

Filed: January 9, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMMSCOPE TECHNOLOGIES LLC,
Petitioner
v.

BELDEN CANADA ULC,
Patent Owner

Case IPR2024-01382
Patent No. 11,740,423

PATENT OWNER'S PRELIMINARY RESPONSE

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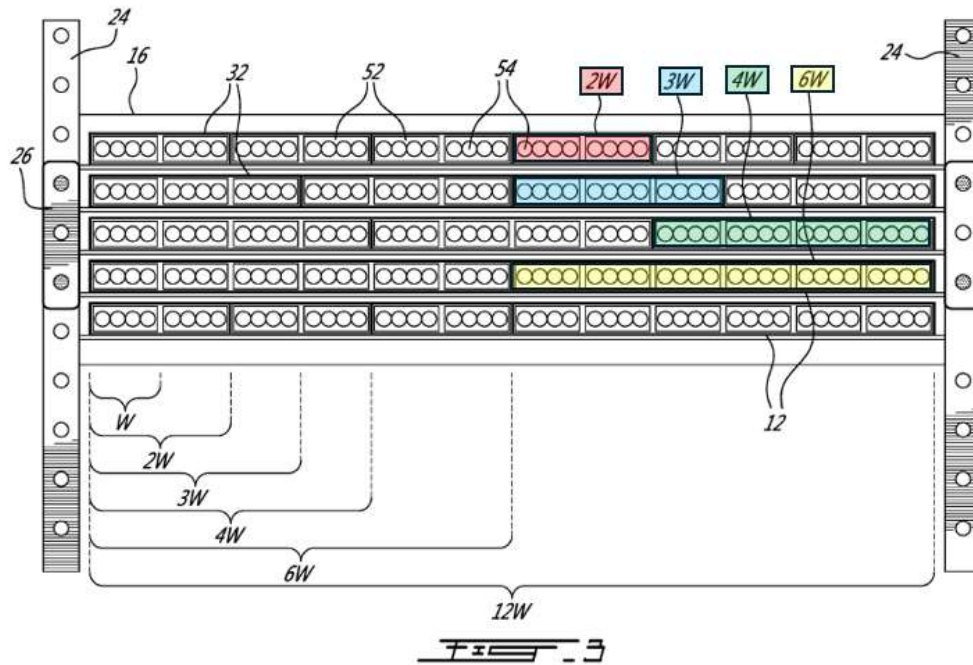
I. Introduction

Patent Owner Belden Canada ULC respectfully requests that the Board deny institution of Petitioner CommScope Technologies LLC's Petition challenging claims 1-30 of U.S. Patent No. 11,740,423 ("the '423 patent") (Ex. 1001).¹

The '423 patent is one of a family of patents directed to a novel modular fiber optic cassette system. Prior art cassette and tray systems suffered from a number of drawbacks, including "that cassettes which are used to terminate fiber optic cables comprising different numbers of optic fibers are generally incompatible with one another and additionally require trays with different spacing, securing mechanisms and the like." '423 patent at 1:40-45. To address these issues, the '423 patent teaches the use of "different cassette sizes . . . based on an integer multiple of a standardised pitch or width unit W" (*id.* at 8:39-42) and engaging portions (e.g., fasteners) for removeably securing each of the cassettes (*id.* at 6:10-31, 7:64-8:3). These single-unit cassettes are referred to as the "2W cassette," "3W cassette," "4W cassette," and "6W cassette." *Id.* at 8:43-51. The simplicity of this elegant system is illustrated

¹ Patent Owner also submitted preliminary patent owner responses in IPR2024-01218, IPR2024-01227, and IPR2024-01228. Those proceedings challenge patents related to the '423 patent. Although the arguments in those proceedings are similar, the arguments (and claims) are not the same as in this proceeding.

below, where each cassette of a standardized width fits “snuggly” next to neighboring cassettes (*id.* at 8:51-56):



Id. at Fig. 3 (annotated). Cassettes of the same size can be used together (e.g., four 3W cassettes together) or, alternatively, “cassettes 32 of different widths could be used together” (e.g., three 2W cassettes and one 6W cassette). *Id.* at 8:51-56.

Petitioner argued that the '423 patent claims would have been anticipated or obvious, but the Petition relied upon a host of legal and factual errors that preclude institution. In particular, the Petition included five (5) grounds. Grounds 1 and 2 rely on Fukui (Ex. 1004) as a primary reference, and Grounds 3-5 rely on Sauter (Ex. 1006) as a primary reference. Petitioner, however, failed to establish a

reasonable likelihood of success regarding any challenged claims for either the Fukui grounds or Sauter grounds.

Fukui only discloses a cassette of a single width—not any of the claimed “standard two width (2W) unit,” “standard three width (3W) unit,” “standard four width (4W) unit,” or “standard six width (6W) unit [fiber optic cassettes].” Fukui’s mere disclosure that a user can utilize an “open hole” in a single-width housing or module (i.e., a cassette of a single width) to extend optical fibers into a second single-width housing or module cannot transform two coupled housings into a cassette of a second width to somehow satisfy the missing claim limitations at issue. Indeed, the claims require units of different widths, yet by contrast, Fukui expressly teaches that “it is *not* necessary to prepare different shape unit[s].” Fukui at 8:2-6 (emphasis added).

Moreover, Petitioner’s Sauter-based arguments include multiple deficiencies. First, Sauter does not disclose or suggest “wherein the tray width portion fits within a standard U-space width dimension.” Instead, Sauter is entirely silent on such a dimensional limitation, and Petitioner’s additional arguments fail to make up for such deficiencies. Second, like Fukui, Sauter does not disclose or suggest the claimed “standard two width (2W) unit,” “standard three width (3W) unit,” “standard four width (4W) unit,” or “standard six width (6W) unit [fiber optic cassettes].” And third, the Board should exercise its discretion to deny institution

because Petitioner’s proposed mapping of Sauter is cumulative of the arguments and prior art already considered by the Office during prosecution and Petitioner failed to demonstrate any error by the Office.

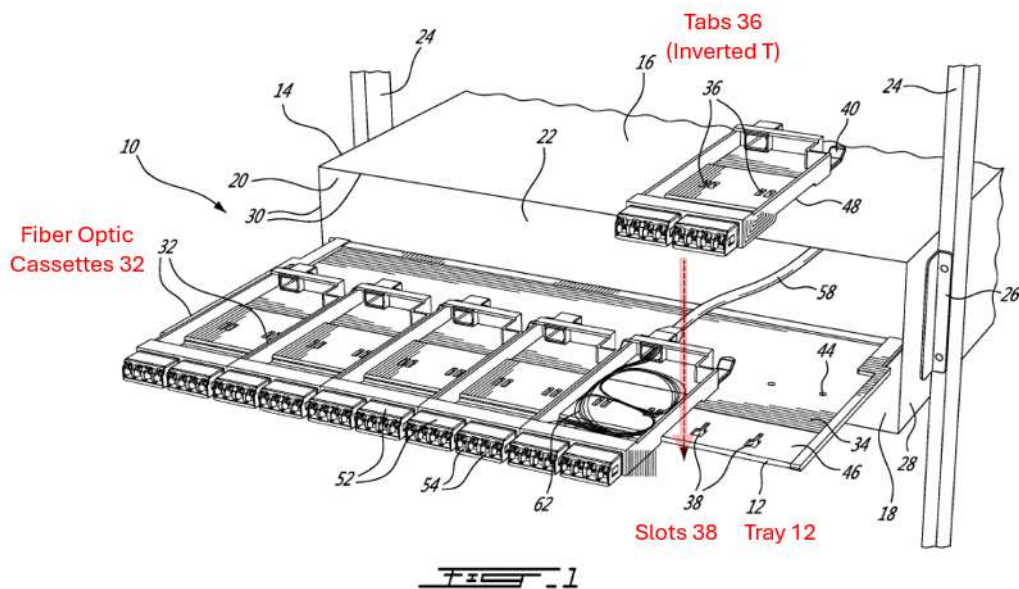
II. Overview of the ’423 Patent

The ’423 patent is directed to a tray system for providing modular cassette configurations in a fiber optic management system. ’423 patent at Title. Of the challenged claims, claims 1, 9, and 17 are the only independent claims.

As the ’423 patent explains, the prior art discloses fiber optic cassettes “for use in terminating fiber optic trunk cables and splitting them out to patch cables.” *Id.* at 1:34-37. These cassettes “are removeably arranged on tray systems within a rack mounted case.” *Id.* According to the ’423 patent, “[o]ne drawback of these cassettes and tray systems is that they are typically preconfigured to terminate fiber optic cables comprising a single predetermined number of optic fibers.” *Id.* at 1:37-40. “Another drawback is that cassettes which are used to terminate fiber optic cables comprising different numbers of optic fibers are generally incompatible with one another and additionally require trays with different spacing, securing mechanisms and the like.” *Id.* at 1:40-45.

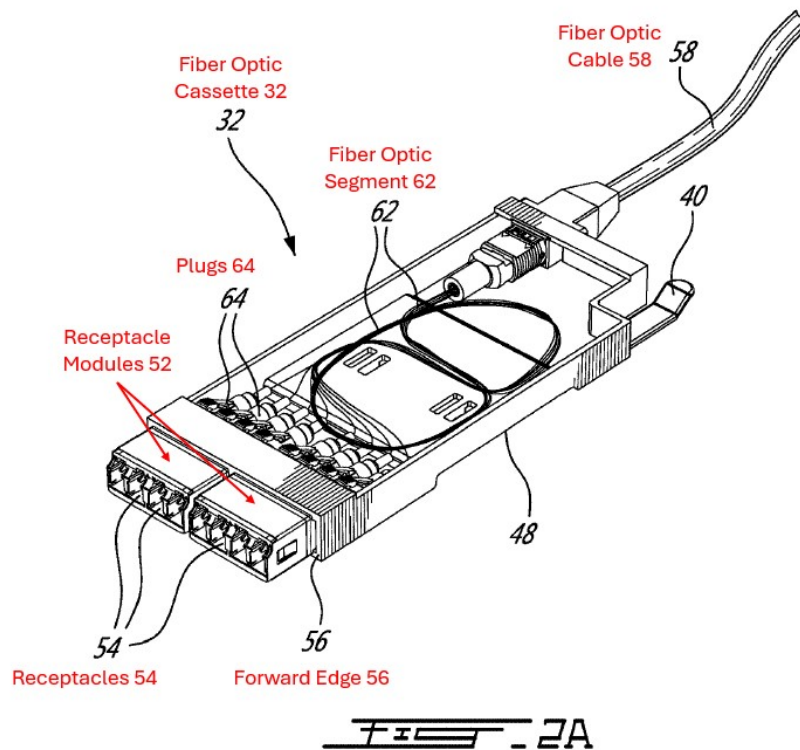
In response to these problems with prior art systems, the ’423 patent discloses “a fiber optic cassette comprising a width of one or more standard width units and such that fiber optic cassettes of different widths can be arranged on the same tray

while optimizing the use of tray space.” *Id.* at 1:24-30. As the annotated figure below illustrates, “tray 12 receives a plurality of removable fiber optic module or cassettes 32 arranged side by side on an upper surface 34.” *Id.* at 7:64-67.



Id. at Fig. 1 (annotated). In one embodiment, “each fiber optic cassette 32 is secured to the tray 12 using a fastener comprising tabs 36 of inverted ‘T’ cross section which engage with respective slots 38 machined or otherwise formed in the tray 12.” *Id.* at 7:67-8:3. In this way, cassettes 32 are secured to the tray using a fastening mechanism on their underside.

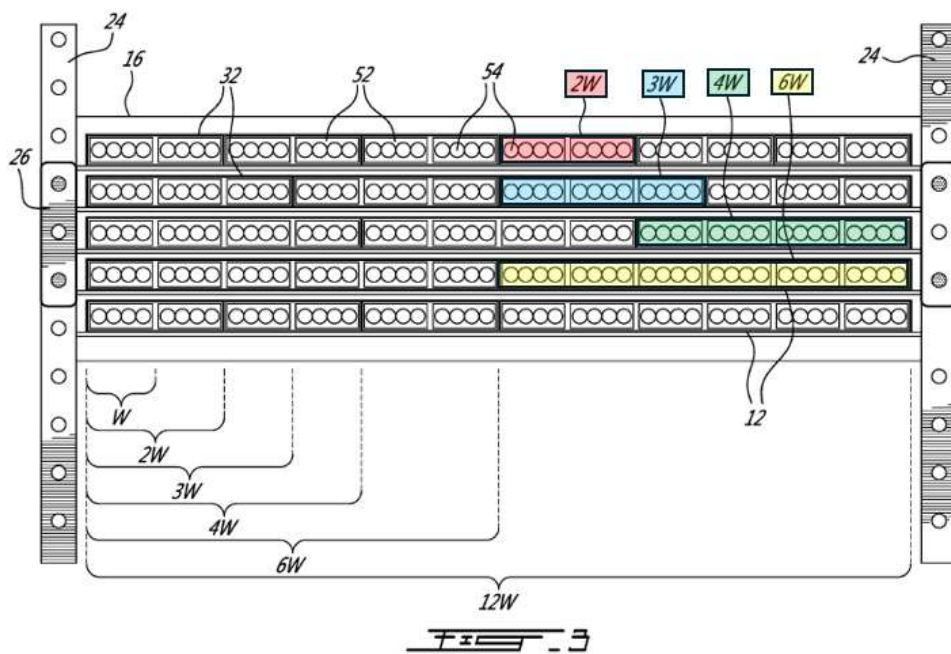
Each cassette 32 includes “a plurality of receptacle modules 52 each comprising a plurality of receptacles 54 . . . arranged in a row and exposed along a forward edge 56 of the cassette 32.” *Id.* at 8:13-17.



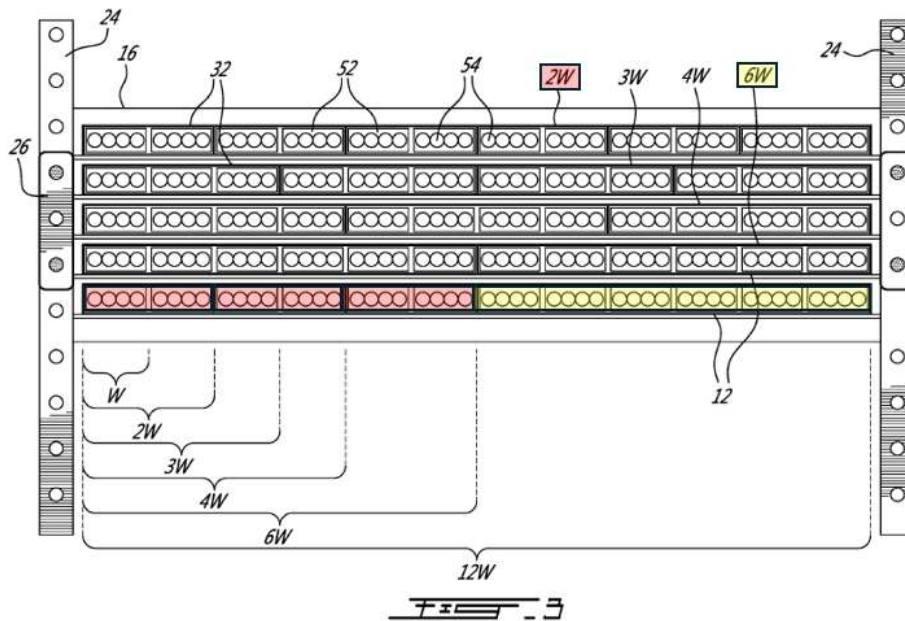
Id. at Fig. 2A (annotated). Cassette 32 “terminates a fiber optic cable 58, such as a trunk cable or the like, comprising a plurality of optic fibers at a multi-fiber connector receiving receptacle 60 on a rearward edge.” *Id.* at 8:17-21. “Each optic fiber of the fiber optic cable 58 is interconnected with a respective one of the receptacles 54 using an optic fiber segment 62 comprising a receptacle end which is terminated by a plug 64.” *Id.* at 8:21-24.

Figure 3, annotated below, illustrates how “a fiber optic cassette comprising a width of one or more standard width units and such that fiber optic cassettes of different widths can be arranged on the same tray while optimizing the use of tray space.” *Id.* at 1:24-30. The ’423 patent discloses “a set of four (4) different cassette

sizes to accommodate terminating fiber optic cables comprising [a] different number of optic fibers.” *Id.* at 8:36-38. “Each of the different cassette sizes of the set is based on an integer multiple of a standardised pitch or width unit W ” *Id.* at 8:39-42. These cassettes are referred to as the “ $2W$ cassette,” “ $3W$ cassette,” “ $4W$ cassette,” and “ $6W$ cassette.” *Id.* at 8:43-51. These are each shown in the figure below:



Id. at Fig. 3 (annotated). In some embodiments, such as the one below, “cassettes 32 of different widths could be used together.” *Id.* at 8:51-56.



Id. at Fig. 3 (annotated). In either case, the “six (6), four (4), three (3) and two (2) cassettes fit snugly side by side on the 12W tray.” *Id.* at 8:51-56.

III. Grounds 1-2: Petitioner Failed to Establish a Reasonable Likelihood that Petitioner Would Prevail on Any Claim Challenged in View of Fukui (Alone or in Combination).

A. Fukui Cannot Anticipate or Render Obvious Claim 1’s “Standard Two Width (2W) Unit,” “Standard Three Width (3W) Unit,” a “Standard Four Width (4W) Unit,” or “Standard Six Width (6W) Unit [Fiber Optic Cassettes]” Limitations.

Fukui (alone or in combination with Sauter (Ex. 1006)) fails to anticipate or render obvious claim 1 because it does not disclose or teach either “different modular fiber optic cassette configurations” (Element 1C) or any of the claimed “standard two width (2W) unit,” “standard three width (3W) unit,” “standard four width (4W) unit,” or “standard six width (6W) unit [fiber optic cassettes]” limitations

(Element 1F, 1H). Fukui’s disclosure and other prior art of record (including Petitioner’s characterization of this other prior art) make clear that Fukui merely discloses a single “standard one width (1W) unit” cassette.²

According to Petitioner, “Fukui’s modules are ‘fiber optic cassettes.’” Petition at 31. Fukui’s Module 10 is shown on the left, and module 20 is shown on the right:

Fig.4

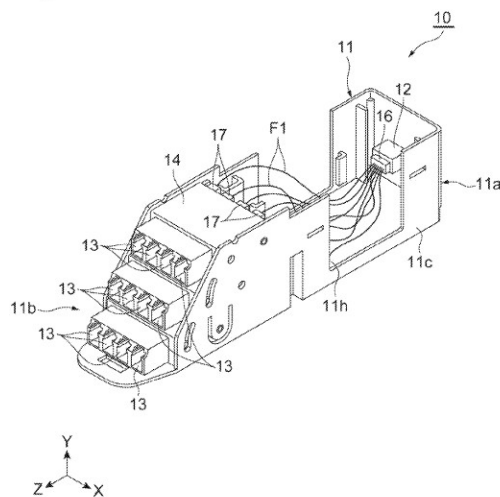
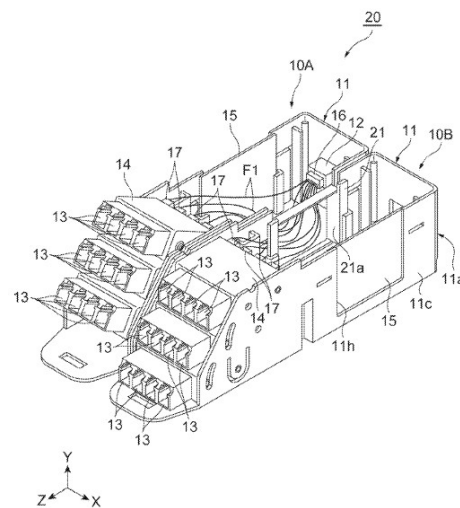


Fig.5



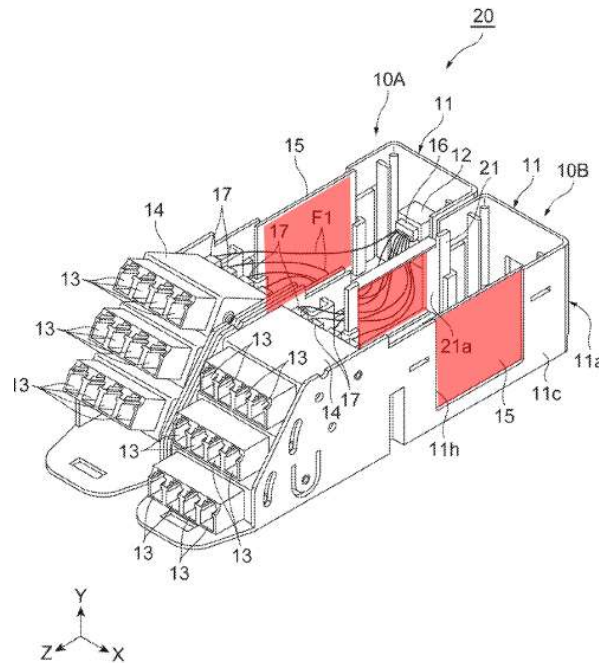
Fukui at Fig. 4 (left), Fig. 5 (right). Petitioner explained that “Fukui discloses to couple two unit modules together, which is an example of a 2W cassette.” Petition at 36. Similarly, according to Petitioner, “three coupled unit modules is one 3W

² The parties have a pending claim construction dispute in the parallel district court litigation regarding the “width” language. *See* Petition at 21-23. In any event, Petitioner’s deficiency regarding claim 1 applies irrespective of any claim construction dispute in the parallel litigation.

cassette” and “four coupled unit modules is one 4W cassette.” *Id.* at 38 (citation omitted). Fukui, however, makes clear that module 20 is nothing more than two modules 10 coupled together with separate integrally molded housings—not a second cassette of a different width (e.g., “a standard two width (2W) unit [modular fiber optic cassettes]).”

According to Fukui, each “multi-core/single-core conversion module comprises a housing including a first end, a second end, and a lateral wall defining an inner space between the first end and the second end.” Fukui at 1:37-40. Each “housing 11” is constructed from “integrally molded resin for the sake of lower cost and light weight.” *Id.* at 5:4-6. To expand the capacity of a single-core conversion module 10, two single-core conversion modules 10 (i.e., two housings) may be “coupled” together. *Id.* at 7:23-8:6. Fukui teaches that these modules are connected using “coupling member 21,” which spans the opening 11h of each individual module. *Id.* at 7:34-41. This coupling member has an “open hole” (*id.* at 7:42-43), shown in red below:

Fig.5

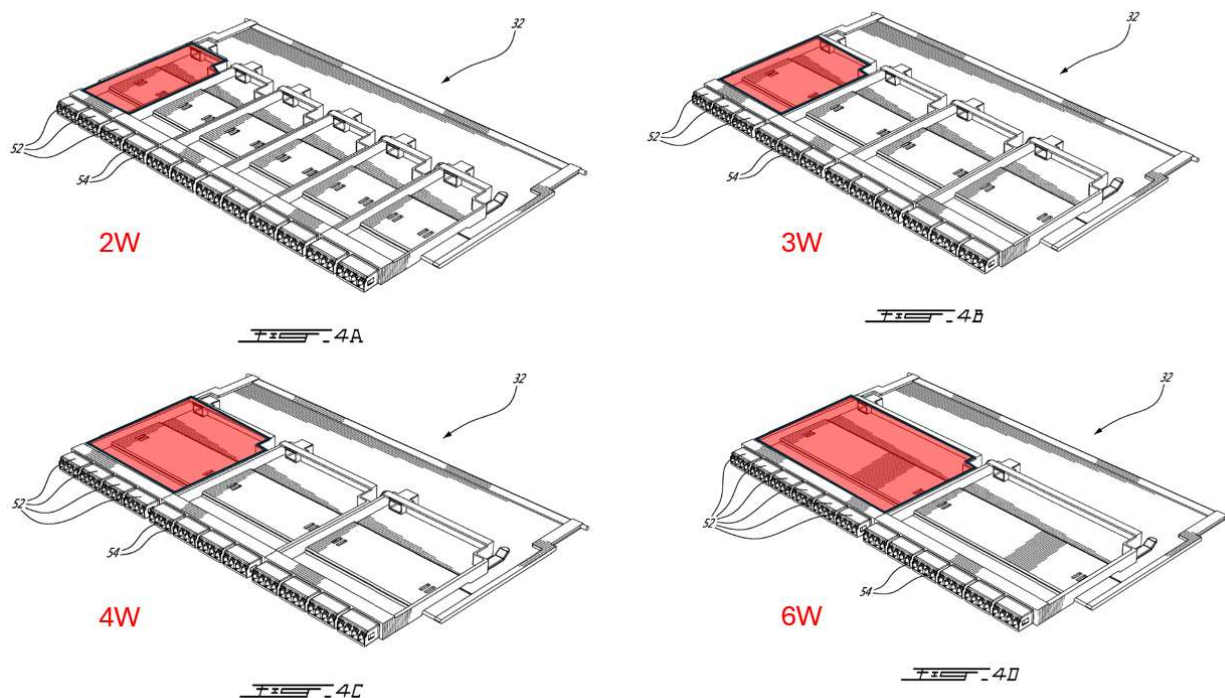


Id. at Fig. 5 (annotated). The open hole enables “optical fibers F1 extending from the multi-core optical connector 16 of the first unit module 10A [to] pass through the respective openings 11h . . . to be led to the second unit module 10B.” *Id.* at 7:42-56. But this fails to meet the claimed “two width” cassette (or any cassette larger than a single width unit when combined with additional modules) limitations at issue.

Indeed, according to Fukui, these “coupled unit modules can be dealt with as *one body*.” *Id.* at 8:2-3 (emphasis added). Because of this, “in the expansion, *it is not necessary to prepare different shape unit modules*, so long as the required number of the *same* shape unit modules are prepared.” *Id.* at 8:2-6 (emphases added).

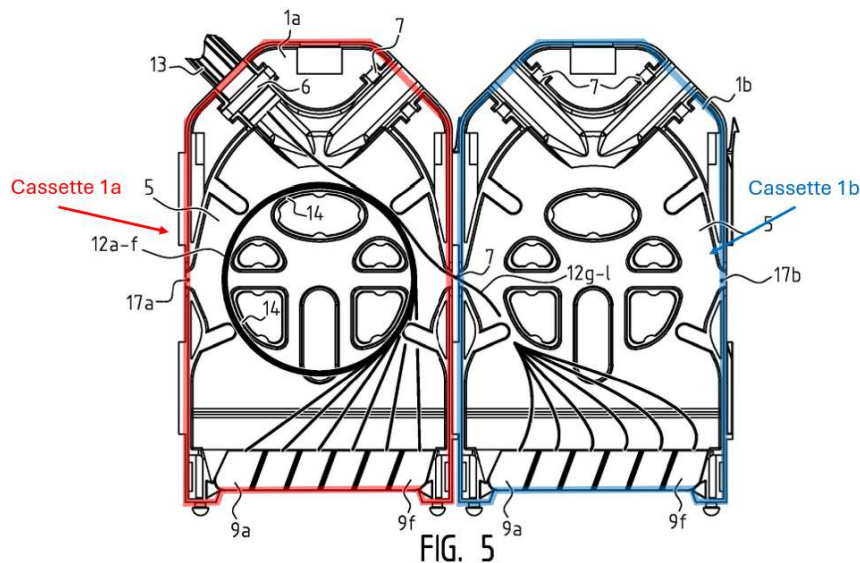
But this is the antithesis of the '423 patent's claimed use of multiple different shape units (i.e., different cassette sizes).

The '423 patent discloses “a set of four (4) different cassette sizes to accommodate terminating fiber optic cables comprising [a] different number of optic fibers.” '423 patent at 8:36-38. The patent also explains that “[t]he 2W, 3W, 4W and 6W cassettes 32 are typically used only with like cassettes 32 . . . , although in a particular embodiment cassettes 32 of different widths could be used together.” *Id.* at 8:51-56. Consistent with this description, the '423 patent illustrates the claimed cassettes and their singular housings, including the 2W cassette (Fig. 4A), 3W cassette (Fig. 4B), 4W cassette (Fig. 4C), and 6W cassette (Fig. 4D):



Id. at Figs. 4A-4D (annotated). As the cassette size increases, the size of the single housing increases.

Indeed, other prior art cited by Petitioner and Petitioner’s characterizations of it make clear that merely coupling two of the same sizes of cassette together—as taught by Fukui—cannot satisfy the claimed use of differently sized cassettes limitations at issue. According to Petitioner, “Laarveld [(Ex. 1026)] discloses . . . creat[ing] larger cassettes by coupling cassettes together.” *CommScope Techs. LLC v. Belden Can. ULC*, IPR2024-01218, Paper 1 at 87 (PTAB July 26, 2024). In support, Petitioner cited Laarveld’s Figure 5. *Id.* at 87-88. But according to Laarveld, Figure 5 discloses “**two cassettes** 1a and 1b”—not a single cassette—“that are arranged side by side.” Laarveld at 14:23-24 (emphasis added); *see also id.* at 14:26-15:8 (further characterizing two connected cassettes in terms of a “first cassette” and “second cassette”).



Id. at Fig. 5 (annotated). Petitioner also adopted Laarveld’s characterization of the two cassettes, explaining that, “[l]ike Fukui, Laarveld teaches [that] the fibers from the cable in the rear (13) can be distributed to **both coupled cassettes** by routing the fibers through a passage in the middle.” *CommScope Techs.*, IPR2024-01218, Paper 1 at 88 (emphasis added) (citing Laarveld at 14:27-15:1). Thus, under Petitioner’s own characterization, Fukui’s two single-width cassettes, when coupled together, are “coupled cassettes”—not a single cassette with a different width than the uncoupled cassettes. Coupling two cassettes of the same width cannot result in a single cassette with a different width than an uncoupled cassette—it merely results in two coupled cassettes of the same width.

Fukui discloses a “standard one width (1W) unit” cassette that has a single cassette size (i.e., that of module 10) that remains the same (even if, collectively, the modules are labeled differently). As a result, Fukui’s only configuration is twelve single-width modules laid out together. Fukui thus cannot anticipate claim 1 merely by including an opening to connect two (or more) modules 10, which are each admittedly a standard one width (1W) unit.³ And Fukui’s disclosure that “it is not

³ Notably, in related IPRs, Petitioner has submitted the prosecution history of related patent applications to show that the USPTO has rejected allegedly similar claims in

necessary to prepare different shape unit modules” (Fukui at 8:2-6) teaches away from any suggestion that it would have been obvious to modify Fukui so as to instead include different module sizes.

B. Fukui Similarly Cannot Anticipate or Render Obvious the Cassette Width Limitations of Independent Claims 9 or 17.

Claims 9 and 17 recite similar limitations as claim 1. *See* Petition at 66 (acknowledging same for claim 9), 70 (acknowledging same for claim 17). But as discussed for claim 1, Fukui merely discloses a single “standard one width (1 W) unit” cassette. Even if that unit can be coupled to a neighboring unit via an adapter, the underlying cassette size remains the same. Fukui thus neither anticipates nor renders obvious claims 9 or 17.

view of Fukui. *E.g.*, *CommScope Techs. LLC v. Belden Can. ULC*, IPR2024-01218, Exs. 1036, 1037 (PTAB Dec. 12, 2024); *see also* Ex. 2001; Ex. 2004. But this rejection is based on Petitioner’s arguments from this IPR (as well as related IPRs) and is wrong for each of the reasons addressed above. In addition, the Examiner expressly recognized that she was applying the “broadest reasonable interpretation of a ‘modular fiber optic cassette.’” Ex. 2002 at 2; Ex. 2003 at 2. In contrast, the narrower *Phillips* standard applies in *inter partes* reviews. 37 C.F.R. § 42.100(b) (2018).

IV. Grounds 3-5: Petitioner Failed to Establish a Reasonable Likelihood that Petitioner Would Prevail on Any Claim Challenged in View of Sauter (Alone or in Combination with Other References).

Petitioner's analysis of independent claim 1 under Ground 3 fails for two separate reasons. First, Sauter does not disclose or suggest the "wherein the tray width portion fits within a standard U-space width dimension" limitations. Instead, Sauter fails to provide any teaching regarding such a dimensional limitation, and Petitioner's additional arguments are deficient because they make clear that Petitioner is improperly attacking individual claim elements in isolation and not in the context of the claim as a whole. Second, like Fukui, Sauter does not disclose or suggest the claimed "standard two width (2W) unit," "standard three width (3W) unit," "standard four width (4W) unit," or "standard six width (6W) unit [fiber optic cassettes]" limitations. Each deficiency provides an independent basis to deny institution. Petitioner's additional Sauter-related arguments under Ground 4 and Ground 5 fail to make up for the deficiencies in Ground 3.

A. Under Ground 3, Petitioner Failed to Establish that Sauter Renders Obvious Claim 1.

1. Sauter Cannot Render Obvious Claim 1's "Wherein the Tray Width Portion Fits within a Standard U-Space Width Dimension" Limitations (Element 1B).

Sauter (alone or in combination with other cited references) fails to render obvious claim 1 because Sauter does not disclose or suggest the claimed "wherein the tray width portion fits within a standard U-space width dimension" limitations.

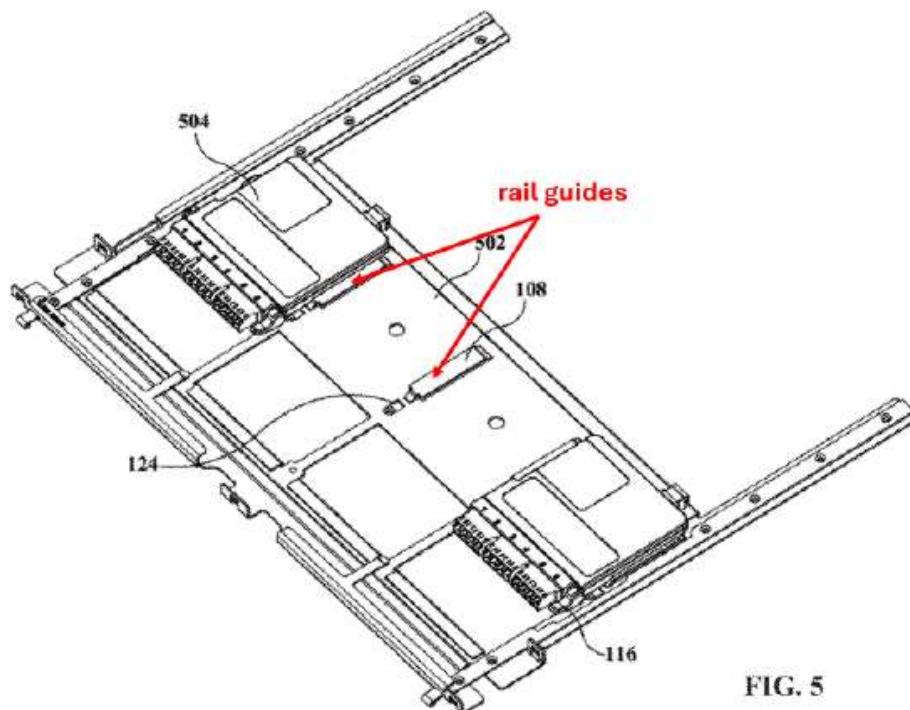
As Petitioner noted, “[t]he parties agree that ‘a standard U-space width dimension’ means ‘a width dimension defined in the EIA/ECA-310-E standard.’” Petition at 100 (citing Ex. 1011 at 2). Petitioner then argued that, based on “the well-known dimensions of the LC connector receptacles shown on Sauter’s cassettes, a POSITA would recognize that Sauter’s entire tray and enclosure system (including three trays) is sized to fit within a standard 19-inch rack’s opening width (within 450 mm).” *Id.* at 101 (citation omitted).

But Petitioner does not dispute that Sauter is silent regarding any tray dimensions, and Petitioner’s technical expert’s opinion is based on measurements from Sauter’s unscaled drawings. Ex. 1003 ¶¶ 263-265 (identifying Sauter’s figures 5 and 16 as the basis for the opinions). As the Federal Circuit has explained, “it is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.” *Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000). And indeed, the specification here is silent on the issue.

Recognizing Sauter’s failure to teach dimensions, Petitioner alternatively argued that the claim recites “standard rack sizes already deployed in the industry” and “[a] POSITA would be motivated to make the system fit a standard 19 inch rack so that customers can deploy the system into already installed 19 inch racks.”

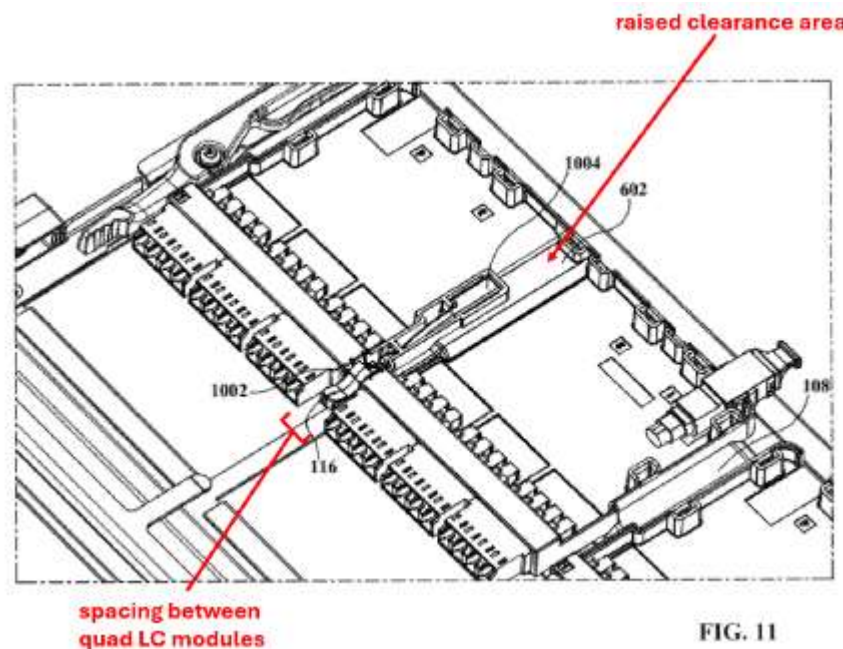
Petition at 101 (citation omitted). But elsewhere by contrast, Petitioner proposed widening (or alternatively shortening) Sauter's tray to accommodate modifications to Sauter's rail guides, and Petitioner failed to reconcile these competing modifications with its proposal to also standardize the tray dimensions. Petitioner's analysis, which failed to consider the claim as a whole, is legally insufficient and illustrates the hindsight applied by Petitioner.

In particular, Sauter discloses a specific tray, including space for both cassettes and rails. Sauter at 6:21-26, 7:3-37, 7:48-53. Petitioner annotated these rails as follows:



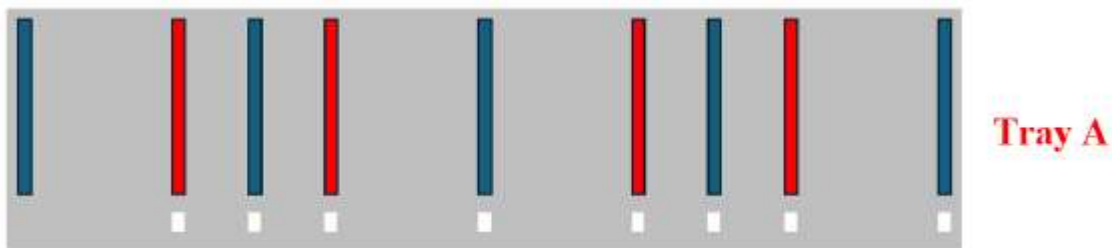
Petition at 133 (annotating Sauter at Fig. 1). The tray width comprises space dedicated to (1) cassettes; and (2) at least three rails spaced over the tray between

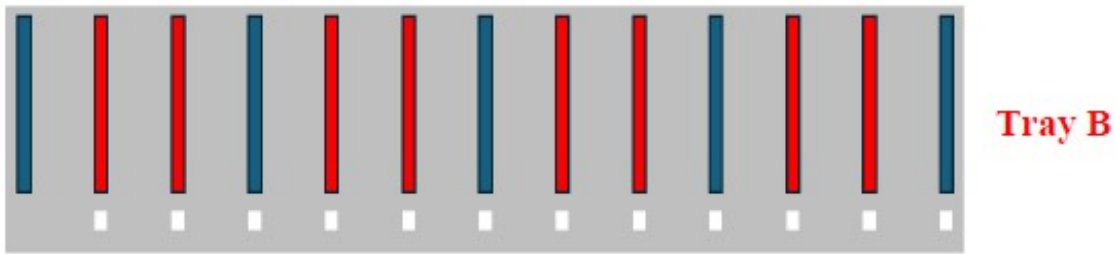
the cassettes. Again, Petitioner annotated Sauter's figure to show the "spacing between LC modules":



Id. at 111 (annotating Sauter at Fig. 11).

To try to map Sauter to the claims, Petitioner had to resort to proposing to alter this spacing and effectively widen the tray width (without any support in the prior art for doing so). For example, in Petitioner's annotated figure below, "[t]he blue rail guides show where Sauter already teaches to place rail guides" and "the red rail guides show where new rail guides are needed." *Id.* at 122.





Id. at 122, 123. Each of these rail guides require additional space (i.e., clearance areas) between neighboring cassettes. That means that the underlying tray must be widened, yet Petitioner failed to reconcile this made-up modification of Sauter with its argument that one of ordinary skill would “make the system fit a standard 19 inch rack.”⁴ *Id.* at 101.

Petitioner’s approach improperly treats individual claim elements in isolation, rather than considering the claim as a whole. Indeed, “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Petitioner cannot base its case “on the obviousness of substitutions and differences, instead of on the invention as a whole.” *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 724 (Fed. Cir. 1990) (citation omitted); *see Nichia Corp.*

⁴ Likewise, Petitioner failed to explain how the prior art meets the claim as a whole when Petitioner proposed entirely “eliminating the ‘clearance areas’ used by Sauter to span over rail guides.” Petition at 149 (citation omitted).

v. Everlight Ams., Inc., 855 F.3d 1328, 1339 (Fed. Cir. 2017) (affirming district court’s conclusion that defendant failed to prove obviousness where “artisans in this field face myriad design challenges because small design changes may cause unpredictable results and because design considerations often pull in multiple directions”).

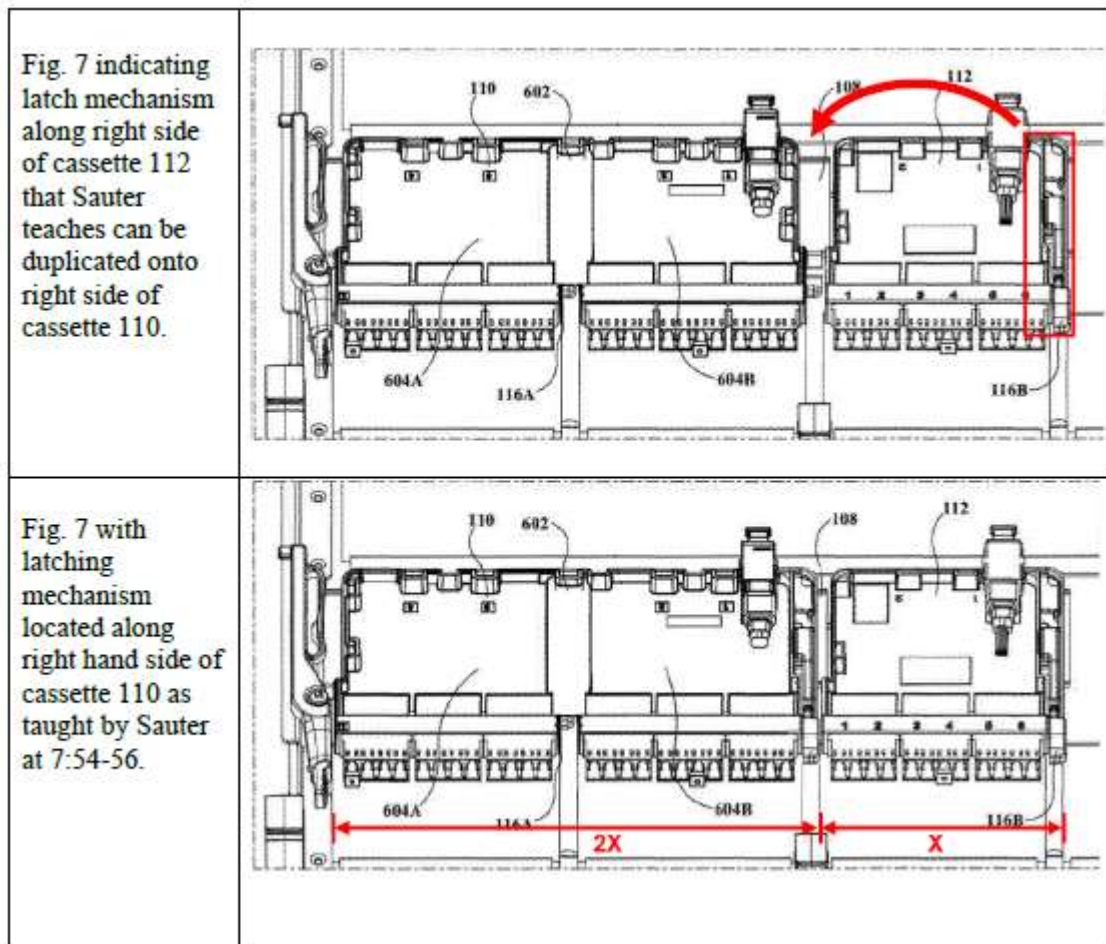
2. Sauter Cannot Render Obvious Claim 1’s “Standard Two Width (2W) Unit,” “Standard Three Width (3W) Unit,” “Standard Four Width (4W) Unit,” or “Standard Six Width (6W) Unit [Fiber Optic Cassettes]” Limitations.

Sauter (alone or in combination with other cited references) fails to render obvious claim 1 because Sauter also does not disclose or suggest all of the claimed “standard two width (2W) unit,” “standard three width (3W) unit,” “standard four width (4W) unit,” or “standard six width (6W) unit [fiber optic cassettes]” (Element 1F, 1H).

According to Petitioner, “Sauter discloses a single-gang cassette (112, 504) that has a cassette width equal to three standard width (3W) units.” Petition at 108. Petitioner likewise argued that Sauter “discloses a double-gang cassette 110 that has a cassette width equal to six standard width (6W) units.” *Id.* (citation omitted).

Under Petitioner’s construction of the “two,” “three,” “four,” “six” standard width units claim language, the “cassette widths must be evenly divisible by the standard width unit.” *Id.* at 21-23. Petitioner argued that “[w]hen the latching

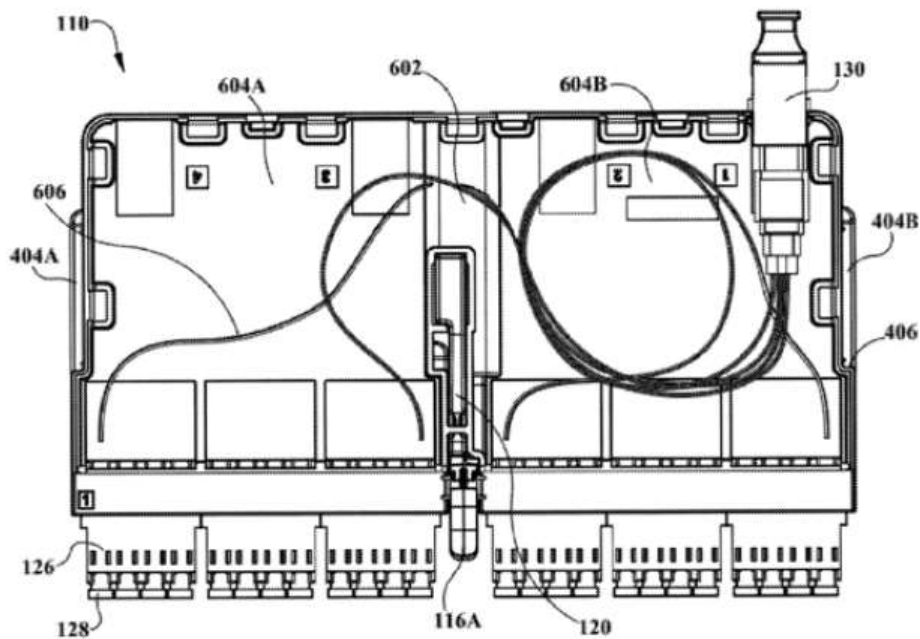
mechanism 120 is positioned along the right hand side of the double-gang cassette (as taught by Sauter . . .), the width of the double-gang cassette mathematically equals twice the width of the single-gang cassette. *Id.* at 106 (citations omitted). According to Petitioner, this is shown below:



Id. at 107 (annotating and modifying Sauter at Fig. 7). This placement of latching mechanism 120 along the right-hand side of the double-gang cassette is key to Petitioner's argument. It is, however, insufficient to meet the claim language for multiple reasons.

As an initial matter, Petitioner admitted that Sauter's arrangement fails to teach "exact multiples in width of the smallest gang cassette," as Petitioner's own construction requires. *Id.* at 151 (citation omitted). For a different ground, Petitioner argued that "[i]t would have been obvious to incorporate the mounting features from Fukui into Sauter's cassettes and tray to eliminate Sauter's rail guides, rails, and latch." *Id.* According to Petitioner, "[t]he resulting cassettes would be exact multiples of the smallest gang cassette." *Id.* (citations omitted). Petitioner thus essentially admitted that modifying Sauter to include latching mechanism 120 along the right-hand side of the double-gang cassette would not result in "exact multiples in width of the smallest gang cassette." *Id.* Sauter thus fails to meet the claim language, as construed by Petitioner, requiring that "the cassette widths must be evenly divisible by the standard width unit." *Id.* at 23.

Petitioner's argument is also incorrect because it requires integrating a structural feature onto the outside of a cassette's housing to achieve the claimed cassette width. Indeed, Sauter's Figure 6, which Petitioner labels the "double-gang cassette," illustrates the double-gang cassette housing, without an integrated latching mechanism on the right-hand side:



double-gang cassette

FIG. 6

Id. at 19 (annotating Sauter at Fig. 6); *see also* Sauter at 6:57-7:2. This is likewise illustrated in Figure 9, again without the latching mechanism:

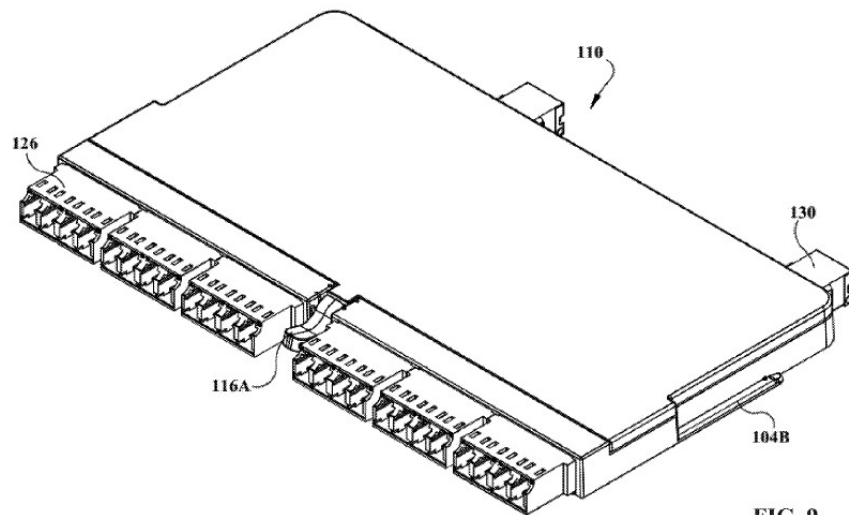


FIG. 9

Sauter at Fig. 9. And it is again illustrated in Figure 7, as annotated by Petitioner to call out the “double-gang cassette”:

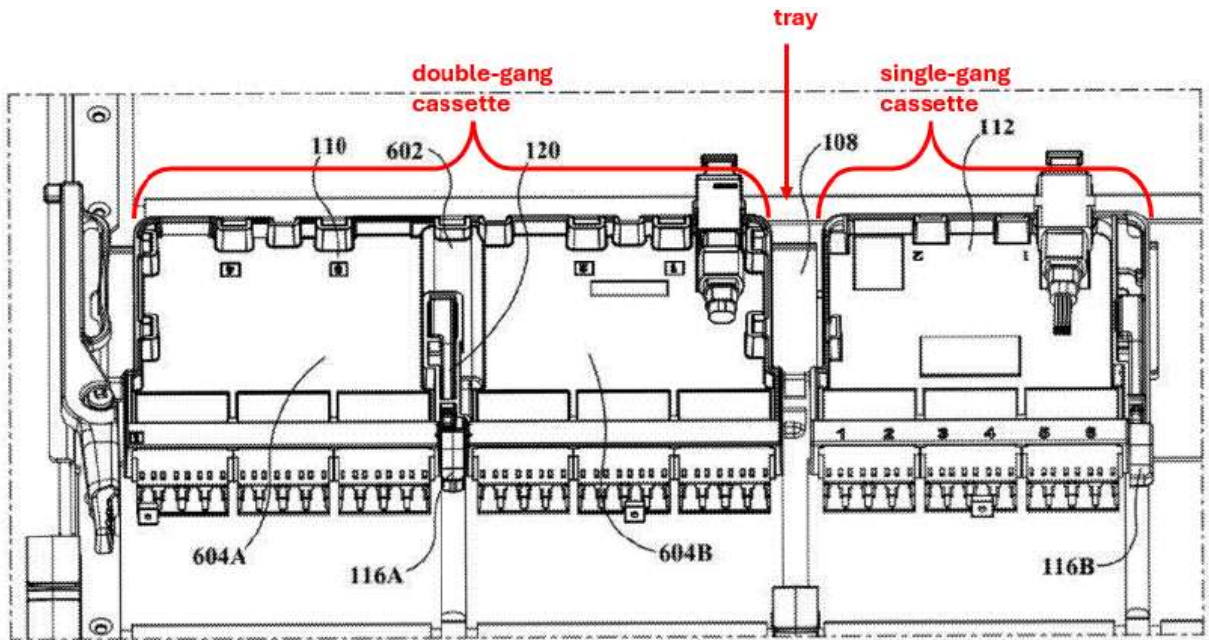
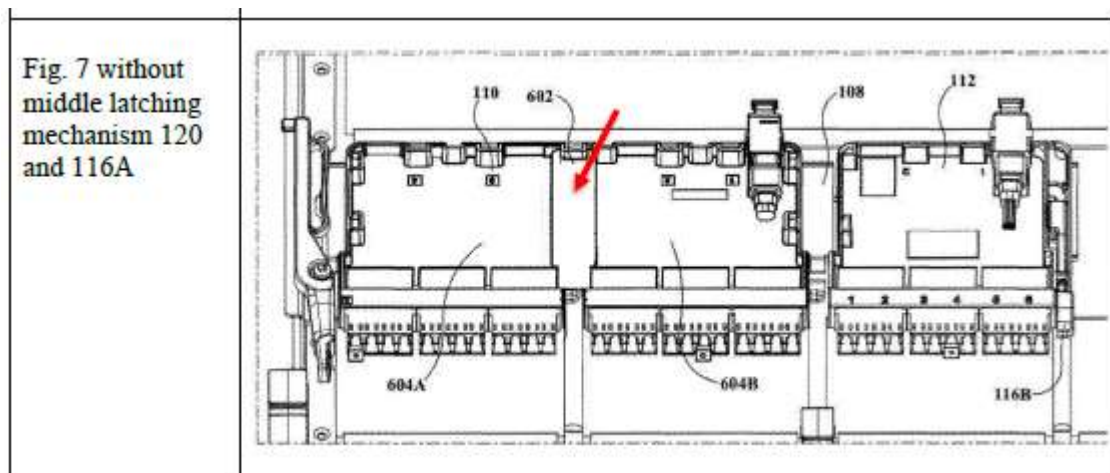


FIG. 7

Petition at 20 (annotating Sauter at Fig. 7). These figures—unlike Petitioner’s annotated figures—illustrate the span of Sauter’s double-gang cassette.

Moreover, Petitioner’s incorporation of features outside of the cassette itself is contrary to the plain language of the claim. The claim language refers to “a standard cassette width unit extending between the first cassette side end portion and the second cassette side end portion.” Petitioner, however, proposed impossibly stretching the meaning of the term “cassette side end portion” to cover both the cassette and a separately attached latching mechanism 120. *Id.* at 106 (citations omitted). But the claimed “cassette side end portion” cannot extend to features outside of the cassette case, including the attached latching mechanism 120 as Petitioner proposed.

A technical expert is not required to see that Sauter’s double-gang cassette is ***more than twice the width*** of a single-gang cassette (when correctly considered without the features outside the cassette housing). As Sauter explains, the double-gang cassette requires a width sufficient to cover six receptacles ***and*** space for an intervening rail guide (i.e., “a clearance area 602”) between those receptacles. Sauter at 7:22-37. This is because the double-gang cassette requires latching mechanism 116A to be positioned in a clearance area in the middle of the double-gang cassette. *Id.* at 6:21-26, 7:3-37, 7:48-53. This clearance area was identified by Petitioner in the figure below:



Petition at 106 (annotating Sauter at Fig. 7). Sauter even recognizes that double-gang cassette 110 is only “approximately twice the width of [the] single-gang cassette (which is designed to fit between two adjacent rail guides)” because, unlike the single-gang cassette, “the dual-gang cassette 110 also spans an intermediate rail

guide 108D.” Sauter at 7:15-19. As a result, Sauter’s double-gang cassette is more than twice the width of a single-gang cassette.

Petitioner also argued that it would have been obvious to modify Sauter’s cassettes “to support both BASE-12 and BASE-8 systems on the same tray.” Petition at 108-12. This change is directed to the size of the cassette and is unrelated to Sauter’s use of a latching mechanism and rail.⁵ Indeed, Petitioner even argued “that additional rail guides should be added.” *Id.* at 123. As a result, Petitioner’s additional proposed modifications to Sauter do not remedy Sauter’s failure to disclose or suggest the width limitations of claim 1 under Petitioner’s claim construction.

According to Petitioner, Sauter also meets the claim language under a construction proposed by Patent Owner during the parallel litigation. *Id.* at 104-05. Petitioner theorized that, because Sauter’s single-gang cassette accommodates three quad modules and a double-gang cassette accommodates six quad modules, the

⁵ Petitioner notably generated illustrations of its made-up BASE-8 and BASE-12 cassettes with the latching mechanism integrated into the cassette housing, yet Petitioner failed to provide any analysis to justify modifying Sauter in this made-up manner. Petition at 112. Indeed, as illustrated above regarding Sauter’s figures, Sauter’s double-gang cassette housing does not include an integrated latching mechanism on the right-hand side of the cassette.

double-gang cassette is twice the width of a single-gang cassette under Patent Owner’s litigation construction of the claim. *Id.* at 104. But Petitioner does not adopt this construction and even alleged that it is incorrect. *See id.* at 21-23. The Board, however, need not fully resolve this claim construction dispute here. Irrespective of the proposed constructions, a cassette width is not construed *solely* by its ability to accommodate a certain number of receptacle modules or construed to include structures that are additionally attached (e.g., a latching mechanism). But this is how Petitioner incorrectly proposed to apply Patent Owner’s construction.

As a result, under either construction, Sauter fails to disclose or suggest all of the claimed “standard two width (2W) unit,” “standard three width (3W) unit,” “standard four width (4W) unit,” or “standard six width (6W) unit [fiber optic cassettes],” as required by claim 1.

B. Petitioner’s Analysis of Independent Claims 9 and 17 in Ground 3 Failed for the Same Reasons as Independent Claim 1.

Claims 9 and 17 recite similar limitations as claim 1. *See id.* at 124-27 (acknowledging same for claim 9), 128 (acknowledging same for claim 17). Petitioner’s argument for claims 9 and 17 mirrored the argument for claim 1. But this argument failed to show that Sauter’s disclosure meets the claim language for the same reasons discussed for claim 1.

C. Petitioner’s Additional Reliance on Dagley and Fukui in Ground 4 Failed to Remedy the Noted Deficiencies in the Sauter Grounds.

In Ground 4, Petitioner further argued that Sauter modified in view of Dagely and Fukui renders obvious the challenged claims. *Id.* at 146-51. In particular, according to Petitioner, “[i]f Ground 3 does not satisfy the cassette size limitations in Elements 1F, 9D, and 17D (2W[,] 3W, 4W, 6W sizes), Ground 3 further in light of Fukui renders the claims obvious.” *Id.* at 151. Petitioner argued that “[i]t would have been obvious to incorporate the mounting features from Fukui into Sauter’s cassettes and tray to eliminate Sauter’s rail guides, rails, and latch. The resulting cassettes would be exact multiples of the smallest gang cassette.” *Id.* at 136 (citation omitted).

Again, despite arguing for Ground 3 that a latching mechanism/rail on the right-hand side of the double-gang cassette is necessary to render claims 1, 9, and 17 obvious, Petitioner proposed removing the latching mechanism/rail for Ground 4. But as discussed above and shown in Petitioner’s annotated image below, even if one of ordinary skill in the art at the time of the invention were to compare the single-gang cassette and the double-gang cassette without a latch on the right-hand side, Sauter still cannot meet the “width” claim limitations because the double-gang cassette is not “exactly” twice the width of the single-gang cassette, as required by Petitioner’s own construction:

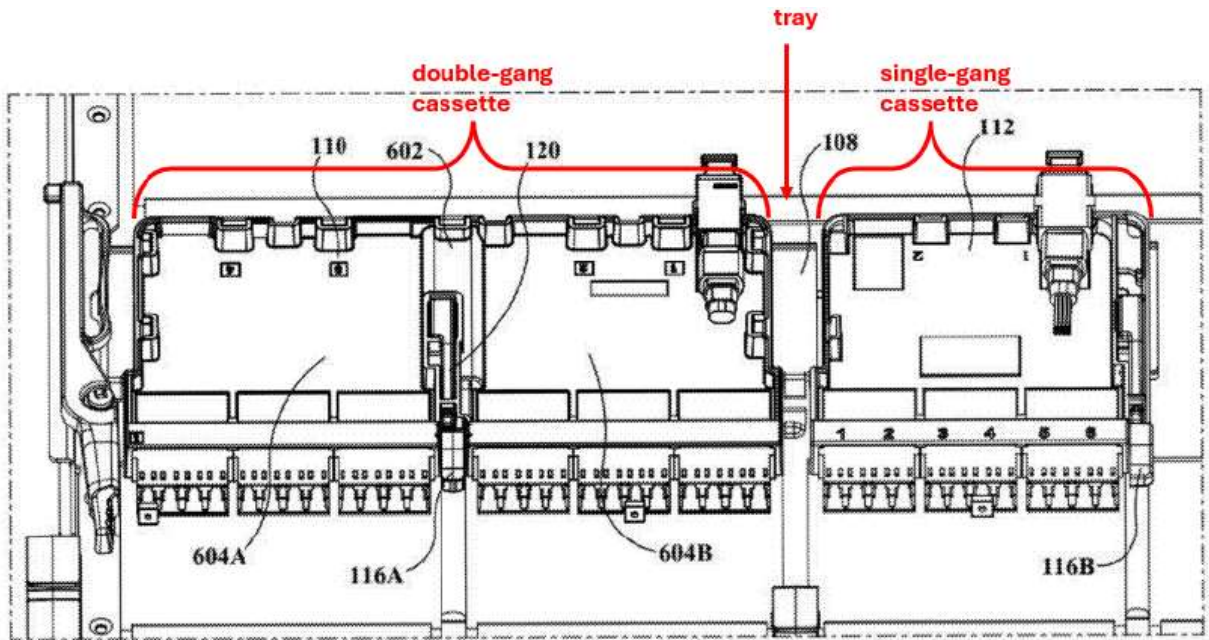


FIG. 7

Id. at 20 (annotating Sauter at Fig. 7).

Indeed, this argument is yet another example of Petitioner selectively proposing modifications for some claim elements in isolation, while ignoring those same modifications elsewhere in its Petition when they conflict with such proposed modifications. In Ground 3, Petitioner made multiple alternative arguments, including that one of ordinary skill “would have been motivated to configure the tray to support both BASE-12 size cassettes (3W and 6W) and BASE-8 cassettes (2W and 4W).” *Id.* at 110 (citation omitted). Petitioner, however, makes no arguments in Ground 4 regarding whether or how these BASE-8 and BASE-12 cassettes would be modified in view of Fukui, and if so, how these modified cassettes would meet the claimed width limitations. Again, irrespective of the presence of a latch, the

BASE-8 and BASE-12 cassettes use gaps between receptacle modules resulting in cassettes that do not meet the claimed width requirements.

D. Petitioner’s Additional Arguments in Ground 5 Failed to Remedy the Deficiencies in the Sauter Grounds.

In Ground 5, Petitioner further argued that Sauter modified in view of Laarveld renders obvious the challenged claims. *Id.* at 152-54. But these additional arguments do not remedy any of the deficiencies described above with respect to claims 1, 9, or 17.

V. The Board Should Decline to Institute Under 35 U.S.C. § 325(d) Because the Petition Relied on Substantially the Same Art and Arguments that Were Previously Considered.

The Board should exercise its discretion to deny under § 325(d) because the Petition presents “the same or substantially the same prior art or arguments previously . . . presented to the Office” and because Petitioner failed to meet its burden to show material error with respect to such art or arguments.⁶ 35 U.S.C. § 325(d); *see also Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7-9 (PTAB Feb. 13, 2020) (precedential)

⁶ Patent Owner recognizes that this argument only reaches Sauter-based grounds, not Fukui-based grounds. This argument thus only needs to be addressed after the Board confirms the fundamental deficiencies in Petitioner’s Fukui-based grounds.

(“*Advanced Bionics*”); *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph) (“*Becton*”).

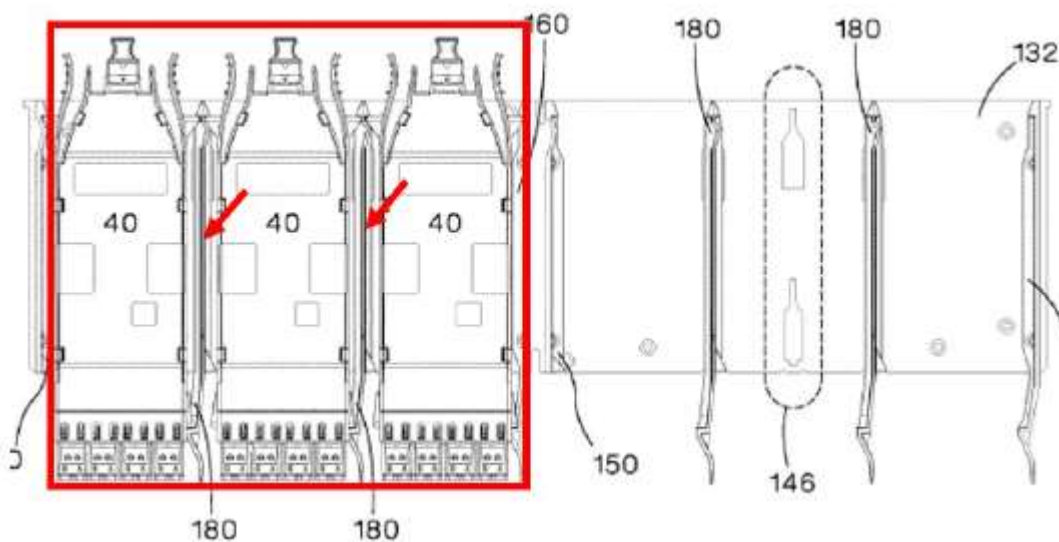
Petitioner devoted two sentences to this issue in the Petition under a heading titled “Discretionary Issues,” contending that (1) its “grounds are not the same or substantially the same as any combination previously presented to the Patent Office,” and (2) “Fukui is a new reference.” Petition at 25. But, as discussed above, Fukui fails to disclose the missing claim elements. And the remaining grounds (i.e., Grounds 3-5) rely on Sauter, a reference that is substantially similar to the references applied (and overcome) during prosecution. Indeed, Sauter is deficient for the same reason as the reference (i.e., Sedor) applied during prosecution.

A. Part One of the *Advanced Bionics* Test: “Whether the Same or Substantially the Same Art Previously Was Presented to the Office.”

Under part one of the *Advanced Bionics* framework, the Board considers whether the same art or arguments were previously presented to the Office. *Advanced Bionics* at 8-10 (addressing *Becton* factors (a), (b), and (d) under part 1 of § 325(d) framework). Petitioner recognizes that Sedor—a reference used in the Petition as a secondary reference in at least two different grounds—was substantively considered during prosecution of the parent ’107 patent and applied as a primary reference. Petition at 8-15 (citations omitted). Rather than use Sedor as a

primary reference, Petitioner uses Sauter—a reference Petitioner acknowledged was “art of record” during prosecution—as a primary reference. *Id.* at 20. Petitioner, however, applied Sauter in the same way that the Examiner applied Sedor.

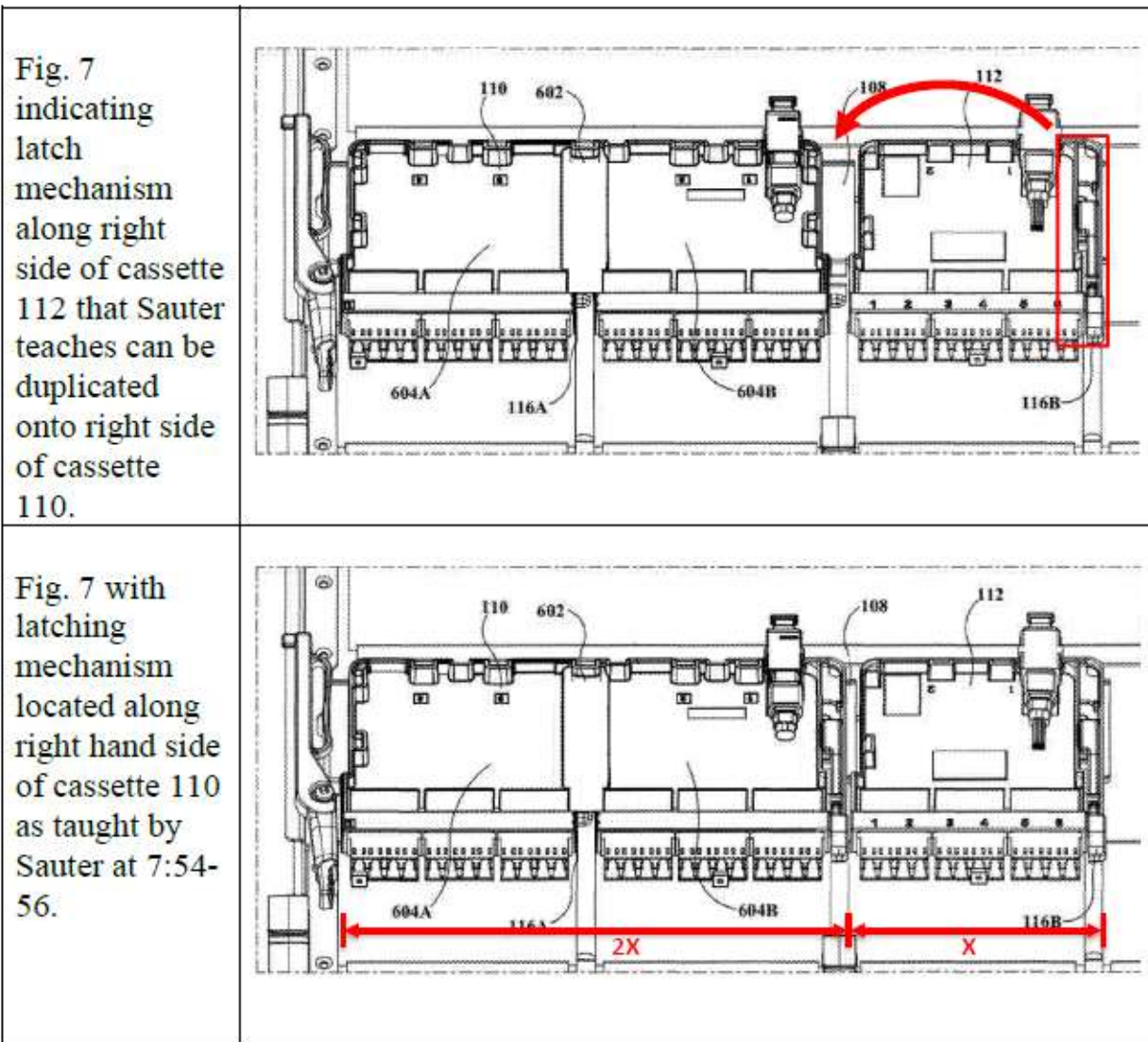
As Petitioner explains, in prosecution of the parent ’107 patent, the Examiner found that the challenged claims were patentable over Sedor due to Sedor’s disclosure of rails that were connected to the outside of a cassette housing. *See id.* at 7-13 (citations omitted). These rails are shown below:



Sedor at Fig. 9 (annotated). According to the Examiner, “Sedor et al. discloses modular trays comprising different sized fiber optic modules, where removable rails are provided which may be removeably secured to a tray body in one of a number of positions so as to accommodate the different sizes of modules. Each of these essential rails [is] positioned between adjacent ones of the modules.” Ex. 1007 at 184.

In later applications, the Examiner also found that Sedor was “[t]he most applicable prior art.” *E.g.*, Ex. 1002 at 222. In each instance, the Examiner allowed the claims because Sedor does not disclose or suggest the claimed “width” limitations in view of the rails positioned between different cassettes. During prosecution of one parent application, the Examiner explained that “[w]hen widths are measured from the outer side edges of the cassettes [rather than between rails], Sedor et al. fails to disclose cassettes having the sizes required by the claim.” *Id.* Similarly, for another parent application, the Examiner likewise found that “[w]hen measuring widths from the outer side edges of the cassettes, Sedor et al. fails to disclose or reasonably suggest cassettes having the sizes require[d] by the claim.” Ex. 1033 at 79. But measuring width between rails, rather than cassette edges, is the same argument the Petitioner raised in the Petition regarding Sauter, and Petitioner should not be permitted to bring forth these same arguments yet again.

Like Sedor’s rails, Sauter discloses a latching mechanism and related rails between cassette edges. *See* Petition at 106-07 (citations omitted) (arguing same). Repeating arguments already rejected by the Examiner, Petitioner argues that, “[w]hen the latching mechanism 120 is positioned along the right hand side of the double-gang cassette (as taught by Sauter . . .), the width of the double-gang cassette mathematically equals twice the width of the single-gang cassette.” *Id.* (citations omitted). This is shown below:



Id. at 106 (annotating Sauter at Fig. 7) (identifying the latching mechanism and related rail in red above). But this is the same argument that the Examiner rejected during prosecution.

For at least the reasons above, the “same or substantially the same art or arguments previously were presented to the Office.” *Advanced Bionics* at 10; *see also Becton* at 17-18.

B. Part Two of the *Advanced Bionics* Test: “Whether the Petitioner Has Demonstrated that the Office Erred in a Manner Material to the Patentability of Challenged Claims.”

Under part two of the *Advanced Bionics* framework, *Becton* factors (c), (e), and (f) are considered in the evaluation of whether the Examiner materially erred during prosecution. *Advanced Bionics* at 8, 10-11. *Becton* identifies these factors as “(c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection”; “(e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.” *Becton* at 17-18. All three factors weigh in favor of denial here.

Advanced Bionics explains that “[i]f the ‘same or substantially the same prior art or arguments previously were presented to the Office,’ then the Board’s decisions generally have required a showing that the Office erred in evaluating the art.” *Advanced Bionics* at 8 (citing *Becton* at 24). “At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.* at 9.

Yet here, with regard to various instances noted above where the Patent Owner overcame rejections based on Sedor and its rails/latching mechanism during

prosecution, Petitioner did not even attempt to meet its burden to show material error regarding the above arguments considered during prosecution.

That is, the Petition is entirely silent regarding why its Sauter-based arguments are meaningfully different from highly similar grounds that were previously overcome during prosecution of the application that became the '107 patent and related applications. Indeed, the Petition failed to identify any specific error or oversight made by the Office. Under the circumstances, *Becton* factors (c), (e), and (f) further support the conclusion that Petitioners have failed to “demonstrate[] a material error by the Office,” and, as a consequence, the Board should exercise its discretion to deny institution under § 325(d). *Advanced Bionics* at 10; *see also Becton* at 17-18.

VI. Conclusion

For at least the reasons provided above, the Petition should be denied.

Respectfully submitted,

Dated: January 9, 2025

By: /Cory C. Bell/
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Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** contains 6,315 words, excluding those portions identified in 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

Dated: January 9, 2025

By: /Cory C. Bell/
Cory C. Bell, Reg. No. 75,096
Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** was served on January 9, 2025, via e-mail directed to counsel of record for the Petitioner at the following:

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Dated: January 9, 2025

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