

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

FIBER SYSTEMS INTERNATIONAL, INC.	§	
	§	
Plaintiffs,	§	
	§	
v.	§	CIVIL ACTION NO. 2:06-CV-473 (TJW-CE)
	§	
APPLIED OPTICAL SYSTEMS, INC.	§	
	§	
Defendants.	§	
	§	

**MEMORANDUM OPINION AND ORDER**

**I. Introduction**

The plaintiff, Fiber Systems International, Inc. (“FSI”), filed its complaint against defendant, Applied Optical Systems, Inc. (“AOSI”), on November 14, 2006. FSI asserts that AOSI infringes claims 1-6, 24-26, and 31-35 of U.S. Patent No. 6,305,849 (“the ‘849 patent”).<sup>1</sup> Claims 1 and 31 of the ‘849 patent are independent claims. Claims 2-6 and 24-26 depend from claim 1; claims 32-35 depend from claim 31. This opinion resolves the parties’ various claim construction disputes. The court will address briefly the technology at issue in the case and then turn to the merits of the claim construction issues.

**II. Background of Technology**

The ‘849 patent describes a multi-channel fiber optic cable connector for coupling terminal ends of mating pairs of fiber optic cables. Prior fiber optic cables typically used a pin and socket or some other male-female connection. This arrangement frequently allowed the cables to be exposed to contaminants such as moisture, dust, smoke, and fumes. Seeking to

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<sup>1</sup> The claims were recently amended per an *ex parte* reexamination.

alleviate this problem, hermaphroditic fiber optic cable connectors were introduced to reduce exposure to contaminants. The '849 patent further discloses hermaphroditic fiber optic connectors, which allow users to lay fiber optic cables without regard to the orientation of the cable. The claimed connectors also reduce line losses by not requiring special cable adapters for different cable ends. Line loss refers to the energy lost as a result of scattering and dispersion of light signals.

Claim 1 of the '849 patent provides as follows:

A multi-channel fiber optic cable connector for connecting the terminal ends of two multi-channel fiber optic cables having termini of respective ones of multiple optical fibers included within said cables, the connector comprising:

- (a)(i) a first housing having a first insert cap, wherein the first insert cap comprises a first connector face, a first insert cap tower, and two first tangs;
- (a)(ii) wherein the first insert cap tower and the two first tangs extend forward of said first connector face;
- (a)(iii) wherein said two first tangs and said first insert cap tower are spaced apart to extend forward of said first connector face in a keyed arrangement for reciprocally engaging a second housing;
- (a)(iv) wherein the second housing includes a second insert cap that includes a second insert cap tower and two second tangs;
- (a)(v) wherein said two first tangs fit adjacent to the second insert cap tower, said first insert cap tower fits adjacent to the second insert cap tower and the second tangs; and
- (a)(vi) wherein said first connector face fits against a second forward surface of the second insert cap tower;
- (b) said first insert cap tower having two interior passages which define first insert cap tower cavities within which are disposed respective ones of a first pair of said termini;

(c) said first connector face having a pair of interior passages which define two first connector face cavities which are disposed between said first insert cap tower and said two first tangs, from which respective ones of a second pair of said termini extend;

(d)(i) a main body sleeve and an inner assembly at least partially disposed within the main body sleeve;

(d)(ii) wherein the inner assembly comprises an insert body and an inner sleeve;

(d)(iii) wherein the insert body is interlocked to the inner sleeve to form a single fixed structure; and

(d)(iv) wherein the single fixed structure is slidable within the main body sleeve along a long axis of the main body sleeve.

### **III. Discussion**

#### **A. General Principles Governing Claim Construction**

“A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims.

*Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s claims. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This court’s claim construction decision must be informed by the Federal Circuit’s decision in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Id.* at 1312 (emphasis added)(quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of

the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the

patent. *Phillips*, 415 F.3d at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The en banc court condemned the suggestion made by *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at 1319-24. The approach suggested by *Tex. Digital*—the assignment of a limited role to the specification—was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* at 1320-21. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors’ objective of assembling all of the possible definitions for a word. *Id.* at 1321-22.

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The parties dispute numerous terms. The court has attempted to address the terms in light of the disputes raised by the parties. The court now turns to a discussion of the disputed claim terms.

**B. Specific Terms in Dispute**

**1. “said first connector face fits against a second forward surface of the second insert cap tower”**

Disputed Term	FSI Proposed Construction	AOSI Proposed Construction
said first connector face fits against a second forward surface of the second insert cap tower	the connector face of a first connector is directly opposite of, or faces, a forward surface of the second insert cap tower of a second connector	one thing literally touching and fits "in contact with" another thing

The disputed term “against” is used throughout the claims and specification. The parties dispute whether or not actual physical contact is necessary when the claims use the term “against.” In the context of this claim, FSI proposes that the term “against” means “directly opposite of” or “faces,” such that the first connector face may be in contact with, but is not required to be in contact with, the second forward surface of the second insert cap tower. AOSI proposes that the term “against” means “one thing literally touching and fits in contact with

another thing,” such that the first connector face must be in physical contact with the second forward surface of the second insert cap tower.

Throughout the specification, usage of the term “against” suggests that the term requires contact.<sup>2</sup> Moreover, in this context, when the term “against” is read naturally and given its ordinary meaning, the term requires contact. There is nothing in the specification to indicate that “against” does not require actual contact. Further, there is nothing in the prosecution history as *originally filed* to indicate a definition of “against” where contact is not required.

FSI asserts that during the reexamination of the ‘849 patent, in the *Supplemental Amendment and Response to Office Action* at page 37, filed October 20, 2008, the patentee stated in part that “the word ‘against’ in this claim limitation clearly has the dictionary definition of ‘directly opposite’ or ‘facing’” and that “there is no requirement that the connector face actually contact the insert cap tower.” The court, however, does not adopt this new definition of “against.” The reexamination proceedings began after the infringement contentions had already been filed.<sup>3</sup> The court is hesitant to expand the definition of “against” beyond the scope defined in the original specification. The patentee’s remarks in reexamination were influenced and clouded by litigation and driven by a competitor’s product, not by what was actually invented and described.

Accordingly, the court rejects FSI’s proposed construction and adopts AOSI’s construction. The court defines “against” in the context of the phrase “said first connector face

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<sup>2</sup> FSI seeks to distinguish the usage of the term “fits against” in claim 1, from “pressed against,” in claim 20. ‘849 patent, 20: 11-16. For its part, AOSI points to several quotations from the specification where the term “against” is used to describe two elements that are in contact with and touching one another: *e.g.* “the annular protuberance 240 extends inward and against the exterior periphery 232 of the pin body.” ‘849 patent, 9:38-43.

<sup>3</sup> The complaint was filed on November 14, 2006. The reexamination request was filed on January 11, 2007.



fits against a second forward surface of the second insert cap tower” as **“one thing literally touching and fits in contact with another thing.”**

**2. “inner sleeve”**

Disputed Term	FSI Proposed Construction	AOSI Proposed Construction
inner sleeve	a rigid structure disposed between the front end and the back end of the inner assembly having multiple optical fibers protected by the rigid structure	construed in accordance with its plain and ordinary meaning

The dispute over the construction of “inner sleeve” pertains to whether the inner sleeve must be a tube-like and rigid structure. FSI proposes that this phrase be construed as “a rigid structure disposed between the front end and the back end of the inner assembly having multiple optical fibers protected by the rigid structure.” AOSI argues that this phrase should be construed in accordance with its plain and ordinary meaning (*e.g.*, a tube or tube-like part fitting over or around another part, and fitting at least partially within another part).

FSI’s proposed construction of “inner sleeve” is inconsistent with the plain meaning of “sleeve” and is both too narrow and too broad in certain respects. For instance, the court finds nothing in the claims, specification, or prosecution history indicating that the “inner sleeve” must be a rigid structure. Consequently, the court refuses to read a rigidity requirement into the term as FSI suggests. At the same time, the plain meaning of “sleeve” suggests a tube or tube-like structure, and FSI’s construction does not require this. The drawings show the inner sleeve as a tube-like structure, and the court similarly finds that the “inner sleeve” is a tube or tube-like structure. *See*, Fig 15-16, 23. Accordingly, the court defines “inner sleeve” as **“a tube-like**

structure disposed between the front end and the back end of the inner assembly having multiple optical fibers protected by the structure.”

3. “wherein the insert body is interlocked to the inner sleeve to form a single fixed structure”

Disputed Term	FSI Proposed Construction	AOSI Proposed Construction
wherein the insert body is interlocked to the inner sleeve to form a single fixed structure	a portion of the insert body is locked to a portion of the inner sleeve to provide a structure formed when a portion of the insert body is locked with a portion of the inner sleeve	a portion of the insert body is physically connected to a portion of the inner sleeve such that the insert body is incapable of any movement relative to the inner sleeve

The disputed phrase “interlocked” is used throughout the claims and specification. The dispute pertains to whether a lack of movement is required when objects are “interlocked.” FSI suggests that a lack of movement or immobility is not required. AOSI contends that “interlocked” requires a complete lack of movement.

The court rejects both parties’ proposed constructions. FSI’s proposed construction does not find support in the specification and ignores the “single fixed structure” limitation in allowing for significant movement. If a construction of “interlocked” permitted significant movement, the interlocked bodies would not form a “single fixed structure.” Likewise, AOSI’s proposed construction, precluding any movement, is inconsistent with the specification. The specification supports a definition of “interlocked” precluding *substantial* movement between elements.<sup>4</sup> AOSI’s own brief acknowledges this, stating that “[o]nce interlocked, *no substantial movement* occurs between the insert body and inner sleeve, or between the retainer body and

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<sup>4</sup> See, ‘849 patent, Fig. 23; tabs 136, 138 function to interlock the inner sleeve with the insert or retainer body which are in the shape of hooks. These tabs engage within a retaining lip portion or groove to interlock the inner sleeve to the insert body and retainer body. *Id.*

inner sleeve, thereby resulting in a single fixed structure.”<sup>5</sup> The court rejects AOSI’s contention that there is a distinction between “interlocked with” and “interlocked to.” The specification supports the court’s construction that “interlocked with” and “interlocked to” have the same meaning, and requires that the insert body and inner sleeve directly interlock to one another.<sup>6</sup>

Accordingly, the court defines “interlocked” in the context of the phrase “wherein the insert body is interlocked to the inner sleeve to form a single fixed structure” to mean **“a portion of the insert body is physically connected to a portion of the inner sleeve such that the insert body is incapable of any substantial movement relative to the inner sleeve.”**

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<sup>5</sup> AOSI’s responsive claim construction brief at 21 (emphasis added).

<sup>6</sup> *See*, 7:44-48; 14: 4-9.

4. “wherein the insert body is interlocked with the inner sleeve”; “wherein the retainer body is interlocked to the inner sleeve to form a single fixed structure”; “wherein the retainer body is interlocked with the inner sleeve”

Disputed Term	FSI Proposed Construction	AOSI Proposed Construction
wherein the insert body is interlocked with the inner sleeve	a portion of the insert body is locked with a portion of the inner sleeve	a portion of the insert body is physically connected with a portion of the inner sleeve such that the insert body is incapable of any movement relative to the inner sleeve
wherein the retainer body is interlocked to the inner sleeve to form a single fixed structure	a portion of the retainer body is locked with a portion of the inner sleeve to provide a structure formed when a portion of the retainer body is locked with a portion of the inner sleeve	a portion of the retainer body is physically connected to a portion of the inner sleeve such that the insert body is incapable of any movement relative to the inner sleeve
wherein the retainer body is interlocked with inner sleeve	a portion of the retainer body is locked with a portion of the inner sleeve	a portion of the retainer body is physically connected with a portion of the inner sleeve such that the retainer body is incapable of any movement relative to the inner sleeve

The disputed term “interlocked” also appears in several other phrases in the claims and pertains to whether a lack of movement is required when objects are interlocked. For each of the aforementioned phrases, the parties have requested that the term “interlocked,” as it appears in these phrases, be construed consistent with the court’s construction in section 3. Accordingly, the court defines “interlocked” in the context of these claims to mean that **interlocked elements are incapable of any substantial movement relative to each other.**

#### **IV. Conclusion**

The court adopts the above definitions for those terms in need of construction. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the court.

SIGNED this 21st day of July, 2009.

  
CHARLES EVERINGHAM IV  
UNITED STATES MAGISTRATE JUDGE