L&P would prevail in challenging claims 1–20 of the ’343 patent under 35 U.S.C. § 103(a). Pursuant to 35 U.S.C. § 314, we instituted this proceeding on July 21, 2016, as to these claims of the ’343 patent. Paper 8 (“Institution Decision” or “Dec. on Inst.”).

During the course of trial, NPI filed a Patent Owner Response (Paper 12, “PO Resp.”), and L&P filed a Reply to the Patent Owner Response (Paper 17, “Pet. Reply”). An oral hearing was held on April 27, 2017, and a transcript of the hearing is included in the record. Paper 26 (“Tr.”).

L&P proffered a Declaration of Jason Lewandowski (Ex. 1014) with its Petition. NPI proffered a Declaration of Jeffrey D. Carnevali (Ex. 2014) with its Response. L&P also filed a transcript of the deposition of Mr. Carnevali (Ex. 1049).

We have jurisdiction under 35 U.S.C. § 6. This decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of claims 1–20 of the ’343 patent. For the reasons discussed below, L&P has demonstrated by a preponderance of the evidence that these claims are unpatentable under § 103(a).

## I. BACKGROUND

### A. *Related Proceeding*

Both parties identify the following proceeding related to the ’343 patent (Pet. 1; Paper 5, 2): *National Products, Inc. v. Gamber-Johnson LLC*, Case No. 2:15-cv-01571-MJP (W.D. Wash. filed Oct. 1, 2015).

B. The '343 patent

The '343 patent is directed to “quick release docking stations for portable computers and other portable electronics devices having one or more input/output (I/O) communication ports.” Ex. 1001, 1:20–23. Figure 5 of the '343 patent is reproduced below.

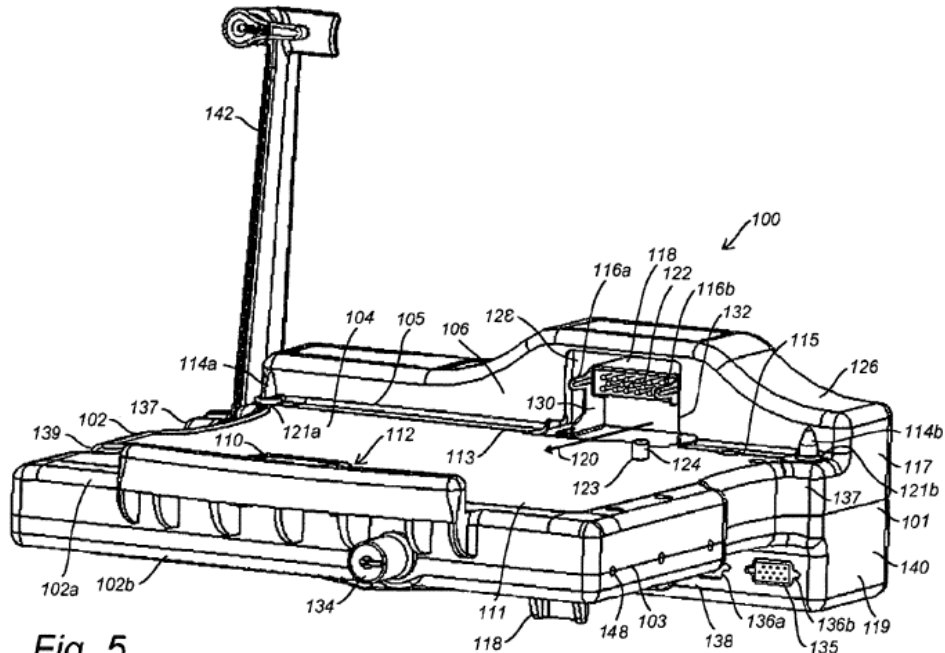


Fig. 5

Figure 5 is a perspective view of docking station 100 having two-piece body 102 with upper body portion 102a connected to lower body portion 102b along line 103 of mutual contact. *Id.* at 12:21–30. Bearing surface 104 is structured to support the bottom of a portable computer, whereas connector presentation surface 106 is structured to present an expansion connector 108<sup>1</sup> to the back of the portable computer. *Id.* at 12:30–38. Receiver structure 110 is positioned opposite from connector presentation surface 106

<sup>1</sup> We agree with L&P that expansion connector 108 is mislabeled as 118 in the upper portion of Figure 5. *See* Pet. 4. Reference numeral 118 in the lower portion of Figure 5 correctly identifies sliding expansion connector drive mechanism 118.

and includes open jaw structure 112 structured to mate with a tongue on the front of the portable computer. *Id.* at 12:43–49. Operation of sliding expansion connector drive mechanism 118 causes expansion connector 108 and guide pins arms 116a, 116b to move toward open jaw structure 112 so that guide arms 116a, 116b are fitted in interface apertures in the rear of the portable computer before expansion connector 108 connects with the portable computer's input/output connector. Locking latch mechanism 134 may be used to constrain expansion connector drive mechanism 118 such that expansion connector 108 and guide arms 116a, 116b remain in a deployed position. *Id.* at 14:51–59. Display unit support 142 supports the display portion of the portable computer. *Id.* at 15:61–65.

Figure 16 of the '343 patent is reproduced below.

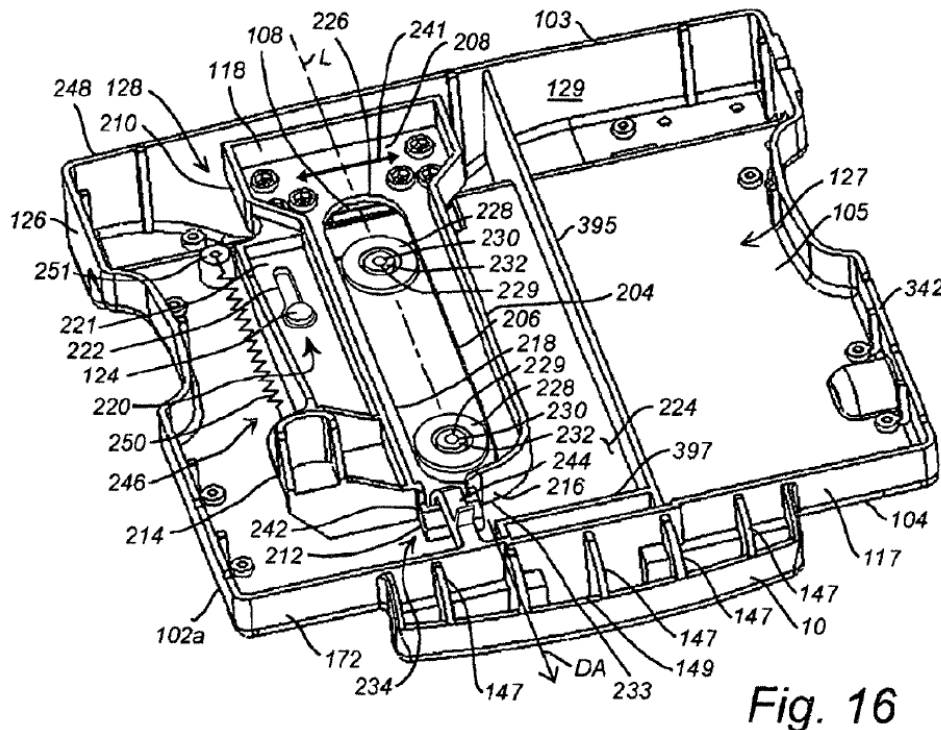


Fig. 16

Figure 16 is a perspective view of the inside of upper body portion 102a showing more detail of expansion connector drive mechanism 118. *Id.* at 20:38–42. Retraction mechanism 246 is used to retract expansion connector

108; it includes resilient retraction mechanism 250, such as a spring, to urge connector drive mechanism 118 toward a disengaged position. *Id.* at 23:4–23.

L&P contends June 30, 2006, is the earliest possible priority date to which the claims of the '343 patent are entitled. Pet. 3; Ex. 1001, at [63]. As discussed below, L&P establishes that its asserted references qualify as prior art even when assuming that June 30, 2006, is the effective filing date for the challenged claims of the '343 patent.

*C. Illustrative Claim*

Claims 1, 9, and 10 of the '343 patent are independent. Claims 2–8, 15, 16, 19, and 20 directly or indirectly depend from claim 1, and claims 11–14, 17, and 18 directly or indirectly depend from claim 10. Claim 1 is illustrative of the challenged claims and recites:

1. A molded docking station for laptops, mini-laptops, notebooks, netbooks, and ultra mobile personal computers (UMPCs), the docking station adapted for mounting in vehicle applications and comprising:

a housing comprising:

a molded wall,

a device bearing surface on a first portion of an outer surface of the wall between opposing side edges thereof,

an expansion connector presentation edge of the wall positioned adjacent to a rear portion of the device bearing surface between the opposing side edges of the wall, and

a mounting structure coupled for securely mounting the housing in a vehicle;

a linear expansion connector drive mechanism having a movable connector seat portion movably coupled to a portion of the molded wall between the opposing side edges thereof for substantially linear motion along a linear drive axis relative to the expansion connector presentation edge of the wall, and a driver that is movable between the opposing side edges of the wall and is further coupled to the movable connector seat portion for linear motion thereof;

an expansion connector coupled to the movable connector seat portion of the expansion connector drive mechanism for motion relative to the expansion connector presentation edge of the wall;

a handle coupled to the linear expansion connector drive mechanism for moving the expansion connector between engaged and disengaged positions; and

a resilient retraction mechanism coupled to the linear expansion connector drive mechanism for urging the expansion connector toward the disengaged position.

Ex. 1001, 51:51–52:17.

*D. The Prior Art*

L&P relies on the following prior art:

Nguyen et al., U.S. Patent No. 6,280,212 B1, filed Apr. 18, 2000, issued Aug. 28, 2001 (Ex. 1003, “Nguyen”);

Installation Instructions for Revolution Docking Station, Form #INST-197, dated Feb. 25, 2004 (Ex. 1004, “Revolution Instructions”);

Revolution In-Vehicle Docking Station User Guide, Version 1.0, dated Mar. 30, 2004 (Ex. 1005, “Revolution Guide”);

Yamamoto, U.S. Patent No. 5,701,229, filed Apr. 17, 1996, issued Dec. 23, 1997 (Ex. 1006, “Yamamoto”)

Installation Instructions for Panasonic Toughbook 27/28/29 Docking Stations, Form # INST-200, dated Oct. 29, 2004 (Ex. 1007, “Pandock Instructions”)

Excerpts from 2005 Gamber-Johnson Product Catalog, “2005 Solutions Manual” (Ex. 1008, “2005 Catalog”); and

Nakajima et al., U.S. Patent No. 5,796,579, filed Feb. 7, 1997, issued Aug. 18, 1998 (Ex. 1009, “Nakajima”).

*E. Instituted Grounds*

We instituted trial based on the following grounds (Dec. on Inst. 26):

| References                                                            | Basis              | Claims Challenged |
|-----------------------------------------------------------------------|--------------------|-------------------|
| Nguyen, Revolution <sup>2</sup> , Pandock <sup>3</sup> , and Yamamoto | 35 U.S.C. § 103(a) | 1–20              |
| Nguyen, Revolution, Pandock, Yamamoto, and Nakajima                   | 35 U.S.C. § 103(a) | 1–20              |

*F. Claim Interpretation*

In an *inter partes* review, we construe claims by applying the broadest reasonable interpretation in light of the specification. 37 C.F.R. § 42.100(b); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard as the claim construction standard to be applied in an *inter partes* review

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<sup>2</sup> In its unpatentability contentions, L&P’s references to “Revolution” collectively refer to the Revolution Instructions and the Revolution Guide. *See* Pet. 15–16; *see also infra* § II.A.4.

<sup>3</sup> In its unpatentability contentions, L&P’s references to “Pandock” collectively refer to the Pandock Instructions and the 2005 Catalog. *See* Pet. 24; *see also infra* § II.A.5.

proceeding). Under the broadest reasonable interpretation standard, and absent any special definitions, claim terms are 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. *See In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms or phrases must be set forth “with reasonable clarity, deliberateness, and precision.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

1. *L&P’s Arguments Regarding 35 U.S.C. § 112 ¶ 6*

Although L&P provides no supporting analysis under 35 U.S.C. § 112 ¶ 6,<sup>4</sup> L&P proposes constructions for three claim limitations “to the extent the Board concludes they are means-plus-function limitations.” Pet. 9–11. We observe that none of the three claim limitations at issue—(1) “guide mechanism,” (2) “guide mechanism supporting structure,” and (3) “resilient retraction mechanism”—includes the word “means.” The absence of the word “means” in a claim limitation creates a rebuttable presumption that 35 U.S.C. § 112 ¶ 6 does not apply. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348–49 (Fed. Cir. 2015). “[T]his presumption ‘imposes on [the party seeking to overcome the presumption] the burden of going forward with evidence to rebut ... the presumption.’” *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003) (quoting Fed. R. Evid.

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<sup>4</sup> The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103 & 112. Because the challenged claims of the ’343 patent have an effective filing date before the effective date of the applicable AIA amendments, throughout this Final Written Decision we refer to the pre-AIA versions of 35 U.S.C. §§ 102, 103 & 112.

301). Thus, for § 112 ¶ 6 to apply to these three claim limitations, “a preponderance of the evidence [must show] that the limitations, as a whole, do not connote sufficiently definite structure to one of ordinary skill in the art.” *Id.* at 1375.

NPI argues that L&P has failed to rebut the presumption that § 112 ¶ 6 does not apply. PO Resp. 19–22. Because of the absence of any developed argument from L&P, we agree with NPI. Accordingly, we decline to adopt L&P’s proffered constructions based on § 112 ¶ 6.

2. “*resilient retraction mechanism*”

Despite our determination above regarding treatment under § 112 ¶ 6, the parties dispute the meaning of “resilient retraction mechanism” in claims 1, 9, and 10. *See* PO Resp. 17–21; Pet. Reply 11–15. NPI contends this term should be construed as “a retraction structure adapted for automatic linear retraction that includes a spring or equivalent.” PO Resp. 17. This is the same construction that NPI propounded in its Preliminary Response except that NPI has added the word “automatic.” *Compare* Prelim. Resp. 4, *with* PO Resp. 17. NPI cites other limitations in claims 1, 9, and 10 as requiring “the expansion connector drive mechanism [to] drive[] the expansion connector between the engaged and disengaged positions in a linear fashion”; thus, according to NPI, “the resilient retraction mechanism must also be linear.” PO Resp. 18. NPI also argues the Specification of the ’343 patent “repeatedly indicates that the biasing mechanism ‘operates to *automatically* retract the expansion connector’ from the deployed position.” *Id.* at 19 (quoting Ex. 1001, 23:15–20) (emphasis added by NPI).

L&P asks us to reject NPI's proposed construction "because it attempts to read into the claims extraneous limitations, namely, 'automatic' and 'linear.'" Pet. Reply 11. Instead, L&P proposes the following construction: "a spring or similar item that is capable of regaining its original shape or position after being bent, stretched, or compressed and that is used to urge an expansion connector to the disengaged position." *Id.* at 14–15.

Both parties acknowledge that, outside of the claims, the Specification of the '343 patent never uses the term "resilient retraction mechanism." PO Resp. 18; Pet. Reply 12. Both parties cite the Specification's description of "resilient biasing mechanism 250, such as a tension spring" as informing the proper construction of the recited "resilient retraction mechanism." See Pet. 11; PO Resp. 18; Pet. Reply 13 (all quoting Ex. 1001, 23:9–10). Notwithstanding, NPI attempts to differentiate between resilient biasing mechanism 250 and retraction mechanism 246. PO Resp. 18. In particular, NPI focuses on the Specification's statement that "the retraction mechanism 246 *includes* a resilient biasing mechanism 250." *Id.* (quoting Ex. 1001, 23:8–10) (emphasis added by NPI). Accordingly, NPI argues "[r]esilient biasing mechanism 250, which may but need not be a spring, is merely part of that retraction mechanism." *Id.* at 18–19. In reply, L&P argues "the '343 patent specification uses retraction mechanism and biasing mechanism interchangeably." Pet. Reply 13 (citing Ex. 1001, 7:15–22, 23:4–30, 27:49–53, 31:11–32, 48:59–49:4, 49:54–60, 49:65–50:11). L&P quotes a Specification statement referring to "the retraction mechanism 246, *for example the tension spring shown*" as supporting the interchangeable use

of the mechanism 246 and mechanism 250. *Id.* (quoting Ex. 1001, 27:49–53) (emphasis added by L&P).

Having reviewed the Specification, we do not agree with NPI that retraction mechanism 246 and resilient biasing mechanism 250 must be different structures (i.e., that they cannot be one and the same). As mentioned by L&P, reference numerals 246 and 250 point to the same spring in each figure. *Id.* at 12 (citing Ex. 1001, Figs. 16, 18, 19, 20, 21, 28). Furthermore, the passage cited by L&P (*id.* at 13) equates retraction mechanism 246 to a tension spring, which is expressly stated to be an example of a resilient biasing mechanism 250. *See* Ex. 1001, 23:8–10, 27:49–53. Thus, in the context of our broadest reasonable interpretation standard, we discern no difference between mechanisms 246 and 250 that bears on the construction of a “resilient retraction mechanism.”

Regarding NPI’s contention that the “resilient retraction mechanism” must be “linear,” NPI’s arguments relate to the surrounding claim limitations in claims 1, 9, and 10, as opposed to the “resilient retraction mechanism.” *See* PO Resp. 18. More specifically, the “linear” aspect of the claim limitation is expressly ascribed to “expansion connector drive mechanism,” not the “resilient retraction mechanism.” *See, e.g.,* Ex. 1001, 52:15–17. In the absence of any evidence that the “resilient retraction mechanism” itself must be linear, we decline to construe it as such.

NPI’s contention that the “resilient retraction mechanism” must be “automatic” similarly relies on extraneous claim language. In particular, NPI’s arguments focus on the *effect* of the resilient retraction mechanism, which is “to automatically retract the expansion connector.” *See* PO Resp. 19 (citing Ex. 1001, 23:15–20, 31:11–14, 49:65–50:2). In our view,

NPI's added "automatic" language is unnecessary and does not further elucidate the construction of "resilient retraction mechanism," because claims 1, 9, and 10 already recite that the resilient retraction mechanism "urg[es] the expansion connector toward the disengaged position." In addition, we agree with L&P (Pet. Reply 12) that the Specification section about automatic retraction cited by NPI is made "by example and without limitation," so we need not restrict the "resilient retraction mechanism" in the manner proposed by NPI. *See* Ex. 1001, 23:8.

Having considered the parties' arguments and the treatment of the term in the Specification, we interpret "resilient retraction mechanism" to mean "a resilient mechanism, such as a spring, for retracting/urging the expansion connector toward the disengaged position."

### 3. "molded"

The challenged claims include limitations directed to a "molded docking station," a "molded wall," and a "molded apparatus body." In our Decision on Institution, we determined that claims containing "molded" limitations are product-by-process claims, because these limitations are defined by the process by which they are made, molding. Dec. on Inst. 8–9.

NPI cites *3M Innovative Properties Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003), for the proposition that "even words of limitation that can connote with equal force a structural characteristic of the product or a process of manufacture are commonly and by default interpreted in their structural sense, unless the patentee has demonstrated otherwise." PO Resp. 13. NPI contends an ordinarily skilled artisan would have recognized that "a molded part [is] structurally different than a

corresponding non-molded part . . . because a molded part—including any integral features—is made of a single, uniform piece of material” with “no seams, joints, fasteners, or adhesives holding it together.” *Id.* at 14–15 (citing Ex. 2014 ¶¶ 22–27). Therefore, NPI argues “molded” should be construed as “an adjective describing the structure of the claimed docking stations, and not as incorporating an unspecified process of manufacture.” *Id.* at 16–17.

L&P argues that, “[t]o the extent there are structural differences between molded parts and non-molded parts, the claims do not recite those structural differences.” PO Resp. 5. Citing to portions of the Specification that associate the words “method” and “formed” with “molding” or “molded,” L&P contends “[t]he challenged claims use the term ‘molded’ merely as an adjective to describe the process used to form a part.” *Id.* at 3–4 (citing Ex. 1001, 43:48–53, 44:1–33; 45:14–61; 46:8–62, 47:5–55). L&P also contends that NPI’s cited cases favoring a structural connotation involved claim terms that “defined a claimed structural characteristic or relationship,” whereas the ’343 patent and Mr. Carnevali’s declaration “describe the claimed docking station only as a product made by a molding process.” *Id.* at 5–6 (citing Ex. 1001, 43:48–47:55; Ex. 2014 ¶¶ 13–21, 23–28).

Regarding the alleged structural connotation of “molded,” the Specification describes “molding” in terms of processes, rather than particular structures that result from a process. *See* Ex. 1001, 43:47–67 (referring to “the ‘molding’ process”). Moreover, NPI’s citation of the Specification’s description of “the materials of which the molded housing might be made” (PO Resp. 15 (citing Ex. 1001, 43:59–67)) undermines,

rather than supports, a structural connotation to “molded,” because this also focuses on the process, not the structure. Nor do references to the cost, strength, quality, or consistency of molded parts in the Specification (*see id.* (citing Ex. 1001, 5:3–5)) impart a structural meaning to “molded” parts. Furthermore, the fact that the Specification also mentions the optional integral molding of “additional structures such as the integral housing portion and device receiver structure” (*id.* (citing Ex. 1001, 44:33–55, 44:60–66)) does not support NPI’s position. To the extent NPI contends that the word “molded” implies these optional structures are integral to the recited “molded wall,” certain claims already recite the integral nature of such structures separate from the word “molded.” *See* Ex. 1001, 53:53–54 (claim 10 reciting “the device receiver structure is *integrally* molded with the molded wall” (emphasis added)), 54:60–61 (same recitation in claim 20). This shows that the patentee knew how to expressly claim characteristics NPI now ascribes to “molded”; we decline to read in such characteristics in the absence of express claim language.

In addition, we do not agree with NPI that “molding” as used in ’343 patent is “unspecified” simply because molding “encompasses many different methods of manufacture.” *See* PO Resp. 15–17 (citing Ex. 2014 ¶¶ 12–21). The fact that the Specification describes varieties of “molding” (Ex. 1001, 43:47–67) does not change our analysis. Rather, the Specification’s description of the various molding processes by which an ordinarily skilled artisan might create “molded” components further supports our determination that the “molded” limitations are process limitations. And NPI’s cited cases regarding “twisted together” and “integral” limitations (*see* PO Resp. 15 (citing *Belden Inc. v. Berk-Tek LLC*, 610 F. App’x 997, 1004

(Fed. Cir. 2015)); *Vanguard Prods. Corp. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed. Cir. 2000)) are distinguishable because these limitations are not tied to a “particular manufacturing process” in the way that “molded” is. Thus, we determine the intrinsic evidence does not support a structural connotation for “molded.”

“Extrinsic evidence, such as dictionaries and expert testimony, may be useful, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319. Extrinsic evidence is generally considered “less significant than the intrinsic record.” *Id.* at 1317–18. The extrinsic evidence of record does not affect our determination regarding the “molded” limitations. Mr. Lewandowski simply restates the Specification’s examples of molding processes. Ex. 1014 ¶ 28 (citing Ex. 1001, 43:34–67). Mr. Carnevali testifies that “molded parts share structural and functional characteristics that differentiate them from non-molded parts manufactured through other processes.” Ex. 2014 ¶ 22. But, for the same reasons mentioned above, Mr. Carnevali’s annunciation of those characteristics, such as being “made of a single, uniform piece, with no seams, joints, fasteners, or adhesives holding it together” (*id.* ¶ 23), do not impart a structural connotation in the absence of support in the Specification and where other claims expressly recite certain of these characteristics. The remainder of Mr. Carnevali’s testimony on the subject of molding focuses on characteristics and qualities of molded parts, rather than structure that necessary stems from the word “molded.” *See id.* ¶¶ 22–28.

We additionally observe that NPI’s failure to propose a construction reflecting the alleged structural connotation beclouds NPI’s arguments. *See*

Tr. 26:4–8. Although we acknowledge that NPI is not required to proffer a construction, the absence of such a proffer leaves us with no clear position from NPI on how we should compare the alleged structure of the “molded” limitations to the prior art. For example, when L&P pointed out various characteristics of the docking station in Nguyen that are indicative of molding (see Pet. 35–36)—even certain characteristics mentioned by NPI—NPI responded by arguing, *inter alia*, that “Nguyen makes no mention whatsoever of *whether its docking stations are molded, fabricated, or otherwise manufactured.*” PO Resp. 24–25 (emphasis added). NPI cannot make allegations of structure associated with molding, and then revert a process-based rationale for distinguishing the prior art when certain indicators of that purported structure are present in the prior art. This inconsistency also cuts against a structural connotation for “molded.”

For these reasons, we maintain our determination that the challenged claims containing “molded” limitations are product-by-process claims; the recited docking station, wall, and apparatus body are defined by the process by which they are made, namely molding. See *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1315 (Fed. Cir. 2006) (“A product-by-process claim is one in which the product is defined at least in part in terms of the method or process by which it is made.” (internal quotation omitted)). As such, our patentability determination will focus on the product and not on the process of making it. See *Purdue Pharma L.P. v. Epic Pharma, LLC*, 811 F.3d 1345, 1354 (Fed. Cir.), *cert. denied*, 137 S. Ct. 475, and *cert. denied sub nom. Grunenthal GmbH v. Teva Pharm. USA, Inc.*, 137 S. Ct. 476 (2016); *Amgen Inc. v. F. Hoffman-La Roche Ltd.*, 580 F.3d 1340, 1369–70 & n.14 (Fed. Cir. 2009). Therefore, a reference describing a docking

station, wall, and apparatus body in accordance with the claims would teach or suggest the recited structure even if the reference's structure is formed by a process different than molding.

## II. ANALYSIS

### A. *Obviousness Ground Based on Nguyen, Revolution, Pandock, and Yamamoto*

L&P contends claims 1–20 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto. Pet. 29–58. NPI disputes L&P's contention. PO Resp. 22–46.

#### 1. *Principles of Law*

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We also recognize that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *Paulsen*, 30 F.3d at 1480 (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)). We analyze L&P's obviousness grounds with the principles identified above in mind.

2. *Level of Skill in the Art*

In determining the level of skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). In addition, the prior art of record in this proceeding—namely, Nguyen, Revolution, Pandock, Yamamoto, and Nakajima—is indicative of the level of skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *GPAC*, 57 F.3d at 1579; *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

L&P contends an ordinarily skilled artisan “would have had at least an associate degree in mechanical design, industrial technology or a related technical field and at least three years of experience designing and developing docking stations for portable computers and other electronic devices or equivalent training, education, or work experience.” Pet. 27 (citing Ex. 1014 ¶ 6). L&P gives an example of such credentials with reference to a person having a Bachelor of Science degree in a technical field and, inconsistently, “at least *two* years of experience designing and developing docking stations for portable computers and other electronic devices.” *Id.* (emphasis added).

Citing Mr. Carnevali’s testimony, NPI contends an ordinarily skilled artisan would have been “an engineer or a product designer with at least six years of experience with mechanical design and manufacture, obtained through vocational studies, from working in the mechanical arts, or a

combination of both.” PO Resp. 11 (citing Ex. 2014 ¶ 9). NPI disputes L&P’s contention that such a person must have at least an associate’s degree, because Mr. Carnivali, who also is the patentee, does not have this educational background. *Id.* (citing Ex. 2014 ¶¶ 2–8).

Mr. Carnivali’s background is weak evidence that an ordinarily skilled artisan would not necessarily have attained a technical degree. Notwithstanding, ordinarily skilled artisans in the field of the ’343 patent would have benefitted from the background that such a degree provides. The differences in the parties’ requirements for years of experience correlates to the different educational backgrounds they propose. *Compare* Pet. 27 (requiring three years of experience with a technical degree), *with* PO Resp. 11 (requiring six years of experience without a technical degree). Our analysis below would not change based on these differences. Thus, our definition of the level of skill in the art accounts for these varied sets of credentials.

In light of the types of problems addressed in the ’343 patent and in the prior art of record, we determine that an ordinarily skilled artisan at the time of the ’343 patent would have possessed (1) at least an associate degree in mechanical design, industrial technology, or a related technical field and at least three years of experience with mechanical design and manufacture; or (2) at least six years of experience with mechanical design and manufacture. We, therefore, apply this definition of the level of skill in the art to our obviousness evaluation below.

3. *Nguyen*

Nguyen is directed to “a docking station mateable with a portable computer and operative to couple it to desktop peripheral devices such as a keyboard, mouse and monitor.” Ex. 1003, 1:6–11. Figure 1 of Nguyen is reproduced below.

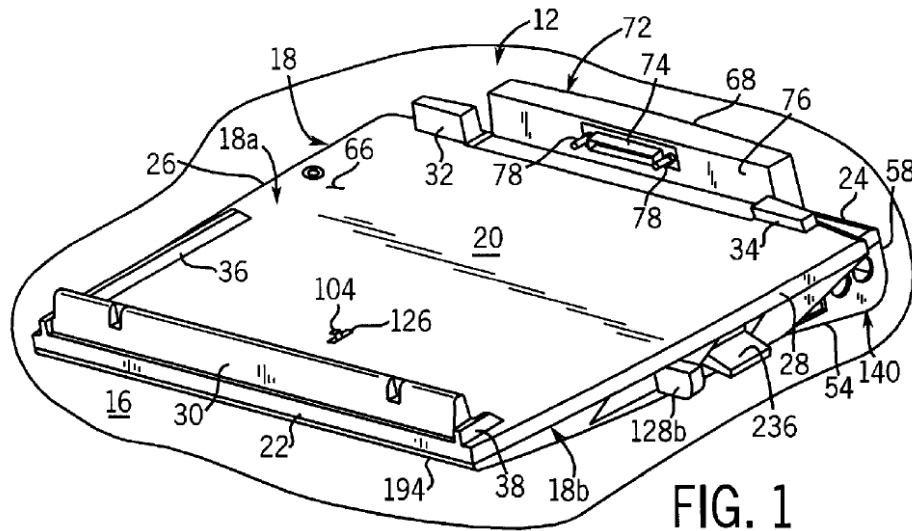


Figure 1 depicts docking station 12 having rectangular hollow housing 18 with upper section 18a and lower section 18b. *Id.* at 2:56–59, 3:44–47. Rectangular receiving and holding area 66 is disposed on top side 20 of upper docking station section 18a to receive a portable computer. *Id.* 4:14–22. Movable docking connector structure 72 includes docking connector body 68 and multi-pin electrical plug connector 74. *Id.* at 4:40–46. Connector 74 projects forwardly from front upper side portion 76 of connector body 68 and is flanked on its opposite ends by forwardly projecting guide pin members 78. *Id.*

Figure 4 of Nguyen is reproduced below.

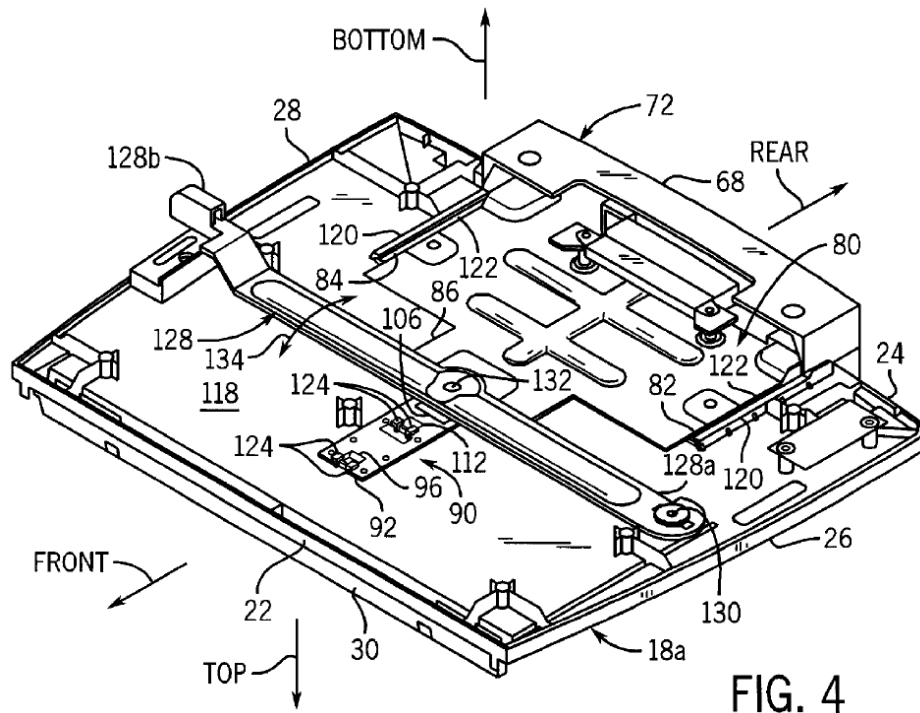
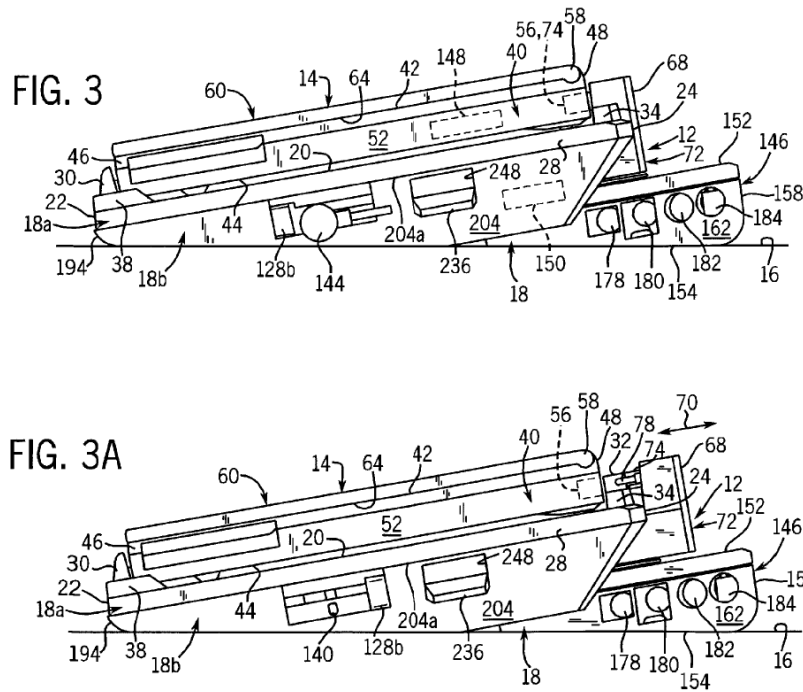


FIG. 4

Figure 4 depicts slide plate structure 80 supported by bottom side 118 of upper section 18a. *Id.* at 4:62–64. Slide plate structure 80 is slidably guided by elongated grooves 122 that are formed in parallel elongated brackets 120 positioned on bottom side 118. *Id.* at 4:62–5:5. Elongated lever member 128 has inner end portion 128a pivotally connected at 130 and outer end portion 128b that projects outwardly beyond a right side portion of the docking station housing 18. *Id.* at 5:18–47. Lever member 128 is connected to slide plate 80 at drive pin 132, so slide plate 80 may be moved forward or rearward by a user moving outer end portion 128b. *Id.* Elongated rectangular security latch plate member 90, which is associated with slide plate structure 80, has forwardly extending hook portion 104 (not shown) on its upper end, among other things. *Id.* at 4:52–61.

Figures 3 and 3A of Nguyen are reproduced below.



Figures 3 and 3A depict notebook computer 14 and docking station 12 in docking and undocking positions, respectively. *Id.* at 5:32–40. In the docking position of Figure 3, outer lever end 128b is pulled to the forward position such that docking connector structure 72 is forward and electrical plug connector 74 is forcibly and removably mated with computer connector socket 56. *Id.* at 5:60–6:3. In this position, latch plate 90 is forward such that latch hook portion 104 enters computer underside latching opening 138 (not shown) and latches onto a structural component to prevent movement of computer 14. *Id.* at 6:12–21. In the undocking position of Figure 3A, outer lever end 128b is pushed to the rearward position such that docking connector structure 72 is rearward and electrical plug connector 74 is uncoupled from stationary computer connector socket 56 of computer 14. *Id.* at 5:36–46. In addition, hook portion 104 of latch plate 90 is withdrawn from computer latching opening 138 to allow for movement of computer 14. *Id.*

We agree with L&P (Pet. 12) that Nguyen qualifies as prior art under 35 U.S.C. § 102(b) because Nguyen's issue date of August 28, 2001, is more than one year before the earliest possible priority date for the '343 patent, which is June 30, 2006. *See* Ex. 1001, at [63]; Ex. 1003, at [45].

#### 4. *Revolution*

As mentioned above, L&P's references to "Revolution" collectively refer to the Revolution Instructions (Ex. 1004) and the Revolution Guide (Ex. 1005). *See* Pet. 15–16. Both of these references pertain to the Revolution Docking Station, which was a product of L&P's "sister company," Gamber-Johnson LLC.<sup>5</sup> *See id.* at 1, 15–16.

As supported by the declaration of Chad Sullivan (Ex. 1015), L&P contends the Revolution Instructions "became publicly available as a printed publication at least as early as April 7, 2004, when the instructions were shipped with the docking station to Kontron Mobile Computing." Pet. 15 (citing Ex. 1015 ¶¶ 2–6). Mr. Sullivan testifies that Gamber-Johnson's business practice was to ship the Revolution Instructions with each Revolution Docking Station. Ex. 1015 ¶ 3. Mr. Sullivan's testimony is supported by contemporaneous invoices substantiating the shipment of Revolution Docking Stations. *See id.* ¶ 4 (citing Exs. 1018, 1019). We additionally observe that the Revolution Instructions bear a date of "2-25-04" (Ex. 1004, 1), and Mr. Sullivan testifies this was the date the Revolution Instructions were provided to Gamber-Johnson's shipping department. Ex. 1015 ¶ 3. NPI does not dispute the prior art status of the

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<sup>5</sup> NPI characterizes Gamber-Johnson LLC as "an L&P subsidiary." *See, e.g.,* PO Resp. 4.

Revolution Instructions. Based on L&P's evidence, we determine that the Revolution Instructions qualify as a prior art printed publication under 35 U.S.C. § 102(b) because the Revolution Instructions' publication date of April 7, 2004, is more than one year before the earliest possible priority date for the '343 patent, which is June 30, 2006. *See* Pet. 15–16; Ex. 1001, at [63].

L&P states that the Revolution Guide “is the user guide for the Revolution docking station.” Pet. 16. L&P contends the Revolution Guide “became publicly available on the website address [www.kontronmobile.com](http://www.kontronmobile.com) at least as early as April 8, 2004.” *Id.* (citing Ex. 1015 ¶¶ 5–6).

Mr. Sullivan testifies in support of this contention and cites certain archived webpages from the Wayback Machine directed to the Revolution Docking Station. *See id.* ¶¶ 5–6 (citing Exs. 1020–1024). In particular, Mr. Sullivan testifies that an archived webpage from April 8, 2004, included a link to the Revolution Guide as it appears in Exhibit 1005. *See id.* ¶ 6 (citing Ex. 1024). We also observe that the footer of the Revolution Guide contains a date of “March 30, 2004.” *See, e.g.*, Ex. 1005, 3. NPI does not dispute the prior art status of the Revolution Guide. Based on L&P's evidence, we determine that the Revolution Guide qualifies as a prior art printed publication under 35 U.S.C. § 102(b) because the Revolution Guide's publication date of April 8, 2004, is more than one year before the earliest possible priority date for the '343 patent, which is June 30, 2006. *See* Pet. 15–16; Ex. 1001, at [63].

To the extent that the Revolution Instructions and the Revolution Guide are two separate references, L&P contends that “[r]elevant features of the Revolution docking station are disclosed in [these] two printed

publications.” Pet. 15. NPI does not contest that an ordinarily skilled artisan would have had reason to combine the information in these two references. Given that they are directed to the same docking station, we are satisfied that the Revolution Instructions and the Revolution Guide are the epitome of “interrelated teachings” that an ordinarily skilled artisan would have known to combine. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Henceforth, we will follow L&P’s convention and refer collectively to the Revolution Instructions and the Revolution Guide as simply “Revolution.”

Turning to the substance of Revolution, the Revolution Docking Station is designed to work with a Kontron Revolution portable computer. Ex. 1004, 1. The docking station “is designed to be used with Gamber-Johnson motion attachments, poles, and vehicle bases.” *Id.* It includes a semi-circular void in the front edge of the docking station. Ex. 1004, 1–4; Ex. 1005, 12–14, 16–17.

#### 5. *Pandock*

As mentioned above, L&P’s references to “Pandock” collectively refer to the Pandock Instructions (Ex. 1007) and the 2005 Catalog (Ex. 1008). *See* Pet. 24. Both of these references pertain to the Pandock docking station by Gamber-Johnson. *See id.*

As supported by the declaration of Chad Sullivan (Ex. 1015), L&P contends the Pandock Instructions “became publicly available as a printed publication at least as early as January 20, 2005, when the instructions were shipped with the docking station to Tessco, Inc.” Pet. 24 (citing Ex. 1015 ¶¶ 8–12). Mr. Sullivan testifies that Gamber-Johnson’s business practice

was to ship the Pandock Instructions with each Pandock docking station.

Ex. 1015 ¶ 9. Mr. Sullivan’s testimony is supported by a contemporaneous invoice and “Pick Ticket” substantiating the shipment of a Pandock docking station on January 20, 2005. *See id.* ¶¶ 10–11 (citing Exs. 1025, 1026). We additionally observe that the Pandock Instructions bear a date of “10/29/04” (Ex. 1007, 1), and Mr. Sullivan testifies this was the date the Pandock Instructions were provided to Gamber-Johnson’s shipping department.

Ex. 1015 ¶ 9. NPI does not dispute the prior art status of the Pandock Instructions. Based on L&P’s evidence, we determine that the Pandock Instructions qualify as a prior art printed publication under 35 U.S.C.

§ 102(b) because the Pandock Instructions’ publication date of January 20, 2005, is more than one year before the earliest possible priority date for the ’343 patent, which is June 30, 2006. *See* Pet. 24; Ex. 1001, at [63].

Exhibit 1008, which is referred to as “the 2005 Catalog,” contains excerpts of a product catalog from Gamber-Johnson. *See* Pet. 24; Ex. 1016 ¶ 2. As supported by the declaration of Cheryl Bikowski (Ex. 1016), L&P contends the 2005 Catalog “was printed on December 31, 2004, and was shipped to customers at least as early as January 26, 2005.” Pet. 24 (citing Ex. 1016 ¶¶ 2–8). Ms. Bikowski’s testimony is supported by an invoice for printing of the 2005 Catalog dated December 31, 2004, a record of a January 3, 2005, request for the 2005 Catalog, and certain shipping forms substantiating shipment of the 2005 Catalog on January 26 and 27, 2007. Ex. 1016 ¶¶ 4–5, 7 (citing Exs. 1027–1029). NPI does not dispute the prior art status of the 2005 Catalog. Based on L&P’s evidence, we determine that the 2005 Catalog qualifies as a prior art printed publication under 35 U.S.C. § 102(b) because the 2005 Catalog’s publication date of January 26, 2005, is

more than one year before the earliest possible priority date for the '343 patent, which is June 30, 2006. *See* Pet. 24; Ex. 1001, at [63].

To the extent that the Pandock Instructions and the 2005 Catalog are two separate references, L&P contends that both of these references describe the Pandock docking station. Pet. 24. NPI does not contest that an ordinarily skilled artisan would have had reason to combine the information in these two references. Given that the Pandock Instructions and the excerpts from the product catalog in Exhibit 1008 are directed to the same docking station, we are satisfied that the Pandock Instructions and the 2005 Catalog are interrelated teachings that an ordinarily skilled artisan would have known to combine. *See KSR*, 550 U.S. at 418. Henceforth, we will follow L&P's convention and refer collectively to the Pandock Instructions and the 2005 Catalog as simply "Pandock."

The Pandock docking station is designed to work with a Panasonic Toughbook portable computer. Ex. 1007, 1. The Pandock docking station's installation instructions indicate that it was intended for use in a vehicle. *See id.* at 4. It includes a screen support, *see* Ex. 1008, 45, and a semi-circular void on each side edge of the docking station. *See* Ex. 1007, 1, 3–5; Ex. 1008, 44.

#### 6. *Yamamoto*

Yamamoto is directed to a "station device employed for exchanging signals between external equipment and an electronic apparatus and for supplying power to the electronic apparatus." Ex. 1006, 1:12–14. Figure 26 of Yamamoto is reproduced below.

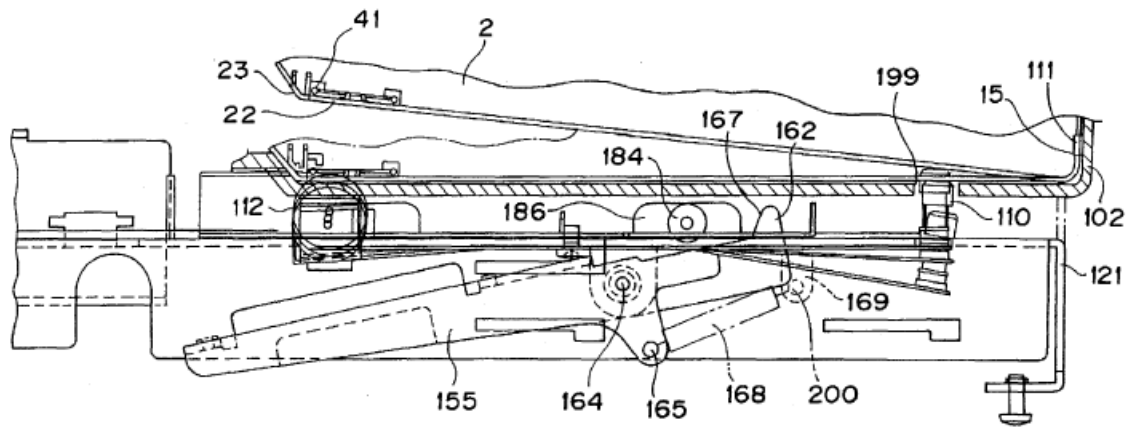


**FIG.26**

Figure 26 depicts outer casing 2 of digital tape recorder 6 (i.e., the “electronic apparatus”) as it is connecting to station device 101. *Id.* at Abstract, 4:8–10, 4:35–41. Connection terminal 159 (not shown) of station device 101 is supported on rotary arm 155 and may be advanced toward a connected position or receded toward a disconnected position relative to loading portion 109 (not shown) on casing 102 of station device 101. *Id.* at 8:46–48. Tension coil spring 168 biases rotary arm 155 toward the receded, disconnected position. *Id.* at 9:6–9.

We agree with L&P (Pet. 18) that Yamamoto qualifies as prior art under 35 U.S.C. § 102(b) because Yamamoto’s issue date of December 23, 1997, is more than one year before the earliest possible priority date for the ’343 patent, which is June 30, 2006. *See* Ex. 1001, at [63]; Ex. 1006, at [45].

7. *Claim 1*

a. *Comparison of Nguyen, Revolution, Pandock, and Yamamoto to Claim 1*

In its obviousness analysis for claim 1, L&P relies on Nguyen for most of the limitations of claim 1, including those pertaining to a housing, a linear expansion connector drive mechanism, an expansion connector, and a handle. Pet. 30–34. For the recited “a molded wall” having “a device bearing surface on a first portion of an outer surface of the wall between opposing side edges thereof,” L&P cites Nguyen’s “generally rectangular hollow housing 18 having separable upper and lower sections 18a and 18b.” *Id.* at 31 (citing Ex. 1003, 3:44–50, 4:14–22, Figs. 1–3A, 8). L&P also cites Nguyen’s “rectangular receiving and holding area 66 disposed on the top surface 20 of the upper docking station section 18a,” which receives a notebook computer. *Id.* For the recited “expansion connector presentation edge,” L&P cites Nguyen’s “docking connector body 68 . . . which . . . projects upwardly past the docking station rear side edge portion 24.” *Id.* at 33–34 (citing Ex. 1003, 3:47–56, Fig. 1).

For the “linear expansion connector drive mechanism having a movable connector seat portion,” L&P cites Nguyen’s “slide plate structure 80[, which] extends along the bottom side 118 and is slidably supported thereon, for forward and rearward movement relative thereto.” *Id.* at 32–33 (citing Ex. 1003, 4:46–51, 4:62–5:5, Figs. 4–5). Regarding the recited “driver,” L&P cites Nguyen’s lever member 128, which L&P notes is attached to slide plate front tab portion 86 via drive pin 132. *Id.* at 33 (citing Ex. 1003, 5:22–31, 5:39–48). L&P maps Nguyen’s “connector structure 72 which includes a multi-pin electrical plug connector 74” to the recited “expansion connector” and notes it is connected to slide plate 80. *Id.* at 33

(citing Ex. 1003, 4:40–43, 4:46–51, 4:62–5:5, Figs. 1, 3, 3A, 4, 5). L&P also cites Revolution, Pandock, and Yamamoto for certain of the limitations above, but these citations are cumulative to the above teachings from Nguyen. *See id.* at 30–34.

Regarding the “mounting structure coupled for securely mounting the housing in a vehicle,” L&P cites teachings from Revolution and Pandock showing that these docking stations were designed for mounting in vehicles. *Id.* at 32 (citing Ex. 1004, 1; Ex. 1005, 15; Ex. 1007, 4; Ex. 1008, 44; Ex. 1014 ¶¶ 52, 90). L&P also maps Yamamoto’s tension coil spring 168 to the recited “resilient retraction mechanism.” *Id.* at 34–35 (citing Ex. 1006, 9:6–12, Figs. 25–28).

For the preamble language that the docking station is “molded” and the requirement that it has a “molded wall,” L&P contends an ordinary skilled artisan would have recognized Nguyen’s housing 18 “is made of a molded material.” *Id.* at 35–36 (citing Ex. 1003, Figs. 1, 4, 7; Ex. 1014 ¶¶ 35–39).

NPI contends Nguyen does not teach a molded docking station because it does not use the word “molded” and that Nguyen does not state how housing 18 is made. PO Resp. 23–24. NPI likewise takes issue with Mr. Lewandowski’s contention that an ordinarily skilled artisan would recognize that Nguyen’s housing is molded. *Id.* at 24 (citing Ex. 1014 ¶¶ 35–39). We are not persuaded by NPI’s arguments, however, based on our determination above that the “molded” recitations make claim 1 a product-by-process claim. *See supra* § I.F.3. Accordingly, we disregard the “molded” process recitations for purposes of determining obviousness. *See Purdue*, 811 F.3d at 1351–54 (holding that the trial court’s obviousness

analysis properly disregarded a process limitation in a claim directed to a pharmaceutical ingredient). NPI's arguments focus solely on the process for making the docking station—molding—rather than the structure of the docking station itself.

Despite our conclusion that “molded” is a process limitation, NPI contends that we nonetheless must consider whether “the process by which a product is made imparts structural and functional differences distinguishing the claimed product from the prior art.” PO Resp. 28 (quoting *Greenliant Sys., Inc. v. Silicon Storage Tech., Inc.*, 692 F.3d 1261, 1268 (Fed. Cir. 2012) (internal quotation omitted)). NPI then reprises its argument that molding imparts certain structural and functional characteristics to a “molded” part. See PO Resp. 28 (citing Ex. 2014 ¶¶ 23–28). Nevertheless, this amounts to a rehashing of NPI's claim construction arguments, which we discussed above. See *supra* § I.F.3. The evidence of record does not establish that the term “molded” imparts certain structural and functional characteristics in the manner suggested by NPI (*see id.*), so we need not consider the same in our obviousness analysis.

Relying on its proposed construction of the recited “resilient retraction mechanism,” NPI argues that Yamamoto's spring 168 retracts in a way that is neither linear nor automatic. See PO Resp. 34–37. Specifically, NPI argues Yamamoto's spring 168 is part of a rotational structure, so it does not teach or suggest “a *linear* retracting force acting on a drive mechanism or the connection terminal.” *Id.* at 34–35. NPI also argues “the Yamamoto device was designed to *automatically deploy* the connection terminal toward the engaged position upon proper placement of a tape recorder on its loading

surface, [so] *automatic retraction* of the connection terminal toward the disengaged position is not possible.” *Id.* at 35–36.

As discussed above, we construe “resilient retraction mechanism” to mean “a resilient mechanism, such as a spring, for retracting/urging the expansion connector toward the disengaged position.” *See supra* § I.F.2. As such, we do not agree with NPI (PO Resp. 17–21, 34) that the mechanism must be “adapted for automatic linear retraction.” And, even if such a requirement were part of our construction, we agree with L&P that Yamamoto’s “stretched spring 168 . . . contracts linearly and pulls on support arm 155 to automatically retract connection terminal 159 to the disengaged, protected position.” Pet. Reply 19 (citing Ex. 1006 at 9:6–9, Figs. 24, 26; Ex. 1014 ¶¶ 78–81). The fact that spring 168 may be attached to a rotary mechanism does not detract from Yamamoto’s teaching that spring 168 urges the expansion connector toward the disengaged position. *See* Ex. 1006, 9:6–9 (“The rotary arm 155 is biased by a tension coil spring 168 in a direction in which the connection terminal 159 recedes out of the loading portion 109.”). Nor do we agree with NPI (PO Resp. 35–37) that the tension of spring 182 on slider 175 toward the engaged position somehow undermines Yamamoto’s teachings regarding spring 168. And, to the extent NPI’s argument focuses on the actions of Yamamoto’s slider 175, L&P relies on Nguyen, not Yamamoto, for teaching the recited “linear expansion connector drive mechanism.” *See* Pet. 32–33, 37. Thus, we are persuaded that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches the “resilient retraction mechanism.”

For these reasons, L&P establishes that the combination Nguyen, Revolution, Pandock, and Yamamoto teaches every limitation of claim 1.

*b. Rationale for Combining Nguyen, Revolution, Pandock, and Yamamoto*

L&P utilizes Nguyen for teaching most limitations of the recited docking station. Supported by Mr. Lewandowski's testimony, L&P contends "it was well recognized that a docking station like Nguyen's could be used in a mobile environment such as in a vehicle." Pet. 36 (citing Ex. 1014 ¶¶ 99–100, 111). Accordingly, L&P cites to Revolution and Pandock for teaching a mounting structure that allows the use of Nguyen's docking station in a vehicle. *See id.* Based on government and police usage of laptops in vehicles, L&P contends that "[e]nabling a docking station to be used in a vehicle expands its utility and value." Pet. 36 (citing Ex. 1014 ¶ 9). Citing Mr. Lewandowski's testimony, L&P contends "[t]here would be no technical challenge involved in applying the teachings of the Revolution and the Pandock to adapt the Nguyen docking station housing 18 for mounting in a vehicle." *Id.* (citing Ex. 1014 ¶ 100). We are satisfied an ordinarily skilled artisan would have had reason to utilize Nguyen's docking station in a vehicle based on L&P's evidence from Revolution and Pandock.

L&P further contends "a person of ordinary skill in the art would understand how to use Yamamoto's retraction spring 168 to improve Nguyen's docking station 12 by providing a way to retract automatically Nguyen's electrical connector 74." *Id.* at 37 (citing Ex. 1014 ¶¶ 102–108). L&P contends "Yamamoto provides the motivation to make this improvement by showing how a spring can be used to avoid damage to an electrical expansion connector." *Id.* at 38 (citing Ex. 1006, 1:38–55; Ex. 1014 ¶¶ 102–110). Having considered L&P's evidence from Yamamoto in light of Mr. Lewandowski's testimony, we are satisfied an ordinarily skilled artisan would have had reason to implement Yamamoto's automatic

retraction mechanism in the docking station of Nguyen (as modified by Revolution and Pandock).

We now consider NPI's arguments calling into question the propriety of L&P's rationale for combining Nguyen, Revolution, Pandock, and Yamamoto. First, NPI contends an ordinarily skilled artisan would not have been motivated to use a molded docking station for in-vehicle applications. PO Resp. 29–31. Specifically, NPI contends Gamber-Johnson warned customers in May 2007 that NPI's molded in-vehicle mounting systems were unsafe for use in vehicles and that laptops used with the systems “would become out-of-control missiles upon airbag deployment.” *Id.* at 30 (internal quotation omitted). In support of this contention, NPI cites a portion of a district court order in a false advertising case between the parties (*Nat'l Prods. Inc. v. Gamber-Johnson LLC*, 699 F. Supp. 2d 1232, 1239 (W.D. Wash. 2010)) and a proposed pretrial order<sup>6</sup> from the same case (Ex. 2010, 2–3). *Id.* at 30. Yet the district court materials are presented with no context from NPI; even upon reading the court's order in greater detail, we view this as generalized evidence of disparagement directed toward the use of plastic for a vehicle-mounted docking station. *See Nat'l Prod.*, 699 F. Supp. 2d at 1239 (describing advertising video made by Gamber-Johnson in which it claimed its “mounting system is made from a better material and that [NPI's] system is made from plastic which is not appropriate for mounting systems”). As discussed above, we disregard the “molded” process recitations in claim 1 for purposes of determining obviousness. *See supra* § I.F.3. Therefore, to the extent that NPI's allegations of

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<sup>6</sup> The proposed pretrial order is of little or no evidentiary value, because it is a one-sided presentation of NPI's contentions. *See* Ex. 2010, 3.

disparagement are directed to the “molded” limitations in claim 1, these do not undermine L&P’s rationale for combining references.<sup>7</sup>

Second, NPI contends Yamamoto is not analogous art. PO Resp. 37–41. Specifically, NPI contends we wrongly determined that the ’343 patent and Yamamoto “arise from the field of station devices for docking portable electronics.” *Id.* at 38 (quoting Dec. on Inst. 19). According to NPI, the ’343 patent “pertains to the field of ‘docking stations’—i.e., devices that facilitate connection and communication between a portable computer and peripheral electronic equipment” (*id.* (citing Ex. 1001, 2:42–54)), whereas Yamamoto arises from “field of ‘station devices’ used to supply power to and exchange information signals with audio equipment” (*id.* at 39 (citing Ex. 1006, 1:9–11)). NPI further argues that Yamamoto does not refer to portable computers or docking stations used in vehicles. *Id.* NPI additionally argues that Yamamoto is not reasonably pertinent to the problem addressed by the ’343 patent, namely, “*inadvertent deployment of the expansion connector toward the engaged position.*” *Id.* at 40. As such, NPI contends our identification of the problem as being “the need for improved computer docking stations” is unjustifiably general. *Id.* (quoting Dec. on Inst. 19).

“Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the

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<sup>7</sup> Even if we considered claim 1’s “molded” limitations for purposes of determining patentability, NPI has failed to provide evidence of a nexus between the alleged disparagement and the docking station recited in claim 1. *See infra* § II.A.7.d.

inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.” *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). The ’343 patent states its field of the invention as relating “generally to trays for holding portable devices, and in particular to quick release docking stations for portable computers and other portable electronics devices having one or more input/output (I/O) communication ports.” Ex. 1001, 1:19–23; *see also id.* at 2:50–54 (describing a function of “docking stations” as to “relay signals transferred between the computer and the [peripheral] devices.”). Similarly, Yamamoto states that it

relates to a station device to which is connected an electronic apparatus, such as a tape recorder, a disc player or a radio receiver. More particularly, it relates to such station device employed for exchanging signals between external equipment and an electronic apparatus and for supplying power to the electronic apparatus.

Ex. 1003, 1:9–14.

As can be seen, both the ’343 patent and Yamamoto pertain to (1) communications/signals between (2) an electronic apparatus and (3) a station device. We do not agree with NPI that an ordinarily skilled artisan would perceive a meaningful difference between fields of endeavor related to “docking stations” and “station devices,” particularly as to whether these are used with a computer or some other type of electronic apparatus. Indeed, our reviewing court has stated that “[t]he field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016). Accordingly, we maintain our determination from the Institution Decision that the ’343 patent

and Yamamoto arise from the same field of station devices for docking portable electronics. Dec. on Inst. 19. As such, L&P properly combined Yamamoto with the other asserted references.

Third, NPI argues that any attempt to combine Nguyen with Yamamoto “would fundamentally change the principles by which these two references operate.” PO Resp. 41. NPI describes Yamamoto as “employ[ing] a complex rotational mechanism to effect that movement between the connection terminal’s engaged and disengaged positions.” *Id.* at 42. In contrast, NPI describes Nguyen as “employ[ing] a linear drive mechanism to deploy and retract the connection expander in a plane parallel to and above the bearing surface.” *Id.* at 42–43. NPI argues these are “incompatible principles of operation.” *Id.* at 43.

L&P relies on Yamamoto for the simple proposition that Yamamoto’s retraction spring 168 would improve Nguyen’s docking station 12 by providing a way to retract automatically Nguyen’s electrical connector 74. Pet. 37 (citing Ex. 1014 ¶¶ 102–108). According to Mr. Lewandowski,

Yamamoto teaches the simple lesson of attaching a spring between Nguyen’s slide plate 80 or driver 128a and a stationary point on the inside of its housing 18 so that the spring will be stretched when the driver 128a and slide plate 80 are moved toward the front of the docking station to deploy the expansion connection. When the slide plate is unlatched from its forward deployed position and the stored energy in the stretched spring is released, the spring will pull the slide plate 80 back towards the disengaged position.

Ex. 1014 ¶ 105. We are persuaded by this rationale, and we further agree with L&P that “the principle of operation of Yamamoto’s spring 168 remains the same whether it is applied to a rotary or linear expansion connector drive mechanism, namely, the stretching and contracting of a

spring.” Pet. Reply 21 (citing Ex. 1014 ¶¶ 108–109). Moreover, as we stated in our Institution Decision, L&P is not required to show that all of the features of the secondary reference (i.e., Yamamoto) can be bodily incorporated into the primary reference (i.e., Nguyen) in order to support its obviousness contentions. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Thus, we do not agree with NPI that L&P’s combination impermissibly changes the operating principles of Nguyen and Yamamoto.

For these reasons, we are persuaded by L&P’s posited rationale for combining Nguyen, Revolution, Pandock, and Yamamoto.

*d. Secondary Considerations of Nonobviousness*

NPI also makes certain allegations regarding secondary considerations of nonobviousness. For secondary considerations to have probative value, there must be a nexus between the merits of the claimed invention and the secondary considerations. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 n.42 (Fed. Cir. 1985).

NPI contends that it “was the first to invent and market a molded housing for in-vehicle docking stations” and thereafter “L&P’s subsidiary has repeatedly copied NPI’s molded docking stations.” PO Resp. 44 (citing Ex. 2014 ¶¶ 30–31). NPI points to three patent infringement lawsuits it filed against Gamber-Johnson, including one related to the ’343 patent. *Id.* at 44–45 (citing Exs. 2002, 2004, 2006).<sup>8</sup>

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<sup>8</sup> NPI additionally cites to paragraph 34 of Mr. Carnevali’s declaration, but NPI withdrew that paragraph after filing its Patent Owner Response. *See* Ex. 2014 ¶ 34 (wholly redacted and labelled “WITHDRAWN”).

Apropos to the type of evidence offered by NPI, our reviewing court has stated:

Not every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the *replication of a specific product*. This may be demonstrated either through internal documents, direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica.

*Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004) (emphasis added) (internal citations omitted). In this case, two of the infringement lawsuits cited by NPI (*see* Exs. 2002, 2004) do not relate to the '343 patent, and NPI does not offer any analysis linking the complaints in these lawsuits to the claims in the '343 patent, so we do not credit these lawsuits as evidence of copying. Regarding the underlying lawsuit, NPI's only proffered evidence of copying is its complaint. *See* Ex. 2006. But this document only contains NPI's unsubstantiated allegations; under *Iron Grip*, more is required to show "replication of a specific product." *See Iron Grip*, 392 F.3d at 1325. Furthermore, in the absence of any showing by NPI, the only nexus between the alleged copying and claim 1 is the fact that the underlying lawsuit also pertains to the '343 patent. Finally, based on our determination that claim 1 is a product-by-process claim, we disregard the "molded" process recitations in claim 1 for purposes of determining obviousness. Thus, because NPI's evidence of copying is directed squarely at the "molded" limitations (*see* PO Resp. 44), it is not relevant to our obviousness determination. *See supra* § I.F.3. For these reasons, we accord NPI's evidence of copying no weight.

NPI also contends that Gamber-Johnson “attempted to pass off NPI’s innovations as its own.” PO Resp. 45. NPI cites a December 18, 2008, press release from Gamber-Johnson stating that L&P presented an award to Mr. Lewandowski for “creating and promoting the innovative design and breakthrough technology of the MAG™ Docking Station.” *Id.* (quoting Ex. 2008, 2). NPI also cites an August 25, 2010, press release from Gamber-Johnson in which it “praised the MAG™ Docking Station’s ‘simplified’ and ‘molded design’ that ‘reduces the number of parts, and improves cost.’” *Id.* at 45–46 (quoting Ex. 2009, 2). Although we are not aware of “passing off” being recognized as an objective indicator of nonobviousness—NPI does not cite any cases supporting such treatment—we consider NPI’s proffered evidence as further evidence of copying. Both press releases cited by NPI relate to the “MAG™ Docking Station,” which NPI asserts is an indicator of L&P’s “adoption[] of NPI’s molded feature.” PO Resp. 46. Yet NPI provides no analysis linking the MAG™ Docking Station to the docking station of claim 1. And, as stated above, we do not consider the “molded” limitations for purposes of determining patentability. *See supra* § I.F.3. Because NPI’s evidence is again directed at the “molded” limitations, and because there is no showing of a nexus to claim 1, we do not credit NPI’s alleged evidence of “passing off” molded docking stations as part of our obviousness determination.

Finally, as discussed above, NPI contends Gamber-Johnson derided publicly the use of molded docking stations. PO Resp. 30–31, 46 (citing *Nat’l Prods.*, 699 F. Supp. at 1239). For the same reasons mentioned above, we consider NPI’s proffered evidence as being directed toward the use of plastic for a vehicle-mounted docking station. *See supra* § II.A.7.b. Based

on this, and because NPI does not put forth evidence of a nexus between alleged disparagement and the particular docking station recited in claim 1, we accord this evidence little or no weight against L&P's obviousness showing.

*e. Conclusion Regarding Claim 1*

As discussed above, L&P has established that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claim 1. L&P has also provided a persuasive rationale for combining these references. We additionally considered NPI's evidence of secondary considerations above, and we accord it little or no weight. Thus, we determine, by a preponderance of the evidence, that the subject matter of claim 1 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*8. Claims 2 and 3*

Claim 2 depends from claim 1 and recites "the housing further comprises a mount for a display unit support arm." Claim 3 depends from claim 2 and recites "a display unit support arm mounted to the mount of the housing, and a portion of the display unit support arm being projected above the device bearing surface." For these limitations, L&P cites Revolution's and Pandock's drawings showing a screen support and their descriptions and drawings teaching that the screen support that can be attached to either side of the docking station. Pet. 39 (citing Ex. 1004, 3; Ex. 1005, 12–14; Ex. 1007, 1; Ex. 1008, 45).

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 2 and 3. Considering L&P's analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 2 and 3. L&P's rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 2 and 3 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

9. *Claims 4 and 5*

Claim 4 depends from claim 1 and recites “a peripheral device connector presentation surface.” L&P cites Nguyen's “foot member 146” and notes that “various connection ports are mounted on the support foot 146.” Pet. 40 (citing Ex. 1003, 7:2–21, Figs. 8, 9a). L&P also notes that the “connection ports are operatively coupled to the docking station interface circuitry 150 by various leads 186 connected to the connection ports and extended through the interior of the support foot 146 to the interface circuitry 150.” *Id.* at 40–41 (citing Ex. 1003 at 6:61–7:2, 7:7–21, Figs. 9, 9a). This teaches certain other limitations in claim 4 directed to openings and connectors in the recited “connector presentation surface” that are used for communicating to an interior portion of the housing. Regarding the “peripheral device connectors . . . adjacent to the bottom portion of the housing,” L&P cites Revolution's and Pandock's photos showing various openings and ports in that location. *Id.* at 40 (citing, *inter alia*, Ex. 1005, 12;

Ex. 1007, 4). We also credit Mr. Lewandowski's testimony, which includes a drawing in which he highlights the peripheral device connector surface in Nguyen. Ex. 1014 ¶ 49 (citing Ex. 1003, Fig. 8).

Claim 5 depends from claim 4 and recites "an external wire support apparatus" including "cable supports." L&P cites, *inter alia*, Revolution's "(3) cable supports attached to the bottom of the docking station" that "are a 'tie down' point to help support the cables from your customer supplied equipment." *Id.* at 42 (quoting Ex. 1004, 2). We also credit Mr. Lewandowski's testimony, which includes a drawing in which he highlights the wire supports in Revolution. Ex. 1014 ¶ 61 (citing Ex. 1004, 2).

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 4 and 5. Considering L&P's analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 4 and 5. L&P's rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 4 and 5 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

#### 10. Claim 6

Claim 6 depends from claim 1 and recites "one or more engaging pins." L&P cites primarily to Nguyen's "latch projection 102" having "forwardly extending hook portion 104 on its upper end." *Id.* at 43–44

(citing Ex. 1003, 4:56–58, 5:13–17, 6:4–21, Figs. 1, 7; Ex. 1014 ¶ 48). We also credit Mr. Lewandowski’s testimony, which includes a drawing in which he highlights the engaging pin in Nguyen. Ex. 1014 ¶ 48 (citing Ex. 1003, Fig. 7).

NPI does not make separate arguments or present additional considerations of nonobviousness related to claim 6. Considering L&P’s analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claim 6. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claim 6 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

#### *11. Claims 7 and 8*

Claim 7 depends from claim 1 and recites “an expansion connector presentation surface” with an “expansion connector” movable through “an expansion connector access opening.” L&P contends “Nguyen includes connector presentation surfaces formed by rear restraining ribs 32, 34 adjacent to the expansion connection presentation edge and having an access opening formed between the spaced-apart expansion connector presentation surfaces 32, 34.” *Id.* at 44–45 (citing Ex. 1003, 4:14–28, 4:40–52, Fig. 1; Ex. 1014 ¶¶ 40–42, 44). L&P notes Nguyen’s expansion connector moves through the opening. *Id.* We also credit Mr. Lewandowski’s testimony,

which includes a drawing in which he highlights the expansion connector presentation surfaces in Nguyen. Ex. 1014 ¶ 44 (citing Ex. 1003, Fig. 1).

Claim 8 depends from claim 7 and recites a “guide mechanism supporting structure” formed on an inner wall structure. L&P cites Nguyen’s “parallel pair of elongated brackets 120 formed on the bottom side 118” for the guide mechanism supporting structure. *Id.* at 46 (citing Ex. 1003, 4:62–5:5, Fig. 4). L&P contends Nguyen’s brackets 120 “support[] drive mechanism guides 122” such that “[s]lide plate 80 is movably coupled to guides 122 for motion relative to the expansion connector access opening in the expansion connector presentation surface.” *Id.* (citing Ex. 1014 ¶¶ 45, 128). We also credit Mr. Lewandowski’s testimony, which includes a drawing in which he highlights the guide mechanism supporting structure in Nguyen. Ex. 1014 ¶ 45 (citing Ex. 1003, Fig. 4).

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 7 and 8. Considering L&P’s analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 7 and 8. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 7 and 8 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

12. *Claim 9*

Independent claim 9 is similar in scope to claim 1 and additionally recites “two opposing relieved hand clearance spaces” in the “device bearing surface.” Building on its analysis for claim 1, L&P cites certain drawings and photographs in Pandock and Revolution showing hand clearance spaces. Pet. 47 (citing Ex. 1004, 1–4; Ex. 1005, 12, 13–14, 16–17; Ex. 1007, 1, 3–5; Ex. 1008, 44), 49–50. L&P contends that the location of hand clearances in the molded wall is a matter of design choice that would have been known to an ordinarily skilled artisan. *Id.* at 50 (citing Ex. 1014 ¶ 136).

Claim 9 also recites “a latch mechanism operable for constraining the expansion connector in the engaged position.” L&P relies primarily on Nguyen’s “lock 144 to latch the drive mechanism when handle 128b has been moved forward to the engaged position . . . and thereby constrain the computer expansion connector 74 in the engaged position.” *Id.* at 48–50 (citing, *inter alia*, Ex. 1003, 6:22–51, Fig. 3, Ex. 1014 ¶¶ 46, 135).

NPI does not make separate arguments or present additional considerations of nonobviousness related to claim 9. Considering L&P’s analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claim 9. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claim 9 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

13. *Claim 10*

Independent claim 10 is similar in scope to claim 1 and additionally recites “a peripheral device connector presentation surface,” “a connector presentation surface for opposing the I/O connector of the device body,”<sup>9</sup> and “a device receiver structure.” For the “peripheral device connector presentation surface,” L&P relies on its analysis for claim 4, which we discuss above. *See id.* at 53–54. Regarding the “connector presentation surface for opposing the I/O connector of the device body,” L&P relies on its analysis for the “expansion connector presentation surface” in claim 7, which we discuss above. *See id.* at 51, 54. For the recited “device receiver structure,” L&P cites primarily to Nguyen’s front restraining rib 30 that projects upwardly from front side edge portion 22 of upper housing section 18a. *See id.* at 51–52 (citing Ex. 1003, 3:51–54, 4:14–29, Figs. 1–3A), 54.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claim 10. Considering L&P’s analysis of these additional limitations in combination with its analysis for claims 1, 4, and 7, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claim 10. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claim 10 would

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<sup>9</sup> L&P mistakenly refers to this limitation as “an expansion connector presentation surface” (Pet. 54), but L&P’s analysis is still germane to the actual language in claim 10.

have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*14. Claims 11, 13, and 14*

Claims 11, 13, and 14 all depend, directly or indirectly, from claim 10. Each of these claims recites limitations directed to a “display unit support arm” and/or its mount. Regarding these additional limitations, L&P relies on its analysis for claims 2 and 3, which we have discussed above. *See id.* at 55.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 11, 13, and 14. Considering L&P’s analysis of these additional limitations in combination with its analysis for claims 1, 2, 3, and 10, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 11, 13, and 14. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 11, 13, and 14 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*15. Claims 12 and 16*

Claim 12 depends from claim 10 and recites a “clearance relief formed in a portion of the molded wall communicating with an edge of the bearing surface.” Claim 16 depends from claim 1 and recites “two opposing relieved hand clearance spaces.” For both of these claims, L&P relies on its

analysis for claim 9 and contends it would have been an obvious design choice to provide Nguyen with one or more clearance reliefs as taught by Revolution and Pandock to facilitate removing a docked electronic device from the docking station. *See id.* at 55, 56.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 12 and 16. Considering L&P's analysis of these additional limitations in combination with its analysis for claims 1, 9, and 10, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 12 and 16. L&P's rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 12 and 16 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*16. Claims 15 and 18*

Claims 15 depends from claim 1 and claim 18 depends from claim 10. Each of these claims recites "a latch mechanism operable for constraining the expansion connector in the engaged position." L&P relies on its analysis for the latch mechanism recited in claim 9. *See id.* at 56.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 15 and 18. Considering L&P's analysis of these additional limitations in combination with its analysis for claims 1, 9, and 10, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 15 and 18. L&P's rationale for combining these

references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claims 15 and 18 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*17. Claims 17 and 20*

Claims 17 depends from claim 10 and recites “the device receiver structure comprises a jaw comprising an upper lip that is spaced apart from the bearing surface by a recessed throat portion.” Claim 20 depends from claim 1 and includes a similar limitation. L&P cites its analysis from claim 10 regarding Nguyen’s front restraining rib 30. *Id.* at 56–57. In addition, based in part on testimony from Mr. Lewandowski, L&P contends “Revolution and Pandock teach jaw-shaped device receiver structures.” *Id.* at 57 (citing Ex. 1014 ¶¶ 156–161). We credit Mr. Lewandowski’s testimony, which includes drawings in which he highlights the jaw-shaped nature of the device receiver structures in Revolution and Pandock. Ex. 1014 ¶¶ 57 (citing Ex. 1004, 1–4; Ex. 1005, 12–14, 16–17), 89 (citing Ex. 1007, 1, 3; Ex. 1008, 44, 45), 157.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claims 17 and 20. Considering L&P’s analysis of these additional limitations in combination with its analysis for claims 1 and 10, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claims 17 and 20. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of

claims 17 and 20 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

18. *Claim 19*

Claims 19 depends from claim 1 and recites “the molded wall comprises an upper body portion and a lower body portion attached to the upper body portion, wherein the upper body portion comprises the device bearing surface, wherein the linear expansion connector drive mechanism is movably coupled to the upper body portion.” L&P cites its analysis from claim 1, which describes Nguyen’s “housing 18 having separable upper and lower sections 18a and 18b,” among other things. Pet. 31 (citing Ex. 1003, 4:14–22), 57–58. L&P’s analysis from claim 1 also describes Nguyen’s “slide plate structure 80 extend[ing] along the bottom side 118” of upper section 18a. *Id.* at 33 (citing Ex. 1003, 4:62–5:5, Fig. 4), 57–58.

NPI does not make separate arguments or present additional considerations of nonobviousness related to claim 19. Considering L&P’s analysis of these additional limitations in combination with its analysis for claim 1, we determine L&P has shown that the combination of Nguyen, Revolution, Pandock, and Yamamoto teaches all the limitations in claim 19. L&P’s rationale for combining these references is persuasive for the same reasons mentioned above. Thus, we determine, by a preponderance of the evidence, that the subject matter of claim 19 would have been obvious over the combination of Nguyen, Revolution, Pandock, and Yamamoto under 35 U.S.C. § 103(a).

*B. Obviousness Ground Based on Nguyen, Revolution, Pandock, Yamamoto, and Nakajima*

L&P contends claims 1–20 would have been obvious over the combination of Nguyen, Revolution, Pandock, Yamamoto, and Nakajima. Pet. 58–59. NPI disputes L&P’s contention. PO Resp. 10–11, 22–31.

*1. Nakajima*

Nakajima is directed to “[a] portable computer ha[ving] a base unit with a first expansion connector mounted on a rear wall.” Ex. 1009, Abstract. The base unit, known in one embodiment as external expansion unit 350, includes housing 351 with lower housing 352 and upper housing 353 made of a synthetic resin material. *Id.* at 25:1–10.

We agree with L&P (Pet. 26) that Nakajima qualifies as prior art under 35 U.S.C. § 102(b) because Nakajima’s issue date of August 18, 1998, is more than one year before the earliest possible priority date for the ’343 patent, which is June 30, 2006. *See* Ex. 1001, at [63]; Ex. 1009, at [45].

*2. Claims 1–20*

L&P’s unpatentability contentions for claims 1–20 are identical to those for the other asserted ground except that it adds Nakajima to the extent Nguyen does not disclose how its housing 18 is made. *See* Pet. 58. As such, L&P cites Nakajima’s teachings on the use of a synthetic resin material for its docking station housing 351. *See id.* (citing Ex. 1009, 25:1–10, Figs. 38–40). Building on its obviousness analysis based on Nguyen, Revolution, Pandock, and Yamamoto, L&P contends an ordinarily skilled artisan “would recognize and understand that such synthetic resin materials are used for

injection molding Nakajima’s housing.” *Id.* (citing Ex. 1014 ¶ 165). Citing Mr. Lewandowski’s testimony, L&P contends:

A person of ordinary skill in the art would be motivated to make a docking station housing from molded material as disclosed by Nakajima because doing so can achieve certain advantages by reducing the weight of the docking station, which helps reduce damaging vibrations and shocks transmitted to a docked laptop from a moving vehicle, as well [as] reducing production costs and enhancing safety by eliminating sharp edges and corners.

*Id.* at 59 (citing Ex. 1014 ¶ 166).

NPI argues that Nakajima does not use the words “molded” and “docking station” to describe the disclosed device and that it makes no mention of in-vehicle use. PO Resp. 10–11, 25–26. NPI also argues that having a housing “‘made of’ plastic is not the same as being molded,” because an ordinarily skilled artisan “would have understood in June 2006 that there are manufacturing techniques other than molding that can be used to make plastic parts, such as fabrication, machining, and 3D-printing.” *Id.* at 26 (citing Ex. 2014 ¶¶ 39–41). Thus, according to NPI, Mr. Lewandowski’s testimony “establishes that a docking station’s housing *could* be molded, [but] he gives no explanation for why Nakajima’s docking station housing *must* be molded.” *Id.* NPI also criticizes Mr. Lewandowski’s opinions as being “entirely speculative” and not being based on the perspective of an ordinarily skilled artisan in June 2006. *Id.* at 27.

L&P’s rationale for combining Nakajima with Nguyen, Revolution, Pandock, and Yamamoto is based solely on the “molded” limitations, and, in particular, the alleged benefits of using “molded material” in a docking station. *See* Pet. 59; Ex. 1014 ¶ 166. As mentioned above, however, we

determine that “molded” is a process limitation that is not considered in our obviousness analysis. *See supra* § I.F.3. Therefore, we do not consider Nakajima’s alleged benefits from molding as a rationale for combining Nakajima with Nguyen, Revolution, Pandock, and Yamamoto. L&P does not present any other reasons for combining the references that are not tied to the “molded” limitations. Therefore, we determine that L&P’s rationale for combining Nakajima with Nguyen, Revolution, Pandock, and Yamamoto does not include sufficient articulated reasoning with a rational underpinning. We conclude L&P has not demonstrated, by a preponderance of the evidence, that the subject matter claims 1–20 would have been obvious over the combination of Nguyen, Revolution, Pandock, Yamamoto, and Nakajima.

### III. CONCLUSION

L&P has demonstrated, by a preponderance of the evidence, that claims 1–20 of the ’343 patent are unpatentable under § 103(a) over the combination of Nguyen, Revolution, Pandock, and Yamamoto. L&P, however, has not demonstrated, by a preponderance of the evidence, that claims 1–20 of the ’343 patent are unpatentable under § 103(a) over the combination of Nguyen, Revolution, Pandock, Yamamoto, and Nakajima.

IV. ORDER

Accordingly, it is:

ORDERED that claims 1–20 of the '343 patent are held to be unpatentable; and

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

IPR2016-00475  
Patent 9,036,343 B2

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