

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IMMERVISION, INC.,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-1630 (MN) (CJB)
)	
LG ELECTRONICS U.S.A., INC. and LG)	
ELECTRONICS, INC.,)	
)	
Defendants.)	


IMMERVISION, INC.,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 18-1631 (MN) (CJB)
)	
LG ELECTRONICS U.S.A., INC. and LG)	
ELECTRONICS, INC.,)	
)	
Defendants.)	

MEMORANDUM OPINION

John D. Simmons, Dennis J. Butler, PANITCH SCHWARZE BELISARIO & NADEL LLP, Wilmington, DE; Keith A. Jones, PANITCH SCHWARZE BELISARIO & NADEL LLP, Philadelphia, PA – Attorneys for Plaintiff.

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March 28, 2022
Wilmington, Delaware


NOREIKA, U.S. DISTRICT JUDGE:

On December 14, 2021, Magistrate Judge Burke issued a Report and Recommendation (“the Report”) (C.A. No. 18-1630, D.I. 149; C.A. No. 18-1631, D.I. 147) recommending that the Court adopt constructions for disputed claim terms in U.S. Patent No. 6,844,990 (“the ’990 Patent”). On December 23, 2021, Plaintiff Immervision, Inc. objected to the Report only as to the Report’s construction of the “panoramic objective lens”/“objective lens”/“lens” term. (C.A. No. 18-1630, D.I. 150; C.A. No. 18-1631, D.I. 148). On January 13, 2022, Defendants LG Electronics U.S.A., Inc. and LG Electronics, Inc. (collectively, “Defendants” or “LG”) responded to Plaintiff’s objections. (C.A. No. 18-1630, D.I. 156; C.A. No. 18-1631, D.I. 154). On February 17, 2022, the Court held a hearing for the parties to make their arguments regarding the Plaintiff’s objections (“the hearing”). (C.A. No. 18-1630, D.I. 160; C.A. No. 18-1631, D.I. 158).

The Court has reviewed the Report, the objections and the responses thereto, and has considered *de novo* the original claim construction briefing and supporting documents. *See, e.g., St. Clair Intellectual Prop. Consultants, Inc. v. Matsushita Elec. Indus. Co.*, 691 F. Supp. 2d 538, 541-42 (D. Del. 2010); 28 U.S.C. § 636(b)(1); FED. R. CIV. P. 72(b)(3). For the reasons set forth below, the objections to the Report are SUSTAINED and the Court construes “panoramic objective lens”/“objective lens”/“lens” to mean “wide-angle objective lens.”

I. LEGAL STANDARDS

“[T]he ultimate question of the proper construction of the patent [is] a question of law,” although subsidiary fact-finding is sometimes necessary. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837-38 (2015). “[T]he words of a claim are generally given their ordinary and customary meaning [which 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.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (internal citations and quotation marks omitted). Although “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Id.* at 1314. “[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted).

The patent specification “is always highly relevant to the claim construction analysis . . . [as] it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. “Even when the specification describes only a single embodiment, [however,] the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (internal quotation marks omitted) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967,980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence, . . . consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the

invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

In some cases, courts “will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. Expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Phillips*, 415 F.3d at 1318. Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, although extrinsic evidence “may be useful to the court,” it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

II. THE COURT’S RULING

The Court’s ruling regarding the disputed term of the ’990 Patent was announced from the bench at the conclusion of the hearing as follows:

Thank you for the arguments today. They are really helpful to us and we appreciate that. We are here to address Plaintiff’s objections to Judge Burke’s December 14, 2021 Report and

Recommendation,^[1] which construed two terms of the '990 Patent.^[2] The first term is actually three different terms – “panoramic objective lens”/“objective lens”/“the lens” – all of which the parties agree have the same meaning. The second is “optical means for projecting a panorama into an image plane of the objective lens.” Plaintiff only objects to the construction of the first of those terms.

As to the construction of the second of those – “optical means for projecting a panorama into an image plane of the objective lens” – having no objections and finding no clear error on the face of the record, I will adopt Judge Burke’s construction for the reasons stated in the Report. That term will be construed to be a means-plus-function term. The function is “projecting a panorama into an image plane of the objective lens.” The corresponding structure is “a series of optical elements, as disclosed in the specification at column 16, line 5 through column 18, line 15 and Figures 15 through 18, and equivalents thereof.”

I am also prepared to rule on Plaintiff’s objections to the first term and determine the construction of that term de novo. I will not be issuing a written opinion, but I will issue an order stating my rulings. I want to emphasize before I announce my decisions that although I am not issuing a written opinion, we have followed a full and thorough process before making the decisions I am about to state. I have reviewed the patent in dispute. I have also reviewed the objections and response to the objections, the joint claim construction brief, the expert declarations, hearing transcripts, discovery filings, scientific publications, inter partes review documents, and dictionaries that the Parties cite. We have also had argument here today. All of that has been carefully considered.

As to my ruling, I am not going to read into the record my understanding of claim construction law and definiteness. I have a legal standard section that I have included in earlier opinions, including recently in *United States of America v. Gilead Sciences, Inc.*, No. 19-2103.^[3] I incorporate that law and adopt it into my ruling today, and I will also set it out in the order that I issue.

¹ (C.A. No. 18-1630, D.I. 149; C.A. No. 18-1631, D.I. 147).

² United States Patent No. 6,844,990.

³ (C.A. No. 19-2103, D.I. 186).

Let me start with a little history. These related cases have been referred to Judge Burke to hear and resolve all pretrial matters. On July 30, 2021, the Parties filed a Joint Claim Construction Brief, in which each side included its position regarding how “panoramic objective lens” should be construed.^[4] Plaintiff proposed the construction “wide-angle objective lens.” Defendants proposed “a super-wide or ultra-wide angle objective lens, e.g., a fisheye lens.” As Judge Burke noted, the ’990 patent does not use the terms relied on in either parties’ proposed construction, but notwithstanding that, “[t]he parties agree[d] that the term should be defined by the field of view of the lens” and the real dispute was “over the breadth of that field of view.”^[5] After reviewing the patent and the arguments, he recommended construing “panoramic objective lens” to mean “a lens having an angular aperture on the order of 180 degrees, such as a fisheye lens.”

Plaintiff filed objections, asserting that the Report’s recommended construction is too narrow because it “encompass[es] only lenses having a field of view on the order of 180 degrees, such as a fisheye lens.”^[6] So now I have before me a few proposed constructions – Judge Burke’s construction, which is “a lens having an angular aperture on the order of 180 degrees, such as a fisheye lens,[]” Plaintiff’s construction, which is “a wide-angle objective lens” and Defendants’ original construction, which is “a super-wide or ultra-wide angle objective lens, e.g., a fisheye lens.” And I think I also have a proposal that the plain and ordinary meaning will suffice and no construction is needed.

For reasons I will discuss in a moment, I do not believe it is appropriate to read the 180 degree requirement into the claims and I am not going to adopt the construction recommended in the Report. I also think that adopting an unstated plain and ordinary meaning is not going to be useful as it will likely mean that this issue arises again later. As for the other proposals, the parties agree that super-wide, ultra-wide and fisheye lenses are each classes of wide-angle objective lenses.

I have considered the objected to portions of the Report de novo and am going to sustain Plaintiff’s objections and construe “panoramic objective lens” to mean “wide-angle objective lens.”

⁴ (C.A. No. 18-1630, D.I. 115 at 11-26).

⁵ (C.A. No. 18-1630, D.I. 149 at 4).

⁶ (C.A. No. 18-1630, D.I. 150 at 1).

This construction is supported by the intrinsic evidence. The '990 Patent describes “produc[ing] panoramic photographs by means of a panoramic objective lens”^[7] and includes embodiments in which the panoramic objective lens “ha[s] an angular aperture on the order of 180 degrees.”^[8] These embodiments, however, are just that – embodiments. I do not see them as the patentee “act[ing] as his own lexicographer and clearly set[ting] forth a definition of the disputed claim term”^[9] such that all panoramic objective lens covered by the patent must have an angular aperture on the order of 180 degrees. Thus, “although the specification . . . describes very specific embodiments of the [panoramic objective lens having an angular aperture on the order of 180 degrees], [I must not] confin[e] the claims to those embodiments.”^[10]

Additionally, the '990 Patent contemplates a panoramic objective lens with an angular aperture that is less than 180 degrees. In column 1 beginning at line 46, the '990 Patent describes the “classical steps of transforming [image points from a] two-dimensional panoramic image into ... [image points in] a three-dimensional space.”^[11] The patent then states that, following the three-dimensional transformation, “[t]hese image points form a hemisphere . . . when the panoramic objective lens used has an aperture of 180 degrees, otherwise a portion of a hemisphere.”^[12] The parties dispute whether this reference to “a portion of a hemisphere” contemplates a panoramic objective lens having an aperture of less than 180 degrees. It is my determination that it does. Although a lens having an angular aperture of 180 degrees would result in image points that form a hemisphere, lenses with smaller angular apertures would result in image points forming three-dimensional spaces that are only “portion[s] of a hemisphere” as the '990 Patent describes. I do not find that the following sentence, which runs from column 1, line 64 to column 2, line 3, relates to the '990 Patent’s description of the shape of the three-dimensional space that is formed; instead, this sentence refers to how the already-formed three-dimensional space is conveyed to an observer.

⁷ ('990 Patent at 3:66-4:3).

⁸ ('990 Patent at 1:17-19).

⁹ *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

¹⁰ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005).

¹¹ ('990 Patent at 1:46-60).

¹² ('990 Patent at 1:61-64).

Defendants rely on column 3, lines 43 to 61 to support their arguments that the field of view of the invention must be 180 degrees. I do not read this as language that limits the panoramic objective lens of the invention to only be one on the order of 180 degrees. It simply notes an exemplary application of a camera installed against a wall or on a ceiling.

In sum, the '990 Patent describes panoramic objective lenses as lenses that are capable of capturing panoramic images, and also describes embodiments, but it does not define panoramic objective lenses as being restricted to a particular angular aperture.

I recognize that, during inter partes review of the '990 Patent, the Board construed "panoramic objective lens" to mean "a super-wide or ultra-wide objective lens." The Board did not do any analysis, and appeared to rely on the fact that Plaintiff did not object to it "solely for purposes of [its] Response" to the Petition.^[13] The arguments presented to me, however, are different from those presented to the Board. Moreover, as I think Defendants' counsel agreed today, Defendants' arguments that a person of skill in the art would recognize that the disclosures in Tada meet the "panoramic objective lens" element of the claims are inconsistent with reading a 180 degree limitation into the term.^[14]

My construction is also supported by the extrinsic evidence presented. "While extrinsic evidence can shed useful light on the relevant art . . . it is less significant than the intrinsic record in determining the legally operative meaning of claim language."^[15] Relevant extrinsic evidence in this case includes the experts' declarations, scientific publications, and dictionary definitions that the parties submitted. Regarding dictionary definitions, the Court is "free to . . . 'rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any

¹³ (D.I. 150, Ex. C (Final Written Decision) at 11).

¹⁴ Before the Board, Defendant LG Electronics Inc. relied on U.S. Patent No. 5,861,999 ("Tada") as prior art. (D.I. 150 at Ex. A, pp. 19-20). Defendant LG Electronics Inc. argued that Tada's disclosure of "a super wide angle lens system [with] an angle of view of approximately 120° to 140°" renders the claimed "panoramic objective lens" obvious. (D.I. 150 at Ex. A, pp. 33-34). This argument is inconsistent with the Report's recommendation that "panoramic objective lens" be construed to mean "a lens having an angular aperture on the order of 180 degrees, such as a fisheye lens."

¹⁵ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005).

definition found in or ascertained by a reading of the patent documents.”^[16]

Here, Plaintiff’s expert opined that “panoramic objective lens” should be construed as [“]wide-angle objective lens.”^[17] And the McGraw-Hill Dictionary of Scientific and Technical Terms submitted by Plaintiff defines “panoramic” as “pertaining to a lens or optical instrument that has a wide field of view.”^[18]

Defendants’ expert opined that “panoramic objective lens” should be construed more narrowly as “a super-wide or ultra-wide angle objective lens” – which as I’ve already noted everyone agrees are classes of wide-angle lenses. Defendants’ expert’s opinions, however, are not based on whether those terms have a particular meaning to a person of ordinary skill in the art,^[19] but rather focus on the embodiments in the ’990 Patent’s specification.^[20] I have, however, already determined that the intrinsic evidence, including the embodiments addressed by Defendants’ expert, does not support narrowing the claim term as Defendants propose.

Thus, I will adopt Plaintiff’s construction and conclude that “panoramic objective lens” means “wide-angle objective lens” as that term would be understood by a person of ordinary skill. I am not specifically reading in any particular field of view limitations to that as I do not believe claim construction requires the specific bounds of the angular field of view be explicitly defined. Instead, whether a given lens – whether in the prior art or an accused product – is covered by the panoramic objective lens claimed is a factual issue, i.e., whether a person of ordinary skill in the art would consider a particular lens to be a panoramic objective lens as it has been construed. That being said, let me try to cut off a Daubert motion by saying that I do not expect to see a non-infringement argument from Defendants or validity argument from the Plaintiff that the patent requires the lenses to be limited to those around 180 degrees because of the embodiments. I have rejected that argument.

¹⁶ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1322-1323 (Fed. Cir. 2005) (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 n. 6 (Fed. Cir. 1996)).

¹⁷ (D.I. 116, Aikens Dec. ¶¶16-24).

¹⁸ (D.I. 116, Ex. D (dictionary), Aikens Rebuttal Dec. ¶17).

¹⁹ Neither party has suggested any differences in the definitions of a person or ordinary skill in the art that are relevant to the issues currently before me.

²⁰ (D.I. 116, Chipman Dec. ¶¶38-48).

That may be an issue for appeal, but it is not an argument that I expect to see in infringement or validity opinions.

So, having considered the Parties' briefing and arguments here today, I will sustain Plaintiff's objections and construe "panoramic objective lens" to mean "wide-angle objective lens."

(C.A. No. 18-1630, D.I. 160).

III. CONCLUSION

For the foregoing reasons, Plaintiff's objections are SUSTAINED and the Report is ADOPTED-IN-PART. An appropriate order will follow.

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ORDER

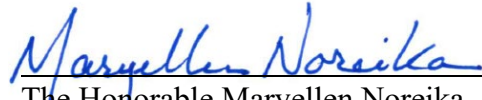
At Wilmington, this 28th day of March 2022, for the reasons set forth in the Memorandum Opinion issued on this date, IT IS HEREBY ORDERED that:

1. Plaintiff’s Rule 72 Objections to the Report and Recommendation Regarding Claim Construction (C.A. No. 18-1630, D.I. 150; C.A. No. 18-1631, C.A. No. 148) are SUSTAINED.

2. The Report and Recommendation regarding claim construction is ADOPTED-IN-PART. As such, the Court construes the disputed claim terms as follows:

1. “panoramic objective lens”/“objective lens”/“lens” means “wide-angle objective lens”;
2. “optical means for projecting a panorama into an image plane of the objective lens” is a means plus function term, where the function is “projecting a panorama into an image plane of the objective lens” and the corresponding structure is “a series of

optical elements, as disclosed in the specification at column 16, line 5 through column 18, line 15 and Figures 15-18, and equivalents thereof.”



The Honorable Maryellen Noreika
United States District Judge