**UNITED STATES DISCTRICT COURT**
**WESTERN DISTRICT OF NORTH CAROLINA**
**CHARLOTTE DIVISION**
**Civil Case No. 3:22-cv-623**

| | |
|---|---|
| **DALI WIRELESS, INC.,**<br><br>**Plaintiff,**<br><br>**v.**<br><br>**CORNING OPTICAL COMMUNICATIONS LLC, a North Carolina Limited Liability Company,**<br><br>**Defendant.** | **COMPLAINT**<br><br>**JURY TRIAL DEMANDED** |

Plaintiff Dali Wireless, Inc. ("Dali") files this Complaint against Defendant Corning Optical Communications LLC ("Corning").

## NATURE OF THE CASE

1. This is a case of infringement of three patents: (1) U.S. Patent No. 8,260,105 (the "'105 Patent"), (2) U.S. Patent No. 7,599,599 (the "'599 Patent"), and (3) U.S. Patent No. 9,081,164 (the "'164 Patent") collectively referred to as "the Patents-in-Suit."

2. Defendant Corning has been making, selling, using, offering for sale, and/or importing at least the Optical Splice Enclosure, Closet Connector Housing, and ODF Swiveling Patch Panel products identified herein that infringe the Patents-in-Suit in violation of 35 U.S.C. § 271.

3. Plaintiff Dali seeks appropriate damages and prejudgment and post-judgment

interest for Corning's infringement of the Patents-in-Suit.

## THE PARTIES

4. Plaintiff Dali is a Delaware corporation having its center of operations in Burnaby, British Columbia, Canada, where all its technical and financial employees, documents, engineering, and product development are based. It also has an address in Menlo Park, California for forwarding of domestic mail and telephone calls to its center of operations.

5. Founded in 2006, Dali began as a designer and manufacturer of power amplifiers used in radio frequency ("RF") communications. Dali is known within the industry as an innovator in providing end-to-end, software defined digital radio distribution solutions that can be implemented in Distributed Antenna Systems ("DAS") used for cellular, public safety, and other RF communications. Dali is a world-wide innovator in digital radio distribution systems and digital predistortion technology that revolutionized in-building and outdoor wireless coverage and capacity. Dali's groundbreaking products have been consistently recognized by industry publications. For example, Dali has been recognized as a "Hot Tech Innovator" by ABI Research and was ranked No. 1 in innovation in the ABI Research report, "In-Building Wireless, DAS Vendor Competitive Assessment." Dali's systems improve upon traditional DAS by allowing the dynamic allocation of wireless coverage and capacity.

6. Corning Optical Communications LLC is a North Carolina Limited Liability Company. On information and belief, Corning has its principal place of business at 4200 Corning Place, Charlotte, NC 28216.

## JURISDICTION AND VENUE

7. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

8. This Court has original subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Corning because Corning is a company organized under the laws of the State of North Carolina and has a place of business and regularly transacts business in this judicial District.

10. On information and belief, the division of Corning that designs, develops and provides operational, sales and marketing support for the products accused of infringement in this Complaint is headquartered in Hickory, North Carolina.

11. On information and belief, Corning-authorized distributors within this District offer, sell and distribute, on behalf of Corning, the products accused of infringement in this District.

12. Corning has committed and continues to commit, acts of infringement of Dali's Patents-in-Suit in violation of the United States Patent Laws, and has made, used, sold, offered for sale, marketed and/or imported infringing products into this District. Corning's infringement has caused substantial injury to Dali, including within this District.

13. Venue is proper in this District pursuant to 28 U.S.C. §§ 1400 and 1391 because Corning is a North Carolina company which has committed infringing acts in North Carolina, where it also maintains at least one regular and established place of business.

## THE PATENTS-IN-SUIT

14. The ’105 Patent is titled “Enclosure for Housing Splice Trays” and was issued by the United States Patent Office to Scott David Lee on September 4, 2012. A true and correct copy of the ’105 Patent is attached as Exhibit A.

15. Dali is the exclusive licensee of the ’105 Patent, with the sole right to practice and exclude all others from practicing the inventions disclosed therein, including by, without limitation, bringing suit to enforce the ’105 Patent and collecting damages for any past, present, or future infringement thereof.

16. The ’105 Patent is valid and enforceable under the United States Patent Laws.

17. The ’599 Patent is titled “Cable Management Panel with Rear Entry” and was issued by the United States Patent Office to Daniel J. Herzog, Chad J. Sjodin, David E. Rapp, and Joy McKnight on October 6, 2009. A true and correct copy of the ’599 Patent is attached as Exhibit B.

18. Dali is the exclusive licensee of the ’599 Patent, with the sole right to practice and exclude all others from practicing the inventions disclosed therein, including by, without limitation, bringing suit to enforce the ’599 Patent and collecting damages for any past, present, or future infringement thereof.

19. The ’599 Patent is valid and enforceable under the United States Patent Laws.

20. The ’164 Patent is titled “Fiber Management Panel” and was issued by the United States Patent Office to Timothy G. Badar, Jose Federico Mendoza, Gustavo Cano, Edward T. Landry, Marcelo Enrique Ruiz, and Dominic J. Louwagie on July 14, 2015. A true and correct copy of the ’164 Patent is attached as Exhibit C.

21. Dali is the exclusive licensee of the ’164 Patent, with the sole right to practice and

exclude all others from practicing the inventions disclosed therein, including by, without limitation, bringing suit to enforce the '164 Patent and collecting damages for any past, present, or future infringement thereof.

22. The '164 Patent is valid and enforceable under the United States Patent Laws.

**FIRST CAUSE OF ACTION**
**(PATENT INFRINGEMENT UNDER 35 U.S.C. § 271 of '105 PATENT)**

23. Dali re-alleges and incorporates by reference all of the foregoing paragraphs.

24. On information and belief, Corning has infringed and continues to infringe, either literally or under the doctrine of equivalents, one or more claims, including at least claim 1, of the '105 Patent in violation of 35 U.S.C. §§ 271 et seq., directly and/or indirectly, by making, using, importing, selling, and/or offering for sale certain equipment and systems relating to

25. On information and belief, Corning has been and currently is infringing the '105 Patent by the manufacture, use, sale, offer to sell and/or importation of Corning's Optical Splice Enclosures and any other Corning product possessing similar functionality and/or structure (herein referred to as "Optical Splice Enclosures") under 35 U.S.C. § 271.

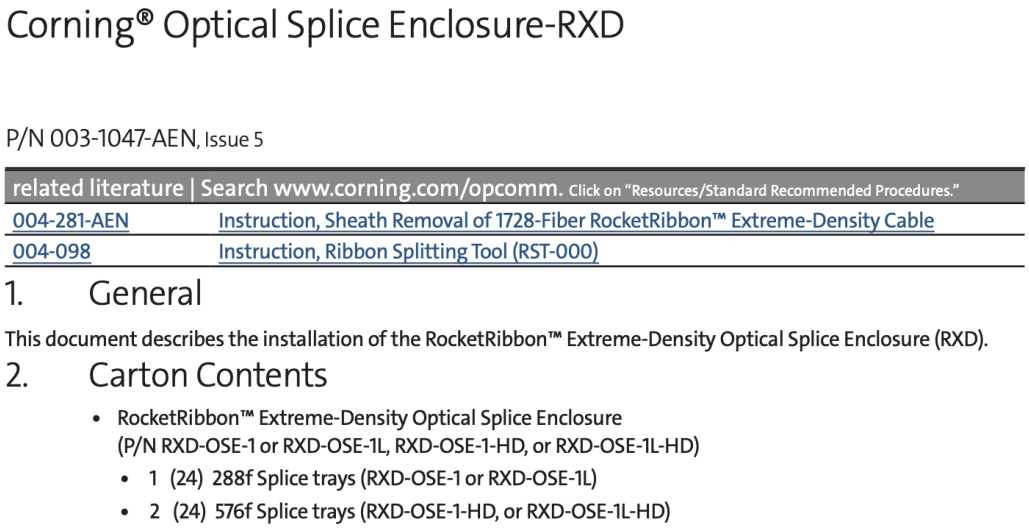
26. Claim 1 of the '105 Patent recites the following:

> [Preamble] An enclosure for housing splice trays, comprising:
>
> [a] an enclosure body, a splice tray, and a bracket adapted to couple the splice tray to the enclosure body,
>
> [b] wherein the bracket is adapted to rotate the splice tray about an axis; and
>
> [c] wherein a plurality of splice trays are adapted to be coupled to a frame of the bracket.

27. On information and belief, and based on publicly available information, Corning's Optical Splice Enclosures including at least the Optical Splice Enclosure-RXD satisfy each and

every limitation of at least claim 1 of the '105 Patent.

28. To the extent the preamble of claim 1 is interpreted to be limiting, Corning's Optical Splice Enclosures meet the preamble language. The preamble requires "[a]n enclosure for housing splice trays." Corning's "Standard Recommended Operating Procedure 003-1047-AEN" for its Optical Spice Enclosure-RXD ("OSE-RXD Procedure Document") describes an enclosure that houses multiple splice trays.



Corning® Optical Splice Enclosure-RXD

P/N 003-1047-AEN, Issue 5

| related literature \| Search www.corning.com/opcomm. Click on "Resources/Standard Recommended Procedures." | |
|---|---|
| 004-281-AEN | Instruction, Sheath Removal of 1728-Fiber RocketRibbon™ Extreme-Density Cable |
| 004-098 | Instruction, Ribbon Splitting Tool (RST-000) |

1. General

This document describes the installation of the RocketRibbon™ Extreme-Density Optical Splice Enclosure (RXD).

2. Carton Contents

- RocketRibbon™ Extreme-Density Optical Splice Enclosure (P/N RXD-OSE-1 or RXD-OSE-1L, RXD-OSE-1-HD, or RXD-OSE-1L-HD)
  - 1 (24) 288f Splice trays (RXD-OSE-1 or RXD-OSE-1L)
  - 2 (24) 576f Splice trays (RXD-OSE-1-HD, or RXD-OSE-1L-HD)

**FIG. 1.** Source: https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 1 (*last visited November 9, 2022*).

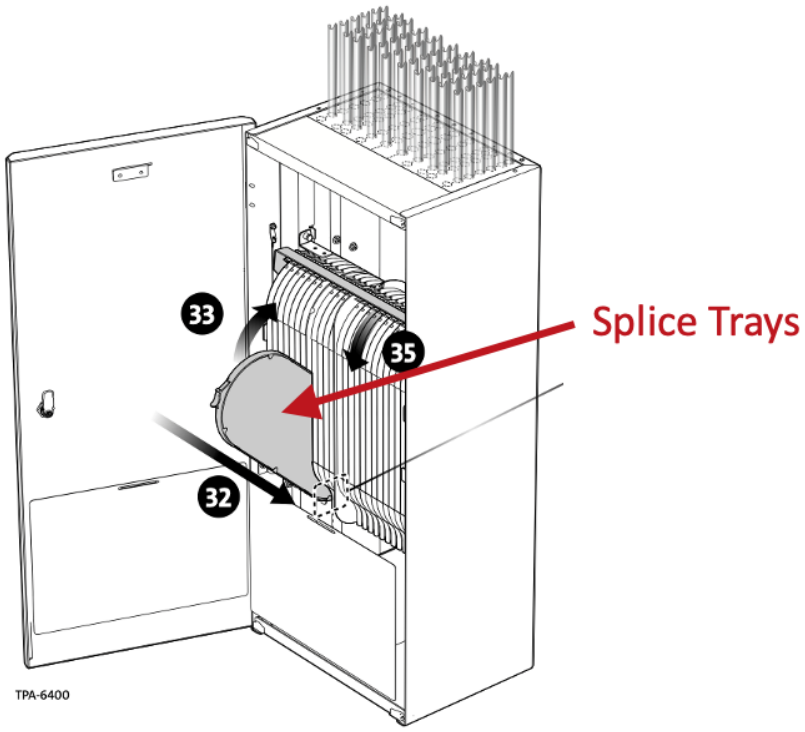



**FIG. 2.** Source: https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 1 (*last visited November 9, 2022*) at 11 (depicting the splice trays assembled into the OSE-RXD product housing with annotations in red).

29. Corning's Optical Splice Enclosures meet limitation "a" of claim 1. Limitation "a" requires "an enclosure body, a splice tray, and a bracket adapted to couple the splice tray to the enclosure body." As explained above in connection with the preamble, the Optical Splice Enclosure includes a cabinet, i.e. enclosure body, that can hold multiple splice trays.[1] Additionally, the Optical Splice Enclosure also includes a bracket for coupling the splice trays to the enclosure body. The below illustration from the OSE-RXD Procedure Document shows a bracket that holds multiple splice trays (red labels added):

[1] *See* https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 1 (*last visited November 9, 2022*).

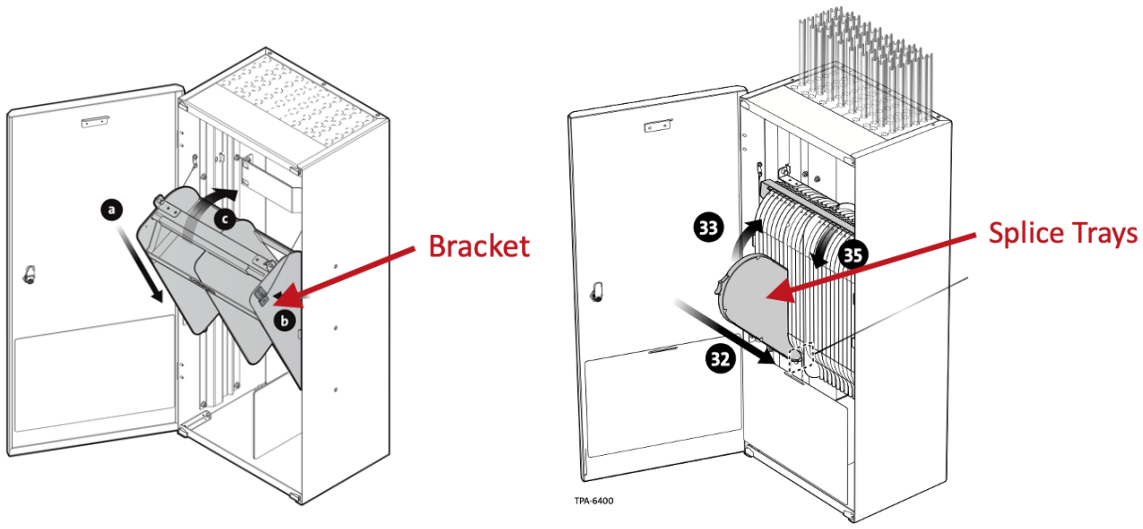



**FIG. 3.** Source: https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 5, 11 (*last visited November 9, 2022*).

30. Corning's Optical Splice Enclosures meet limitation "b" of claim 1. Limitation "b" requires "wherein the bracket is adapted to rotate the splice tray about an axis." Corning's Optical Splice Enclosures do this in at least two ways. First, the bracket is designed to rotate around a point at the bottom and to the front of the cabinet, rotating the splice trays around that point, as shown above in Fig. 3 in connection with limitation "a." Second, the bracket is designed to allow the splice trays to individually rotate around the same point as shown in the below illustration from Corning's OSE-RXD Procedure Document:

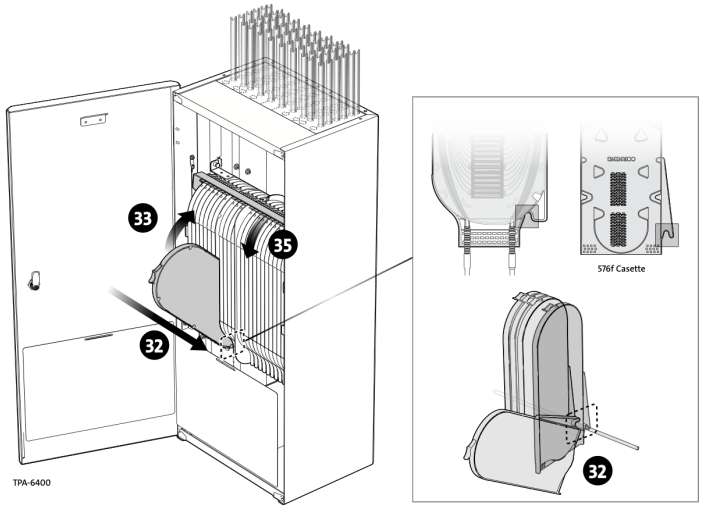



**FIG. 4.** Source: https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 11 (*last visited November 9, 2022*).

31. Corning's Optical Splice Enclosures meet limitation "c" of claim 1. Limitation "c" requires "wherein a plurality of splice trays are adapted to be coupled to a frame of the bracket." The bracket is designed with a rod positioned at the lower, rear corner to which the splice trays attach. The bracket allows the trays to rotate around that rod.

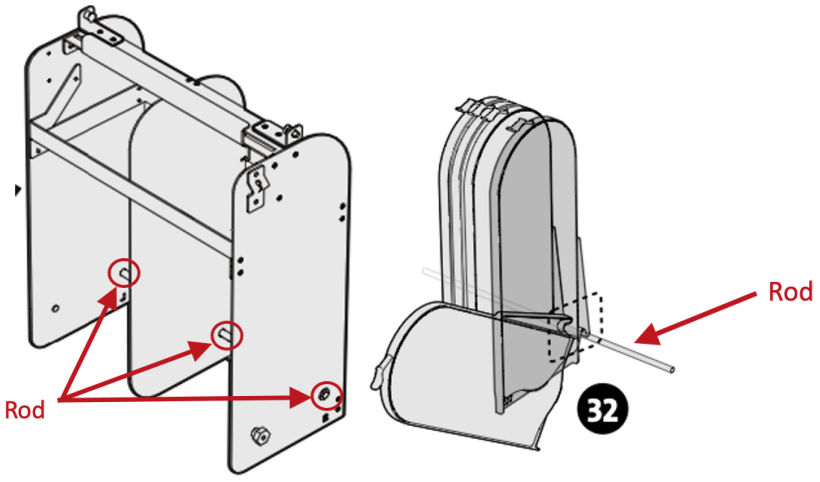



**FIG. 5.** Source: https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-1047-AEN.pdf at 4, 11 (*last visited November 9, 2022*).

32. Accordingly, on information and belief, Corning's Optical Splice Enclosure

including at least the Optical Splice Enclosure-RXD meets all the limitations of, and therefore infringes, at least claim 1 of the ’105 Patent.

33. Corning indirectly infringes the claims of the ’105 Patent within the United States by inducing infringement under 35 U.S.C. § 271 (b). For example, since learning of the ’105 Patent and by failing to cease offering the Optical Splice Enclosure products for sale, Corning has knowingly and intentionally induced users of the Optical Splice Enclosure products to directly infringe one or more claims of the ’105 Patent, *inter alia*, by (1) instructing users on how to use the Optical Splice Enclosure products in a manner that infringes the ’105 Patent as described in the foregoing paragraphs; (2) providing customer support and training through its technical documentation; and (3) providing video guides on publicly accessible platforms such as YouTube that provide information and/or instructions on how to use the Optical Splice Enclosure products in an infringing manner.

34. Corning indirectly infringes the claims of the ’105 Patent by contributing to the direct infringement by end users under 35 U.S.C. § 271 (c), for example, by providing the Optical Splice Enclosure products, which, as evidenced by Corning’s websites and advertisements, are especially made for use in a manner that infringes one or more claims of the ’105 Patent as described herein and has no substantial non-infringing uses.

35. Corning certainly became aware of the ’105 Patent and the manner of its infringement by the Optical Splice Enclosure products no later than the filing of the instant suit. Accordingly, and to the extent Corning continues to make, use, sell, offer to sell, and/or import any of the Optical Splice Enclosure products in violation of 35 U.S.C. §§ 271 et seq. following the filing of the instant suit, Corning’s continued infringement of the ’105 Patent is intentional and willful.

36. As a result of Corning's infringement of the '105 Patent, Dali has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Corning's infringement to the fullest extent permitted by the Patent Act, together with prejudgment interests and costs for Corning's wrongful conduct.

**SECOND CAUSE OF ACTION**
**(PATENT INFRINGEMENT UNDER 35 U.S.C. § 271 of '599 PATENT)**

37. Dali re-alleges and incorporates by reference all of the foregoing paragraphs.

38. On information and belief, Corning has infringed and continues to infringe, either literally or under the doctrine of equivalents, one or more claims, including at least claim 1, of the '599 Patent in violation of 35 U.S.C. §§ 271 et seq., directly and/or indirectly, by making, using, importing, selling, and/or offering for sale certain equipment and systems relating to cable management systems it calls Closet Connector Housings, which includes at least the following product numbers: CCH-01U; CCH-02U; and CCH-03U[2], as well as any other Corning product possessing similar functionality and/or structure (herein referred to as "Closet Connector Housing products").

39. On information and belief, Corning has been and currently is infringing the '599 Patent by the manufacture, use, sale, offer to sell and/or importation of Corning's Closet Connector Housing products identified herein under 35 U.S.C. § 271.

40. Claim 1 of the '599 Patent recites the following:

[Preamble] A cable management panel, comprising:

[2] *See* https://ecatalog.corning.com/optical-communications/US/en/Fiber-Optic-Hardware/Housings/Closet-Connector-Housing-%28CCH%29/p/closet-connector-housing-cch (*last visited November 9, 2022*); *see also* https://www.youtube.com/watch?v=2fk-TlM8TOI at 0:30 ("I'm going to be demonstrating most of the benefits and features of the new hardware on the CCH-01U housing. The reason for that is that the 2U and 3U are almost identical.") (*last visited November 9, 2022*).

> [a] a chassis having a front, a rear, and sides;
>
> [b] a drawer mounted to the chassis, the drawer having a front, an open rear, and open sides, the drawer defining an interior region, the drawer being configured to slide relative to the chassis between an open position and a closed position; and
>
> [c] fiber optic cable management elements located within the interior region of the drawer;
>
> [d] wherein the chassis provides rear cable access to the interior region of the drawer through the open rear of the drawer at the rear of the chassis, and side cable access to the interior region of the drawer through the open sides of the drawer at each of the sides of the chassis.

41. On information and belief, and based on publicly available information, each of the Closet Connector Housing products satisfies each and every limitation of at least claim 1 of the '599 Patent. On further information and belief, and based on publicly available information, the CCH-01U product is representative of the Closet Connector Housing products. On further information and belief, and based on publicly available information, each of the Closet Connector Housing products functions in a manner similar, if not identical, to the CCH-01U as it relates to infringing the '599 Patent. And on further information and belief, and based on publicly available information, each of the Closet Connector Housing products possesses features and/or attributes similar, if not identical, to those features and/or attributes of the CCH-01U identified by Dali as infringing the '599 Patent. Accordingly, the analysis of the CCH-01U that follows applies equally to each of the Closet Connector Housing products identified herein.

42. To the extent the preamble of claim 1 of the '599 Patent is interpreted to be limiting, the Closet Connector Housing products, as exemplified by the CCH-01U, meet the preamble language. The preamble requires "[a] cable management panel." Corning's Closet Connector Housing products can be used for managing cables such as optical fibers and are advertised by Corning as having such capabilities, and as such, satisfy the language of the

preamble.


**FIG. 6.** Source: *https://ecatalog.corning.com/optical-communications/US/en/Fiber-Optic-Hardware/Housings/Closet-Connector-Housing-%28CCH%29/p/CCH-01U* (*last visited November 9, 2022*).

**Part Number:**
**CCH-01U**

Closet connector housings (CCHs) provide interconnect or cross-connect capabilities between outside plant, riser or distribution cables and opto-electronics. Like other LANscape solutions hardware, the housings accept CCH connector panels. In addition, the housings accept CCH cassettes and CCH modules.

**FIG. 7.** Source: *https://ecatalog.corning.com/optical-communications/US/en/generate-product-specsheet?code=CCH-01U* (*last visited November 9, 2022*) (emphasis added).

43. Corning's Closet Connector Housing products meet limitation "a" of claim 1 of the '599 Patent which requires "a chassis having a front, a rear, and sides." As can be seen below, Corning's Closet Connector Housing products, as exemplified by the CCH-01U, each include a chassis having a front, a rear, and sides.

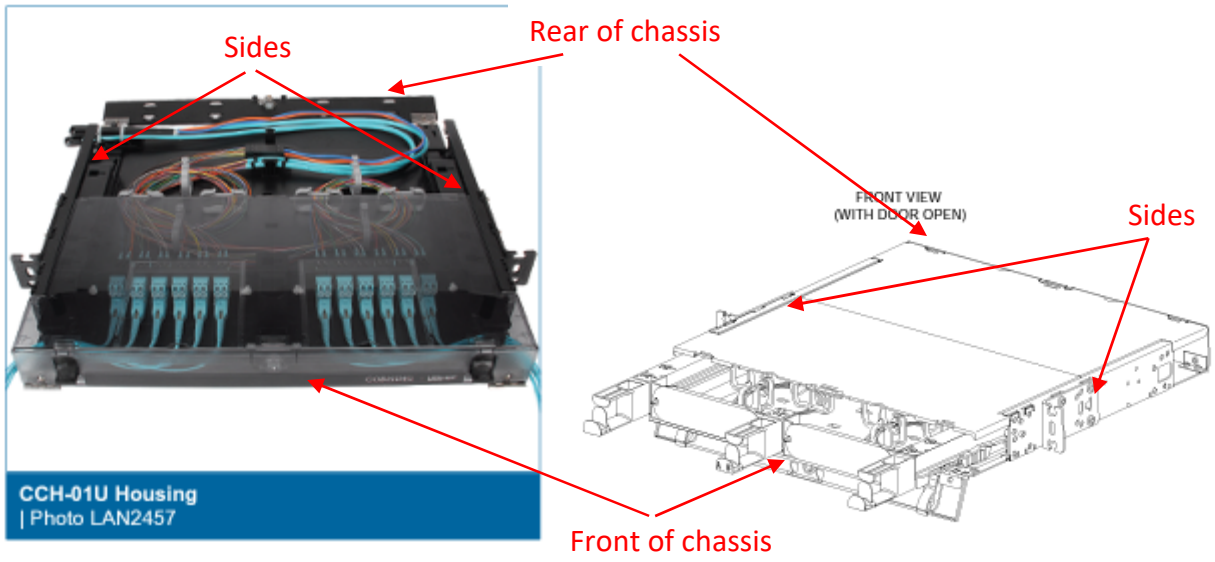



**FIG. 8.** Source: *https://www.corning.com/catalog/coc/documents/product-family-specifications/0167_NAFTA_AEN.pdf* (at left) (*last visited November 9, 2022*) and *https://www.corning.com/catalog/coc/documents/product-drawings/pdf/cch-01u_BEN.pdf* (at right) (*last visited November 9, 2022*) (with annotations in red).

| Shipping Dimensions | |
|---|---|
| Height | 54.61 cm |
| Width | 57.15 cm |
| Depth | 19.05 cm |

**FIG. 9.** Source: *https://ecatalog.corning.com/optical-communications/US/en/generate-product-specsheet?code=CCH-01U* (*last visited November 9, 2022*) (detailing dimensions of CCH-01U chassis).

44. Corning's Closet Connector Housing products meet limitation "b" of claim 1 of the '599 Patent. Limitation "b" requires "a drawer mounted to the chassis, the drawer having a front, an open rear, and open sides, the drawer defining an interior region, the drawer being configured to slide relative to the chassis between an open position and a closed position." As can be seen below, Corning's Closet Connector Housing products, as exemplified by the CCH-

01U, each include a sliding drawer with an interior region mounted to the chassis, with the drawer featuring openings at the sides and rear for cable access.

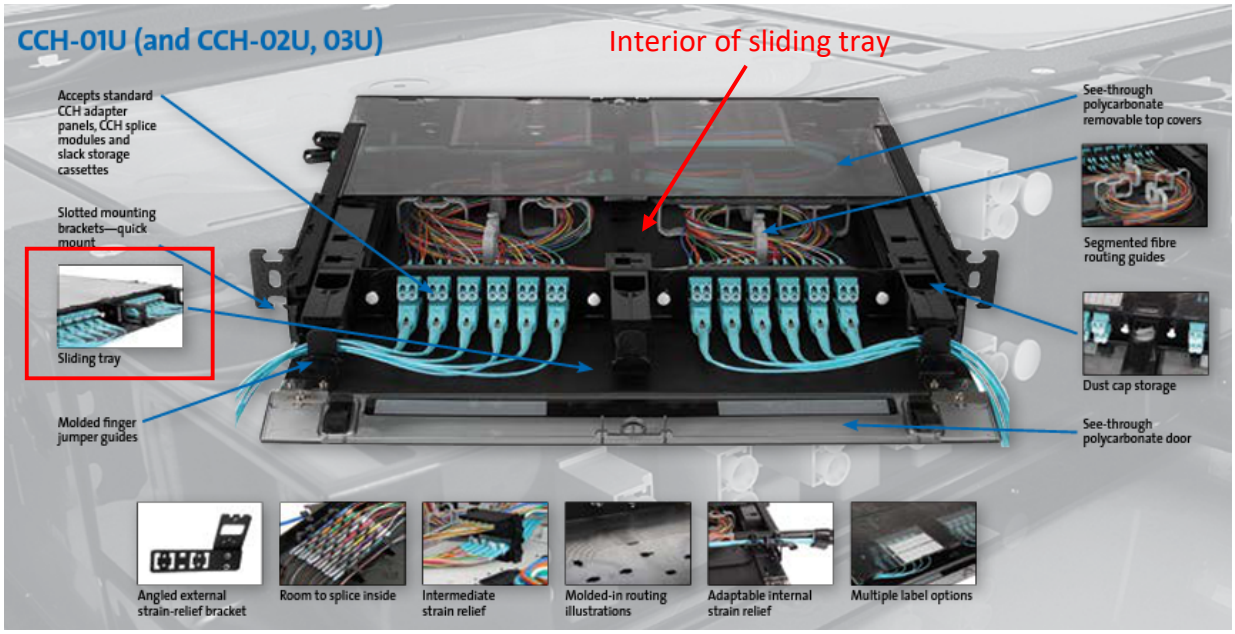



**FIG. 10.** Source: *https://www.corning.com/catalog/coc/documents/brochures/LAN-1408-A4-BEN.pdf* (*last visited November 9, 2022*) (annotations in red); *see also* *https://www.youtube.com/watch?v=2fk-TlM8TOI* (demonstrating operation of sliding tray and cable management) (*last visited November 9, 2022*).

> The units are designed for rack mounting in 19-in (48 cm) racks or optional 23-in (58 cm) equipment racks (1.75-in EIA hole spacing). They are available in rack space options of 1U (two panels, cassettes or modules), 2U (four panels, cassettes or modules), 3U (six panels, cassettes or modules) and 4U (12 panels, cassettes or modules). The 1U, 2U and 3U options feature a slide-out tray and see-through, removable top covers. The CCH-04U features a clear door, removable front and rear enclosures and a platinum-colored interior for maximum visibility and access.

**FIG. 11.** Source: *https://www.corning.com/catalog/coc/documents/product-family-specifications/0164_NAFTA_AEN.pdf* (*last visited November 9, 2022*) (emphasis added).

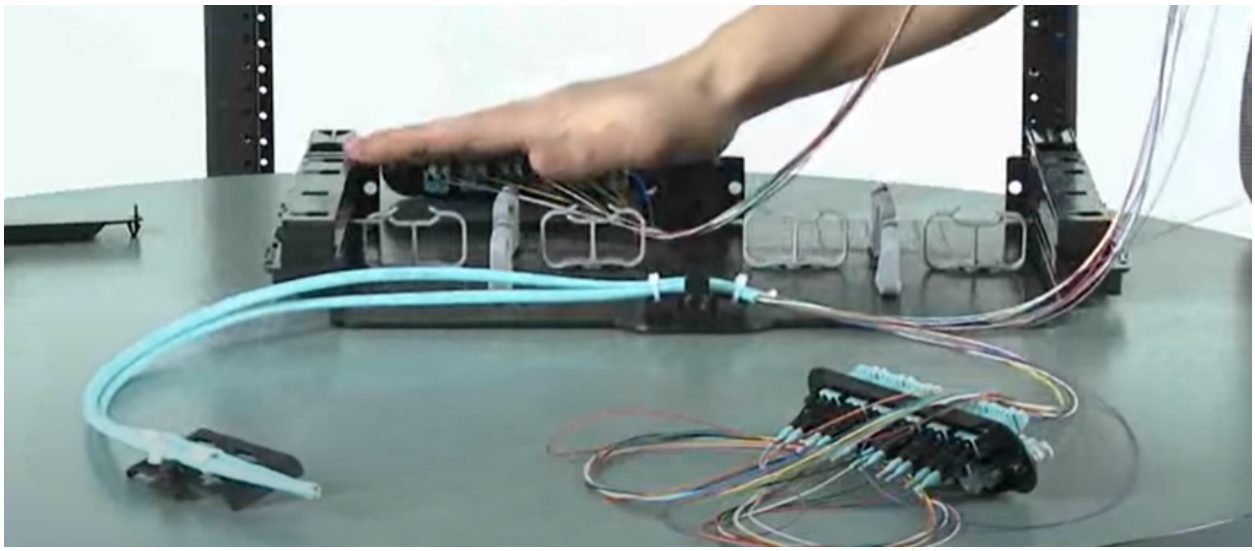


**FIG. 12.** Source: *https://www.youtube.com/watch?v=2fk-TlM8TOI* (depicting open sides and open rear of sliding tray) (*last visited November 9, 2022*).

45. Corning's Closet Connector Housing products meet limitation "c" of claim 1 of the '599 Patent. Limitation "c" requires "fiber optic cable management elements located within the interior region of the drawer." As can be seen in the figures above (e.g., at least Figs. 8, 10, and 12), each of the Closet Connector Housing products, as exemplified by the CCH-01U, features fiber optic cable management elements (appearing as the gray-colored vertical cable management loops) located within the sliding tray.

46. Corning's Closet Connector Housing products meet limitation "d" of claim 1 of the '599 Patent. Limitation "d" requires that "…the chassis provides rear cable access to the interior region of the drawer through the open rear of the drawer at the rear of the chassis, and side cable access to the interior region of the drawer through the open sides of the drawer at each of the sides of the chassis." As seen in the following figures, each of the Closet Connector Housing products, as exemplified by the CCH-01U, provides rear and side cable access through the chassis to the interior of the sliding tray.

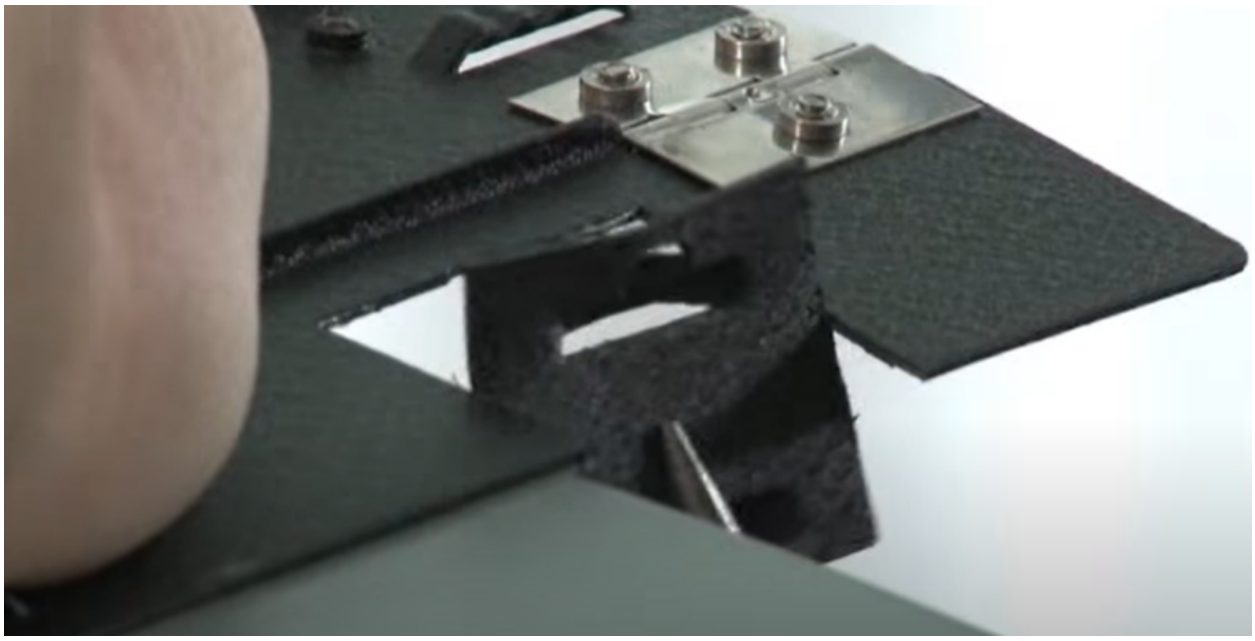


**FIG. 13.** Source: https://www.youtube.com/watch?v=36yitQ7vWCk at 1:51 (depicting removal of a panel at the rear of the CCH-01U chassis to provide rear cable access to the interior of the drawer) (*last visited November 9, 2022*).

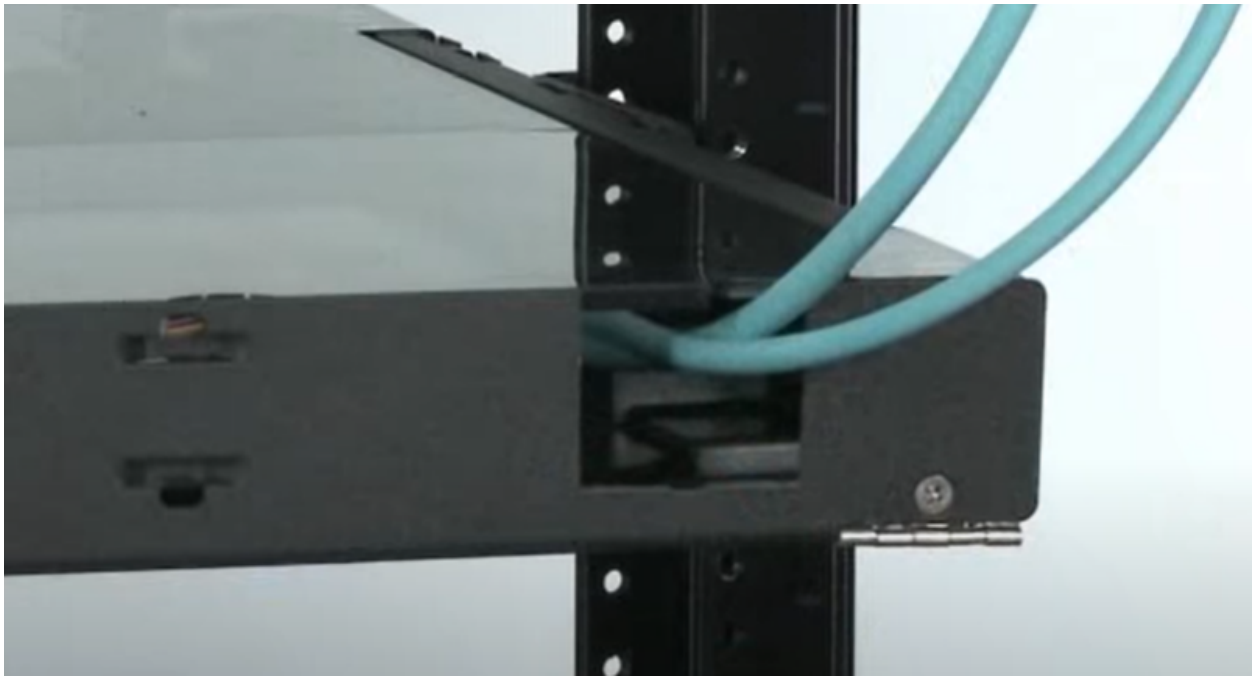


**FIG. 14.** Source: https://www.youtube.com/watch?v=36yitQ7vWCk at 8:11 (depicting the rear of the CCH-01U chassis after removal of the panel) (*last visited November 9, 2022*).

### 5.3.4 Through the Rear Door

If cable enters from directly behind the housing, it is possible to strain-relieve through the rear door.

**Step 1:** Open the rear door. Firmly grasp door to prevent bending it and, with a pair of pliers, remove the knockout where the cable will enter the housing (Figure 16).

**Step 2:** Remove the two routing clips in the area indicated by the dashed circles in the illustration.

**Step 3:** Strain-relieve the cable with cable ties through the openings in the side wall of sliding shelf as shown.

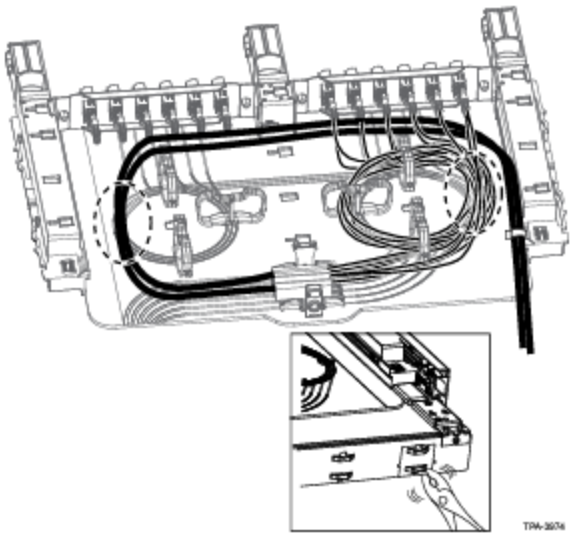


**FIG. 15.** Source: *https://www.corning.com/catalog/coc/documents/standard-recommended-procedures/003-876.pdf* (*last visited November 9, 2022*).

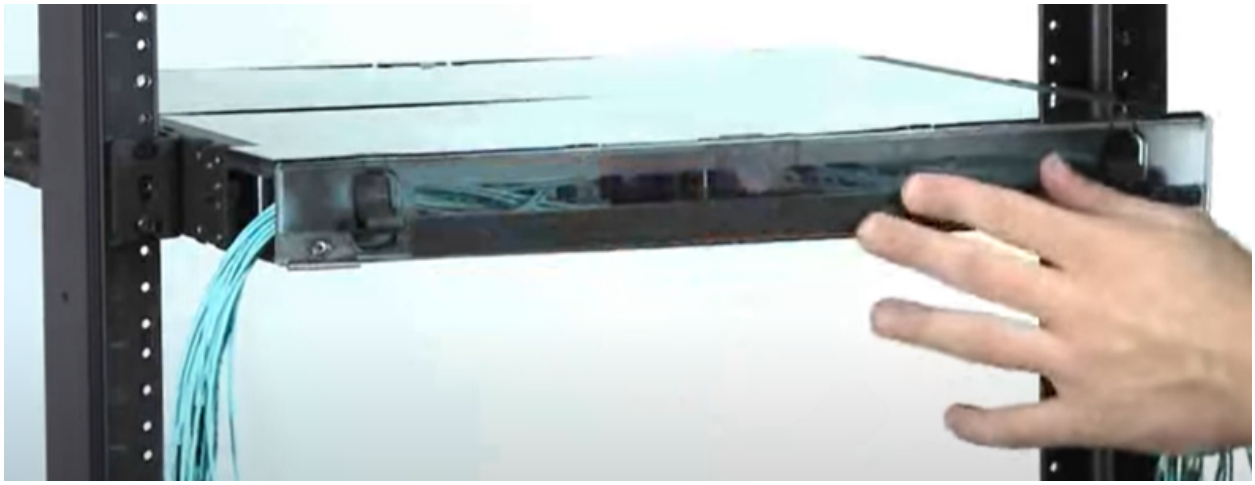


**FIG. 16.** Source: *https://www.youtube.com/watch?v=2fk-TlM8TOI* at 9:06 (view from front depicting the side cable access through the chassis after tray is in the closed position). (*last visited November 9, 2022*).

47. Accordingly, on information and belief, each of Corning's Closet Connector Housing products, as exemplified by the CCH-01U, meets all the limitations of, and therefore infringes, at least claim 1 of the '599 Patent.

48. Corning indirectly infringes the claims of the '599 Patent within the United States by inducing infringement under 35 U.S.C. § 271 (b). For example, since learning of the '599

Patent and by failing to cease offering the Closet Connector Housing products for sale, Corning has knowingly and intentionally induced users of the Closet Connector Housing products to directly infringe one or more claims of the ’599 Patent, *inter alia*, by (1) instructing users on how to use the Closet Connector Housing products in a manner that infringes the ’599 Patent as described in the foregoing paragraphs; (2) providing customer support and training through its technical documentation; and (3) providing video guides on publicly accessible platforms such as YouTube that provide information and/or instructions on how to use the Closet Connector Housing products in an infringing manner.

49. Corning indirectly infringes the claims of the ’599 Patent by contributing to the direct infringement by end users under 35 U.S.C. § 271 (c), for example, by providing the Closet Connector Housing products, which, as evidenced by Corning’s websites and advertisements, are especially made for use in a manner that infringes one or more claims of the ’599 Patent as described herein and has no substantial non-infringing uses.

50. Corning certainly became aware of the ’599 Patent and the manner of its infringement by the Closet Connector Housing products no later than the filing of the instant suit. Accordingly, and to the extent Corning continues to make, use, sell, offer to sell, and/or import any of the Closet Connector Housing products in violation of 35 U.S.C. §§ 271 et seq. following the filing of the instant suit, Corning’s continued infringement of the ’599 Patent is intentional and willful.

51. As a result of Corning’s infringement of the ’599 Patent, Dali has suffered and continues to suffer substantial injury and is entitled to recover all damages caused by Corning’s infringement to the fullest extent permitted by the Patent Act, together with prejudgment interests and costs for Corning’s wrongful conduct.

**THIRD CAUSE OF ACTION**
**(PATENT INFRINGEMENT UNDER 35 U.S.C. § 271 of '164 PATENT)**

52. Dali re-alleges and incorporates by reference all of the foregoing paragraphs.

53. On information and belief, Corning has infringed and continues to infringe, either literally or under the doctrine of equivalents, one or more claims, including at least claim 1, of the '164 Patent in violation of 35 U.S.C. §§ 271 et seq., directly and/or indirectly, by making, using, importing, selling, and/or offering for sale certain equipment and systems relating to Optical Distribution Frame or ODF cable management systems (including without limitation Corning's Unisub HD, RFO NG Modules, and at least the following RFO SD Swiveling Patch Panel product numbers: N431130A; N431146A; N431110A; N431114A; N431147A; N431113A; N431117A; N431115A; N431116A; N431148A; N431111A; N431142A; N431152A; N431137A; N431131A; N431153A; N431135A; N431132A; N431112A; N431133A; N431134A; N431109A; N431108A, along with any other Corning product possessing similar functionality and/or structure) designed and intended to be used in enclosures such as the Optical Distribution Frame RFO (including without limitation the 600 RFO NG Rack and the 900 RFO SD Rack products, and other associated components and/or elements) (herein referred to as the "ODF Swiveling Patch Panel products").[3]

54. On information and belief, Corning has been and currently is infringing the '164 Patent by the manufacture, use, sale, offer to sell and/or importation of the ODF Swiveling Patch

[3] *See, e.g.,* https://ecatalog.corning.com/optical-communications/US/en/generate-product-specsheet?code=PC2QDACG7ZDAG7FA2PFDQ (*last visited November 9, 2022*); https://ecatalog.corning.com/optical-communications/US/en/Fiber-Optic-Hardware/Racks-And-Frames/Optical-Distribution-Frame/p/optical-distribution-frame (*last visited November 9, 2022*); https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf (*last visited November 9, 2022*); https://www.corning.com/catalog/coc/documents/product-family-specifications/CRR-1796-BEN.pdf (*last visited November 9, 2022*).

Panel products identified herein under 35 U.S.C. § 271.

55. Claim 1 of the ’164 Patent recites the following:

> [Preamble] A telecommunications termination panel comprising:
>
> [a] a housing including a top, a bottom, a first side and a second opposing side defining a front opening and a rear opening, the rear opening adjacent the first side, the rear opening being usable as a cable entry/exit into/from the housing, the first side of the housing also defining a side opening adjacent the front opening, the side opening being usable as a cable entry/exit into/from the housing; and
>
> [b] a tray including a front wall, a rear wall, a first sidewall and a second sidewall, the tray pivotably mounted within the housing, the tray pivotable through the front opening of the housing between an open access position and a closed position wherein the front wall substantially blocks the front opening of the housing, the tray pivoting about a vertical axis located adjacent the first side of the housing, the tray defining a cable entry/exit opening adjacent the vertical pivot axis and a plurality of connection locations for connecting a first cable entering the housing to a second cable exiting the housing;
>
> [c] wherein the housing includes a first cable trough defining a cable path extending from the rear opening toward the cable entry/exit opening of the tray for guiding cables between the rear opening and the tray when the termination panel is used as a rear entry or exit panel;
>
> [d] wherein the tray includes a second trough defining a cable path extending from the cable entry/exit opening of the tray toward the rear wall of the tray, the second trough being pivotally disposed with respect to the first trough with the movement of the tray such that when the tray is in the open access position, the first and second troughs are generally perpendicular to each other and when the tray is in the closed position, the first and second troughs are parallel to each other with the second trough overlapping the first trough to prevent pinching of a cable extending from the rear opening of the housing to the tray if the panel is used as a rear entry or exit panel.

56. On information and belief, and based on publicly available information, each of the ODF Swiveling Patch Panel products satisfies each and every limitation of at least claim 1 of the ’164 Patent. On further information and belief, and based on publicly available information, when a swiveling patch panel, e.g., product no. N431110A, is installed into and used with an enclosure, e.g., the 600 RFO NG Rack, the resulting assembly is representative of an infringing

configuration. On further information and belief, and based on publicly available information, the ODF Swiveling Patch Panel products function similarly, if not identically, in regard to infringing the ’164 Patent. Accordingly, the following analysis applies equally to each of the ODF Swiveling Patch Panel products identified herein and any other Corning products possessing similar functionality and/or structure.

57. To the extent the preamble of claim 1 of the ’164 Patent is interpreted to be limiting, the ODF Swiveling Patch Panel products, including swiveling patch panels as exemplified by the N431110A, meet the preamble language when installed and used in enclosures. The preamble requires “[a] telecommunications termination panel.” Corning’s swiveling patch panels, when installed and used in enclosures, can be used for managing cables such as optical fibers and are advertised by Corning as having such capabilities, and satisfy the language of the preamble.

**Multiple applications and configurations**

Perfect for small POPs in shelters, outdoor remote FDH cabinets, or anywhere you must make the most of the available space, the RFO SD Swiveling Patch Panel supports multiple applications and configurations.

Access/local loop network cable termination breakout cable and multifiber patch cords for active equipment termination.

**FIG. 17.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf* (*last visited November 9, 2022*).

# RFO NG Modular Blocks

Stack them up one by one or six, eight or 11 at a time, as many as you need in your current ODF room. Then swivel open all swing-out trays to allow complete access to the entire inside block when you want to route new connectorized simplex or multi-fiber patch cords, breakout assemblies, or network cables.


RFO NG Network Cable Head Blocks terminate multi-fiber cables from the outside network to the ODF. Using the RFO Deecam clamp kit, network cables are attached to the frame or rack, which fans-out the fiber and protection tubes. Tubes enter the rear of the block to a tray's slack storage area. Because up to 1.8 m of protective tube slack can be stored in each tray, RFO fiber modules can be removed from the frame or rack for service on the ground or workbench, limiting the risk of disturbing adjacent fibers.

When terminating cable from equipment to the ODF, RFO NG Equipment Interconnect Blocks use simplex patch cords for incremental connection. For mass connection deployment, breakout cables or multi-fiber patch cords may be used. As with the cable head block, this block reduces the strain placed on patch cords when swing-out trays are opened.

Both RFO NG Modular Blocks are available in 48/72 (six trays) or 96/144 SC (12 trays) fiber terminations and are compatible with all RFO frames. The blocks can swivel one swing-out tray at a time to allow access to the pigtails, adapters, splitters and other fiber components inside the module.

**FIG. 18.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf* (*last visited November 9, 2022*).

**Stackable for improved density**

The RFO SD patch panel is fully stackable one at a time for a denser fiber cable confirmation. A separate fiber tray (for separation of 250 µm fiber or 250 µm PLC splitter housing) can be added. It accommodates various splice holders for both Fibrlok® mechanical splice and industry heat-shrink sleeves.

**Easy scalability**

For the best scalability, proper routing of network and equipment fiber cable assemblies and management of the cross-connection patch cords is essential. The RFO SD handles network cables, breakout cables, or multi-fiber patch cords. Cables can be attached to the RFO DEECAM clamp kit, and two front and one lateral ring allow the panel to swivel easily and securely, even with a full load of patch cords.

**Multiple applications and configurations**

Perfect for small POPs in shelters, outdoor remote FDH cabinets, or anywhere you must make the most of the available space, the RFO SD Swiveling Patch Panel supports multiple applications and configurations.

Access/local loop network cable termination breakout cable and multifiber patch cords for active equipment termination.

- SC and LC connectivity
- 1RU, 2RU and 3RU sizes
- 250 µm and 900 µm pigtails
- Stubbed patch panel upon request

**FIG. 19.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf* (*last visited November 9, 2022*).

58. Corning's ODF Swiveling Patch Panel Products including its swiveling patch panels, when installed into enclosures and used as intended, meet limitation "a" of claim 1 of the '164 Patent which requires "a housing including a top, a bottom, a first side and a second opposing side defining a front opening and a rear opening, the rear opening adjacent the first side, the rear opening being usable as a cable entry/exit into/from the housing, the first side of the housing also defining a side opening adjacent the front opening, the side opening being usable as a cable entry/exit into/from the housing." The housings in which the swiveling patch panels are installed have removable sides, allowing for multiple openings for cable entry/exit into/from the housing as seen below.

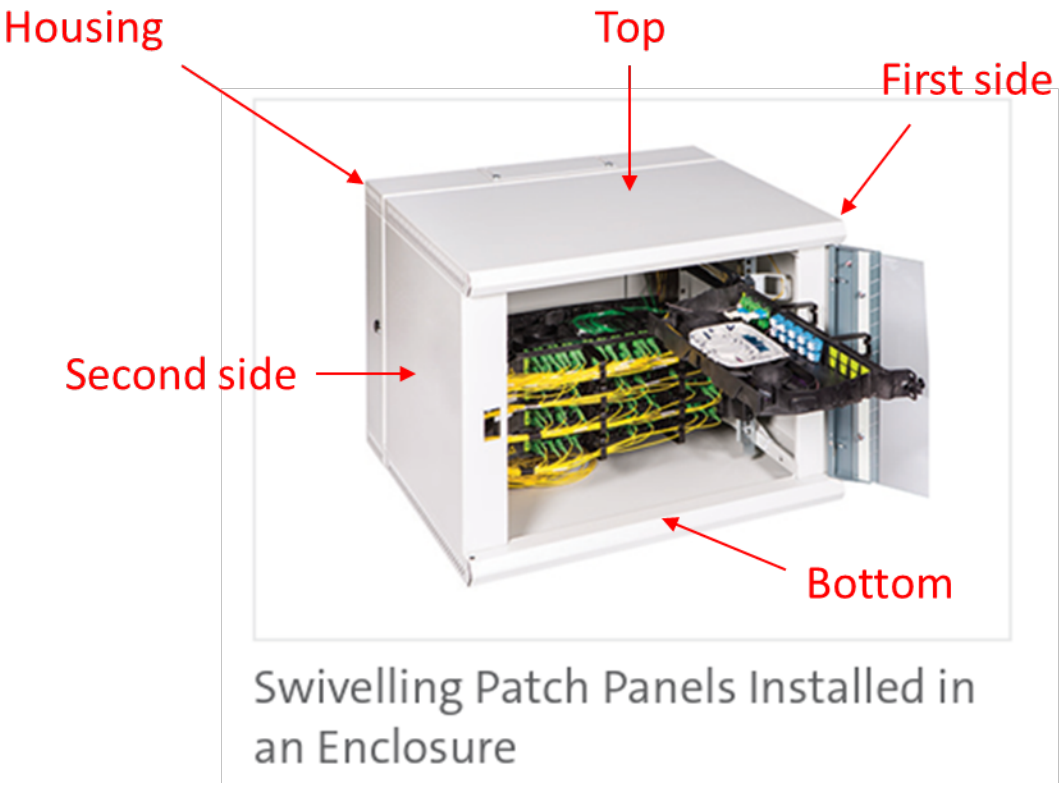



**FIG. 20.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (*last visited November 9, 2022*) (annotated with front opening visible).


**FIG. 21.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf* (*last visited November 9, 2022*) (emphasis added; front opening is visible and side opening is evident from the arrangement of cables on left side of depicted housing).

59. Corning's ODF Swiveling Patch Panel products, including its swiveling patch panels when installed into enclosures and used as intended, meet limitation "b" of claim 1 of the '164 Patent which requires "a tray including a front wall, a rear wall, a first sidewall and a second sidewall, the tray pivotably mounted within the housing, the tray pivotable through the front opening of the housing between an open access position and a closed position wherein the front wall substantially blocks the front opening of the housing, the tray pivoting about a vertical axis located adjacent the first side of the housing, the tray defining a cable entry/exit opening adjacent the vertical pivot axis and a plurality of connection locations for connecting a first cable entering the housing to a second cable exiting the housing." As seen in the figures below, the ODF Swiveling Patch Panel products include at least a tray pivotably mounted within the housing that moves between an open and a closed position.

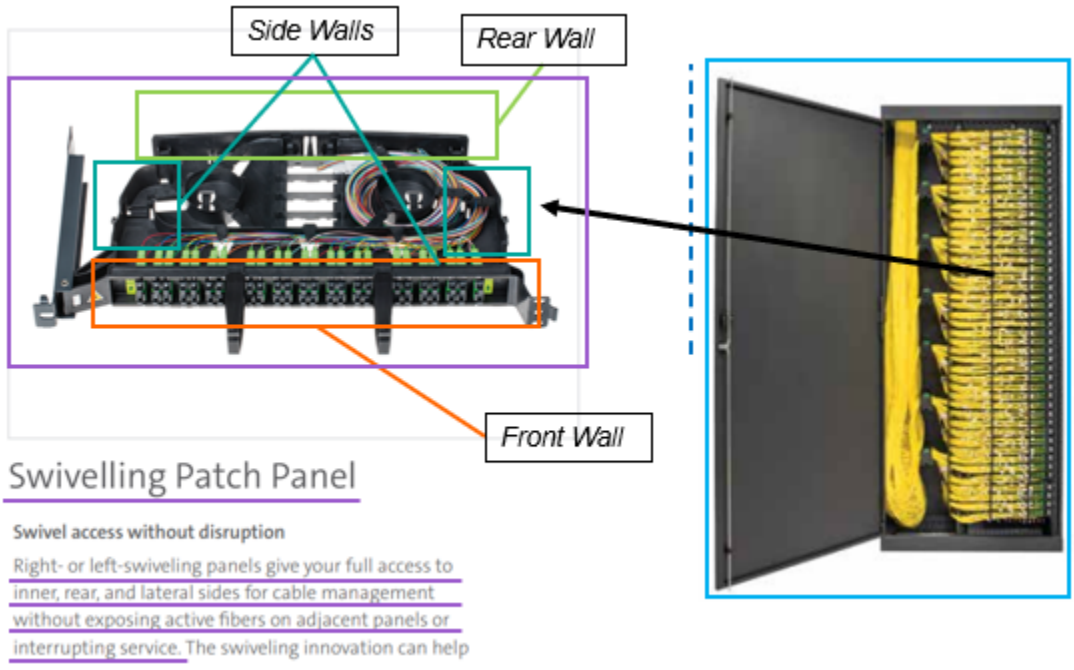



**FIG. 22.** Source: https://www.corning.com/catalog/coc/documents/brochures/CRR-928-AEN.pdf and https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf (*last visited November 9, 2022*) (swiveling patch panel product in purple with front, rear, and side walls noted).

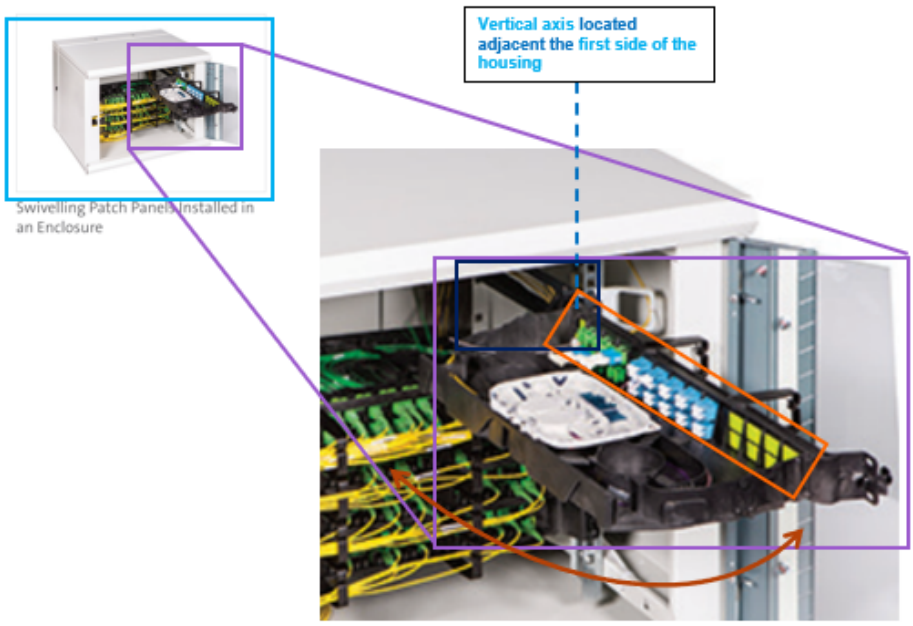



**FIG. 23.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (*last visited November 9, 2022*) (swiveling patch panel product in purple with front wall noted in orange and demonstrating pivoting and/or swiveling action about a vertical axis).

60. Further, and as seen in the figure below, a pivoting tray of the swiveling patch panel possesses various cable entry/exit openings and a plurality of connection locations for cables.

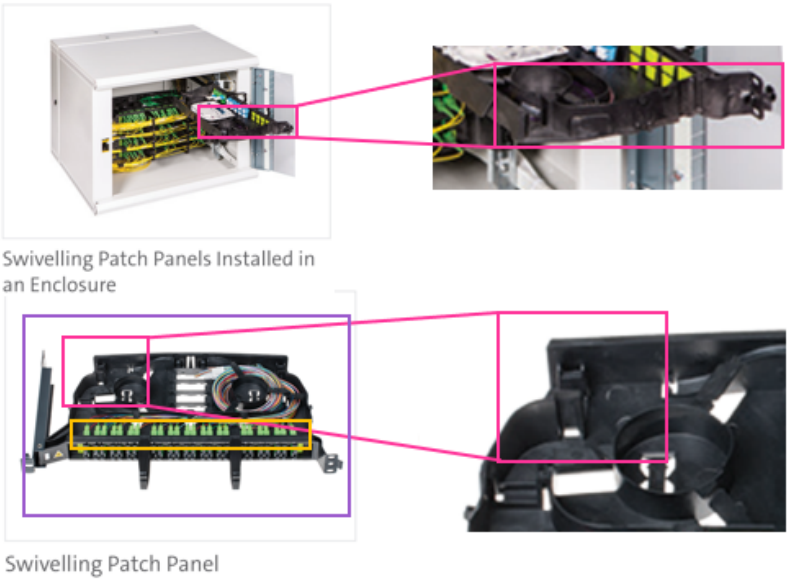


**FIG. 24.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (*last visited November 9, 2022*) (swiveling patch panel tray detail with cable entry/exit openings in pink and cable connection locations in yellow).

61. Corning's ODF Swiveling Patch Panel products, including swiveling patch panels when installed into enclosures and used as intended, meet limitation "c" of claim 1 of the '164 Patent which requires that the housing "includes a first cable trough defining a cable path extending from the rear opening toward the cable entry/exit opening of the tray for guiding cables between the rear opening and the tray when the termination panel is used as a rear entry or exit panel."


**FIG. 25.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (*last visited November 9, 2022*) (swiveling patch panel tray detail with cable trough in yellow and cable entry/exit in pink).

62. Corning's ODF Swiveling Patch Panel products, including swiveling patch panels when installed into enclosures and used as intended, meet limitation "d" of claim 1 of the '164 Patent which discloses that: "wherein the tray includes a second trough defining a cable path extending from the cable entry/exit opening of the tray toward the rear wall of the tray, the second trough being pivotally disposed with respect to the first trough with the movement of the tray such that when the tray is in the open access position, the first and second troughs are

generally perpendicular to each other and when the tray is in the closed position, the first and second troughs are parallel to each other with the second trough overlapping the first trough to prevent pinching of a cable extending from the rear opening of the housing to the tray if the panel is used as a rear entry or exit panel."

63. As seen in the figure below, as a non-limiting example, the cable management elements on the side wall of the tray may act as the second trough required by claim 1. The second trough (in red) pivots in relation to the first trough (in yellow) as the tray opens and closes.

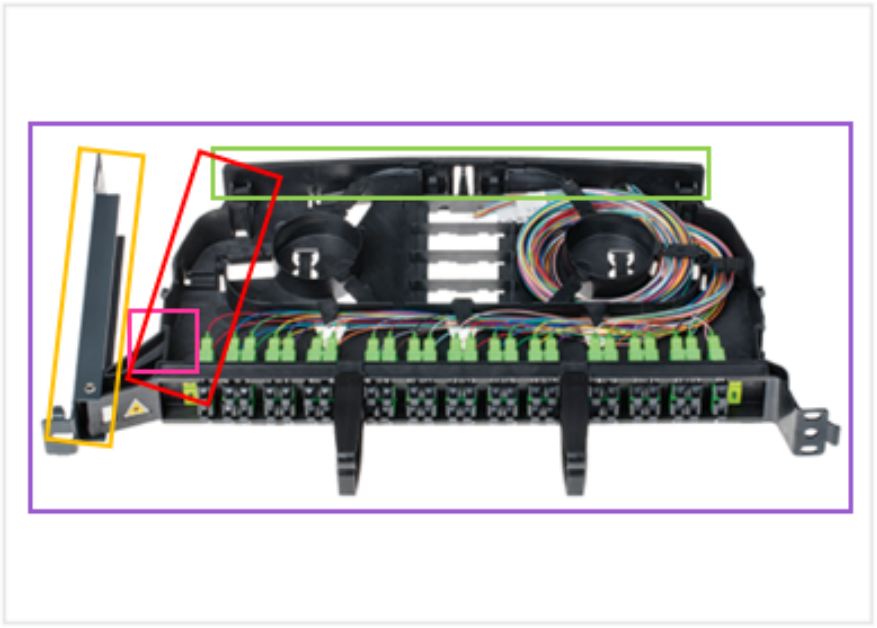



**FIG. 26.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (*last visited November 9, 2022*) (swiveling patch panel tray detail in the closed position with cable troughs in yellow and red, and cable entry/exit denoted in pink).

64. Further, as seen in the figure below, as the tray pivots within the housing, the position of the second trough relative to the first trough goes from generally perpendicular in the tray's open position to generally parallel when the tray is in the closed position.

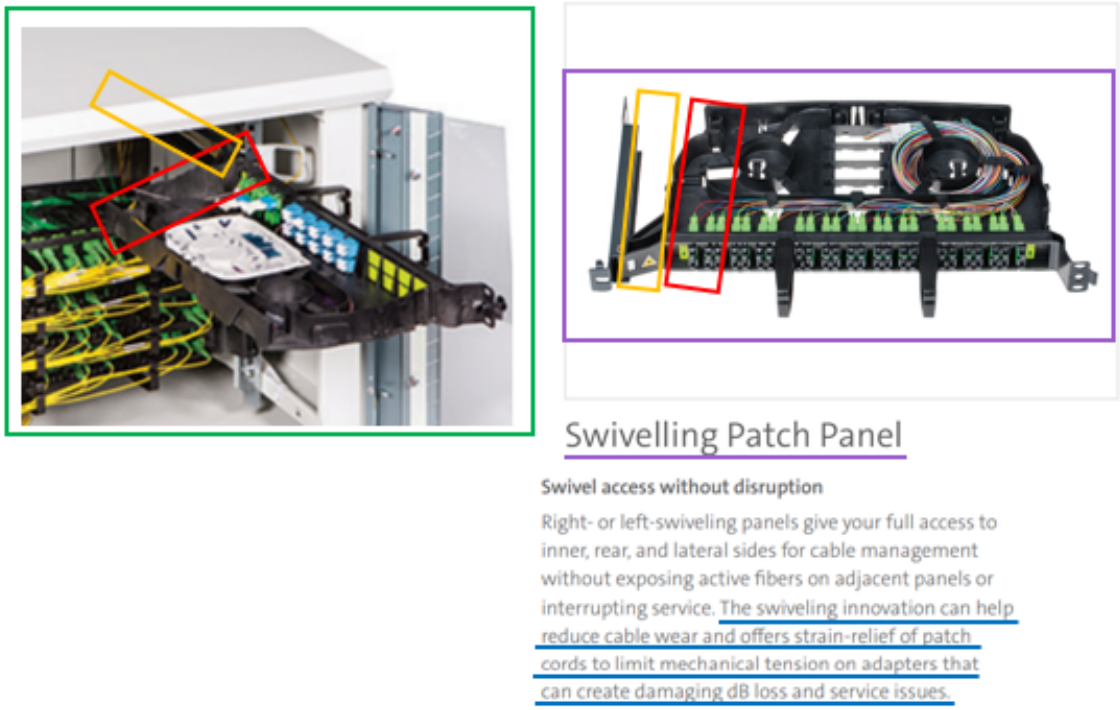



**FIG. 27.** Source: *https://www.corning.com/catalog/coc/documents/brochures/CRR-926-A4-BEN.pdf* (last visited November 6, 2022) (emphasis added; swiveling patch panel tray detail in the open position (at left) and in the closed position (at right) with cable troughs in yellow and red).

65. Accordingly, on information and belief, each of Corning's ODF Swiveling Patch Panel products meets all the limitations of, and therefore infringes, at least claim 1 of the '164 Patent.

66. Corning indirectly infringes the claims of the '164 Patent within the United States by inducing infringement under 35 U.S.C. § 271 (b). For example, since learning of the '164 Patent and by failing to cease offering the ODF Swiveling Patch Panel products for sale, Corning has knowingly and intentionally induced users of the ODF Swiveling Patch Panel products to directly infringe one or more claims of the '164 Patent, *inter alia*, by (1) instructing users on how to use the ODF Swiveling Patch Panel products in a manner that infringes the '164 Patent as described in the foregoing paragraphs; and (2) providing customer support and training through its technical documentation.

67. Corning indirectly infringes the claims of the ’164 Patent by contributing to the direct infringement by end users under 35 U.S.C. § 271 (c), for example, by providing the ODF Swiveling Patch Panel products, which, as evidenced by Corning’s websites and advertisements, are especially made for use in a manner that infringes one or more claims of the ’164 Patent as described herein and has no substantial non-infringing uses.

68. Corning has been aware of the existence of the ’164 Patent since at least May 2, 2016 during the course of prosecuting Corning’s own patent application, U.S. Patent Application No. 14/724,254, entitled “Pivotably Attachable Fiber Optic Housing, Modular Housing System and Method.” On May 2, 2016, the patent examiner issued an office action rejecting certain claims of Corning’s patent application as being anticipated and/or rendered obvious by the ’164 Patent. Corning did not respond to the office action and U.S. Patent Application No. 14/724,254 was later found to be abandoned on November 14, 2016. On information and belief, Corning abandoned subsequent US and European patent applications claiming priority to and/or belonging to the same patent family as the now-abandoned U.S. Patent Application No. 14/724,254.

69. Further, the ’164 Patent was cited as prior art to another Corning patent application, WIPO application no. WO2020209982A1, entitled “Fiber Optic Hardware Assembly Having a Panel Locking Feature,” filed by Corning on March 16, 2020. On information and belief, no regional patent application was filed by Corning thereafter. Figure 1 from WIPO application no. WO2020209982A1is reproduced below:

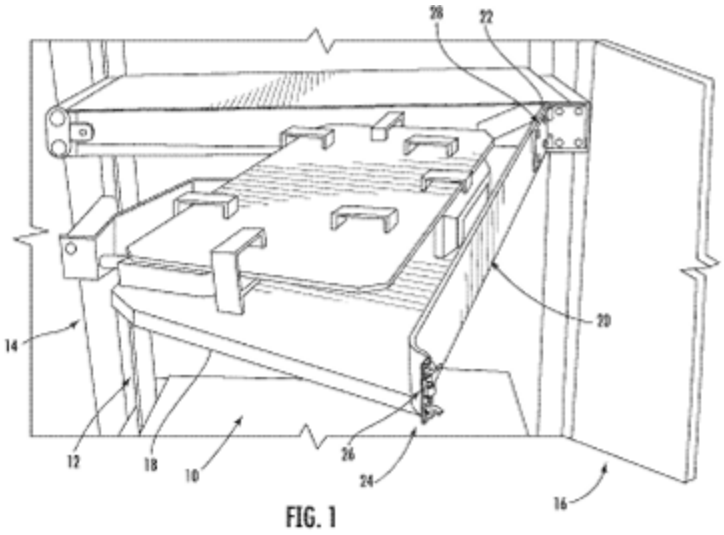


FIG. 1

**FIG. 28.** Source: *WIPO WO 2020/209982 A1, Fig. 1*

70. Corning apparently suspended and/or abandoned its attempts to patent the subject matter of the '164 Patent shortly after becoming aware of the '164 Patent's existence and the inventions disclosed therein. Despite having specific knowledge of the '164 Patent during the course of prosecuting its own patent applications (during which the patent examiner specifically called attention to the features and functionality that would anticipate and/or render obvious Corning's patent applications), on information and belief, Corning nevertheless made, used, sold, offered for sale, and/or imported Swiveling Patch Panel products that bore striking resemblance to the inventions disclosed in the '164 Patent since at least 2019.

71. Corning became aware of the manner of its infringement of the '164 Patent by the ODF Swiveling Patch Panel products no later than the filing of the instant suit. Accordingly, and to the extent Corning continues to make, use, sell, offer to sell, and/or import any of the ODF Swiveling Patch Panel products in violation of 35 U.S.C. §§ 271 et seq. following the filing of the instant suit, Corning's continued infringement of the '164 Patent is intentional and willful.

72. As a result of Corning's infringement of the '164 Patent, Dali has suffered and

continues to suffer substantial injury and is entitled to recover all damages caused by Corning's infringement to the fullest extent permitted by the Patent Act, together with prejudgment interests and costs for Corning's wrongful conduct.

## PRAYER FOR RELIEF

WHEREFORE, Dali respectfully requests judgment against Corning as follows:

A. That the Court enter judgment for Dali on all causes of action asserted in this Complaint;

B. That the Court enter judgment in favor of Dali and against Corning for monetary damages to compensate it for Corning's infringement of the Patents-in-Suit pursuant to 35 U.S.C. § 284, including costs, and pre-judgment and post-judgment interest as allowed by law;

C. That the Court enter judgment in favor of Dali and against Corning for accounting and/or supplemental damages for all damages occurring after any discovery cutoff and through the Court's entry of final judgment;

D. That the Court adjudge Corning's infringement of the Patents-in-Suit to be willful dated from the filing of this Complaint;

E. That the Court enter judgment that this case is exceptional under 35 U.S.C. § 285 and enter an award to Dali of its costs and attorneys' fees; and

F. That the Court award Dali all further relief as the Court deems just and proper.

## JURY DEMAND

Dali requests that all claims and causes of action raised in this Complaint against Corning be tried to a jury to the fullest extent possible.

Date: November 17, 2022

Respectfully submitted,

ALLEN, CHESSON & GRIMES PLLC

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(Pro Hac Vice Applications Forthcoming)

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