

2022-1228

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

PANDUIT CORP., FS.COM INC., and THE SIEMON COMPANY,

Appellants

v.

INTERNATIONAL TRADE COMMISSION,

Appellee

and

CORNING OPTICAL COMMUNICATIONS LLC,

Intervenor

Appeal from the United States International Trade Commission
in Investigation No. 337-TA-1194.

**BRIEF OF APPELLEE
INTERNATIONAL TRADE COMMISSION**

CATHY CHEN
Attorney for Appellee
Office of the General Counsel
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436
Telephone (202) 205-2392

WAYNE W. HERRINGTON
Assistant General Counsel
Telephone (202) 205-3090

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LANGUAGE OF THE PATENT CLAIMS AT ISSUE

Claims 1 and 3 of U.S Patent No. 9,020,320 (the “320 patent”) provide:

1. A fiber optic apparatus, comprising:

a chassis; and

a fiber optic connection equipment provided in the chassis;

the fiber optic connection equipment configured to support a fiber optic connection density of at least ninety-eight (98) fiber optic connections per U space, based on using at least one simplex fiber optic component or at least one duplex fiber optic component.

3. The fiber optic apparatus of claim **1**, wherein the fiber optic connection equipment is configured to support a fiber optic connection density of at least one hundred forty-four (144) fiber optic connections per U space.

Claim 11 of U.S. Patent No. 10,444,456 (the “456 patent”) provides:

11. A fiber optic apparatus, comprising:

a chassis configured to be disposed in an equipment rack, the chassis comprising front and rear ends that are spaced apart from one another in a longitudinal direction, and comprising opposite first and second ends that are spaced apart from one another in a lateral direction that extends crosswise to the longitudinal direction;

a plurality of fiber optic equipment trays supported by the chassis and extendable relative to the chassis in the longitudinal direction; and

a plurality of fiber optic modules configured to be installed in the plurality of fiber optic equipment trays, wherein each fiber optic module of the plurality of fiber optic modules comprises a front side, a rear side, an internal chamber, a plurality of first fiber optic adapters disposed through the front side, at least one second fiber optic adapter disposed through the rear side, and a plurality of optical fibers disposed within the internal chamber and extending from the at least one second fiber optic adapter to the plurality of first fiber optic adapters;

wherein each fiber optic equipment tray of the plurality of fiber optic equipment trays is configured to receive multiple fiber optic modules of the plurality of fiber optic modules;

wherein the plurality of fiber optic equipment trays and the plurality of fiber optic modules are configured to support a fiber optic connection density of at least ninety-eight (98) fiber optic connections per U space of the chassis, based on using a simplex fiber optic adapter or a duplex fiber optic adapter as each fiber optic adapter of the plurality of first fiber optic adapters; and

wherein a U space comprises a height of 1.75 inches and comprises a width of 19 inches or 23 inches.

Claim 1 of U.S. Patent No. 10,120,153 (the “153 patent”), from which claims 9 and 16 depend, provides:

1. A fiber optic apparatus, comprising:

a chassis configured to be disposed in an equipment rack, the chassis comprising opposite front and rear ends that are spaced apart from one another in a longitudinal direction, and comprising opposite first and second ends that are spaced apart from one another in a lateral direction that extends crosswise to the longitudinal direction;

a guide system configured to be disposed within the chassis;

at least one fiber optic equipment tray configured to slidably engage within the guide system, the at least one fiber optic equipment tray comprising a front end with at least one fiber optic routing element that comprises successive material sections extending frontward, upward, and rearward, respectively, to permit optical fibers to be routed to either left or right portions of the at least one fiber optic equipment tray toward the first and second ends of the chassis; and

a plurality of fiber optic modules configured to be received by the at least one fiber optic equipment tray, wherein each fiber optic module of the plurality of fiber optic modules is independently movable in the longitudinal direction relative to the at least one fiber optic equipment tray, and wherein each fiber optic module of the plurality of fiber optic modules comprises a

front end, a rear end, an interior, a plurality of first fiber optic adapters disposed through the front end, at least one second fiber optic adapter disposed through the rear end, and at least one optical fiber disposed within the interior and establishing at least one optical connection between the at least one second fiber optic adapter and at least one first fiber optic adapter of the plurality of first fiber optic adapters.

Claim 14 of U.S. Patent No. 8,712,206 (the “’206 patent”), from which claims 22 and 23 depend, provides:

14. A fiber optic module, comprising:

a main body defining an internal chamber disposed between a front side and a rear side;

a plurality of optical fibers disposed in the internal chamber;

a front opening disposed along a longitudinal axis in the front side;

a first plurality of fiber optic components optically connected to the plurality of optical fibers, the first plurality of fiber optic components disposed through the front opening providing a fiber optic connection density of at least one fiber optic connection per 7.0 millimeters (mm) of width of the front opening; and

at least one second fiber optic component optically connected to at least one of the plurality of optical fibers to provide optical connection between the at least one second fiber optic component and at least one of the first plurality of fiber optic components.

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STATEMENT OF RELATED CASES

The Commission is unaware of any case pending in this or any other court or agency that will directly affect or be directly affected by this Court's decision in the pending appeal.

STATEMENT OF THE ISSUES

1. Whether Panduit's and Siemon's imported modules constitute "articles that infringe" under 19 U.S.C. § 1337(a)(1)(B) when Panduit and Siemon induce their customers to use the modules in combination with other components in the United States to directly infringe the asserted apparatus claims of the '320, '456, and '153 patents.

2. Whether the Commission's application of the "articles that infringe" requirement in this investigation without reference to the concept of a "nexus" between the imported article and the infringing act was appropriate and consistent with its precedent and that of this Court.

3. Whether the Commission properly found that Appellants failed to prove claims with an open-ended connection density limitation are not enabled where the evidence shows an inherent upper limit on the connection density, witnesses from all parties acknowledge this limit, and the specifications indisputably enables one skilled in the art to approach the limit.

4. Whether substantial evidence supports the Commission’s finding that Panduit’s and Siemon’s accused products include the “fiber optic routing element” in the asserted claims of the ’153 patent.

5. Whether the Commission properly rejected Appellants’ attempt to limit the term “a front opening” in the asserted claims of the ’206 patent to a single opening because the evidence does not show a clear intent by the patentee to deviate from the general rule that the word “a” in a patent claim carries the meaning of one or more and the specification supports finding that the “front opening” of a module may include dividers or spacers between the fiber optic components.¹

STATEMENT OF THE CASE

The Commission instituted Investigation No. 337-TA-1194, *Certain High-Density Fiber Optic Equipment and Components Thereof*, based on a complaint filed by Corning Optical Communications LLC (“Corning”). Appx1104. The Commission found a violation of 19 U.S.C. § 1337 (“Section 337”) by Appellants Panduit Corporation (“Panduit”), FS.com Inc. (“FS”), and The Siemon Company

¹ On the third and fifth issues, Appellants are joined by an amicus brief by Diversified Material Specialists, Inc.

(“Siemon”).² Appx25860-25863. The Commission issued a general exclusion order prohibiting the importation of infringing high-density fiber optic equipment and components thereof and cease and desist orders directed to three respondents including Panduit and FS. Appx25863.

I. THE ASSERTED PATENTS

The asserted patents on appeal are related. The ’320 and ’456 patents share a specification, and the ’153 patent is in the same family as the ’320 and ’456 patents. Appx9. The ’206 patent is from a different family but shares the same 25 figures with the ’320 and ’456 patents. Appx9.

The asserted claims of the ’320, ’456, and ’153 patents are directed to fiber optic apparatuses that include at least a chassis and one or more fiber optic modules. Appx12. The asserted claims of the ’206 patent are directed to fiber optic modules only. Appx12.

A. The Fiber Optic Apparatus Claims of the ’320, ’456, and ’153 Patents

The technology at issue in these asserted patents relates to high-density fiber optic equipment and components thereof, of the kind commonly used in data

² The Commission also found a violation of Section 337 as to two other participating respondents who are not parties to this appeal: Leviton Manufacturing Co., Inc. (“Leviton”) and The LAN Wirewerks Research Laboratories Inc. d/b/a Wirewerks.

centers. A data center is a facility that houses communication equipment. Appx95383. Data centers typically contain multiple racks for mounting electronic equipment, which is attached to the racks using mounting holes on the sides of each rack. Appx95384. A standard rack unit is 1.75 inches tall, which is referred to as a “U space.”³ Appx95385-95386; Appx601 (’320 patent, 4:43-47). The purpose of the racks in fiber optic data centers is to house chassis that can be configured to connect fiber optic cables. Appx95387. These chassis may contain trays that carry modules or other subenclosures. Appx95387.

Figure 7 of the ’320 and ’456 patents (below) illustrates a front perspective view of extendable fiber optic equipment trays **20** supporting fiber optic modules **22** with one fiber optic equipment tray **20** extended out from the chassis **12**. Appx603 (7:11-34).⁴ Figure **10A** (below) illustrates an exemplary fiber optic module **22** that can be inserted in the fiber optic equipment trays **20** to provide fiber optic connections in the chassis **12**. Appx603 (8:52-56).

³ The ALJ gave the claim term “U space” its “plain and ordinary meaning, an example of which is a rack unit, which is a standardized measurement of 1.75 inches (44.45mm) in height within a standardized 19-inch rack or 23-inch rack.” Appx152-156.

⁴ The ’456 patent shares a specification with the ’320 patent. Citations to only the ’320 patent are provided in the brief.

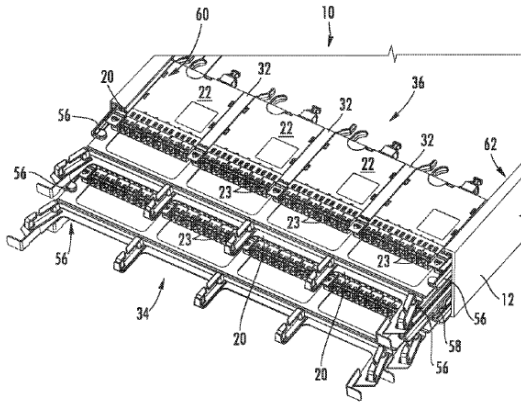


FIG. 7

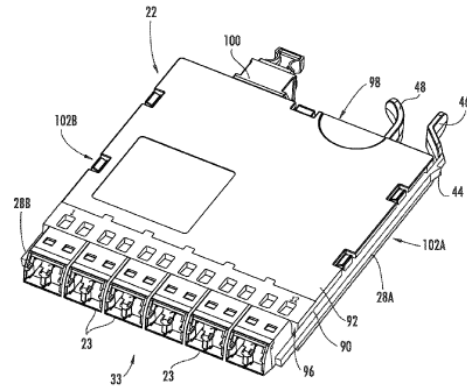


FIG. 10A

Appx581; Appx584.

Fiber optic components **23** can be disposed through the front side **96** of the main body **90** and are connected to a fiber optic component **100** disposed through the rear side **98** of the main body **90**. Appx603-604 (8:61-9:5). In one embodiment, the fiber optic components **23** on the front side **96** are duplex Lucent Connector (LC) fiber optic adapters and the fiber optic component **100** on the rear side **98** is a multi-fiber push-on/pull (MPO) fiber optic adapter. Appx603-604 (8:65-9:11); Appx28265-28266 ((Prucnal) Q/A 29-31, 34-35). Both adapters are standardized prior art adapters. Appx95388-95389.

The disclosed fiber optic equipment can support a high fiber optic connection density⁵ using simplex or duplex fiber optic components:

⁵ The parties agree that the term “fiber optic connection density” means the “number of fiber optic connections that can be made to the front side of the fiber optic equipment.” Appx147.

The fiber optic equipment trays **20** in this embodiment support up to four (4) of the fiber optic modules **22** in approximately the width of a 1-U space, and three (3) fiber optic equipment trays **20** in the height of a 1-U space for a total of twelve (12) fiber optic modules **22** in a 1-U space. Thus, for example, if six (6) duplex fiber optic components were disposed in each of the twelve (12) fiber optic modules **22** installed in fiber optic equipment trays **20** of the chassis **12** as illustrated in FIG. **1**, a total of one hundred forty-four (144) fiber optic connections, or seventy-two (72) duplex channels (i.e., transmit and receive channels), would be supported by the chassis **12** in a 1-U space. If five (5) duplex fiber optic adapters are disposed in each of the twelve (12) fiber optic modules **22** installed in fiber optic equipment trays **20** of the chassis **12**, a total of one hundred twenty (120) fiber optic connections, or sixty (60) duplex channels, would be supported by the chassis **12** in a 1-U space. The chassis **12** also supports at least ninety-eight (98) fiber optic components in a 1-U space wherein at least one of the fiber optic components is a simplex or duplex fiber optic component.

Appx602 (5:33-52).

While the '320 and '456 patent specifications describe exemplary embodiments of fiber optic components **23** using duplex LC fiber optic adapters, the specifications also indicate that the inventions are not limited to any particular fiber optic connection type. Appx603-604 (8:65-9:3) (referring to the embodiment depicted in Figures **10A** and **10B**, “the fiber optic components **23** are duplex LC fiber optic adapters that are configured to receive and support connections with duplex LC fiber optic connectors. However, any fiber optic connection type desired can be provided in the fiber optic module **22**.”). For example, the

specification contrasts embodiments using “duplex fiber optic components” to achieve 120 or 144 fiber optic connections per U space, as described above, with embodiments using “multi-fiber fiber optic components” such as “MPO components” to achieve 576 or 1152 fiber optic connections in the same U space.⁶ Appx602 (5:33-67).

Relevant to this appeal, the asserted claims of the '320 and '456 patents require that the “fiber optic connection equipment provided in the chassis” ('320 patent) or “the plurality of fiber optic equipment trays and the plurality of fiber optic modules” ('456 patent) be “configured to support” a minimum number of fiber optic connections per U space using simplex or duplex components, *e.g.*, 98 fiber optic connections (claim 1 of the '320 patent); and 144 fiber optic connections (claim 3 of the '320 patent). Appx609 (19:54-59, 19:64-67); Appx842 (22:2-7, 24:32-38).

⁶ During prosecution of the '320 patent, Corning originally asserted two sets of claims. One set claimed densities based on simplex or duplex components, and the second claimed much higher densities based on multifiber components. Appx303; Appx101709-101714. The PTO examiner issued a Restriction Requirement finding that the application contained claims directed to two “patentably distinct species: A) high density fiber [optic] connection apparatus or method based on simplex or duplex type fiber connectors; and B) high density fiber [optic] connection apparatus or method based on multiple fiber or MPO type fiber connectors.” Appx106627. Corning elected to proceed with Species A (simplex/duplex connectors). Appx107007.

During the investigation, the parties disputed “how many modules” were required to meet the “configured to support” limitation. Appx174-175. Panduit argued that the limitation requires a chassis loaded with enough modules to make the claimed number of connections in a U space:

[N]either the Panduit Accused Chassis, nor the Panduit Accused Modules, infringe the asserted claims of the '320 Patent on their own.

As Dr. Prucnal recognizes, to make fiber optic connections both components are needed. [] Thus, to achieve a specific fiber optic connection density, as is recited in claims 1 and 3 of the '320 Patent, a chassis would need to include the number of modules required to achieve ninety-eight (claim 1) or one hundred forty-four (claim 3) fiber optic connections per U space.

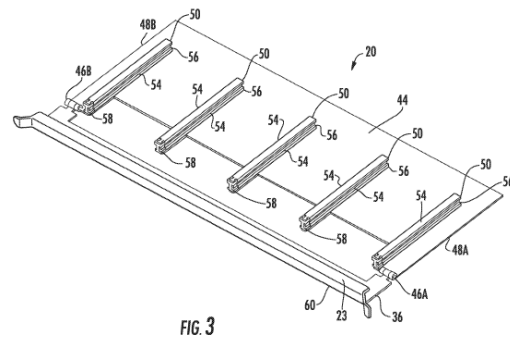
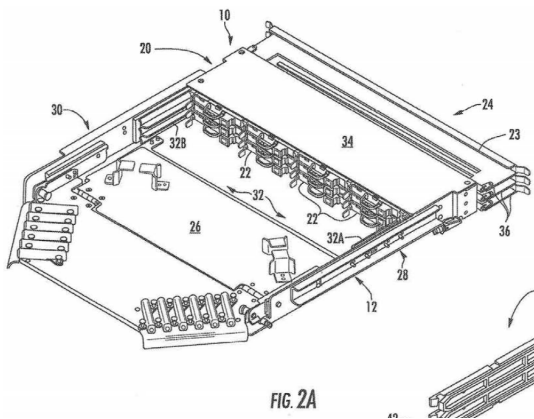
Appx20528 (citing Appx28296 ((Prucnal) Q/A 133); Appx609 (19:52-59, 19:64-67); Appx151800 (Min Tr. 800:7-24)). Corning, however, argued that the claim language is met when at least one module is inserted into the chassis provided that the chassis is designed to permit the claimed fiber optic connection density in a U space. Appx151323-151324 (Prucnal Tr. 323:15-324:22); Appx20528. Thus, no party argued that modules are *not* required by the claims of the '320 patent.

The administrative law judge (“ALJ”) agreed with Corning, finding that the claims require at least one module inserted in the chassis, but that they do not require enough modules to reach the claimed density at the time of infringement as long as the apparatus is designed to support the claimed number of connections.

Appx172-176. The Commission adopted the ALJ’s construction and found the specification makes clear the “fiber optic connection equipment provided in the chassis” in claim 1 of the ’320 patent requires at least one module and chassis. Appx31. In addition to the specification, the Commission credited the testimony of Corning’s expert, Dr. Prucnal, who testified that the “plain meaning of ‘fiber optic connection equipment’ to a person of ordinary skill in the art of the ’320 patent is equipment used to make or facilitate connections between or among fiber optic cables,” and that Panduit’s and Siemon’s accused modules facilitate such connections. Appx31 (citing Appx28299-28302 ((Prucnal) Q/A 144, 148, 152)).

B. The ’153 Patent Claims’ “Fiber Optic Routing Element”

The ’153 patent does not claim density, but instead claims features that improve accessibility, such as sliding fiber optic equipment trays that permit modules to be individually inserted and released from the front and rear, and fiber optic routing guides to route fibers at the front of the tray to the sides of the chassis. *See, e.g.*, Appx724 (19:8-20:10); Appx28435-28436 ((Prucnal) Q/A 571).



Appx683; Appx684. In the fiber optic equipment **10** shown in Figure **2A** (above), “each fiber optic equipment tray **20** contains a fiber routing tray **36** attached thereto to support routing of optical fibers connected to the fiber optic modules **22**.”

Appx717 (6:41-42, 6:62-64). The fiber routing tray **36** “is attached to the main tray portion **44** via hinge mechanisms in the form of hinges **46A**, **46B** disposed on each end **48A**, **48B** of the main tray portion **44**.” Appx718 (7:24-29). As illustrated in Figure **3** (above):

[T]he fiber routing tray **36** is formed from sheet metal or other material that is bent on top of itself in a U-shape on a front end **60** of the fiber routing tray **36**. In this manner, optic fibers extending from the fiber optic modules **22** installed in the fiber optic equipment tray **20**, and in particular the module rail guides **50** disposed therein, can be routed underneath a lip section **23** contained in the fiber routing tray **36** and disposed to either end **48A**, **48B** of the fiber optic equipment tray **20** to be routed for connection to other fiber optic equipment.

Appx718 (8:12-21).

During prosecution, the PTO examiner cited U.S. Patent No. 5,511,144 (“Hawkins”) as anticipating the “fiber optic routing element” claimed in the ’153 patent. According to the examiner, Hawkins discloses “at least one fiber routing element (8) that comprises material sections extending frontward, upward and rearward (see Fig. 6) to permit optical fibers to be routed to either left or right portions of the tray towards first and second ends of the chassis.” Appx110061.

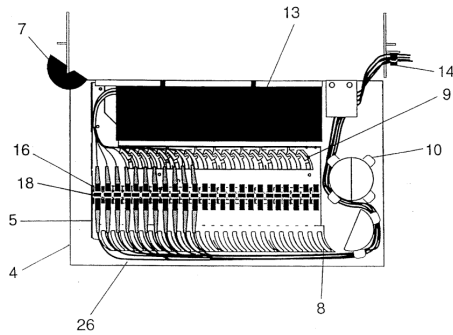


FIGURE 5

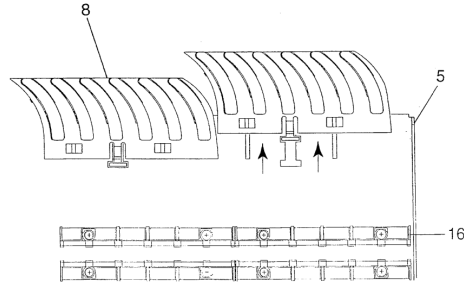


FIGURE 6

Appx110106. In response, Corning amended claim 1: “the at least one fiber optic equipment tray comprising a front end with at least one fiber optic routing element that comprises successive material sections extending frontward, upward, and rearward, respectively, to permit optical fibers to be routed....” Appx110114. Corning then argued that “Figures 5 and 6 of Hawkins [above] show that the ‘jumper radius control guides 8’ each include an upwardly-extending material having *an arc-shaped uniform cross-section that curves to one side*” and “fail to include ‘successive material sections extending frontward, upward, and rearward, respectively.’” Appx110107 (emphasis added). The ALJ found that “Corning distinguished the routing element in [Hawkins] based on its ‘orientation’ or shape, not based on its integration with a tray.” Appx388-389.

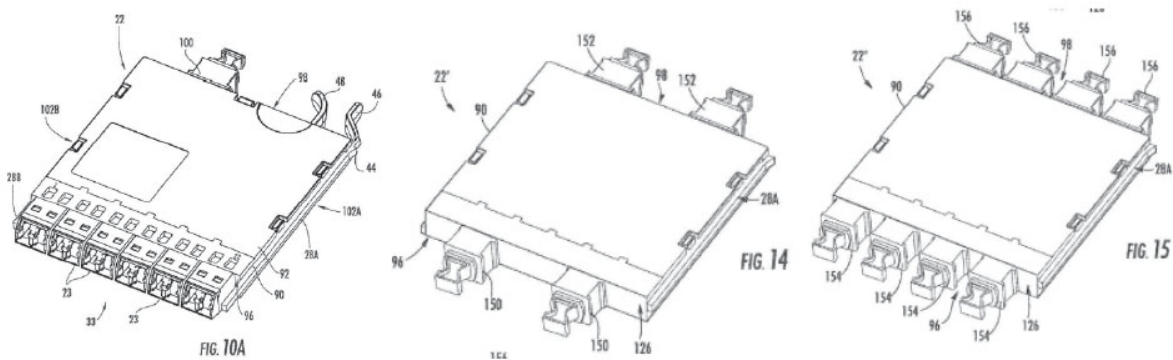
C. The Module Claims of the '206 Patent

The '206 patent claims the structure of the modules themselves, which includes an efficient design to fit a large number of adapters within each module. Appx28272-28273 ((Prucnal) Q/A 57). Asserted claims 22 and 23 depend from

independent claim 14, which recites a “fiber optic module” comprising “a front opening disposed along a longitudinal axis in the front side.” Appx660 (20:48-65).

The specification teaches that a module can be designed with one or more front openings to support fiber optic components. Appx54-56 (referring to embodiments illustrated in Figures 11, 13, 17, 18, 23, and 24 of the '206 patent).

The specification also teaches that the “front opening” may contain dividers or spacers and does not have to be contiguous. For example, the modules in Figures 10A, 14, and 15 of the '206 patent, shown below, all have the same form factor as the module in Figure 13, meaning they have the same dimensions for front opening 126. Appx56; Appx441-444; Appx654-656 (8:20-21, 9:64-10:2, 11:54-59, 12:54-58).



Appx634; Appx640. The ALJ found that the modules in Figures 10A, 14, and 15 contain multiple spaces and include the structural material separating the adapters as part of the front opening 126:

The main difference between the embodiments shown in FIGS. 14 and 15 and the embodiment shown in FIGS.

10A, 10B, 11, and 12 is that in the former embodiments, the spacing between the two or four MPO adapters can be easily defined whereas the spacing between the six LC adapters shown in FIGS. 10A, 10B, 11, and 12 cannot easily be seen. This is because these figures are not engineering design drawings. This does not mean that there are no spaces (or dividers) between the six LC adapters.

Appx444. Corning's expert, Dr. Prucnal, opined that "[f]rom the drawing in Figure 15, a person of ordinary skill would understand ... that the spaces between the adapters are filled with material that is necessary to support them and to maintain the structural integrity of the module." Appx95823-95824 ((Prucnal) Q/A 111-113). In view of the evidence, the Commission determined claim 14's "front opening" may include dividers or spacers between the fiber optic components." Appx57.

II. THE ACCUSED PRODUCTS

Appellants' accused products include chassis, modules, and combinations thereof. Appx13. The accused products are all configured to support up to 144 fiber optic connections in a U space using LC fiber optic adapters. Appx13; Appx28264-28266 ((Prucnal) Q/A 23, 27-29, 33).

III. COMMISSION PROCEEDINGS

A. The ALJ's Final Initial Determination

On March 23, 2021, the ALJ issued a final initial determination ("ID") finding a violation of Section 337 with respect to the '320, '456, '153, and '206

patents. Relevant to this appeal, the ALJ found that the importation requirement of Section 337 was met. There is no dispute that Panduit and Siemon import accused modules and that FS imports accused modules and chassis. Appx167; Appx171. The ALJ determined that: (1) Appellants actively induced their customers to directly infringe the asserted claims of the '320, '456, and '153 patents; (2) FS directly infringed claims 22 and 23 and Siemon directly infringed claim 22 of the '206 patent; and (3) Panduit did not directly infringe the '206 patent. Appx203-209; Appx212-217; Appx325-331; Appx333-337; Appx374-375; Appx433. The ALJ also determined that Corning's investments related to its EDGE products satisfied the domestic industry requirement under Section 337(a)(3) for each of the asserted patents. Appx524. The ALJ further determined that Appellants did not prove by clear and convincing evidence any of the asserted claims is invalid. Appx524.

Also relevant to this appeal, the ALJ found that Appellants failed to prove claims 1 and 3 of the '320 patent and claims 11, 12, 15, 16 and 21 of the '456 patent are not enabled because the "evidence shows an inherent upper limit on fiber optic connection density per U space based on using simplex or duplex components" and witnesses from both Corning and Respondents acknowledge this limit. Appx282; Appx283 (citing Appx134192 (Rhoney Dep. Tr. 180:16-181:8);

Appx133431 (Kuffel Dep. Tr. 138:17-139:11); Appx151613-151618 (Kuffel Tr. 613-614, 617-618)).

First, the ALJ found a person of ordinary skill in the art would know there are constraints on the number of connections per U space based on size of fiber, fiber optic connectors, adapters, and cables. Appx282 (citing Appx95842-95844 ((Prucnal) Q/A 188-197)); *see also* Appx95850 ((Prucnal) Q/A 223 (testifying that “[i]t is implausible that a person of ordinary skill in the art would believe that it is possible to fit an infinite amount of fiber in a finite amount of space.”)). Indeed, the ALJ found “a primary focus of the specification is to disclose the physical constraints on making fiber optic connections in a U space and the techniques that push as close as possible to those inherent limits.” Appx283.

Second, the ALJ found “the need for technicians to access fiber optic connections to install, use, and maintain fiber optic connection equipment” imposes a further limit on fiber optic connection density per U space. Appx282 (citing Appx95844-95846 ((Prucnal) Q/A 198-204)). The ALJ noted the “specification refers to operations expressly performed by hand, *see* [Appx602] 6:54-57 (disclosing a ‘lever [that] can easily be squeezed into [a] finger hook ... by a thumb and finger’), alongside many other ‘pulling,’ ‘pushing’ and ‘releasing’ operations that, in context, a person of skill would understand to be manual.” Appx283.

Third, the ALJ found “the need to protect fibers and ensure an appropriate bend radius” is discussed in the specification and by witnesses from Corning and Respondents. Appx282-283 (citing, *e.g.*, Appx95846-95847 ((Prucnal) Q/A 205-211)).

Finally, the ALJ noted that Panduit’s and its expert’s attempts to calculate a limit on the number of LC adapters per U space “establish at a minimum that persons of ordinary skill agree some inherent limit exists, even if such persons may disagree about exactly what the limit is.” Appx284-285.

The ALJ found evidence from Dr. Prucnal, Brian Rhoney (EDGE’s inventor), and Gregory Kuffel (Panduit’s Senior Engineering Manager) shows that Corning’s EDGE products and Appellants’ accused products approach the inherent upper limit using LC fiber optic adapters. Appx285-286 (citing Appx95849 ((Prucnal) Q/A 217 (stating that Brian Rhoney testified that EDGE comes ““really close to that theoretical limit with LC connectivity of 144 fiber connections in a 1U space,”” and quoting Appx134192 (Rhoney Dep. Tr. 181))))); *see also* Appx151974-151975 (974:14-975:5) (Dr. Prucnal testifying that he believes “in a 1RU space 144 is what has been achieved as the highest density that will work after a lot of design and effort,” and therefore, it is “reasonable to take [144] as a number that is approaching an upper limit.”).

The ALJ noted that “although there is substantial market pressure to achieve greater accessible density, there is no evidence of any marketed product exceeding EDGE’s density since the time of EDGE’s invention in August 2008.” Appx285 (citing Appx95848 ((Prucnal) Q/A 214)). The ALJ also noted that “Respondents reviewed EDGE while designing their accused products and converged on similar designs that match, but do not exceed, its density.” Appx285 (citing Appx95848 ((Prucnal) Q/A 215)).

The ALJ rejected Respondents’ argument that the challenged claims were not enabled because later-developed adapters such as the Mini-Duplex Connector (“MDC”)⁷ allow for much greater fiber optic densities than the LC adapters discussed in the asserted patents, and such “later-developed adapters were not known, and the densities achievable with those later-developed adapters could not be reached, as of the time of the alleged inventions of the ’320 Patent.” Appx286 (quoting Appx136080 ((Blumenthal) Q/A 209)). First, the ALJ stated that “the state of the art for enablement purposes is assessed as of the priority date of the

⁷ The new MDC connector was developed by US Conec, “an equity venture of three leading communication technology companies—Corning Optical Communications, Fujikura, and NTT-AT.” Appx139691.

patent — here, August 2008 — and no later.”⁸ Appx286 (citing *In re Hogan*, 559 F.2d 595, 605 (C.C.P.A. 1977)). Second, “even if later-invented adapters were relevant evidence about enablement (which they are not),” the ALJ found “respondents [had] not shown ... that it would require undue experimentation to adapt the system taught in the specifications of the asserted patents to use MDC adapters instead of the LC and MPO adapters expressly disclosed.” Appx288-289. Third, the ALJ found “respondents have not proposed any ‘concrete identification’ ... of a product that is not enabled because it uses later-invented adapters.” Appx289 (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 959 F.3d 1091, 1100 (Fed. Cir. 2020)).

Panduit, Siemon, and FS filed a joint petition for review of the ID.

B. The Commission’s Final Determination

On May 24, 2021, the Commission determined to review certain of the ID’s findings related to claim construction, infringement, validity, and domestic industry. Appx24085-24090. The Commission adopted the ID’s finding that Appellants did not prove the challenged claims of the ’320 and ’456 patents were not enabled.

⁸ Appellants do not dispute that August 29, 2008 is the priority date for both the ’320 and ’456 patents. Appx237; Appx286.

On August 3, 2021, the Commission issued its final determination affirming the ALJ's finding of a violation of Section 337. Appx25860-25863. Relevant to this appeal, the Commission modified the ID's reasoning that the importation requirement was met as to Panduit and Siemon.⁹ Appx25862. The Commission explained:

The importation requirement as set forth in section 337(a)(1)(B) requires that there be an "importation into the United States, the sale for importation, or the sale within the United States after importation ... of articles[.]" 19 U.S.C. § 1337(a)(1)(B). As explained below, the record shows that Respondents Leviton, Panduit, and Siemon each import components of their accused fiber optic apparatuses into the United States. That is sufficient to establish the requirement that there be an "importation into the United States" as provided in section 337(a)(1)(B).

Appx17. The Commission held that "[w]hether imported components meet any claim limitations or have a nexus to the asserted claims is irrelevant to the issue of whether there is an 'importation into the United States' of those components."

Appx22. The Commission noted that "Panduit and Siemon do not dispute that they import their accused modules, but they argue that the ID improperly applied Federal Circuit and Commission precedent to importation of a noninfringing

⁹ FS did not contest the importation requirement was met as to its products. Appx25862.

component with substantial noninfringing uses with respect to an apparatus claim.” Appx22 (citing Appx22911-22912). The Commission addressed these arguments in connection with infringement because the question of whether articles have been imported was distinct from the question of whether those imported articles are “articles that infringe,” which by its own terms is a question of infringement. Appx22.

Applying this Court’s precedent, the Commission ultimately found Panduit’s and Siemon’s imported articles, which were used to induce customers to directly infringe the ’320, ’456, and ’153 patents, were “articles that infringe” under Section 337(a)(1)(B). Appx26-29. In particular, the following findings are undisputed on appeal:

- Appellants do not dispute knowledge of the asserted patents. Appx45; Appx49.
- After having knowledge of the patents, Appellants each sold accused modules and chassis to customers in the United States. Appx45; Appx49; Appx215.
- Appellants each instructed their customers how to assemble the accused chassis and modules into infringing configurations and, other than one disputed element in the asserted claims of the ’153 patent, Appellants do not dispute those configurations meet each and every limitation of the asserted claims of the ’320, ’456, and ’153 patents.¹⁰ Appx46; Appx50.

¹⁰ Specifically, the Commission found that Panduit induced infringement of claims 1 and 3 of the ’320 patent, claims 11-12, 14-16, 19, 21, and 27-28 of the

- Appellants’ marketing and promotional materials encouraged their customers to use the chassis and module combinations to infringe the ’320, ’456, and ’153 patents. Appx46; Appx50-51.
- Although Panduit’s and Siemon’s accused modules can be used in noninfringing ways, Panduit and Siemon designed their accused modules to be compatible with their accused chassis, and the infringing combinations support the most common data center application demanded by their customers. Appx47-48.

The Commission rejected Appellants’ argument that no module is required by the asserted claims of the ’320 patent. Appx31 (citing Appx22913). On the contrary, as the specification makes clear, the “fiber optic connection equipment provided in the chassis” in claim 1 of the ’320 patent is a reference to module(s) inserted in the claimed chassis. Appx31. The Commission adopted the ALJ’s finding that Panduit’s and Siemon’s accused modules are “one of just two custom components that together make up infringing combinations of chassis and modules.” Appx31 (citing Appx170). The ALJ found that the imported modules “are not modified in any way before installation” and the “only remaining activity

’456 patent, and claims 9, 16, 23, and 26 of the ’153 patent; that Siemon induced infringement of claims 1 and 3 of the ’320 patent, claims 11-12, 14-16, 19, 21, and 27-28 of the ’456 patent, and claims 9 and 23 of the ’153 patent; and that FS induced infringement of claims 1 and 3 of the ’320 patent, claims 11-12, 14-16, 19, and 21 of the ’456 patent, and claims 9, 16, 23, and 26 of the ’153 patent. Appx45-51.

needed to form the infringing combination is to insert the modules into the chassis.” Appx170-171.

Further, although Panduit’s and Siemon’s accused modules are capable of noninfringing uses, the Commission found the noninfringing uses do not absolve Panduit and Siemon of liability for induced infringement when they have knowledge of the patents and intend others to combine the modules with other components to directly infringe the patents. Appx29-30. Moreover, the Commission found that Panduit’s and Siemon’s documents demonstrate that, like Corning, they sought to satisfy the demands of data center customers by designing their products to support the most common application in data centers using modules with LC adapters. Appx47-48; Appx206; Appx208-209.

Finally, with respect to the ’206 patent, the Commission modified the ALJ’s construction of the term “front opening” in claim 14 and found that each of FS’s and Siemon’s accused modules literally infringe the “front opening” limitation. Appx53-58. Thus, the Commission found FS directly infringed claims 22 and 23 and Siemon directly infringed claim 22 of the ’206 patent. Appx58-59.

SUMMARY OF THE ARGUMENT

Consistent with this Court’s precedent, the Commission found that Panduit’s and Siemon’s imported modules are “articles that infringe” within the meaning of Section 337(a)(1)(B) and that Appellants’ inducing acts constitute a violation of Section 337.

Appellants’ attempts to distinguish this case from *Suprema* and *Comcast* are without merit. This Court sitting *en banc* in *Suprema* recognized that “articles that infringe” can encompass an importer’s induced infringement in the context of selling an imported article that is used by another to directly infringe. This Court similarly recognized in *Comcast* that Section 337 applies to articles that are used to induce direct infringement after importation. And even though the imported articles in *Suprema* and *Comcast* had noninfringing uses, the Court appreciated that the phrase “articles that infringe” is not limited to contributory infringement. The Court affirmed the Commission’s findings that the imported fingerprint scanner in *Suprema* and the imported set-top box in *Comcast* are “articles that infringe” within the meaning of Section 337(a)(1)(B).

In this case, although Panduit’s and Siemon’s imported modules do not directly infringe the asserted apparatus claims and have noninfringing uses, the Commission properly found a Section 337 violation when Panduit and Siemon induced their customers to use the imported modules in combination with other

components in the United States to directly infringe the asserted apparatus claims of the '320, '456, and '153 patents.

Panduit and Siemon cannot evade the Commission's finding of a violation because some purported "nexus" test was not met. The Commission's application of the "articles that infringe" requirement by referring to the requirements of 35 U.S.C. § 271(b) without reference to a "nexus" test in this investigation is consistent with its precedent and that of this Court. Given the facts in this case, which Appellants do not dispute at least with respect to the '320 and '456 patents, the Commission appropriately found their inducing acts supplied any necessary connection between the importation and the infringement.

The Commission also properly found that Appellants did not prove that the open-ended connection density limitations in the challenged claims of the '320 and '456 patents are not enabled. Other than asserting that the Commission ignored "future technological innovations," including the new MDC adapter, Appellants do not challenge the Commission's substantial evidence showing that an inherent upper limit on the fiber optic connection density existed based on all known and available evidence of the state of the art as of the patents' priority date. Appellants admit that the specifications enable one skilled in the art to approach the limit using conventional LC adapters disclosed in the patents. The Commission found evidence of the later-developed MDC adapter is immaterial to the enablement

inquiry. Appellants cannot use a later state of the art like the MDC adapter to invalidate the '320 and '456 patents that were enabled for what they claimed on the priority date.

Substantial evidence also supports the Commission's finding that Panduit's and Siemon's accused products include the "fiber optic routing element" in the asserted claims of the '153 patent. The Commission adopted the ALJ's finding that, during prosecution, Corning amended the claims to distinguish the prior art's routing element based on its orientation or shape, not based on its integration with a tray. Moreover, the ALJ did not ignore Appellants' noninfringement argument based on how their products' routing element integrated with the tray. Rather, he found the argument unpersuasive and adequately explained his basis for doing so.

Further, Appellants rely on only attorney arguments and arguments raised for the first time on appeal in challenging the Commission's construction of the term "a front opening" in claim 14 of the '206 patent. In contrast, the patent specification supports the Commission's finding that the claimed "front opening" of a module may include dividers or spacers between the fiber optic components.

ARGUMENT

I. STANDARD OF REVIEW

Commission final determinations are reviewed under the Administrative Procedure Act. 5 U.S.C. § 706; *Honeywell Int'l, Inc. v. ITC*, 341 F.3d 1332, 1338

(Fed. Cir. 2003). This Court reviews the Commission’s legal determinations *de novo* and factual findings for substantial evidence. *See Honeywell Int’l*, 341 F.3d at 1338; *Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1060 (Fed. Cir. 2009).

Enablement is a question of law based on underlying factual findings. *MagSil Corp. v. Hitachi Global Storage Techs., Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012). Patent infringement is a question of fact, which the Court reviews for substantial evidence. *See Linear Tech.*, 566 F.3d at 1060. Claim construction is a question of law, but may depend on subsidiary factual findings based on extrinsic evidence. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331-32 (2015).

II. THE COMMISSION PROPERLY FOUND PANDUIT’S AND SIEMON’S IMPORTED MODULES ARE “ARTICLES THAT INFRINGE” WITHIN THE MEANING OF SECTION 337(A)(1)(B)

The Commission found Panduit and Siemon induce their customers to directly infringe the ’320, ’456, and ’153 patents and that the requirements under 35 U.S.C. § 271(b) are otherwise met. Nevertheless, Panduit and Siemon argue their inducing acts do not constitute a violation of Section 337 because they do not import “articles that infringe” within the meaning of Section 337(a)(1)(B). Specifically, they argue their imported modules are not “articles that infringe” because: (1) the modules have been found not to directly infringe the ’206 patent; (2) the modules do not directly infringe the ’320, ’456, and ’153 patents and are

capable of noninfringing use; (3) induced infringement of apparatus claims is not relevant to Section 337; and (4) the modules are not required components of the infringing fiber optic apparatuses. Br. at 29, 31, 32. Panduit and Siemon essentially argue that “articles that infringe” embraces only direct and contributory infringement, and not induced infringement. Their arguments lack merit, as explained below, because this Court sitting *en banc* has already held that “articles that infringe” embraces induced infringement.

A. The Fact That Panduit’s Imported Modules Do Not Directly Infringe the ’206 Patent Is Irrelevant to Whether They Are “Articles That Infringe” the ’320, ’456, and ’153 Patents, Which Are Directed to Fiber Optic Apparatuses

Panduit argues its imported modules are not “articles that infringe” because they have been found not to directly infringe the asserted claims of the ’206 patent. Br. at 28. Panduit’s modules were found not to infringe claims 22 and 23 of the ’206 patent because they lacked the claimed “rail” element but that claim element is not found in the asserted claims of the ’320, ’456, and ’153 patents. Appx456-459. With one exception discussed *infra* in Part V, Panduit does not challenge the Commission’s findings that its customers directly infringe, and that it induced those customers to infringe, the ’320, ’456, and ’153 patents. The fact that Panduit’s modules do not directly infringe the ’206 patent is irrelevant to whether those modules are “articles that infringe” the ’320, ’456, and ’153 patents.

B. The Fact that Panduit’s and Siemon’s Imported Modules Do Not Directly Infringe the ’320, ’456, and ’153 Patents and Have Noninfringing Uses Does Not Absolve Panduit and Siemon of Liability for Induced Infringement of Those Patents Under This Court’s Precedent

Panduit and Siemon argue on appeal that the Commission “expand[ed] the holding of *Suprema* to importation of a component with substantial non-infringing uses.” Br. at 33. On the contrary, this Court sitting *en banc* in *Suprema, Inc. v. Int’l Trade Comm’n*, 796 F.3d 1338 (Fed. Cir. 2015), recognized the Commission’s authority to find a violation of Section 337 based on importation of an article used to induce direct infringement after importation. The Court concluded that the Commission’s interpretation of the phrase “articles that infringe” in Section 337 to cover articles that were used by the seller to induce the importer to directly infringe post-importation was reasonable and consistent with the statutory text, the legislative history, and statutory policy. *Id.* at 1349-52. The Court appreciated that the phrase “articles that infringe” is not limited to contributory infringement. *Id.* at 1347. Indeed, even Appellants recognized this in their brief to the ALJ in this case:

The term “articles that ... infringe” generally includes articles that directly infringe a patent at the time of importation. **This jurisdiction has been expanded to include articles that directly infringe after the time of importation and articles that are used to induce infringement or to contributorily infringe.**

Appx20483 (citing *Suprema*, 796 F.3d at 1348-52) (emphasis added).

Even if Panduit's and Siemon's imported modules can be used in noninfringing ways, that does not relieve them from the Commission's finding of induced infringement. Like Panduit and Siemon here, respondents in *Comcast*, a case involving induced infringement, argued that it "would be a vast and unjustified extension of the Commission's authority and the rationale of *Suprema* to uphold the [Final] ID's apparent conclusion that Section 337 reaches the importation of X1 STBs used domestically by Comcast's subscribers in an X1 'ecosystem' found to have substantial noninfringing uses." *Certain Digital Video Receivers and Hardware and Software Components Thereof*, Inv. No. 337-TA-1001, Comm'n Op., 2017 WL 11249982, at *12 (Dec. 6, 2017), *aff'd*, *Comcast Corp. v. ITC*, 951 F.3d 1301 (Fed. Cir. 2020). The Commission found that argument flawed, explaining:

The present investigation involves Comcast's active inducement of its customers' infringement, not contributory infringement. Because the concept of substantial non-infringing uses is applicable only in the context of contributory infringement, it plays no role in the analysis of the direct and induced infringement that remains at issue here. *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1364 (Fed. Cir. 2012) (explaining that "substantial non-infringing use" is relevant only to contributory infringement); *cf. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 942 (2005).

2017 WL 11249982, at *12. Thus, the mere fact that Panduit's and Siemon's imported modules can be used in noninfringing ways does not absolve them of

liability for induced infringement when they have knowledge of the patents and intend others to use the modules to infringe the patents.

This Court has recognized the Commission's authority to exercise jurisdiction over articles used to induce infringement. In both *Suprema* and *Comcast*, the imported articles (the fingerprint scanners in *Suprema* and the set-top boxes in *Comcast*) were found by the ALJ to have substantial noninfringing uses. See *Suprema*, 796 F.3d at 1353 (Dyk, J., dissenting); *Comcast*, 951 F.3d at 1305. The Court determined the importation of those articles did not preclude liability under 35 U.S.C. § 271(b) when the articles were used to induce post-importation direct infringement. *Suprema*, 796 F.3d at 1349 (“Induced infringement is one kind of infringement, and when it is accomplished by supplying an article, the article supplied can be an ‘article that infringes’ if the other requirements of inducement are met.”); *Comcast*, 951 F.3d at 1308.

The Court's interpretation of § 271(b) is consistent with the Supreme Court's understanding. In *Grokster*, the Supreme Court explained that “the Patent Act's exemption from liability for those who distribute a staple article of commerce, 35 U.S.C. § 271(c),” does not extend “to those who induce patent infringement, § 271(b).” 545 U.S. at 935 n.10. Here, Panduit and Siemon induce their customers to combine their imported modules with accused chassis to infringe the '320, '456, and '153 patents.

C. Panduit and Siemon Have Waived, and This Court Has Rejected, the Argument That Section 337 Does Not Reach Importation of Articles Used to Induce Infringement of Apparatus Claims

Panduit and Siemon contend that when this Court in *Suprema* agreed with the Commission’s interpretation of Section 337, the Court meant to excuse the importation of articles intended to induce infringement of apparatus claims. *See* Br. at 22-23, 31-32.

As an initial matter, Panduit and Siemon abandoned any such argument by failing to raise it before the ALJ. Although they cited and discussed *Suprema* in their briefs to the ALJ, they never argued that *Suprema* should not apply to apparatus claims until their petition for Commission review. *Compare* Appx11906-11907 (Respondents’ Prehr’g Br.); Appx20483-20489 (Respondents’ Posthr’g Br.); Appx21678-21681 (Respondents’ Posth’rg Reply Br.) *with* Appx22911-22914 (Respondents’ Pet. for Review). Accordingly, that argument is waived. *See* Appx1189-11890 (Order No. 2, Ground Rule 7(c)); *Hazani v. ITC*, 126 F.3d 1473, 1476 (Fed. Cir. 1997) (affirming arguments not timely raised before the ALJ are waived).

Notwithstanding waiver, the importation of “articles that infringe” an apparatus claim via inducement is no less prohibited by Section 337 than the importation of “articles that infringe” a method claim via inducement. In *Suprema*, this Court made no distinction between apparatus claims and method claims when

it held that “articles that infringe” embraces inducement. Indeed, this Court rejected an argument to limit the phrase “articles that infringe” a patent to only apparatus claims and to exclude method claims. 796 F.3d at 1347. The Court recognized that it has consistently affirmed the Commission’s determination that a violation of Section 337 may arise from an act of induced infringement for both method and apparatus claims. *Id.* at 1351-52 (citing *Emcore Corp. v. ITC*, 449 F. App’x 918 (Fed. Cir. 2011) (affirming without opinion Section 337 violation based on induced infringement of apparatus claim)); *see, e.g., Bio-Rad Labs., Inc. v. ITC*, 998 F.3d 1320, 1335-36 (Fed. Cir. 2021); *Cisco Sys., Inc. v. ITC*, 873 F.3d 1354, 1361-62 (Fed. Cir. 2017); *Vizio, Inc. v. ITC*, 605 F.3d 1330, 1343-44 (Fed. Cir. 2010).

Further, in *Comcast*, this Court, applying *Suprema*, affirmed the Commission’s finding of induced infringement of an apparatus claim. Panduit and Siemon attempt to distinguish *Comcast* by arguing that “*Comcast*’s very short discussion of ‘articles that infringe’ did not address the difference between method and apparatus claims argued here.” Br. at 32 n.8. But, given the Court’s refusal in *Suprema* to limit the phrase “articles that infringe” to only apparatus claims, the issue was already closed and there would have been no point for Comcast to raise it, or for the Court to address it.

D. The Commission Properly Found That Panduit’s and Siemon’s Imported Modules Are Required Components of the Infringing Fiber Optic Apparatuses

Panduit and Siemon argue that the Commission erred in finding their imported modules are “articles that infringe” because “the imported modules are not even recited or required in the ’320 patent, and are at most a minor *subcomponent* of the larger fiber optic apparatuses claimed in the ’153 and ’456 patents, making direct infringement of the apparatus claim impossible both *pre-* and *post-* importation.” Br. at 29-30. This argument is part of Panduit’s and Siemon’s already-rejected argument to limit “articles that infringe” to direct and contributory infringement and thus avoid liability for their induced infringement.

In any event, there is no dispute that at least one module is required by the asserted claims of the ’456 and ’153 patents and it is the combination of module(s) and chassis that infringes.¹¹ Appx31; Appx203 (finding the asserted claims of the ’320, ’456, and ’153 patents “disclose an apparatus consisting of two principal parts: a chassis and one or more fiber optic modules”); Br. at 34 (Appellants acknowledging on appeal that their imported modules are “one of several components of the invention (’153 and ’456 patents).”).

¹¹ The asserted claims of the ’456 and ’153 patents all recite “fiber optic modules.” Appx31 (n.17); Br. at 29.

Panduit and Siemon's argument that the asserted claims of the '320 patent does not require a module contradicts their own statements on appeal. *See* Br. at 34 (“[T]he claimed apparatuses of the '320, '153, and '456 patents ***included other components aside from modules***, such as the chassis and tray assemblies.”) (emphasis added).

Their argument also contradicts their statements before the ALJ. As discussed above, Appellants argued during the investigation that the “configured to support” language in claim 1 of the '320 patent required a chassis loaded with enough modules to make the claimed number of connections in a U space. *See supra*, at 7-9. The ALJ construed the claim to require at least one module inserted in the chassis, but that it does not require enough modules to reach the claimed density at the time of infringement as long as the apparatus is designed to support the claimed number of connections. Indeed, Appellants acknowledge that the ALJ construed the claims of the '320 patent to require a chassis assembled with at least one module even if “the claims as interpreted are agnostic ***how many modules*** are inserted into the chassis.” Br. at 40 (emphasis added). Appellants did not challenge the ALJ's construction of claim 1 of the '320 patent in their petition for Commission review.

Panduit and Siemon also resort to mischaracterizing the patents at issue and the evidentiary record in an attempt to diminish the role of their imported modules

in the infringing fiber optic apparatuses. *See, e.g.*, Br. at 27, 30 (modules “have at most an attenuated connection” to the asserted patents and modules “are at most a minor *subcomponent* of the larger fiber optic apparatuses”). They contend the imported articles in *Suprema* and *Comcast* were the “primary, tangible articles used in connection with the infringement” and this was “not in doubt or in dispute.” Br. at 42, 43. Appellants’ arguments lack merit.

First, Panduit and Siemon misconstrue *Suprema* and *Comcast* as neither case sets forth a “primary, tangible articles” requirement for “articles that infringe.” Br. at 42; *see* Appx30 (finding “Panduit and Siemon ... misconstrue Federal Circuit and Commission precedent, none of which sets forth a ‘primary’ or ‘quintessential’ legal requirement for imported articles.”). All that is required is that the statute and case law governing induced infringement be satisfied. Even if there was such a requirement, there should be no dispute that the imported modules are not “minor” components because any component that supplies at least one claimed element to the final product would be material. *See Lemelson v. United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985) (“It is ... well settled that each element of a claim is material and essential.”).

Second, Panduit and Siemon do not challenge on appeal the record evidence showing that both chassis and modules are necessary and significant to the inventions claimed in the ‘320, ‘153, and ‘456 patents. In particular, although

Panduit and Siemon offer noninfringing products that can be used with their accused chassis and modules, respectively, the accused modules and chassis were specifically designed for the customer application that was the primary driver in developing and marketing these products, *i.e.*, the need for 144 fiber optic simplex or duplex connections in a single U space. Appx47-48; *see also* Appx39-41 (discussing evidence showing the importance and dominance of LC-MPO modules in data centers); Appx43 (discussing evidence showing that it was common for customers to fully load the chassis with modules to achieve 144 connections); Appx204-205 (same); Appx214 (finding none of Siemon’s non-accused products offer the capability to pair LC and MPO connections, the “common application[] in data centers.”). The ALJ found it is the combination of the accused chassis and module that directly infringes, not the separate components. Appx203.

Third, Panduit and Siemon do not challenge on appeal the Commission’s finding that the sales of their domestically manufactured chassis pale in comparison to the sales of their imported modules. Appx45 (finding that Panduit sold 13,946 accused chassis compared to 121,116 accused modules between January 2018 and July 2020, and Siemon sold 1,215 chassis compared to 14,550 modules between January 2018 and March 2020).

Consistent with this Court’s precedent, the Commission properly found that Panduit’s and Siemon’s imported modules constitute “articles that infringe” within

the meaning of Section 337(a)(1)(B) and their inducing acts constitute a violation of Section 337.

III. APPELLANTS' "NEXUS" ARGUMENT IS WITHOUT MERIT AND DOES NOT OBVIATE THEIR INDUCED INFRINGEMENT

Panduit and Siemon seek to avoid liability for induced infringement and the Commission's finding of a violation under Section 337, notwithstanding the fact that the statute and this Court's precedent permit the Commission to reach induced infringement. Nor do they dispute that the elements of inducement are met in this case at least with respect to the '320 and '456 patents. Instead, they argue that the Commission's finding of inducement is obviated by the Commission's alleged failure to apply a "nexus" test and show a "nexus" between the imported article and the infringing act. As explained below, Appellants' "nexus" argument is without merit and is based on a mischaracterization of what the Commission did. The Commission appropriately found their inducing acts supplied any necessary connection between the importation and the infringement.

A. The Commission Properly Applied the "Articles That Infringe" Requirement Without Reference to a "Nexus" Test

Panduit and Siemon argue that the Commission "[o]verturn[ed] decades of precedent that its jurisdiction hinges on a nexus between the imported article and the infringing act" and "held a nexus is no longer required." Br. at 27. Panduit does not provide a cite for this statement because it cannot. Such a statement was

not made and would have been inconsistent with the Commission’s analysis of whether the imported articles were used by Panduit and Siemon to induce infringement, *i.e.*, the modules were “articles that infringe.”

In this case, the Commission explained that the concept of a “nexus” between the imported article and the infringing act was irrelevant to the question of whether the articles had been imported or not. Appx22. Rather, the matter was one of infringement, *i.e.*, whether the articles are “articles that infringe.” The Commission, applying the requirements of patent law, found Panduit’s and Siemon’s imported articles were used to induce customers to directly infringe and were “articles that infringe” under Section 337(a)(1)(B). Appx26-29. This was all that was necessary. Panduit and Siemon, nevertheless, argue for a “nexus” test that would avoid the Commission’s finding of induced infringement.

The Commission’s application of Section 337 to Panduit’s and Siemon’s induced infringement in this case is not new; it follows the plain language of the statute and is consistent with its precedent and that of this Court. For example, the Commission found it unnecessary to undertake a nexus analysis in the case that eventually became *Suprema*, stating that the “record evidence that shows induced infringement by Suprema also shows the requisite nexus between importation and the unfair acts to find a violation of section 337.” *Certain Biometric Scanning Devices, Components Thereof, Associated Software, and Products Containing the*

Same, Inv. No. 337-TA-720, Comm’n Op., 2011 WL 8883591, at *7 (Nov. 10, 2011); *see also id.* at 10-11 (finding respondents’ nexus argument moot).

Similarly, in the case leading to *Comcast*, after finding that the accused set-top boxes were imported into the United States, the Commission found Comcast actively induced its customers to use the imported set-top boxes to infringe the patents at issue without reference to a “nexus” test. *See Certain Digital Video Receivers and Hardware and Software Components Thereof*, Inv. No. 337-TA-1001 (“*Digital Video Receivers*”), Initial Determ., 2017 WL 3485153, at *9-11 (May 26, 2017) (undisputed that set-top boxes were imported); *Digital Video Receivers*, Comm’n Op., 2017 WL 11249982 at *7 (Dec. 6, 2017) (affirming importation requirement is met); *id.* at *10-12 (affirming finding of induced infringement).

Panduit and Siemon argue the “arbitrary and unreasonable nature of the Commission’s ‘no nexus’ rule is ... demonstrated by the fact that the Commission contemplated enforcing such a test here, but chose not to” after asking all parties to brief the issue. Br. at 37. On the contrary, the Commission’s question on review was directed to Corning’s allegation of direct infringement by a different respondent, Leviton, who is not a party to this appeal. Specifically, the Commission asked for briefing on “whether an imported article, which does not satisfy all elements of an asserted patent claim, is an ‘article that infringes’ within

the meaning of section 337 **when the respondent-importer uses the imported article to *directly infringe*** the asserted patent claim after importation.”

Appx24087 (emphasis added). The Commission requested the parties to “apply [their] analysis to the facts of this investigation with respect to Leviton’s alleged ***direct infringement*** of the asserted claims of the ’320 and ’456 patents.”

Appx24087 (emphasis added). Thus, the Commission sought briefing on whether it is appropriate to apply a “nexus” test to Leviton’s own post-importation direct infringement of the ’320 and ’456 patents, not to Panduit’s and Siemon’s induced infringement. Having found Leviton liable for violating Section 337 via induced infringement, the Commission took no position on Corning’s direct infringement claim against Leviton.¹² Appx23; Appx29 (n.15).

B. The Commission’s Application of “Articles That Infringe” to Induced Infringement Has Already Been Found Reasonable by This Court

Panduit and Siemon argue that the Commission’s failure to apply a “nexus” test is unreasonable because it suggests that “any generic ‘article supplied’ in connection with an induced infringement finding could be sufficient under the

¹² Panduit and Siemon also quote from the Office of Unfair Import Investigations’s (“OUII”) brief and cite to Chair Karn’s Additional Views Regarding “Article That Infringe.” Br. at 36. Both OUII’s brief and Chair Karn’s Additional Views respond to the Commission’s briefing question regarding whether a “nexus” test is appropriate as to Leviton’s *direct* infringement, not its inducement. Appx24526; Appx98.

importation requirement, regardless of the degree of nexus to the asserted claims or to the patented invention.” Br. at 36.

Panduit and Siemon’s argument overlooks the issue here is whether they have induced infringement. They admit they have at least with respect to the ’320 and ’456 patents, but argue for a “nexus” test that relieves them of liability for that induced infringement. There is no test that absolves them of liability. Any requisite “nexus” is satisfied by meeting the requirements of § 271(b). As discussed above, the Commission’s application of “articles that infringe” to induced infringement has already been found reasonable by this Court.

Further, this case does not involve any “generic article” (whatever that might mean). Rather it involves an article for which the requirements of induced infringement are undisputably met at least with respect to the ’320 and ’456 patents. And, as discussed above, Panduit’s and Siemon’s imported modules are required components of the infringing fiber optic apparatus. Given the facts in this case, the Commission appropriately found Panduit’s and Siemon’s inducing acts supplied any necessary connection between the importation and the infringement.

IV. THE COMMISSION PROPERLY FOUND APPELLANTS DID NOT PROVE THE CHALLENGED CLAIMS OF THE ’320 AND ’456 PATENTS ARE INVALID FOR LACK OF ENABLEMENT

Appellants argue claims 1 and 3 of the ’320 patent and claims 11, 12, 15, 16, and 21 of the ’456 patent are invalid because the patent specifications fail to enable

the full scope of the claims’ “at least” 98/144 fiber optic connections per U space using simplex or duplex components. Br. at 43-44. In particular, while Appellants acknowledge the specifications enable connection densities of up to approximately 144 connections per U space using simplex or duplex components such as the duplex LC adapters, *id.* at 25, they argue that the specifications do not enable connection densities up to 432 fiber optic connections per U space using the MDC adapter that was developed in 2019, more than ten years after the patents’ priority date, *id.* at 54-55.

Applying the two-part inquiry from *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1376-77 (Fed. Cir. 2007), the ALJ properly found that one skilled in the art would have recognized that the ’320 and ’456 patents taught an inherent upper limit on the fiber optic connection density using simplex or duplex components and that the specifications enable one skilled in the art to approach that limit. Appx282-289. The ALJ also properly rejected Appellants’ argument that the challenged claims are not enabled because the MDC adapters allow for much greater fiber optic densities than the LC adapters discussed in the ’320 and ’456 patents. Appx286-289. As discussed below, because there is no dispute that the MDC adapters were not known as of the priority date, the law is clear that Appellants cannot use it to show lack of enablement.

The Commission adopted the ALJ’s findings on enablement because they are supported by the specifications and other record evidence and, considering their burden before the ALJ, Appellants failed to submit sufficient evidence to conclude otherwise.

A. Substantial Evidence Supports the Commission’s Finding That the Challenged Claims Have an Inherent Upper Limit on the Fiber Optic Connection Density and the Specifications Enable One Skilled in the Art to Approach That Limit as of the Patents’ Priority Date

Appellants argue “the Commission erred in holding that an upper limit existed” and that the challenged claims should be construed to cover connection densities up to infinity. Br. at 24, 25 (asserting “that no upper limit existed”). Other than asserting that the Commission ignored “future technological innovations,” *id.* at 24, including the new MDC adapter, Appellants do not challenge the Commission’s substantial evidence showing that an inherent upper limit on the connection density existed based on all available evidence of the state of the art as of the August 2008 priority date. Appx282-285. Appellants also do not challenge the Commission’s substantial evidence showing that the ’320 and ’456 patent specifications enable one skilled in the art to approach the limit using conventional LC adapters. Appx285-289. They admit the claims are enabled if they have an inherent limit of approximately 144 fiber optic connections: “[W]hat is enabled is a narrow range of approximately 0 to 144 connections, plus perhaps

an added adapter.” Br. at 56 (citing Appx151973-151975 (973:21-975:5)); *see also id.* at 25 (“[T]he evidence established that the specification only enabled connection densities of up to approximately 144 connections [per U space] using [LC-type] simplex or duplex components.”); *id.* at 44 (“[T]he specification ... supports only ‘up to’ 144 fiber optic connections per U-space using **LC-type** simplex or duplex connectors.”).

Appellants argue that “[a]n ‘inherent’ limit plainly means a theoretical maximum that cannot change over time, lest the scope of a claim would be rendered a moving target with technological advances.” Br. at 50. Appellants misunderstand the inherent limit is assessed as of the priority date of the patent. Whether a fiber optic apparatus that employs later-developed MDC adapters is within the scope of the claims is irrelevant to whether the patent specifications enable one skilled in the art on the priority date. *See CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1339 (Fed. Cir. 2003) (“[T]his court gauges enablement at the date of the filing, not in light of later developments.”) (citing *In re Wright*, 999 F.2d 1557, 1563 n.8 (Fed. Cir. 1993)); *Hogan*, 559 F.2d at 605 (holding that if a “1953 application provided sufficient enablement” based on “all available evidence ... of the 1953 state of the art,” then “enablement was established for all time and a later change in the state of the art cannot change it”).

B. Evidence of the MDC Adapter That Was Undisputedly Developed After the August 2008 Priority Date Cannot Be Used to Show Lack of Enablement

Even though the MDC adapter was not available until 2019, after the August 2008 priority date, Appellants argue that it is relevant to claim scope and enablement. Br. at 47. They criticize *Hogan* for being “a 45-year-old precedent from this Court’s predecessor,”¹³ and contend that more recent precedent from this Court demonstrate the Commission erred in refusing to consider the MDC adapter as evidence of the claims’ lack of an inherent limit. *Id.* at 48-49 (citing *Amgen v. Sanofi*, 872 F.3d 1367, 1375 (Fed. Cir. 2017); *White Consol. Indus., Inc. v. Vega Servo-Control, Inc.*, 713 F.2d 788, 791 (Fed. Cir. 1983); *MagSil*, 687 F.3d at 1382). Appellants’ cases do not support their position.

While post-priority-date evidence of enablement is not categorically precluded, this Court has repeatedly held that post-priority-date evidence illuminating the state of the art *subsequent to* the priority date is prohibited. This Court’s predecessor explained in *Hogan*:

If applications were to be tested for enablement under [section] 112 in the light of a later existing state of the art, the question would arise over how much later. An

¹³ This Court is bound by earlier decisions of the U.S. Court of Customs and Patent Appeals. *See South Corp. v. United States*, 690 F.2d 1368, 1369 (Fed. Cir. 1982).

examiner could never safely call a halt and pass an application to issue. One who had slavishly copied the disclosed and claimed invention of a patent issued in 1965, for example, could resist an infringement action by insisting that a court hold the patent invalid because it was not enabling with respect to some third product which first came into existence, and thus came within the purview of the claim, in 1975.

559 F.2d at 606-07. Thus, *Hogan* explains that enablement is not to be judged by a later developed technology or other evidence which shows that, *as of the application's filing date*, undue experimentation would have been required to practice the claims with that later-existing state of the art technology.

Hogan does not bar the use of post-priority-date evidence to show the state of the art existing on the priority date. *Id.* at 605. The difference, said the court, is “between the permissible application of later knowledge about art-related facts existing on the filing date and the impermissible application of later knowledge about later art-related facts ... which did not exist on the filing date.” *Id.* For example, appellants in *Amgen* sought to introduce evidence to show that the patent purportedly did not disclose a representative number of species on the application's filing date. 872 F.3d at 1374-75. “[U]nlike in *In re Hogan*, [a]ppellants were not offering post-priority-date evidence to show that [a]ppellees' claimed genus is not enabled because of a change in the state of the art,” but rather to show that “the claimed genus fails to disclose a representative number of species.” *Id.* at 1375.

The Court clarified that “*Hogan* prohibits the former but is silent with respect to the latter.” *Id.*

Other than *Amgen*, other recent Court decisions reaffirm *Hogan*’s holding that Appellants cannot use a later-existing state of the art to invalidate a patent that was enabled for what it claimed at the time of filing. *See, e.g., U.S. Steel Corp. v. Phillips Petroleum Co.*, 865 F.2d 1247, 1251-52 (Fed. Cir. 1989) (finding defendants’ evidence immaterial to the enablement inquiry because “it was directed solely to a later state of the art,” and therefore, “[d]efendants’ misdirected approach here is the same as that improperly relied upon by the PTO in *Hogan*”); *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1254 (Fed. Cir. 2004) (citing *Hogan* and finding new technology that arose after the filing of the patent application “was, by definition, outside the bounds of the enablement requirement”). Thus, Appellants’ attempt to use post-priority-date evidence of the MDC adapter to show a change in the start of the art is prohibited by *Hogan* and this Court’s more recent decisions.

MagSil also does not support Appellants’ argument. Indeed, *MagSil* acknowledged that “[t]he enablement determination proceeds as of the effective filing date of the patent.” 687 F.3d at 1380. The Court found that the asserted claims’ open-limitation “a change in resistance of at least 10%” covered “resistance changes beyond 120% and up to infinity.” *Id.* at 1381. Unlike here,

the patentee did not argue the claims have an inherent upper limit. Thus, the specification at the time of filing would have had to teach one of ordinary skill in the art to fully perform the claimed method across that entire scope. *Id.* However, as of the priority date, the specification taught “a maximum change in resistance of only 11.8%.” *Id.* The Court found the specification did not enable the “full scope” of the claims, as *MagSil* advocated, because doing so would have involved undue experimentation. *Id.* at 1381-82. By contrast, here, the Commission found there is an inherent upper limit on the claims and the specifications enable one skilled in the art to approach that limit as of the priority date.¹⁴ As the ALJ reasoned: “*MagSil* did not consider whether — and certainly did not hold that — if the patent had taught how to approach the known upper limit on resistance changes as of its priority date, it would have become invalid when later advances made greater changes feasible,” as Appellants suggest here.¹⁵ Appx288.

¹⁴ Similarly, in *White Consolidated Industries*, the Court found the challenged claims not enabled because post-priority-date evidence showed that the amount of experimentation needed to practice the full scope of the inventions was unreasonable at the time of the respective priority date. 713 F.2d at 791. Here, as discussed above, there is no dispute that the specifications enable one skilled in the art to approach the claimed connection density limit using simplex and duplex components on the priority date.

¹⁵ Also, it seems *MagSil*'s open-limitation “a change in resistance of at least 10%” directly related to the inventive aspect of the patent at issue, *i.e.*, the science of tunneling junction. *See* 687 F.3d at 1381-82. By contrast, the '320 and '456

Appellants also argue that “[n]either Dr. Prucnal nor Corning disputed or rebutted that MDC-type adapters, or that the use of MDC adapters within the standardized 1U space, fall within the scope of the claims.” Br. at 47. Appellants’ argument here is the same as that improperly relied upon by the PTO in *Hogan*. Appellants do not argue that the specifications fail to enable one skilled in the art to practice the *claimed inventions* on the priority date. Whether the open-ended claims may cover a fiber optic apparatus using later-developed adapters relate to infringement, not to patentability. *See Hogan*, 559 F.2d at 607 (“The courts have consistently considered subsequently existing states of the art as raising questions of infringement, but never of validity.”). To hold differently would, in the words of *Hogan*, “impose an impossible burden on inventors and thus on the patent system.” *Id.* at 606.

The ALJ thus correctly found Appellants’ evidence of the MDC adapter is immaterial to the enablement inquiry. The central flaw in Appellants’ evidence, as

patent specifications here disclose an embodiment of a fiber optic apparatus that achieves connection densities of up to 144 connections using LC adapters, which were known at the time of the priority date. *See, e.g.*, Appx602 (5:33-52). But, as all parties agree, the patents do not claim to invent the LC adapter or any particular adapter used in a module. Appx288; Br. at 24, 46-47. Rather, the patents disclose fiber optic equipment such as chassis, trays, and modules that use existing adapters to achieve previously unavailable levels of fiber optic connection density. Appx95850-95851 ((Prucnal) Q/A 225).

recognized by the ALJ, is that it was directed solely to a later state of the art. The record evidence shows that until 2019, when US Conec developed the MDC, no one thought it possible that a U space could accommodate much more than 144 connections using simplex or duplex components.

C. Even if Evidence of the MDC Adapter Is Relevant to Enablement, Substantial Evidence Supports the Commission’s Finding That Appellants Did Not Show Undue Experimentation in Employing MDC Adapters

Without citing any evidence, Appellants argue that “[e]xtensive experimentation would ... have been required at the priority date to increase—let alone triple—the density significantly beyond 144 connections.” Br. at 54. The mere fact that the experimentation may be “extensive” (whatever that means) does not mandate a conclusion that such experimentation would have been considered to be “undue” in this art. *Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1365 (Fed. Cir. 2006). The ALJ properly found that Appellants’ expert, Dr. Blumenthal, did not opine, and Appellants have not shown any evidence, that it would require undue experimentation to adapt the apparatus taught in the ’320 and ’456 patents to use MDC adapters instead of the LC adapters expressly disclosed.¹⁶ Appx288-289.

¹⁶ Indeed, the evidence that Appellants cite (Br. at 47, 55) shows the opposite. As discussed above, the parties do not dispute that the ’320 and ’456 patents do not claim to invent any particular adapters. Appx288; Br. at 24, 46-47. Dr. Prucnal testified that “if new adapters have been invented, those adapters could

Mere “conclusory statements regarding the amount of experimentation necessary” are insufficient to carry the “burden of establishing lack of enablement by clear and convincing evidence.” *Takeda Pharm. Co. Ltd. v. Zydus Pharms. USA, Inc.*, 743 F.3d 1359, 1369 (Fed. Cir. 2014) (quotations omitted).

Appellants also argue that Corning’s reliance on evidence of certain investments in support of a domestic industry underscores that MDC adapters should have been considered for purposes of enablement. Br. at 49. To the contrary, neither the Commission nor Corning took a position on whether MDC adapters are within the scope of the claims. Appx23074. Corning did not need to do so because it had already identified EDGE products with LC adapters that undisputedly satisfy the domestic industry requirement.

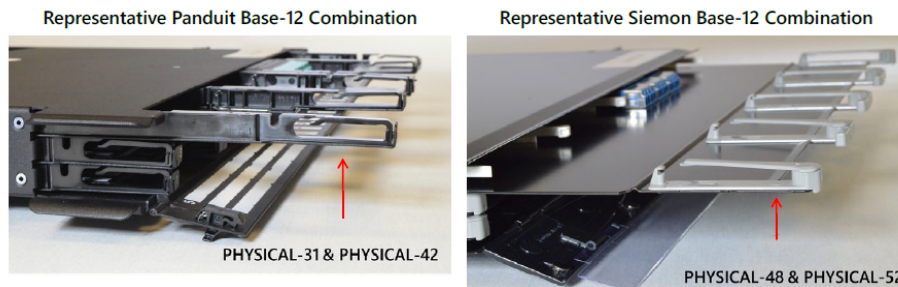
V. SUBSTANTIAL EVIDENCE SUPPORTS THE COMMISSION’S FINDING THAT PANDUIT’S AND SIEMON’S ACCUSED PRODUCTS INCLUDE THE “FIBER OPTIC ROUTING ELEMENT” IN THE ASSERTED CLAIMS OF THE ’153 PATENT

The asserted claims of the ‘153 patent recite: a “tray” comprising “a front end with at least one fiber optic routing element that comprises successive material

also be used with modules and sliding trays according to the EDGE design.” Appx95850-95851 ((Prucnal) Q/A 225-26). Such appears to be the case with the MDC adapter, which is specifically “designed to fit through the same panel cutout defined for duplex LC adapters, allowing an instant 2x or 3x of the current module/panel connector density by simply removing the LC duplex adapters and installing the MDC adapters.” Appx139690.

sections extending frontward, upward, and rearward, respectively” Appx722 (16:63-66); Appx724 (19:22-25) (’153 patent, claims 1 and 23). There is no dispute that this limitation means “a front end of the fiber optic equipment tray having at least one flange comprising successive sections extending frontward, upward, and rearward that guides optical fibers to either the left or the right.” Appx380.

The ALJ determined that Panduit and Siemon each designed a slightly different fiber optic routing element in their accused products, as shown below, but each has successive material sections extending frontward, upward, and rearward, respectively.¹⁷ Appx380.



Appx381. Among other findings, the ALJ found:

First, each respondent’s fiber routing element consists of a molded plastic component that is attached to the front end of the tray through thermal welding, or by permanent snap features. [Appx28387-28390] (Prucnal WS) Q/A

¹⁷ Only Siemon’s pre-2019 accused products were found to infringe the ’153 patent. Appx14.

442-45. In each case, therefore, the tray comprises the routing element — that is, the fiber routing element is an integrated part of the tray. *Id.*

Second, each respondent’s fiber routing element comprises a flange. As Dr. Prucnal explains, a person of ordinary skill would understand that “[a] flange is simply an extension from a main body.” *Id.* Q/A 438. Each respondent’s fiber routing elements is an extension from the main body of the tray. *Id.* Q/A 442-45.

Appx381. The Commission adopted these findings.

Panduit and Siemon challenge the Commission’s finding that their accused products include the “fiber optic routing element” on two grounds. First, they argue that Corning added the “successive” and “respectively” limitations to the claims during prosecution “to overcome a rejection [over Hawkins] where the purported fiber optic routing elements were disposed on *top* of the tray.” Br. at 57. Second, they argue that the ALJ and the Commission “failed to consider” or “overlooked” its noninfringement argument that the routing element in Panduit’s and Siemon’s accused products is “on top of the tray” and does not “extend frontward from the tray.” Br. at 58, 59.

The Commission adopted the ALJ’s finding that Appellants’ disclaimer argument is based on a mischaracterization of the prosecution history and “improper[ly] attempts to import limitations into the claims and the parties’ construction — particularly the word ‘flange,’ which does not appear in the claims.” Appx384. The ALJ explained that disclosed embodiments of the “fiber

routing element” and “flange,” and Appellants’ own use of the word “flange” show that a flange can be separately attached to the tray. Appx384-387. Turning to the prosecution history, the ALJ found that “the only way Corning narrowed the fiber routing element was by adding the words ‘successive’ and ‘respectively’ and traversing the Hawkins ... ‘orientation’ or shape as failing to have successive frontward, upward, and rearward sections.” Appx389-390; *see* Appx110106-110107. Appellants have not shown that Corning disclaimed *how* the fiber routing element integrates with the tray. Appx389-390.

Contrary to Appellants’ argument on appeal, the ALJ and the Commission did not ignore Appellants’ noninfringement argument. The ID provided a detailed fifteen page analysis of the parties’ arguments with respect to the term “fiber optic routing element,” Appx378-393, and a seventeen page claim-by-claim infringement analysis for Appellants’ accused products, Appx393-410. Indeed, Appellants recognized in its petition for review that the ID not only “acknowledges” but even “quote[s]” their noninfringement argument. Appx22934 (citing Appx383-384). The ID then discusses the part of the prosecution history on which Appellants rely and the very argument that Appellants assert was ignored. Appx388-389 (addressing Appellants’ argument that “Corning disclaimed cable management structures that are **disposed on and attached to** the front of the tray.”) (quotation omitted and emphasis added). The ID found this argument

unpersuasive and explained its basis for doing so. Nothing more was needed to address Appellants' argument.

VI. THE COMMISSION PROPERLY CONSTRUED “A FRONT OPENING” IN THE ASSERTED CLAIMS OF THE ’206 PATENT

The Commission found FS's accused modules infringe claims 22 and 23 of the '206 patent and Siemon's accused modules infringe claim 22 of the '206 patent. Appx58-59. Both claims depend from claim 14, which recites a “fiber optic module, comprising: ... a front opening disposed along a longitudinal axis in the front side” in which a “plurality of fiber optic components [are] disposed through the front opening.” Appx660 (20:48, 20:53-54, 20:56-58). The Commission construed “a front opening” to mean “an opening located in the front side of a fiber optic module, *e.g.*, the opening depicted in Figure 13 of the '206 Patent as having dimensions H1 and W1.” Appx54.

FS and Siemon assert the Commission applied an incorrect construction of “a front opening,” which was determinative of infringement. Br. at 60-64. According to them, the term should mean “a *single* opening” located in the front side of a fiber optic module. *Id.* at 60-61 (emphasis added). They assert that their accused modules having “*multiple* openings separated by material or dividers” do not infringe. *Id.* at 60 (emphasis added). Appellants' arguments are without merit and they also raise an argument for the first time on appeal in challenging the Commission's claim construction.

The Commission rejected Appellants' attempt to limit "a front opening" to a "single opening" because "the specification teaches that a module can be designed with one or more front openings to support a high connection density capacity." Appx56. Referring to the embodiments disclosed in the specification, including the exemplary modules shown in Figures 14 and 15, *see supra* at 12-13, the ALJ determined the specification supports finding that the claimed "front opening" of a module may include dividers or spacers between the fiber optic components. Appx56-57. The ALJ relied on the testimony of Corning's expert, who opined that "a person of ordinary skill in the art would understand ... that the spaces between the adapters [in Figure 15] are filled with material that is necessary to support them and to maintain the structural integrity of the module." Appx57 (quoting Appx95824 ((Prucnal) Q/A 113)). The Commission noted that Appellants rely on only attorney argument to criticize the ALJ's findings regarding Figure 15. Appx57. Appellants' brief again cites no evidence to supports its interpretation of Figure 15. Br. at 63-64.

The Commission did not find evidence of a clear intent by the patentee to deviate from the general rule that the word "a" in a patent claim carries the meaning of one or more. Appx57; *see Baldwin Graphic Sys. Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008). Appellants argue the difference between claim 14, which recites "a front opening," and claim 63, which recites "front

openings,” necessitates a departure from the general rule. Br. at 60-61. The Commission noted that because claim 63 does not depend from claim 14, any inference to be drawn from contrasting them is weak. Appx57-58. As Corning argued, it is equally plausible that the patentee used “an ... opening” when they meant to claim either single or plural openings and “openings” when they meant to narrow a claim to plural openings only. Appx57-58. The Commission concluded that claim 63 does not support a narrower reading of claim 14 that excludes modules with multiple front openings.

Appellants fault the Commission for “only” considering claims 14 and 63 in its claim differentiation analysis. Br. at 62. However, Appellants never raised a claim differentiation argument between claims 14 and 41 before the ALJ or the Commission. *See* Appx22915-22917 (Pet. for Review) (arguing claim differentiation between claims 14 and 63); Appx20523-20526 (Posthr’g Br.) (same); Appx11934-11937 (Prehr’g Br.) (same). Thus, Appellants’ argument that construing claim 41’s “a front opening” to include multiple openings would render superfluous claim 63’s “front openings,” is waived. *See Hazani*, 126 F.3d at 1476. Moreover, contrary to Appellants’ new argument on appeal, claims 41 and 63 do not have identical claim scope. *Compare* Appx661 (22:30-38) *with* Appx662 (24:15-26). Thus, aside from waiver, claim 41 does not support a narrower reading of claim 14.

Finally, Appellants' cases do not compel a different outcome. *See Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1381 (Fed. Cir. 2006) (finding the district court erred in relying on claim differentiation between two independent claims because the resulting construction conflicted with the specification's substantial guidance on the meaning of the term); *Fantasy Sports Props., Inc. v. Sportsline.com, Inc.*, 287 F.3d 1108, 1115-16 (Fed. Cir. 2002) (finding appellant's claim differentiation argument is without merit because the presumption arising from claim differentiation was overcome by the written description and prosecution history). As discussed above, the specification here teaches that a module can be designed with one or more front openings to support fiber optic components. Appx56.

CONCLUSION

For the foregoing reasons, the Commission respectfully requests that its final determination be affirmed.

Respectfully Submitted,

/s/ Cathy Chen
CATHY CHEN
Attorney-Advisor
Office of the General Counsel
U.S. International Trade Commission
500 E Street, SW, Suite 707
(202) 205-2392

Date: June 24, 2022

WAYNE W. HERRINGTON
Assistant General Counsel

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE, AND TYPE STYLE REQUIREMENTS**

Pursuant to Federal Rule of Appellate Procedure 32(g)(1) and Federal Circuit Rule 32(b)(3), I hereby certify that the attached brief complies with the type-volume limitation and typeface requirements of Federal Rule of Appellate Procedure 32(a)(7) and Federal Circuit Rules 32(b)(1) and 32(b)(2). The brief has been prepared in a proportionally-spaced typeface using Microsoft Office 365, in Times New Roman 14-point font. The brief contains a total of 13,873 words, including 13,841 words obtained from the word-count function of the word-processing system, including all footnotes, annotations, and claim language, and a manual count of 32 words appearing in the graphics and figures.

/s/ Cathy Chen

Cathy Chen
Attorney Advisor
Office of the General Counsel
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436
Telephone: (202) 205-2392
Cathy.Chen@usitc.gov

*Counsel for Appellee
International Trade Commission*

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