No. 22-1228

In the United States Court of Appeals for the Federal Circuit

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

v.

INTERNATIONAL TRADE COMMISSION, APPELLEE

CORNING OPTICAL COMMUNICATIONS LLC, INTERVENOR

APPEAL FROM THE UNITED STATES INTERNATIONAL TRADE COMMISSION IN NO. 337-TA-1194

NON-CONFIDENTIAL CONSOLIDATED REPLY BRIEF OF APPEL-LANTS PANDUIT CORP., FS.COM INC., AND THE SIEMON COMPANY

Kelly J. Eberspecher Daniel S. Stringfield Anna M. Targowska STEPTOE & JOHNSON LLP 227 West Monroe Street, Suite 4700 Chicago, IL 60606 (312) 577-1300

Brian Johnson Katherine D. Cappaert Christopher A. Suarez STEPTOE & JOHNSON LLP 1330 Connecticut Ave. NW Washington, DC 20036 (202) 429-3000

Counsel for Panduit Corp.

Michael J. Rye Nicholas A. Geiger CANTOR COLBURN LLP 20 Church Street, 22nd Floor Hartford, CT 06103 (860) 286-2929

Counsel for The Siemon Company

George C. Summerfield K&L GATES LLP 70 W. Madison Street, Suite 3700 Chicago, IL 60602 (312) 372-1121

Counsel for FS.com Inc.

TABLE OF CONTENTS

The materials omitted on pages 18, 19 and 23 describe the subject of confidential investments made by Corning.

TABLE OF	CONTENTS i
TABLE OF	AUTHORITIES iii
PRELIMIN	ARY STATEMENT1
ARGUMEN	JT
MODULES	THE IMPORTATION REQUIREMENT WAS NOT MET AS VIT AND SIEMON BECAUSE THEIR IMPORTED ARE NOT "ARTICLES THAT INFRINGE" THE '320, '456, PATENTS
А.	Panduit's and Siemon's Imported Modules Are Not "Articles That Infringe" Because They Are Non-Infringing Components4
B.	Even If The Law Permits Components of An Invention To Be Deemed "Articles That Infringe" Under An Induced Infringement Theory, Panduit's and Siemon's Accused Modules Lack A Sufficient Nexus to the Infringement to Be "Articles That Infringe"
	1. The Commission's "No Nexus" Test Is Unreasonable Under Any Standard And Is Not Entitled To Deference11
	2. Under A Proper Nexus Test, Reversal Is Compelled Here Because There Is Insufficient Nexus
	THE COMMISSION'S ENABLEMENT DETERMINATION BE REVERSED AS TO THE ASSERTED CLAIMS OF THE 456 PATENTS
А.	The Claims of the '320 and '456 Patents Lack an Inherent Upper Limit As A Matter of Law16
В.	The POSA Would Not Have Exceeded A Connection Density of 144 Connections Per U-Space Without Undue Experimentation

III. PANDUIT'S AND SIEMON'S ACC NOT INFRINGE THE '153 PATENT AS THEY CLAIMED "FIBER OPTIC ROUTING ELEMEN	DO NOT INCLUDE THE
IV. THE COMMISSION'S INFRINGE AGAINST SIEMON AND FS ON THE '206 PA REVERSED BECAUSE IT APPLIED AN IMPR CONSTRUCTION OF "A FRONT OPENING".	TENT SHOULD BE OPER CLAIM
CONCLUSION	
CERTIFICATE OF SERVICE	
CERTIFICATE OF COMPLIANCE	
CERTIFICATE OF CONFIDENTIAL MATERIA	AL33

TABLE OF AUTHORITIES

Page(s)

Cases

<i>02 Micro Int'l, Ltd. v. Beyond Innovation Tech. Co., Ltd.,</i> 521 F.3d 1351 (Fed. Cir. 2008)
<i>AK Steel Corp. v. Sollac</i> , 344 F.3d 1234 (Fed. Cir. 2003)14
<i>Alloc, Inc. v. Int'l Trade Comm'n</i> , 342 F.3d 1361 (Fed. Cir. 2003)19
<i>AllVoice Computing PLC v. Nuance Commc'ns, Inc.</i> , 504 F.3d 1236 (Fed. Cir. 2007)27, 28, 29
<i>Amgen Inc. v. Sanofi</i> , 872 F.3d 1367 (Fed. Cir. 2017)19
Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361 (Fed. Cir. 2007)14, 22
Certain Biometric Scanning Devices, Components Thereof, Associated Software, & Prods. Containing the Same, Inv. No. 337-TA-720, Comm'n Op., 2011 WL 8883591 (Nov. 10, 2011)
Certain Digital Video Receivers & Hardware & Software Components Thereof, Inv. No. 337-TA-1001, Comm'n Op., 2017 WL 11249982 (Dec. 6, 2017)
Certain High-Density Fiber Optic Equip. & Components Thereof, Inv. No. 337-TA-1194, Order Instituting Advisory Opinion Proceeding, 2022 WL 1618477 (May 18, 2022)
<i>Chiron Corp. v. Genentech, Inc.</i> , 363 F.3d 1247 (Fed. Cir. 2004)19
ClearCorrect Operating, LLC v. Int'l Trade Comm'n, 810 F.3d 1283

n
9
2
0
0
0
1
5
9
n
0
4
3
1

Other Authorities

Definition of "Inherent," Lexico: Powered by Oxford, available at
https://www.lexico.com/en/definition/inherent (accessed July 21,
2022)

PRELIMINARY STATEMENT

Corning and the Commission overreach in two fundamental ways. *First*, the Commission's briefing on importation represents its most far-reaching position on jurisdiction in its history. For 40 years, the Commission's precedent has required a nexus requirement between an "imported article" and the statutory "article that infringes," such that the article adheres to the "importation requirement." The Commission now abandons this precedent and effectively nullifies that importation requirement, hiding behind this Court's holding in *Suprema, Inc. v. International Trade Commission* to do so. 796 F.3d 1338 (Fed. Cir. 2015). *Suprema*, however, was about timing; an imported article could still be an "article that infringes" a method of use claim, even if induced infringement occurred *after* importation.

In the Commission's view, *Suprema* permits it to use any induced infringement finding to effectively supplant the importation requirement and disregard its prior precedent requiring a nexus. The Commission and Corning take the position that the importation requirement is satisfied whenever (1) induced infringement is found and (2) any component is imported, regardless of how insignificant and attenuated that component is to the infringing article. The test the Commission now proposes—the "no nexus" test—strips the importation requirement of any analysis of the imported article. In doing so, the Commission expands its jurisdiction to domestically-developed products never before within its reach.

1

Second, for enablement, the Commission has overreached by preserving the validity of claims of the '320 and '456 patents that capture future-developed technology that Corning did not invent or disclose in its specification. This Court has regularly invalidated similarly open-ended claims like those at issue here. *See MagSil Corp. v. Hitachi Global Storage Techs., Inc.*, 687 F.3d 1377, 1383-84 (Fed. Cir. 2012). Such claims are exactly what the enablement requirement should prevent: "inadequate disclosure of an invention and overbroad claiming." *Id.* at 1381.

The Commission and Corning believe that Corning's overbroad claiming should be excused based on the alleged existence of an inherent upper limit, an assertion that is highly dubious given that, even now, neither the Commission nor Corning unequivocally confirm what that supposed limit is. The Commission ignored critical evidence demonstrating that the claim scope lacks any limit and captures densities well in excess of what Corning has enabled, including densities of *at least* 432 connections per U-space.¹ Meanwhile, there is no dispute that the specification discloses embodiments that achieve densities "up to" 144—no more. Nothing prevented Corning from drafting claims limited to the density that was disclosed, as it did for one of the asserted claims that Respondents do not challenge here. But when Corning sought to capture more, it did so at its own peril.

¹ Throughout this brief, connection densities are always in reference to the density that is achieved per 1U-space.

Finally, the Commission committed further errors by failing to address certain arguments for the '153 patent and supporting an erroneous construction for the '206 patent. These arguments further justify reversal or vacatur.

ARGUMENT

I. THE IMPORTATION REQUIREMENT WAS NOT MET AS TO PANDUIT AND SIEMON BECAUSE THEIR IMPORTED MOD-ULES ARE NOT "ARTICLES THAT INFRINGE" THE '320, '456, AND '153 PATENTS

The Commission seeks an unprecedented expansion of jurisdiction, encroaching on that of the district court for domestically-developed products. Appellants' Br. 27-28; ITC Br. 28-32. It argues that so long as Panduit and Siemon "induce their customers to combine their imported modules with accused [and domestically-developed] chassis to infringe," then the importation requirement is satisfied. ITC Br. 30. Any "nexus' between the imported components and the 'articles that infringe'" is "*irrelevant*," regardless of the significance (or insignificance) of the imported component. Appx23 (emphasis added); Appellants' Br. 35. This new legal rule is contrary to the unambiguous statutory language requiring importation of "articles that infringe." 19 U.S.C. § 1337(a)(1)(B).

Here, Corning's counsel supports the Commission's exercise of "broad enforcement authority" over imported modules. Corning Br. 21. However, in *Comcast Corp. v. International Trade Commission*, 951 F.3d 1301 (Fed. Cir. 2020), Corning's counsel expressed serious concerns about the Commission's continued efforts to expand its jurisdiction. On behalf of Verizon, Corning's counsel urged this Court to reject the Commission's views and take caution:

This Court should also refuse deference to (and ultimately reject) the ITC's statutory interpretation because the agency's expansive view of its own jurisdiction undermines federal patent policy and Supreme Court precedent to extend its authority beyond its trade-related mission. If the ITC's decision stands, it will be able to assert jurisdiction over virtually any patent case involving an imported product or a product with an imported component.

Brief for Verizon Services Corp. as *Amicus Curiae* in Support of Appellants and Reversal at 13, *Comcast Corp. v. Int'l Trade Comm'n*, 951 F.3d 1301 (Fed. Cir. 2020) (No. 18-1450), ECF No. 65, 2018 U.S. FED. CIR. BRIEFS LEXIS 445, at *17 ("Verizon Amicus"). These concerns are far more acute here than they were in *Comcast. See infra* Sections I.A.-I.B. The Commission's decision should be reversed because (1) there is no dispute that the imported modules are components which do not directly infringe (for Panduit) or contributorily infringe (for Panduit and Siemon); and (2) the Commission's "no nexus" test is not reasonable.

A. Panduit's and Siemon's Imported Modules Are Not "Articles That Infringe" Because They Are Non-Infringing Components

The imported modules are not "articles that infringe" because they never directly or contributorily infringe the '320, '153, and '456 patents. *See* Appx16-17. The modules, instead, are components "suitable for substantial noninfringing use." 35 U.S.C. § 271(c); Appx218-219. No party disputes that Panduit's modules do not themselves infringe any asserted patents (including the '206 "Module Patent"), but are merely components of a domestically developed article found to infringe.

The Commission and Corning invoke *Suprema* because it applied the importation requirement to articles used post-importation in the context of induced infringement. ITC Br. 28; Corning Br. 19. But *Suprema* addressed induced infringement for method of use claims, which are generally impossible to infringe until they are used post-importation. Nothing in *Suprema* supports the Commission's sweeping position that any finding of induced infringement supports finding a violation by any imported component, including in the context of apparatus claims.

The Commission's position demonstrates why any finding of inducement cannot be a wholesale replacement of the importation requirement. According to the Commission, the importation requirement is met where (1) induced infringement is found and (2) any component of an infringing article is imported, regardless of how attenuated that component may be to the infringement. So, even for companies like Panduit and Siemon that develop the chassis, trays, patch panels, and other components in the United States, the Commission can claim jurisdiction so long as any component is imported from another portion of the world—an increasingly common situation due to an "increasingly global supply chain." *See* Appx100. This perspective risks nullifying the gatekeeping role the importation requirement plays. Corning and the Commission argue that *Suprema* and *Comcast* make a panel of this Court powerless on Appellants' importation arguments absent *en banc* hearing. ITC Br. 28; Corning Br. 26-27. But that is wrong because those two appeals are readily distinguishable. *Suprema* and *Comcast* each addressed whether Section 337 captured infringement occurring after importation, focusing on the timing of importation and infringement. *See Suprema*, 796 F.3d at 1347-48; *Comcast*, 951 F.3d at 1307-08. Both involved the importation of an article found to infringe, not minor components, and (unlike here) did not involve serious disputes about the degree of nexus between the imported article and the infringement.² Appellants' Br. 32 n.8, 42-43.

In *Suprema*, the Commission found that importation was satisfied for a method claim for using a biometric scanner that ran certain software, even though the software was not combined with the scanner until after importation. *Suprema*, 796 F.3d at 1341-42. However, the imported article (i.e., the scanner) was the only

² The Commission asserts that Appellants waived the argument that *Suprema* does not apply to apparatus claims. ITC Br. 31. To the contrary, Appellants argued before the ALJ that Federal Circuit precedent, including *Suprema*, does not support a violation finding for importation of a component of an apparatus claim without a nexus to infringing activity, further highlighting the difference between method and apparatus claims. Appx20483-20487. After the ALJ found this precedent was overturned by *Suprema*, Respondents timely argued that the "ID improperly applied the holding of *Suprema*... to importation of a non-infringing component for an apparatus claim." Appx22911-22915.

tangible product that was imported—thus, there was no serious dispute before the Commission that the "*requisite nexus* between importation and the unfair acts" that was required "to find a violation of section 337." *Certain Biometric Scanning Devices, Components Thereof, Associated Software, & Prods. Containing the Same,* Inv. No. 337-TA-720, Comm'n Op., 2011 WL 8883591, at *7-8 (Nov. 10, 2011) (*"Biometric Scanning Devices"*) (emphasis added). The primary issue in *Suprema* was whether Section 337 imposed a "temporal requirement" for "articles that infringe" method claims, and whether post-importation activity required to infringe the method claim vitiated the ITC's jurisdiction. 796 F.3d at 1344.

Comcast also focused on the timing of the infringement. There too the article that infringed (i.e., X1 set-top boxes ("STBs")) was the same tangible product that was imported. *Certain Digital Video Receivers & Hardware & Software Components Thereof*, Inv. No. 337-TA-1001, Comm'n Op., 2017 WL 11249982, at *4, *7 (Dec. 6, 2017) ("*Digital Video Receivers*"). Relying on *Suprema*, *Comcast* similarly addressed whether Section 337 captured infringement that occurred post-importation once the STBs accessed software, focusing again on the timing of the STBs' infringement. *Comcast*, 951 F.3d at 1307-08. Nexus again was not at issue. Simply, *Suprema/Comcast* addressed importation of major articles that had not infringed at the time of importation, but later undisputedly did infringe; this appeal addresses importation of components that, in Appellants' view, never infringe.

Corning argues that *Comcast* controls because it coincidentally involved an apparatus claim. Corning Br. 21, 27. But *Comcast* did not squarely address *Suprema*'s application to apparatus claims and, certainly, not to importation of components. *Comcast*, 951 F.3d at 1305-08. Comcast simply argued "any inducing conduct of articles that infringe occurs entirely after the boxes' importation." *Id*.

Corning's argument that infringement in *Comcast* occurred when the STBs were "used with domestic servers" reinforces that *Comcast*'s focus was on timing. Corning Br. 19-20. A "server" is not a claim element that was pertinent to the importation requirement, but rather a mechanism to supply software to the imported X1 set-top-boxes. *Comcast*, 951 F.3d at 1304-05 (representative claim). The STB alone, not the software, was the "article that infringes." *Digital Video Receivers*, at *4, *7. Software cannot be an "article." *ClearCorrect Operating*, *LLC v. Int'l Trade Comm'n*, 810 F.3d 1283, 1294-95 ("article" excludes digital data).

The Commission argues that it is irrelevant that Panduit's imported module does not infringe the "Module Patent." ITC Br. 27. To the contrary, this highlights another reason this case is distinguishable. The patents-at-issue in *Suprema* and *Comcast* were akin to the "Module Patent" claims because, in those cases, the patented inventions were largely coextensive with the functionality of the imported fingerprint scanners and set-top boxes accused of infringement. *See* Appx52. Not so for the "Apparatus Claims" at issue here. *See* Appellants' Br. 10-13, 38-43.

Corning also argues that because "an article sitting by itself cannot infringe," the article itself should not be the focus of the inquiry. Corning Br. 27-28. This theory, however, strips the term of any sort of meaning and therefore cannot represent Congress's intent. *ClearCorrect*, 810 F.3d at 1294-95 (defining the meaning of "article" to prevent the word from becoming "superfluous, void, or insignificant"). Indeed, the "Commission's decision to expand the scope of its jurisdiction" beyond covered "articles" was this Court's concern in *ClearCorrect*. 810 F.3d at 1286. Similarly here, the Court should refuse to expand ITC jurisdiction to minor components with substantial non-infringing uses that might be used with a domestically-produced physical product, particularly in the context of apparatus claims that can be infringed (through importation or sale, for example) at the time of importation.

Notably, FS does not appeal the importation requirement because it imports the chassis and modules, and there were no findings of substantial noninfringing uses. Appx171; Appx122. The "chassis" is the first listed element in all of the Apparatus Claims and, according to Corning, contains the "features key to infringing." Appx21196. As in *Suprema* and *Comcast*, the nexus between FS's imported articles and the induced infringement for FS was not in question.

B. Even If The Law Permits Components of An Invention To Be Deemed "Articles That Infringe" Under An Induced Infringement Theory, Panduit's and Siemon's Accused Modules Lack A Sufficient Nexus to the Infringement to Be "Articles That Infringe"

Corning argues that the expansive interpretation of "articles that infringe" should be addressed under *Chevron* framework, Corning Br. 19-20, but even if that is true, the Commission's interpretation must still be reasonable. *Suprema*, 796 F.3d at 1349. The Commission's reversal of its own longstanding precedent is not reasonable. Appx17; Appx22; Appellants' Br. 35-37. As Chair Kearns recognized, the Commission's "nexus test has never been rejected by our reviewing court." Appx101-102. The Office of Unfair Import Investigations (OUII) Staff likewise recognized that a nexus between the "accused imported articles" and the "alleged unfair acts" has been required for decades. Appx24526-24530 & n.1; Appx24943; Appellants' Br. 36-37.³ Yet, for the first time ever, the Commission now claims that a nexus test is irrelevant to the importation requirement. Appx22.⁴

³ Corning does not dispute this but criticizes Appellants because they referred to the OUII Staff as the "Commission" and "Court" on pages 36 and 37 of their opening brief. Corning Br. 34 n.10. Appellants correctly referred to the OUII as "ITC staff" on page 37 of their brief, and any such errors were inadvertent.

⁴ Corning calls it "misleading" that the Commission contemplated applying a nexus test, because the requested briefing on nexus was in the context of direct infringement. Corning Br. at 36. However, the responsive briefing on nexus from the OUII and the parties did not limit their commentary regarding the application of a nexus test over the past 40 years to direct infringement, and Chair Kearns' "Additional (continued...)

1. The Commission's "No Nexus" Test Is Unreasonable Under Any Standard And Is Not Entitled To Deference

Neither the Commission nor Corning adequately explain why it was *reason-able* to hold that *any* imported article, however minor, is an "article that infringes" based solely on a finding of induced infringement, let alone why it was reasonable to reverse 40 years of precedent.

Corning concedes that the Commission "found a 'nexus' requirement unnecessary to determine whether the imported articles" satisfied the importation requirement. Corning Br. 31-32; *see also* Corning Br. 33. Corning attempts to distinguish prior precedent, arguing that certain cases were not specifically directed to induced infringement. *Id.* at 31-36. But Corning ignores what Chair Kearns made express, that *Suprema* (which did address induced infringement) never disclaimed application of a nexus requirement and, in fact, applied such a requirement. *Supra*, p. 6-7.

The Commission acknowledges its "failure to apply a 'nexus' test," but asserts that "[a]ny requisite 'nexus' is satisfied by meeting the requirements of § 271(b)"— induced infringement. ITC Br. 40-41; *see also* Appx24943 n.2. The Commission never applies *Chevron* or argues that the "no nexus" test is reasonable. Instead, it invokes *Comcast*, which it says did not make "reference to a 'nexus' test." ITC Br.

Views" certainly were not so limited either, noting that induced infringement itself does not squarely address "the standard for infringement by components . . ." Appx102.

39. But, *Comcast* did not repudiate a nexus test—nor was a nexus in dispute. *See supra*, p. 7-8. The Commission argues that Appellants did not provide a citation for their "no nexus" argument, ITC Br. 37, but they provided multiple citations. *See, e.g.,* Appellants' Br. 35 (citing Appx17; Appx22); 36-37 (citing, and thus relying on the support referenced in, Appx24526-24530 & n.1, Appx101, and Appx24471).

In reality, the "no nexus" test represents an unprecedented expansion of the Commission's jurisdiction, confirming the concerns addressed in Panduit's opening brief as well as those in the Verizon Amicus. In the Verizon brief, Corning's counsel argued that that "[1]egislative materials throughout the provision's history confirm that it creates a remedy for infringing imports – not for domestic infringement incidentally related to a noninfringing imported product." Verizon Amicus at 11; Appellants' Br. 33 (citing same legislative history). The Commission's powerful injunctive remedies, unlike district court, are not subject to the *eBay* requirements. Verizon Amicus at 4-5, 13-14 (citing *eBay Inc. v. MercExchange*, L.L.C., 547 U.S. 388 (2006)). This and other differences "make it important to maintain the distinction between infringing-import cases, to which section 337 remedies and procedures apply, and domestic-infringement cases for which the district courts are the congressionally designated forum." Id. at 14. Now, Corning's counsel and the Commission wish to eviscerate that distinction without a compelling reason.

2. Under A Proper Nexus Test, Reversal Is Compelled Here Because There Is Insufficient Nexus

Since a nexus test is required, this Court should reverse for Panduit and Siemon. The imported modules indisputably cannot infringe any of the Apparatus Claims, and each has substantial non-infringing uses. The '320 patent does not require a module at all, but rather generic "fiber optic connection equipment." Appellants' Br. 38-40. While the Commission appears to argue the '320 patent does require modules, Corning disagrees, acknowledging its view that the patent "reads on other embodiments." ITC Br. 33; Corning Br. 37. Further, while the '456 and '153 patent claims do recite a "module," the claim itself is focused on the chassis and other components. *See also* Appellants' Br. 38-41.

Corning argues the evidence supporting the Commission's finding of induced infringement supports the finding of a nexus, but to the contrary, it highlights a further distinction from *Suprema* and *Comcast*. The Commission found a nexus because Suprema provided the scanners along with relevant software to all customers, maintaining control of infringement throughout the process. *Biometric Scanning Devices*, at *2, *7-8. Likewise, there was "extensive evidence of Comcast's control over the importation of the X1 set-top boxes, including that Comcast requires that the X1 set-top boxes adhere to its [infringing] specifications and acceptability standards." *Comcast*, 951 F.3d at 1309 (internal quotation marks omitted). Here, Corning's cited evidence shows that Panduit and Siemon do not control their customers'

use of imported modules. *See* Appellants' Br. 13-15, 30, 39-42. In fact, some of Corning's cited pages of testimony relied on for inducement simply confirmed the components' non-infringing uses. Appx151840; *see also* Appellants' Br. 13-15.

II. THE COMMISSION'S ENABLEMENT DETERMINATION SHOULD BE REVERSED AS TO THE ASSERTED CLAIMS OF THE '320 AND '456 PATENTS

The Commission should be reversed on enablement. The parties agree that *Andersen*'s two-step test governs whether an open-ended range claim is enabled, but the parties dispute its proper legal application. *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1376-77 (Fed. Cir. 2007).⁵

First, regarding whether an inherent upper limit exists, the Commission improperly ascertained claim scope. The first step of *Andersen* is equivalent to the "first analytical step" taught by *AK Steel Corp. v. Sollac*, which requires a determination of "exactly what subject matter is encompassed by the claims." 344 F.3d 1234, 1241 (Fed. Cir. 2003) (citation omitted). Neither the Commission nor Corning attempt to make this requisite determination of scope. On their face, the claims recite

(continued...)

⁵ Corning misleadingly states that the sole issue is "whether substantial evidence supports the ALJ's finding" of enablement, and that this was "the only dispute preserved for review." Corning Br. 40. That is wrong. To be clear, substantial evidence does not support the enablement finding, and numerous legal errors briefed below underscore that the finding was erroneous as well. Appx22901-22906 (heading not-ing enablement finding was "legal error" and arguments regarding same).

Case: 22-1228 Document: 49 Page: 21 Filed: 07/22/2022

an open-ended range: "at least [98 or 144] fiber optic connections per U space."⁶ Appx609; Appx842. Yet, Respondents, and an entire industry, are apparently left to guess what densities Corning's claims capture. Corning previously attempted to capture products including MDC adapters, capable of densities well in excess of 144, and now seeks to retract that prior reliance. But what's done is done. Corning *did* rely on the MDC products, and the law *does* permit the use of this evidence to demonstrate claim scope and, by extension, lack of enablement.

Second, on the question of whether a POSA could have approached the inherent limit, the evidence confirms that as of the priority date, it would not have been possible for the POSA to exceed approximately 144 connections per U-space—let alone arrive at implementations that achieve densities of 192 connections or 432 connections—without undue experimentation.

(continued...)

⁶ The Commission does not identify claim 14 of the '456 patent as being appealed for lacking enablement. *See* ITC Br. 41-42. This appeal applies to all the "Asserted Claims of the '320 and '456 Patents," including claim 14 of the '456 patent. Appellants' Br. 43 (Section III Header). Claim 14 depends from claim 11 and is openended like the other challenged claims. Appx842. The only claim not appealed for enablement is claim 19 of the '456 patent. *See* Appellants' Br. 44 n.11.

A. The Claims of the '320 and '456 Patents Lack an Inherent Upper Limit As A Matter of Law

There is no known upper limit to the connection densities recited in the challenged claims of the '320 and '456 patents. An "inherent" upper limit is *inherent* i.e., "[e]xisting in something as a *permanent, essential, or characteristic* attribute"⁷—and the specification must enable one of skill in the art to approach that limit. *Anderson*, 474 F.3d at 1376-77. Neither Corning nor the Commission affirmatively states that a connection density of approximately 144 in a U-space is *actually* an "inherent upper limit" of the claims. Nor do they argue any limit exists that is a permanent upper bound.

Instead, to preserve broad claim scope, Corning avoided identifying a limit in its entire eight-page section discussing the subject. *See* Corning Br. 40-47. Likewise, the Commission argued that the evidence showed that *some* upper limit "existed," without identifying any such limit. *See* ITC Br. 43-44. That no party can identify this limit, even now, belies that the specification has enabled one of skill to approach any such limit.

Presuming 144 connections to be a purported inherent upper limit exposes the weaknesses of this position, because this number was derived looking only at efforts

⁷ Definition of "Inherent," Lexico: Powered by Oxford, *available* at https://www.lexico.com/en/definition/inherent (accessed July 21, 2022).

to achieve higher densities using LC adapters. Appellants' Br. 52-53 (citing Appx95948-95849, Appx29500, Appx134192, Appx95841, Appx95912). As Appellants argued and was left unrebutted, claims 1 and 3 of the '320 patent and claims 11, 12, 15, 16, and 21 of the '456 patent place minimal restrictions on the size and type of fiber optic components that could be used to achieve the claimed connection densities. *See* Appellants' Br. 45-46 (collecting specification cites).⁸ It is undisputed that components of smaller sizes fall within the scope of the claims, permitting densities well above 144 connections. Appellants' Br. 46 (citing Appx136078, Appx136081, Appx151989-151990). This, on its own, demonstrates that 144 connections was not actually an "inherent upper limit."

As *amicus* Diversified Material Specialists, Inc. explained, "[a]s with any industry, it is well known that density increases as components become smaller as a result of advances in technology and manufacturing." DMSI Br. 5 (ECF No. 41). The Commission opinion erred in declining to consider the inevitability of decreasing component sizes while instead focusing on generic constraints that may have placed *some* unknown upper limit on the maximum achievable density but did not establish any actual limit. *See* Appellants' Br. 46-47.

⁸ As to Claim 14 of the '456 patent, Corning notes that the claim "recites the use of LC adapters," Corning Br. 49, but the claim is still open-ended and leaves open the possibility for numerous other, smaller components other than adapters that could facilitate higher densities.

Case: 22-1228 Document: 49 Page: 24 Filed: 07/22/2022 Confidential Material Omitted on this Page

The evidence ignored by the Commission reinforced that the densities within the scope of the claims are far greater than 144. Densities using *MDC-type* adapters could be tripled to *at least* 432 connections. Appx136081 (Q/A 212); Appx139691; Appx139688. The Commission never states that MDC-adapters are outside the scope of these claims, and Corning acknowledges that "most Asserted Claims are not limited to LC components." Corning Br. 8 n.1.

The Commission posits that neither it "nor Corning took a position on whether MDC adapters are within the scope of the claims" in the context of domestic industry arguments because Corning provided evidence of investment in LC adapters. ITC Br. 50. But Corning relied on, and the Commission's domestic industry analysis expressly referenced "EDGE project codes relating to . . . components in [Corning's] claimed domestic industry investments." Appx502. One code, referred to Corning's investment in a newly opened 2019 project involving a "new Investment that "will fit in a standard **Investment** but will use *a new* **Investment** that allows for investment times the fiber density in a standard LC duplex footprint." Appx28639 (Q/A 45) (emphasis added); Appx21409 & Appx21411. Corning argued that these investments "relat[ed] to exploitation of the patented technology." Appx21407, Appx21411; see also Appx151148-151149 (Corning DI expert "apportion[ing]" investment in ^{Investment} project).

Case: 22-1228 Document: 49 Page: 25 Filed: 07/22/2022 Confidential Material Omitted on this Page

Corning cannot unring this bell now. In arguing that investments in supported its domestic industry, it applied a test that "is essentially [the] same as that for infringement, i.e., a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003).

The Commission and Corning also argue that evidence relating to MDC adapters is improper "post-priority-date evidence," relying primarily on *In re Hogan*, 559 F.2d 595 (C.C.P.A. 1977). *See* ITC Br. 45-50; Corning Br. 48-50. Yet, neither party disputes that *Hogan* does not categorically bar use of post-priority-date evidence for enablement. ITC Br. 45. Nor do they dispute that *Amgen Inc. v. Sanofi* expressly permits the use of post-priority-date evidence that can elucidate the scope of a genus claim and the representative species within it. 872 F.3d 1367, 1374-75 (Fed. Cir. 2017); ITC Br. 46. There, this Court permitted use of "post-priority-date evidence proffered to show that a patent fails to disclose a representative number of species," and noted that *Hogan* "[wa]s silent" on this issue. 872 F.3d at 1374-75. Similarly here, the MDC evidence shows that the open-ended claim scope captures embodiments capable of densities more than triple of those disclosed in the patent.

Besides *Hogan*, the Commission and Corning rely on *U.S. Steel* and *Chiron* to exclude the MDC evidence. *See* ITC Br. 47-48; Corning Br. 49. But those cases, like *Hogan*, did not involve open-ended range claims and do not implicate the same concerns at issue here. *See Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1250-

52 (Fed. Cir. 2004); U.S. Steel Corp. v. Phillips Petroleum Co., 865 F.2d 1247, 1249-50 (Fed. Cir. 1989); Hogan, 559 F.2d at 597-98.

MagSil further demonstrates that post-priority-date evidence can properly illuminate claim scope in an enablement challenge. There, post-priority-date evidence demonstrated that open-ended claims reciting changes of "*at least*" 10% resistance were not enabled. 687 F.3d at 1379, 1384. The specification only described embodiments that could achieve *up to* 11.8% resistance, and the Court credited "*modern dimensions* of th[e] field of invention," including "*recent achievements* above 600%," in concluding that the specification "*did not enable*" the full claim scope. *Id.* at 1382 (emphases added).

The Commission and Corning cannot distinguish *MagSil*. The Commission argues that "[u]nlike here, the patentee did not argue the claims have an inherent upper limit." ITC Br. 47-48. But that is false. The inventor in *MagSil* asserted during prosecution that 100% resistive changes represented "an upper limit" and the "highest possible value." 687 F.3d at 1382. However, post-priority-date evidence from "over ten years later" confirmed that 120% changes and 604% changes were within the claim scope there, *id.*, just as here where the MDC adapter evidence from eleven years later confirms that a density of at least 432 is within scope.

Both the Commission and Corning highlight *MagSil*'s statement that "[t]he enablement determination proceeds as of the effective filing date of the patent." *See*

ITC Br. 47 (citing 687 F.3d at 1380); Corning Br. 50 (same). But this statement does not preclude post-priority-date evidence that illuminates the *scope* of a genus claim or open-ended range claim. Rather, this statement simply recites the basic requirement that the full claim scope (such as 604% resistivity in *MagSil* or a density of 432 here) must be enabled as of the priority date. MagSil, like Corning here, engaged in "overbroad claiming" that "attempt[ed] to cover more than was actually invented," and did so "at the peril of losing any claim that cannot be enabled across its full scope of coverage." *MagSil*, 687 F.3d at 1381.

Corning acknowledges *MagSil* found that the patent licensee "overreach[ed]" by using an open-ended claim to capture "higher changes . . . achieved years later." Corning Br. 50. Corning's efforts to capture tripled densities that result from employing systems that use, for example, MDC adapters are no different. Preserving the validity of these overbroad claims stifles innovation because the threat of litigation discourages innovation for densities above 144. *See* DMSI Br. 2-3, 5 (ECF No. 41); *MagSil*, 687 F.3d at 1380-81.

Case in point, the Commission recently instituted an advisory proceeding on whether certain Panduit products with a connection density above 144 would infringe the claims of the '320 and '456 patents. *Certain High-Density Fiber Optic Equip. & Components Thereof*, Inv. No. 337-TA-1194, Order Instituting Advisory Opinion Proceeding, 2022 WL 1618477, at *2-3 (May 18, 2022). The issue raised was whether certain newly-designed Panduit products that achieve a density of 192 fall within the scope of same claims appealed here. *Id.* Left unchecked, Corning could assert the '320 and '456 patents against other new innovations.

The Commission asserts that consideration of post-priority-date evidence here would "impose an impossible burden on inventors." ITC Br. 49. But Appellants ask for nothing more than what the law requires: If inventors choose to claim openended ranges, they must establish there is an inherent upper limit to the claims. The Commission and Corning fail to even identify, let alone establish, what the inherent upper limit is for the open-ended claims here. Notably, enablement of claim 19 of the '456 patent, which claims a density of exactly 144, is not challenged by Appellants on appeal. This Court cannot ignore these claims' tax on innovation in the fiber optic industry. "[E]xcessively broad claim scopes" would "place a stranglehold on innovation and advancement of the fiber optic industry." DMSI Br. 3 (ECF No. 41).

B. The POSA Would Not Have Exceeded A Connection Density of 144 Connections Per U-Space Without Undue Experimentation

Assuming an upper limit even *slightly* above 144 connections per U-space, the specification did not "enable[] one of skill in the art to approach th[e] limit" as of 2008. *Andersen*, 474 F.3d at 1376-77. It is undisputed that the '320 and '456 patents only teach a single embodiment of a chassis that achieves a maximum density of 144 using LC-type adapters and that this was the maximum density enabled. *See* Appellants' Br. 51-54 (citing specification and testimony).

Confidential Material Omitted on this Page

The Commission and Corning also do not dispute that there was no teaching, *as of the priority date*, of how the POSA could have used a new adapter (such as MDC) or modified the modules, chassis, or other components to achieve a density beyond 144. Nor does Corning dispute its expert's concession that "in a 1RU space 144 is what has been achieved *as the highest density that will work after a lot of design and effort.*" Appx151974 (974:14-25) (emphasis added); *accord* Appx151971 (971:7-10) (conceding limits of specification).

Corning argues that there was insufficient expert testimony on enablement, Corning Br. 51, but this argument ignores the admission that it would have taken "a lot of design and effort" to reach a density of 144. Appx151974. Corning also conceded that no one exceeded a density of 144 over more than a decade, and the MDC adapters and corresponding system was not implemented until 2019—eleven years after the priority date. Appx21593; Appx95848 (Q/A 215); Appx139687-139690; Appx139691. Even when it used the third-party adapters to achieve greater densities, it still took *Corning* approximately **Investment** and more than **Investment** and achieved a density of **Mpx28546-28547** (Q/A 86, 92); Appx85317, Appx85319-85320 (**Investment** project).

The Commission and Corning also ignore their own admonition that enablement is analyzed as of the 2008 priority date. The Commission, relying on hindsight

23

and the availability of MDC adapters as of 2019, states that it would not have required undue experimentation "to adapt the apparatus taught in the '320 and '456 patents to use MDC adapters," ITC Br. 50 & n.16, and Corning follows suit, Corning Br. 52. But the '320 and '456 patents do not disclose anything remotely resembling the densities achievable by MDC adapters. Nor would they have enabled the POSA to invent or implement those adapters within any fiber optic equipment system in 2008. *White Consolidated Industries, Inc. v. Vega Servo-Control, Inc.*, 713 F.2d 788 (Fed. Cir. 1983), cited by the Commission (ITC Br. 48 n.14), further reinforces the claims are not enabled. In that case, eighteen-months to two-years of work was deemed "undue experimentation." *White Consol. Indus.*, 713 F.2d at 791. Here, it took more than a decade of experimentation to achieve the densities created by using MDC adapters.

Finally, the *Wands* factors reinforce that the open-ended claims are not enabled under any standard. *See* Appellants' Br. 54-55 & n.15 (discussing *Wands* factors). As discussed above, Corning's own expert conceded that it would have required "a lot of design and effort" to reach (let alone exceed) a density of 144 connections per U-space, as confirmed by the thousands of hours Corning spent *since 2019* to implement a system with MDC adapters (factor 1); the specification provides *zero* guidance and *no* working examples on how to exceed 144 connections (factors 2 and 3); the nature of the invention, titled "*High Density* . . . Fiber Optic Apparatuses," was directed toward increasing connection density (factor 4); Corning conceded that the skill of the POSA in 2008 did not permit the POSA to reach, let alone exceed, a density of 144 (factors 5-7); and "the breadth of the claims" is unbounded in scope—"at least" 98 or 144 connections (factor 8). Neither Corning nor the Commission address any of this in briefing. Given this, the claims of the '320 and '456 patents are not enabled under *Wands*.⁹

III. PANDUIT'S AND SIEMON'S ACCUSED PRODUCTS DO NOT INFRINGE THE '153 PATENT AS THEY DO NOT INCLUDE THE CLAIMED "FIBER OPTIC ROUTING ELEMENT"

The ALJ and Commission erred by failing to consider Appellant's noninfringement argument for the '153 patent regarding whether Appellants' purported "fiber optic routing elements" have successive sections that first extend forward and then extend upward and rearward. The Commission argues that it did consider the argument and points to the ALJ's consideration of how a flange can be attached to the tray. ITC Br. 51-55. But how the purported flange attaches to the tray is not the

⁹ Notably, the Commission does not mention *Wands*, and Corning does not perform any analysis of the *Wands* factors. *See* ITC Br. 50-51; Corning Br. 51-53. Corning only cites *Wands* in connection with its argument about *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 959 F.3d 1091, 1104 (Fed. Cir. 2020). Corning Br. 51. *McRO*, however, is inapposite because that case involved a mere "abstract assertion of breadth, without concrete identification of matter that is not enabled **but is or may be within the claim scope**." *Id.* at 1101 (emphasis added). Here, Appellants have identified concrete matter involving MDC adapters that can achieve 432 connections per U-space, and there is no suggestion in the record from Corning or the ITC that such an implementation is outside the scope of the claims.

noninfringement argument that Appellants assert was overlooked. Appellants' Br. 57-60. What the ALJ and Commission overlooked was Appellants' non-infringement argument regarding whether the purported fiber optic routing element extends from the tray in the claimed manner, not how it physically attaches to the tray. *Id.* Thus, the evidence the Commission points to is unrelated to the issue at hand. ITC Br. 51-55.

In fact, the evidence the Commission does cite as being considered establishes the merits of Appellants' noninfringement position. For example, the Commission recognizes that the ALJ found Corning narrowed the fiber optic routing claim element "by adding the words 'successive' and 'respectively' and traversing the Hawkins ... 'orientation' or shape as failing to have successive frontward, upward, and rearward sections." ITC Br. 54 (quoting Appx389-390). This is the very basis for Appellants' noninfringement argument, which, while *recognized* in the ID, as explained in Appellant's Opening Brief, was not substantively *considered*. Appellants' Br. 57-60.

Corning's arguments likewise lack merit. While Corning asserts that the ID considered Appellants' noninfringement arguments, its arguments confirm the opposite. In fact, Corning expressly acknowledges that the ID did not address "the contention that ... Panduit's and Siemon's elements did not" extend past the front of the tray. Corning Br. 56. Corning points to the ID's discussion of the prosecution

as obviating the need for the ID to consider the noninfringement position, but that argument falls flat. The ID found that Corning's narrowing did not rise to the level of "clear and unmistakable disavowal of scope during prosecution" related to whether Corning disclaimed claim scope regarding how the fiber optic routing element integrates with the tray. Appx389-390. The analysis did not relate to the "orientation" or shape" of the fiber optic routing element, which the ID actually found was narrowed during prosecution. *Id*.

Thus, the Commission's infringement finding for the '153 Patent should be vacated.

IV. THE COMMISSION'S INFRINGEMENT FINDINGS AGAINST SIEMON AND FS ON THE '206 PATENT SHOULD BE RE-VERSED BECAUSE IT APPLIED AN IMPROPER CLAIM CON-STRUCTION OF "A FRONT OPENING"

In their responsive briefs, both Corning and the Commission criticize FS and Siemon's argument regarding the Commission's erroneous application of the doctrine of claim differentiation. ITC Br. 55-58; Corning Br. 57-61. At issue is whether claim 14, which claims "a front opening," should be construed to mean a single front opening or permit multiple openings. As noted by FS, Siemon, and OUII Staff, unasserted claims 63 through 70 explicitly claimed *multiple* front openings. Appx23245-23246; Appx22805. Claim differentiation is relevant "in the context of a claim construction that would render additional, or different, language in another

independent claim superfluous." AllVoice Computing PLC v. Nuance Commc'ns, Inc., 504 F.3d 1236, 1247 (Fed. Cir. 2007). This is the case here.

The Commission reasoned that since claim 63 does not depend from claim 14, only a weak inference could be drawn by their contrast. Appx26668. Appellants noted in their opening brief that unasserted claim 41 is largely identical in terms of claim scope to claim 63, with the only substantive difference being that claim 63 claims plural "front openings" and claim 41 claims "a front opening." Appellants' Br. 60 (citing Appx660; Appx662). The Commission and Corning nonetheless argue that differences between claims 41 and 63 prevent the application of the doctrine of claim differentiation. ITC Br. 57; Corning Br. 61. The Commission alternatively argues that Appellants have waived this argument. ITC Br. 57. Neither argument is availing.

First, when applied to two independent claims, the doctrine of claim differentiation does not require the claims to be completely identical. In *AllVoice*, this Court applied the doctrine of claim differentiation with respect to two claims that were very different textually (claims 1 and 73) to avoid importing limitations from claim 1 that were not found in claim 73. 504 F.3d at 1247-48. Similarly, in *Creative Integrated Systems, Inc. v. Nintendo of America, Inc.*, this Court applied claim differentiation to two very different claims (claims 1 and 5) to determine that claim 5 was not limited to the specific embodiment that claim 1 was limited to. 526 F. App'x 927, 935 (Fed. Cir. 2013). In both cases, the issue was not whether the claims were otherwise identical, but rather whether construing a claim term in one claim would render an additional claim term superfluous in another. *Id.*; *AllVoice*, 504 F.3d at 1247-48.

In this case, while claim 41 is structured differently than claim 63 in some respects, the only substantive difference that actually impacts claim scope is that claim 63 claims "front openings" and claim 41 claims "a front opening." Thus, construing "a front opening" to include multiple openings in claim 41 would "render superfluous the exacting language chosen by the patentee" in claim 63. *Creative*, 526 F. App'x at 935. To the extent that "a front opening" in claim 41 cannot be construed to include multiple openings, it follows that the same construction must be applied to claim 14 as well, as a matter of law. *Inverness Med. Switz. GmbH v. Princeton Biomeditech Corp.*, 309 F.3d 1365, 1371 (Fed. Cir. 2002) ("A claim term used in multiple claims should be construed consistently.").

Second, Appellants have not waived this argument. Waiver occurs "if a party raises a new issue on appeal," not where a party proposes "the same construction on appeal as was presented to the district court" and simply makes "new or additional arguments in support of the scope of its claim construction." *O2 Micro Int'l, Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1359-60 (Fed. Cir. 2008); *see also Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1290 (Fed. Cir. 2015)

(finding no waiver of party's claim construction argument that was "sufficiently consistent" with trial positions). The Commission cites *Hazani v. U.S. Int'l Trade Comm'n*, 126 F.3d 1473, 1476 (Fed. Cir. 1997), but that case is inapposite as the appellant there had tried to introduce a new *issue* on appeal.

CONCLUSION

For the foregoing reasons, the Commission should be reversed, or at minimum, vacated.

Date: July 22, 2022

<u>/s/ Kelly J. Eberspecher</u> Kelly J. Eberspecher Daniel S. Stringfield Anna M. Targowska STEPTOE & JOHNSON LLP 227 West Monroe Street, Suite 4700 Chicago, IL 60606 (312) 577-1300

Brian Johnson Katherine D. Cappaert Christopher A. Suarez STEPTOE & JOHNSON LLP 1330 Connecticut Ave., N.W. (202) 429-3000

Counsel for Appellant Panduit Corp.

Respectfully submitted,

/s/ George C. Summerfield

George C. Summerfield K&L GATES LLP 70 W. Madison Street, Suite 3700 Chicago, IL 60602 (312) 372-1121

Counsel for Appellant, FS.com Inc.

<u>/s/ Michael J. Rye</u> Michael J. Rye Nicholas A. Geiger CANTOR COLBURN LLP 20 Church Street, 22nd Floor Hartford, CT 06103 (860) 286-2929

Counsel for Appellant, The Siemon Company

CERTIFICATE OF SERVICE

I, Kelly J. Eberspecher, counsel for Appellant and a member of the Bar of this Court, certify that, on July 22, 2022, a copy of the attached Non-Confidential Consolidated Reply Brief of Appellants was filed electronically through the appellate CM/ECF system with the Clerk of the Court. I further certify that counsel for Appellees and Intervenors listed in the caption have been served via electronic mail.

> <u>/s/Kelly J. Eberspecher</u> Kelly J. Eberspecher

JULY 22, 2022

CERTIFICATE OF COMPLIANCE

I, Kelly J. Eberspecher, counsel for Appellant and a member of the Bar of this Court, certify that the attached Non-Confidential Consolidated Reply Brief of Appellants is proportionately spaced, has a typeface of 14 points or more, and contains 6,996 words.

> <u>/s/Kelly J. Eberspecher</u> Kelly J. Eberspecher

JULY 22, 2022

CERTIFICATE OF CONFIDENTIAL MATERIAL

The foregoing Non-Confidential Consolidated Reply Brief of Appellants contains 10 unique words (including numbers) marked confidential.

This number is below the 15-word maximum permitted by Federal Circuit Rule 25.1(d)(1).

<u>/s/Kelly J. Eberspecher</u> Kelly J. Eberspecher

JULY 22, 2022