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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

PANDUIT CORPORATION
Requester and Cross-Appellant

v.

Patent of ADC TELECOMMUNICATIONS
Patent Owner and Respondent

Appeal 2012-003436
Reexamination Control 95/000,415
Patent 6,925,242 B2
Technology Center 3900

Before RICHARD E. SCHAFER, RICHARD M. LEBOVITZ, and
DANIEL S. SONG, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON REHEARING

This is a request by Third Party Requester for a rehearing of our Decision dated June 8, 2012 (“Decision 2”) on the Examiner’s determination under 37 C.F.R. §41.77(d). Decision 2 is subsequent to and incorporates a Decision dated June 22, 2011 (“Decision 1”) in which a new ground of rejection was entered under 37 C.F.R. §41.77(b). In response to the new ground of rejection, Patent

Owner reopened prosecution, amended claims, and added new claims. Third Party Requester proposed new rejections which the Examiner did not adopt. In Decision 2, we affirmed the Examiner's determination under 37 C.F.R. §41.77(d) not to adopt the rejections. This is a rehearing by Requester on that decision. The Patent Owner is ADC and Third Party Requester is Panduit.

In accordance with 37 C.F.R. §41.79, Panduit requests rehearing and identifies the following points that they believe to be an error or misapprehended in Decision 2.

CLAIMS (emphasis added)

13. A cable exit trough system comprising:

a cable exit trough and a lateral trough having a lateral trough section, the lateral trough section having a base and an upstanding side, the cable exit trough mountable to a lateral trough section, the lateral trough and lateral trough section being horizontal to the ground to define a horizontal cable pathway for routing cables horizontally to the ground, wherein the lateral trough has an upstanding side that includes the upstanding side of the lateral trough section, wherein the upstanding side of the lateral trough has a substantially uniform cross section between a first end and a second end of the lateral trough; **the cable exit trough** comprising:

a mounting structure configured to releasably mount the cable exit trough to the lateral trough section;

a first inner portion positioned inside the lateral trough when the cable exit trough is mounted to the lateral trough section;

a second outer portion positioned outside of the lateral trough when the cable exit trough is mounted to the lateral trough section;

a cable trough portion defining a cable exit pathway that extends between the first inner portion and the second outer portion, the cable trough portion including a curved bottom surface constructed to maintain a minimum cable bend radius, the bottom surface including a curved portion that leads upwardly and away from the lateral trough section after extending over an upstanding side of the lateral trough section;

wherein a cable passes over a top edge of the lateral trough section when routed in the cable exit pathway of the cable trough portion; and

wherein the cable exit trough further includes an upper surface, wherein **the upper surface curves upward** relative to the base of the lateral trough section and defines a top boundary of at least a portion of a cable path.

26. A method of routing a cable in a cable routing system, the method comprising the steps of:

providing a lateral trough section and **a cable exit trough mountable to the lateral trough section**, the lateral trough section being horizontal to the ground to define a cable pathway so that cables routed through the lateral trough section also run horizontal to the ground along the cable pathway, the lateral trough section having an upstanding side of substantially uniform height between a first end and a second end of the lateral trough section, wherein the distance between the first and second ends of the lateral trough section is longer than the longest dimension of the cable exit trough in a direction horizontal to the ground along the cable pathway when mounted to the lateral trough section, the cable exit trough having an upper portion and a lower portion;

releasably mounting the lower portion of the cable exit trough adjacent to a top edge of the upstanding side of the lateral trough section, without cutting the top edge or the upstanding side of the lateral trough section; and

routing a cable from the lateral trough section over the top edge of the lateral trough section and into a cable exit pathway defined by the upper portion of the cable exit trough: and

wherein the upper portion that defines the cable exit pathway includes a curved bottom surface that, while maintaining a minimum bend radius, transitions to substantially vertical to guide cables exiting the lateral trough section to a substantially vertical orientation relative to the ground.

● **The Board misconstrued the term “cable exit trough”** (Req. Reh’g 4).

Panduit proposed, but the Examiner did not adopt, a rejection of claims 26-28, 31, 32, and 35 under 35 U.S.C. §102(b) as anticipated by Zetena.

Independent claim 26 requires “a cable exit trough mountable to the lateral trough section.” We found that Zetena did not describe a cable exit trough and therefore the Examiner properly did not adopt the rejection. (Decision 2, p. 7.)

Panduit contends that the slot depicted in Figures 7 and 8 of Zetena serves as a cable exit trough. Figures 7 and 8 are reproduced below (arrowhead does not appear in original figure):

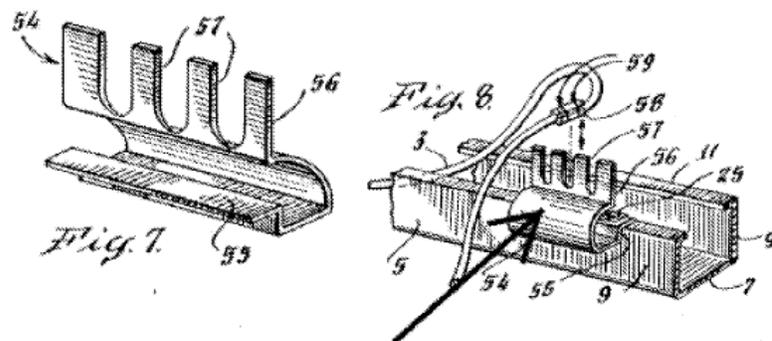


Figure 7 of Zetena shows a perspective view of strain reliever 54 to hold fiber optic cables; 56 is the cable holder with slots 57. Figure 8 shows an exploded view of the strain reliever 54 in use. Figure 8 shows strain reliever 54 mounted to a channel member 5.

It was stated in Decision 2:

Cable holder 56 comprises a "slot" 57, not a "trough." A trough has a more substantial length than the slot 57 depicted by Zetena. Because Zetena does not describe a cable exit trough, the Examiner properly did not adopt the anticipation rejection by Zetena.

(Decision 2, p. 8.)

Panduit contends:

. . . substantial length is not required by the broadest reasonable interpretation of "trough" in view of the specification of the '242 Patent. **Broadly construed in view of the specification, "trough" means nothing more than a structure that holds and routes cables.** The structure of the disclosed exit trough 100 in the '242 Patent does not remotely resemble anything that is more commonly termed a "trough." Further, the exit trough 100 shown in the '242 Patent has a greater width than length. Thus, the Board has impermissibly read a substantial length requirement into the definition that is not expressly required by the specification of the '242 Patent.

(Req. Reh'g 4.) (emphasis added)

We do not agree that the term "trough" means "nothing more than a structure that holds and routes cables." *Id.* "Trough" has a specific meaning with a defined structure which we described in the original Decision 1 as follows: "Consistent with the definition in a general purpose dictionary, we interpret ' . . . trough section' to mean a 'long, narrow, open receptacle,' gutter, or channel [footnote omitted] . . ." Decision 1, p. 9. The cable exit trough 100 shown in Figure 1 of the '242 patent fits this definition because it is long and narrow, which we characterized in Decision 2 as having "substantial length." Figure 1 of the '242 patent, contrary to Panduit's contention, is clearly a trough as that term would be understood by one of ordinary skill in the art. Trough 100 is reproduced below and speaks for itself:

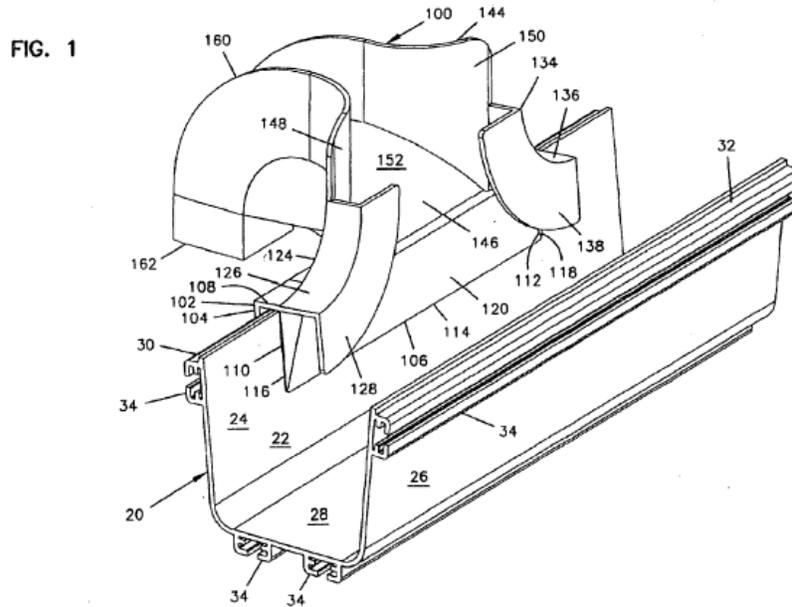


Figure 1 shows cable trough 100 mounted on the lateral trough. The trough 100 is more than just a “slot” cut into a strain reliever as described in Zetena.

For the foregoing reasons, we decline to modify our Decision 2 based on an improper interpretation of “trough.”

● **The Board Misapprehended the Structure of the Curved Bottom Surface of Zetena’s Strain Reliever** (Req. Reh’g 4).

Claim 26 includes a cable exit trough with an “upper portion” and “lower portion.” Claim 26 recites the following:

the upper portion that defines the cable exit pathway includes a curved bottom surface that, while maintaining a minimum bend radius, transitions to substantially vertical to guide cables exiting the lateral trough section to a substantially vertical orientation relative to the ground.

In Decision 2, we found Zetena deficient because Zetena didn’t describe “the claimed method of routing a cable in a cable routing system because Zetena

does not describe a cable exit trough with an upper portion that has a curved bottom surface.” (Decision 2, p. 11.) We found that the curved bottom surface 146 of Zetena is not an “upper portion” as recited in the claim because not all of the bottom surface is higher than the “lower of portion” of the strain reliever described by Zetena.

Figure 8 as annotated by Panduit is reproduced below:

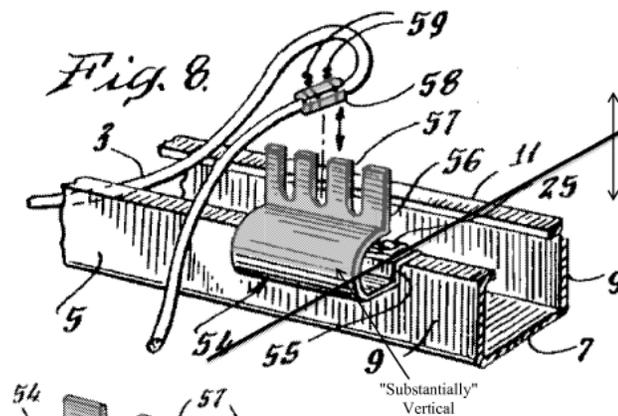


Figure 8 shows strain reliever 54 mounted to channel member 5. The curved surface pointed at by the arrowhead (labeled “Substantially Vertical”) is the claimed “upper surface.” Claim 26 recites “releasably mounting the lower portion of the cable exit trough adjacent to a top edge of the upstanding side of the lateral trough section.” We found that lip 55 of strain reliever 54 meets the claimed requirement of a cable exit trough’s “lower portion.” When the strain reliever 54 is mounted to the channel member 5 top edge through lower portion 55, the lip 55 on the strain reliever 54 is shown as being **higher** than a portion of curved bottom surface and thus the curved bottom surface cannot reasonably be characterized as an upper portion because a part of it is not higher than the lower portion (lip 55) of the strain reliever. (See Decision 2, p. 10-11.)

Panduit contends that “least the portion of the curved bottom surface of the strain reliever 54 in *Zetena* that becomes ‘substantially vertical’ is entirely above the lip 55.” (Req. Reh’g 5.) However, we have interpreted the claim to require that the entire bottom surface must be included in the cable exit pathway’s upper surface. Panduit’s own figure shows a portion of the bottom surface is lower than lip 55 of the lower surface.

Panduit argues:

Furthermore, to the extent any of the curved portion is below the boundary, at least the portion of the curved bottom surface of the strain reliever 54 in *Zetena* that becomes "substantially vertical" is entirely above the lip 55.

(Req. Reh’g 5.) However, the claim as we have interpreted it requires the upper portion and bottom surface within it to be above the lower portion, not just the portion of the bottom curved surface which is “substantially vertical.” Thus, we do not find Panduit’s argument persuasive.

• The Board Erred in Affirming the Examiner's Refusal to Adopt Panduit's Proposed Rejection of Claims 13-16, 18, 33, and 34 Under 35 U.S.C. §103(a) over *Zetena* in view of *Long* and *Scheuermann* (Req. Reh’g 6)

Claim 13 is drawn to a cable exit trough system comprising a cable exit trough and a lateral trough section. The cable exit trough is recited to have the following features:

[1] “a first inner portion positioned inside the lateral trough when the cable exit trough is mounted to the lateral trough section”;

[2] “a second outer portion positioned outside of the lateral trough when the cable exit trough is mounted to the lateral trough section”;

[3] “a cable trough portion defining a cable exit pathway that extends between the first inner portion and the second outer portion, the cable trough portion including a curved bottom surface constructed to maintain a minimum cable bend radius, the bottom surface including a curved portion that leads upwardly and away from the lateral trough section after extending over an upstanding side of the lateral trough section”; and

[4] “wherein the cable exit trough further includes an upper surface, wherein the upper surface curves upward relative to the base of the lateral trough section and defines a top boundary of at least a portion of a cable path.”

Panduit proposed that limitations [1] and [4], the first inner portion positioned inside the lateral trough and the upper surface that defines a top boundary of at least a portion of a cable path, respectively, are the same structural element. We stated the issue as follows:

The issue is whether claim 13 is reasonably interpreted to encompass a cable exit trough in which limitations [1] and [4] are represented by the *same* structural element. We answer this question in the negative. Claim 13, when referring to the upper surface [4], expressly recites that the “the cable exit trough *further includes* an upper surface, wherein the upper surface curves upward relative to the base of the lateral trough section and defines a top boundary of at least a portion of a cable path.” (Emphasis added.) The phrase “further includes” unambiguously indicates that the “upper surface” is an additional feature to those already recited in the claim, particularly the first inner portion [1].

(Decision 2, p. 15.)

Panduit contends that we erred because, based on claims 14 and 15, and the ‘242 patent Specification, it would be reasonable to construe the “first inner

portion” and “upper surface” of claim 13 as the same surface. We address this argument below.

Claims 14 and 15 recite that the first inner portion “defines” lead-in pathways. The “first inner portion” is thus reasonably construed to encompass a “lead-in pathway” as in claim 14 and “first and second lead-in pathways” as in claim 15. The ‘242 patent discloses: “First lead-in **124** includes an upper surface portion **126** having an upwardly curved shape . . . Second lead-in **134** includes a similarly configured upwardly curved surface **136** . . .” (‘242 patent, col. 3, lines 36-43.) Based on the disclosure that the lead-in pathway includes an upper surface, and that the inner portion “defines” the lead-in pathways, Panduit argued “it is entirely reasonable to construe the claimed ‘first inner portion’ and ‘upper surface’ as being the same surface.” (Req. Reh’g 6.)

We do not agree that this construction is reasonable for the reasons already stated in Decision 2, p. 15. We have these additional comments based on Panduit’s argument.

Cable trough 100 disclosed in the ‘242 patent Specification includes a bracket portion 102 that comprises an outer projecting member 104, an inner projecting member 106, and a connecting member 108 that connects 104 and 106. These correspond to [1], [2], and [3], respectively, of claim 13. Figure 1, reproduced above, shows lead-in pathway 124 that includes an inner portion 106 and upper surface 126. The inner portion is therefore illustrated in this embodiment as having two parts: 1) a projecting member 106 and 2) an upper surface 126. The claimed an “inner portion” thus could be directed to the inner projecting member alone, or, to both the inner projecting member and the “upper surface” 126. Claim 13 does not exclude the “upper surface” from being part of

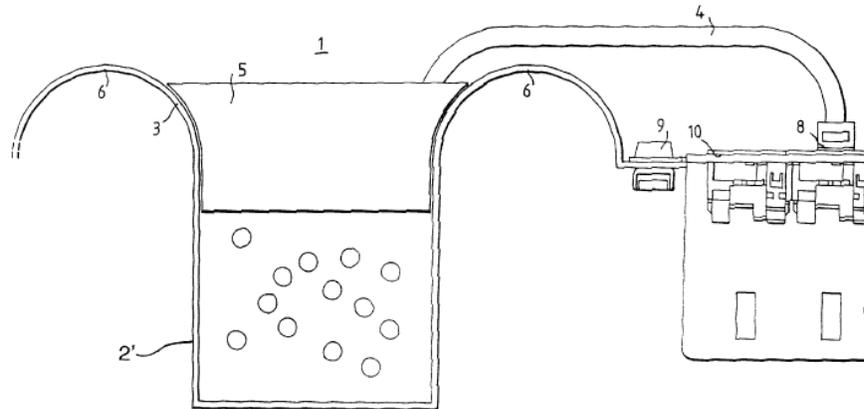
the “first inner portion.” The recitation of the lead-in pathways as being part of the inner portion therefore does not result in the interpretation of the inner portion and upper surface as being the same surfaces, which is an unreasonable. The recitation of that the cable exit trough “further includes” an upper surface militates against this interpretation.

- Long (Req. Reh’g 1 & 7)

In Decision 1, we found that the preponderance of the evidence did not support Panduit’s contention that Long is anticipatory to the claims. Despite this decision, Panduit tried to put Long before the Examiner again in their Comments on the Patent Owner’s Response after Board decision (September 22, 2011). (Comments, p. 12.) In Decision 2, we did not consider the Long rejection again, because we already had made a determination on it in Decision 1. Panduit contends that this was an error. (Req. Reh’g. 7.) We do not agree. The issue of whether Long anticipates the claims was not altered by ADC’s amendments to the claims. However, for the sake of completeness, we shall address the merits of the Long rejection again.

Long describe a device for protecting cables laid in switch cabinets and other such equipment. (Long, Abstract.) The device is configured to prevent bends below a minimum bending radius at the exits of the cable ducts. (*Id.*) Long teaches that the exit opening of the cable duct guiding device is “configured such that they prevent falling below the critical bending radius and that they widen in the direction of exit and are rounded.” (*Id.*) Long describes only one guiding device and depicts it in Figure 2 as follows:

FIG.2



The guiding device 3 is said by Long to have a funnel-shaped part 5 and a rounded guiding element 6 which can be “an integral part of the exit opening 1” or “a separate part to be connected with the cable duct 2 for fitting later.” (Long, col. 2, ll. 16-31.) Both ADC and Panduit concede that Long does not explicitly depict sufficient structure in Figure 2 to determine whether Long anticipates claims 13 and 26. However, each of ADC and Panduit has their own version of what structure is inherently disclosed by Long, and provided drawings to illustrate this “inferred” structure.

Panduit provided Figures A-D, which did not appear in Long, but which they drew based on alleged inferences from Long. (Panduit Appeal Br. 23.) We found that Long’s guide means as shown in Figures A-D in Panduit’s Appeal Brief did not meet the claimed requirement of a cable exit *trough*. We explained this in Decision 1 at pages 37-38 (emphasis added):

. . . Long does not describe a cable exit trough. As discussed above in the Claim Interpretation section, a trough is a long, narrow open receptacle. Long's guide means 5 (FF20 & FF21) - the structure that corresponds to the cable exit trough of the claims - is a "funnel shaped part," which would be understood to be an enclosed tube or shaft.

There is no evidence in the record that Long's guide means is open at one side, as required by the claims. Panduit's own drawings of Long's guide means show it as completely enclosed (Panduit App. Br. 24; Fig. B). As an open receptacle is required by all the claims in the rejection, and such a structure is not described in Long . . .

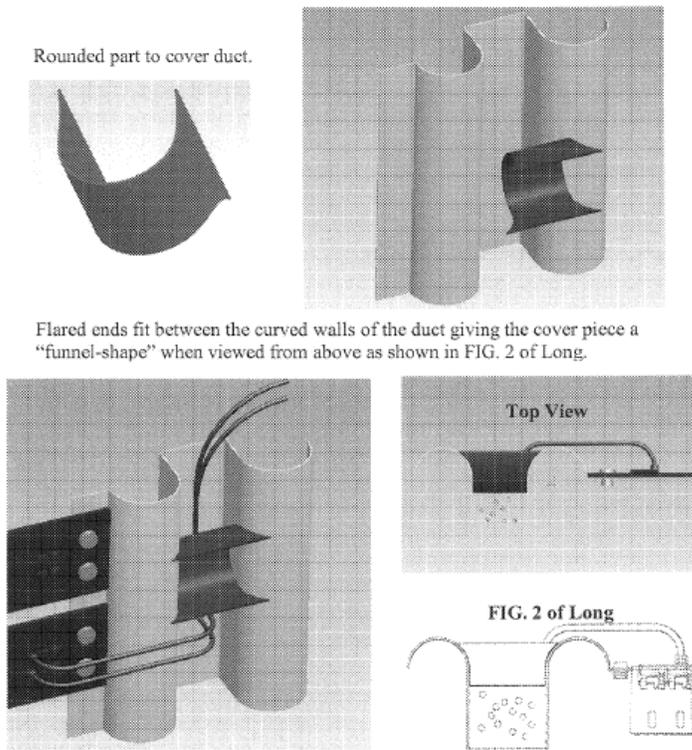
Thus, Panduit's drawings are merely speculative. There is insufficient evidence that such drawings depict a structure necessarily described by Long.

Panduit contends our interpretation of "trough" is not proper, and provided an alternative definition that defines a "cable trough" as an "enclosed channel, usually beneath a floor, that provides a path for cables." (Requester's Comments on Patent Owner's Response, p. 12-13.) This argument is not persuasive.

Panduit's definition would exclude the cable trough 100 shown in Figure 1 which is open on the top and not enclosed on four sides. It is rare to interpret a claim term to exclude preferred embodiments. *Accent Packaging, Inc. v. Leggett & Platt, Inc.*, *_F. 3d_, 2013 WL 407363 (Fed. Cir. 2013)*.

Moreover, Panduit has not introduced evidence that a cable trough would be reasonably interpreted to include both enclosed and unclosed structures.

ADC offered another viewpoint of what was depicted in Long's Figure 2 (*see supra* for figure). According to ADC, Long's Figure 2 is a top view of one side of the funnel-shaped part 5, and the part facing into the paper has a rounded bottom to guide the cables, although this rounded part is never shown by Long. ADC's drawings are reproduced below:



ADC Respondent Br. 18.

While ADC's drawing may be consistent with Long's teachings, ADC has not provided sufficient evidence that the guide has a rounded bottom shape as depicted in the drawing. Rather, as indicated by Panduit, other configurations are possible, such as an open bottom and rounded sides. We therefore are not persuaded that the rounded bottom is necessarily present in Long's cable exit trough. "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002).

Panduit contends that ADC's drawing are admitted prior art by ADC, and that ADC should be bound to such admissions. (Req. Reh'g 1-2.) We do not agree

that ADC has admitted this structure is prior art. Rather, ADC indicated it was consistent with Long. (ADC Respondent Br. 18: 1-5.) In any event, we simply do not agree there is sufficient evidence to establish that ADC's drawings constitute admitted prior art. Instead, they are speculative.

Even assuming that ADC's drawing are admitted prior art, we do not agree that they would meet all the limitations of the claims. As argued by ADC, the funnel shaped part 5 and guiding element 6 do not cooperate to form a "cable exit trough" as required by the claims. A cable exit trough is described in the '242 patent as providing a cable exit pathway from the lateral trough section. Col. 1, ll. 54-56. As stated in the "Summary of the Invention" of the '242 patent"

The exit trough portion includes a convexly curved bottom trough surface, and two convexly curved upstanding sides on opposite sides of the bottom trough surface. The exit trough defines a cable pathway leading upwardly and away from the lateral trough section.

Col. 1, ll. 61-66.

Based on this written description of the '242 patent, we interpret the claimed cable exit trough to comprise a trough section, i.e., the curved bottom surface, that serves as the exit pathway along which the cables traverse. The trough section depicted in ADC's figures, when mounted in the lateral trough section, is enclosed on four sides and could not provide a pathway for the cable. Accordingly, as argued by ADC, Long does not describe a cable exit pathway as that term would be properly interpreted in view of the '242 patent.

Appeal 2012-003436
Reexamination Control 95/000,415
Patent 6,925,242 B2

SUMMARY

We have considered Panduit's arguments, but decline to modify Decision 2.

REHEARING DENIED

PATENT OWNER:

MERCHANT & GOULD PC
P.O. Box 2903
Minneapolis, MN 55402-0903

THIRD PARTY REQUESTER:

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, VA 22320