

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**FIBER, LLC, A WYOMING LIMITED LIABILITY  
COMPANY,**  
*Plaintiff-Appellant*

v.

**CIENA CORPORATION, A DELAWARE  
CORPORATION, CIENA COMMUNICATIONS, INC.,  
A DELAWARE CORPORATION, FINISAR  
CORPORATION, A DELAWARE CORPORATION,**  
*Defendants-Appellees*

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**FIBER, LLC, A WYOMING LIMITED LIABILITY  
COMPANY,**  
*Plaintiff-Appellant*

v.

**VIAVI SOLUTIONS INC., FKA JDS UNIPHASE  
CORPORATION, LUMENTUM HOLDINGS, INC.,  
LUMENTUM INC., LUMENTUM OPERATIONS,  
LLC,**  
*Defendants-Appellees*

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**FIBER, LLC, A WYOMING LIMITED LIABILITY  
COMPANY,**

*Plaintiff-Appellant*

v.

**NOKIA OF AMERICA CORPORATION, FKA  
ALCATEL-LUCENT USA, INC., FINISAR  
CORPORATION, A DELAWARE CORPORATION,**  
*Defendants-Appellees*

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2019-1005

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Appeal from the United States District Court for the District of Colorado in Nos. 1:13-cv-00840-PAB-KLM, 1:15-cv-01743-PAB-KLM, 1:15-cv-02135-PAB-KLM, Judge Philip A. Brimmer.

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Decided: November 21, 2019

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GEORGE GUY MATAVA, Lewis Brisbois Bisgaard & Smith, Denver, CO, argued for plaintiff-appellant. Also represented by ALYSSA SANDROWITZ.

JOEL SAYRES, Faegre Baker Daniels LLP, Denver, CO, argued for all defendants-appellees. Defendants-appellees Ciena Corporation, Ciena Communications, Inc., VIAVI Solutions Inc., Lumentum Holdings, Inc., Lumentum Inc., Lumentum Operations, LLC also represented by DAVID J.F. GROSS, JULIE WAHLSTRAND, Minneapolis, MN.

DAVID C. RADULESCU, Radulescu LLP, New York, NY, for defendant-appellee Finisar Corporation. Also represented by DANIEL KESACK, ETAI LAHAV.

DAVID A. NELSON, Quinn Emanuel Urquhart &

Sullivan LLP, Chicago, IL, for defendant-appellee Nokia of America Corporation. Also represented by ZACHARY CLARK, NATHAN HAMSTRA, MARC L. KAPLAN; ALLISON H. ALTERSOHN, TIMOTHY CAINE, King & Spalding LLP, New York, NY.

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Before PROST, *Chief Judge*, WALLACH and HUGHES,  
*Circuit Judges*.

PROST, *Chief Judge*.

Fiber, LLC (“Fiber”) appeals from a stipulated judgment of invalidity and noninfringement entered by the United States District Court for the District of Colorado in favor of Ciena Corporation, Ciena Communications, Inc., Finisar Corporation, Viavi Solutions Inc., f/k/a JDS Uniphase Corporation, Lumentum Holdings, Inc., Lumentum Inc., Lumentum Operations, LLC, and Nokia of America Corporation, f/k/a Alcatel-Lucent USA, Inc. (collectively, “Appellees”), following claim construction of U.S. Patent No. 7,095,917 (“the ’917 patent”). For the reasons explained below, we affirm.

I

A

The ’917 patent relates generally to an optical beam switching system and specifically to “a plurality of optical switch units (15, 17), each of which includes a mirror (29), moveable in two axes, for purpose of switching light beams from one optical fiber to another.” ’917 patent at Abstract. Figure 2 of the ’917 patent, reproduced below, is a schematic view of an optical switching unit 15:

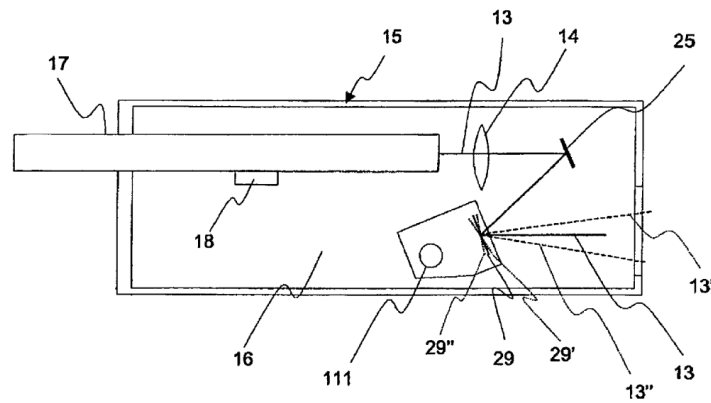


Fig. 2

*Id.* at fig.2, col. 4 ll. 16–17. The specification explains that an optical beam light source, such as cable/fiber 17, transmits light beam 13 toward mirror 25, which reflects the beam in a different direction toward movable mirror 29, which reflects the light toward an optical receptor, such as another fiber. *See id.* at col. 4 ll. 14–17, col. 5 ll. 4–8, 19–26.

Independent claims 27 and 53 are relevant to this appeal. Claim 27 recites:

27. An optical beam switching system for transmitting an optical beam from at least one source to at least one of a plurality of optical receptors comprising:

at least one source of an optical beam;

at least one first beam directing device mounted across a first area of free space from the source;

at least one additional beam directing device;

at least one second beam directing device mounted across a second area of free space from the first beam directing device;

a plurality of optical receptors;

a *control* operative for at least one of 1) *positioning* a first beam directing device to direct the optical beam from at least one source to at least one additional beam directing device, 2) *positioning* at least one additional beam directing device to direct the optical beam from said additional beam directing device to a second beam directing device, and 3) *positioning* a second beam directing device to direct the optical beam from said second beam directing device to a selected one of said plurality of optical receptors; and

at least one *data gathering and transmission element* to provide an indication regarding the current orientation of the controlled beam directing device or the current location of the optical beam to the control for adjusting at least one of the beam directing devices.

*Id.* at claim 27 (emphases added).

Claim 53 recites:

53. An optical beam switching system for transmitting an optical beam from at least one source to at least one of a plurality of optical receptors comprising:

at least one source of an optical beam;

at least one first beam directing device mounted across a first area of free space from the source;

a plurality of optical receptors mounted across a second area of free space from the first beam directing device;

a *control* so that a first beam directing device will be *positioned* to direct the optical beam from at

least one source to a selected one of said plurality of optical receptors; and

at least one *data gathering and transmission element* to provide an indication regarding the current orientation of the controlled beam directing device or the current location of the optical beam to the control for adjusting at least one of the beam directing devices.

*Id.* at claim 53 (emphases added).

## B

In 2013, Fiber filed suit against Ciena Communications, Inc. and Ciena Corporation alleging infringement of the '917 patent and a related patent (“the Ciena case”). The Ciena case was stayed pending IPR for over two years and reopened in November 2015. In 2015, Fiber filed suit against Viavi Solutions Inc., f/k/a JDS Uniphase Corporation, Lumentum Holdings, Inc., Lumentum Inc., and Lumentum Operations, LLC (“the Lumentum case”), and separately against Nokia of America Corporation, f/k/a Alcatel-Lucent USA, Inc. (“the Alcatel case”), asserting the same patents. In 2016, Finisar Corporation joined as an intervenor defendant in the Ciena case and the Alcatel case. In 2016, the district court consolidated the three cases.

The district court held a claim construction hearing on December 2, 2016 and issued its claim construction order on September 6, 2017. *Fiber, LLC v. Ciena Corp.*, No. 13-CV-00840-PAB-KLM, 2017 WL 3896443 (D. Colo. Sept. 6, 2017). The construction of three terms—“control,” “data gathering and transmission element,” and “positioning”—are at issue in this appeal.

The district court held that the term “control,” as used in claims 27 and 53, is a means-plus-function limitation,

invoking § 112, ¶ 6.<sup>1</sup> *Id.* at \*13–14. The district court began by acknowledging that because the claims do not use the word “means,” there is a rebuttable presumption that § 112, ¶ 6 does not apply. *See id.* But, as the district court noted, “the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). The district court found that the term “control” is used in the claims of the ’917 patent in relation to a function: positioning a beam directing device. *Fiber*, 2017 WL 3896443, at \*14. The district court also observed that “[i]n each instance, the word control could be replaced by ‘means’ without substantially changing the meaning of the claims.” *Id.* The district court therefore found that the presumption that § 112, ¶ 6 did not apply had been overcome in this case because the “control” terms are “directly tied to a function” of positioning the beam directing device and because “a POSITA would not understand the term to describe the relevant structure.” *Id.*

Having found that the term “control” invokes § 112, ¶ 6, the district court then considered whether the specification recited sufficient corresponding structure for performing the function. *Id.* at \*14–16. For structure, *Fiber* identified a portion of the specification that incorporates another patent, U.S. Patent No. 5,177,348 (“the ’348

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<sup>1</sup> On September 16, 2012, when the Leahy-Smith America Invents Act (AIA), Pub. L. No. 112–29, took effect, 35 U.S.C. § 112, ¶ 6 was replaced with newly designated § 112(f). Because the application resulting in the ’917 patent was filed before the effective date of the AIA, we refer to the pre-AIA version of § 112.

patent”), by reference. The district court considered and rejected this argument, stating that, “the reference to the ’348 [p]atent in the cited portion of the specification discusses data gathered related to mirror positioning which is then sent to the control. It does not indicate structures of the control.” *Id.* at \*15. The district court considered Fiber’s other arguments and held that the specification lacks corresponding structure, rendering the term invalid as indefinite. *Id.* at \*14–16.

The district court construed the term “data gathering and transmission element” as a means-plus-function limitation and held that the specification disclosed sufficient corresponding structure, making it not indefinite. *Id.* at \*16–17. The district court construed the “positioning” limitations to mean “changing the physical orientation of a beam directing device.” *Id.* at \*18.

Following claim construction, the parties stipulated that under the district court’s constructions, all of the asserted claims of the ’917 patent were invalid and none of the accused products infringed. J.A. 9, 15, 21. The district court entered final judgment of invalidity and noninfringement in favor of Appellees. J.A. 2, 4, 6.

Fiber timely appealed, challenging the district court’s construction of the terms “control,” “data gathering and transmission element,” and “positioning.” We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

## II

### A

We review the district court’s claim constructions de novo, and any underlying factual findings based on extrinsic evidence for clear error. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015); *TEK Glob., S.R.L. v. Sealant Sys. Int’l, Inc.*, 920 F.3d 777, 785 (Fed. Cir. 2019). “[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specifications,



along with the patent’s prosecution history), the judge’s determination will amount solely to a determination of law, and the Court of Appeals will review that construction de novo.” *Teva*, 135 S. Ct. at 841.

Whether a term is a means-plus-function limitation invoking § 112, ¶ 6 “is a legal question of claim construction that we review de novo.” *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1341 (Fed. Cir. 2019). The use of the word “means” in a claim element creates a rebuttable presumption that § 112, ¶ 6 applies. *Williamson*, 792 F.3d at 1348. Failure to use the word “means” creates a rebuttable presumption that § 112, ¶ 6 does not apply. *Id.* When a claim term lacks the word “means,” the presumption that § 112, ¶ 6 does not apply can be overcome “if the challenger demonstrates that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* at 1349 (quoting *Watts*, 232 F.3d at 880).

“Construing a means-plus-function claim term is a two-step process. The court must first identify the claimed function. Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.* at 1351–52 (citation omitted). If the patentee fails to disclose adequate structure corresponding to the claimed function, the claim is indefinite. *Id.* The ultimate conclusion that a claim is indefinite under 35 U.S.C. § 112, ¶ 2 is a legal conclusion, which we review de novo. *Cox Commc’ns, Inc. v. Sprint Commc’n Co. LP*, 838 F.3d 1224, 1228 (Fed. Cir. 2016).

## B

We begin with the term “control.” As explained above, the district court held that the term “control,” as used in claims 27 and 53 of the ’917 patent, is a means-plus-function limitation and that the specification lacks corresponding structure, rendering the term invalid as indefinite. *Fiber*, 2017 WL 3896443, at \*13–16. On appeal, Fiber

argues: (1) “control” is not a means-plus-function term and does not invoke § 112, ¶ 6; and (2) even if “control” is a means-plus-function term, it is not indefinite because the specification discloses sufficient corresponding structure.

1

We agree with the district court that “control” is a means-plus-function limitation. The limitation does not include the word “means,” so there is a rebuttable presumption that § 112, ¶ 6 does not apply. However, the presumption has been overcome in this case. We agree with the district court that the term “control,” which is used in relation to the function of positioning the beam directing device, is a means-plus-function term.

On appeal, Fiber argues that a person of skill in the art would interpret “control” to refer to sufficiently definite structure based on intrinsic and extrinsic evidence. Beginning with the intrinsic evidence, Fiber argues that “[t]here is more than ample structure set forth in the specification and prosecution history.” Appellant’s Br. 20. For example, Fiber argues that the “control,” depicted in Figure 7A of the ’917 patent reproduced below, imparts structure.

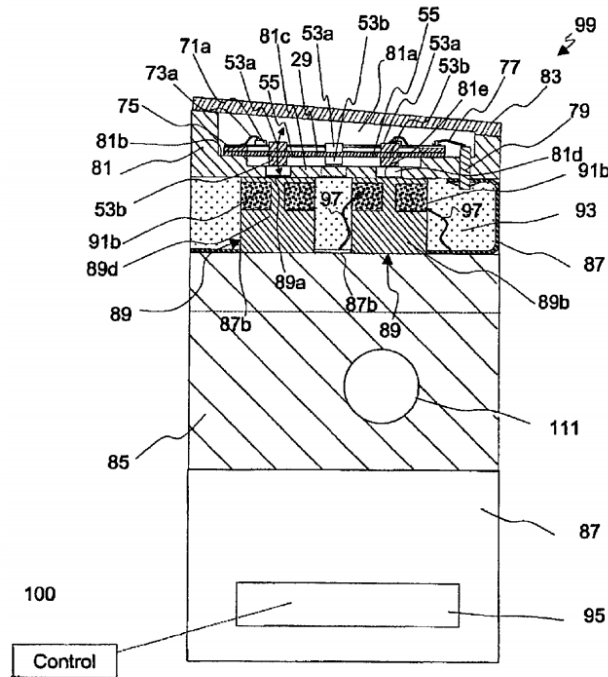


Figure 7a

Figure 7A is a cross-section of an optical switch package including mirror 29 and the optic unit’s sensing control system 100. ’917 patent at col. 4 ll. 38–41, col. 7 ll. 51–53. But, as shown above, the “control” depicted in Figure 7A is a generic box with no indication of any structure.

We conclude, like the district court did, that the intrinsic evidence indicates that “control” is a means-plus-function limitation.<sup>2</sup>

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<sup>2</sup> Fiber also argues that extrinsic evidence further supports its position that someone skilled in the art would interpret “control” as structural. Appellant’s Br. 28–32. But, as Fiber notes, the district court’s claim construction relied only on intrinsic evidence. Because we agree with the district court’s claim construction based on the intrinsic

Finally, Fiber makes several arguments that the district court committed legal error in its construction of the term “control.” Appellant’s Br. 32–37. Fiber argues that the district court “failed to give effect to the rebuttable presumption against means-plus-function.” *Id.* at 32–34. We disagree. The district court acknowledged that the claims did not recite the words “means,” properly applied the presumption against means-plus-function treatment, and found that the presumption had been overcome. *Fiber*, 2017 WL 3896443, at \*13–14. Fiber then argues that “control” is more similar to “circuit,” which it argues inherently connotes structure, than it is to “control means,” which it acknowledges does not typically connote structure. Appellant’s Br. 34–36. But Fiber does not convincingly explain why “control” is more analogous to “circuit” than to “control means,” and we see no reason why it would be in this circumstance.

For these reasons, we conclude that with respect to the “control” limitation, the presumption against means-plus-function claiming has been overcome. We therefore agree with the district court that this limitation is subject to the provisions of § 112, ¶ 6.

2

Having determined that “control” is subject to § 112, ¶ 6, we now turn to whether the specification discloses sufficient structure that corresponds to the claimed function of positioning a beam directing device to direct the optical beam. We agree with the district court that the specification of the ’917 patent does not disclose any corresponding structure for the function of the claimed “control,” and that claims 27 and 53 are therefore indefinite.

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evidence alone, we do not reach the extrinsic evidence in the first instance on appeal.

On appeal, Fiber fails to identify a structure in the '917 patent corresponding to the function. Fiber argues that the '348 patent incorporated by reference in the specification provides sufficient corresponding structure. Appellant's Br. 39.<sup>3</sup> As an initial matter, "material incorporated by reference cannot provide the corresponding structure necessary to satisfy the definiteness requirement for a means-plus-function clause." *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1301 (Fed. Cir. 2005). Even if incorporating corresponding structure by reference was permissible, we agree with the district court that the '348 patent does not impart structure for the "control." *See Fiber*, 2017 WL 3896443, at \*15.

Relying on expert testimony, Fiber argues that "a POSITA would have understood 'control' to refer to circuitry and a drive mechanism." Appellant's Br. 40. However, the definiteness requirement is that the *specification* adequately disclose corresponding structure. Expert testimony cannot create structure where none is adequately disclosed in the specification. *Williamson*, 792 F.3d at 1354 ("The testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.").

We therefore affirm the district court's construction that "control" is a means-plus-function limitation invoking § 112, ¶ 6 and that there is insufficient corresponding structure in the specification, rendering the claim invalid as indefinite. We accordingly affirm the district court's

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<sup>3</sup> In its briefing, Fiber also argues that the '348 patent recites structure for the term "control" such that § 112, ¶ 6 is not invoked. Appellant's Br. 23–25. We disagree. The '348 patent does not provide structural significance to the term "control" in this case. *See Williamson*, 792 F.3d at 1351; *see also Fiber*, 2017 WL 3896443, at \*15.

final judgment that the term “control” renders all of the asserted claims of the ’917 patent invalid as indefinite under § 112, ¶ 2.

### C

Our holding on the “control” limitations described above is sufficient to resolve this appeal. The parties agreed that if we affirmed the district court’s holding that “control” was a means-plus-function limitation and that it was invalid as indefinite, all of the asserted claims of the ’917 patent would be invalid and the entire case would be resolved. See Oral Argument at 3:57–4:15 (Fiber), 12:01–12:23 (Appellees), *Fiber, LLC v. Ciena Corp.* (No. 2019-1005), <http://www.cafc.uscourts.gov/oral-argument-recordings>. Because we agree that the district court correctly construed “control” and found it invalid as indefinite, we do not reach the district court’s construction of the terms “data gathering and transmission element” and “positioning.”

### III

We have considered Fiber’s remaining arguments and find them unpersuasive. We affirm the district court’s final judgment that all of the asserted claims of the ’917 patent are invalid as indefinite.

**AFFIRMED**